

helps us overcome the potential biases associated with TWFE, it is not guaranteed that the estimates we obtain will represent a population-level average.

We then stack these individual panel datasets (estimation blocks) and estimate the difference in outcomes between treated and control states in each year relative to the law change. We estimate the following regression equation:

$$\ln w_{c,b,g,t} = \sum_{\tau=-4}^{\tau=6} \alpha_{\tau} I_{s(c),b}^{\tau} \times \text{Score Change}_{s(c),b} + \mu_{c,b} + \rho_{r(c),b,t} + \Omega_g + \gamma X_{s,t} + \varepsilon_{c,b,g,t} \quad (3)$$

where $\ln w_{c,b,g,t}$ is log average earnings of group g in county c in estimation block b in year t . $I_{s(c),b}^{\tau}$ is equal to 1 if year t is τ years relative to state $s(c)$'s first NCA law change (where state $s(c)$ contains county c), and $\text{Score Change}_{s(c),b}$ is equal to the magnitude of the law change that defines block b —i.e., the NCA score from that first law change (and is therefore zero for all control states). $\mu_{c,b}$ is a fixed county–block effect, $\rho_{r(c),b,t}$ a fixed block–region–year effect, where $r(c)$ is the Census region containing county c (or simply block–year when not requiring that controls be in the same Census region). As in the distributed lag model, Ω_g contains indicators for sex and age categories and $X_{s,t}$ contains state-level political, economic, and social variables. Following Cengiz et al. (2019), we cluster standard errors by state–block. We weight observations by employment.

Panel B of Figure 4 graphically displays the estimates of the α_{τ} coefficients from two versions of Equation 3 that do and do not require that control states be in the same Census region. In both specifications, the pre-period coefficients have some noise but are close to (and statistically indistinguishable from) zero. As with the distributed lag model, the coefficients grow for several years following the law change, and are statistically significant in both specifications after year three. The coefficient magnitudes are quite similar across the two models. Using a stacked difference-in-difference (as opposed to a two-way fixed effects) model,⁴⁰ we estimate an overall earnings effect of -0.246 ($p < .01$), as reported in Column 1 of Table B.3.⁴¹ This magnitude is quite a bit larger than the baseline TWFE coefficient of -0.137 using the QWI data (Table 3), though the estimates are not directly comparable since they are estimated on a different set of law changes and over a different time horizon.

Another advantage of the stacked model is that we can estimate separate treatment effects for each individual law change. This exercise is useful because, for example, it enables us to check whether our estimates are driven by one or two law

⁴⁰This regression model is:

$$\ln w_{c,b,g,t} = \beta \times \text{Enforceability}_{s(c),b,t} + \mu_{c,b} + \rho_{b,r(c),t} + \Omega_g + \varepsilon_{c,b,g,t} \quad (4)$$

⁴¹For this table, we report results from the specification that requires that control states be in the same Census region and that does not condition on the additional state-year level variables in $X_{s,t}$ in Equation 3.

changes, or whether the earnings effect of enforceability is negative in a broad range of states. Figure B.3 reports point estimates and 95% confidence intervals on *Enforceability* from different regressions that each estimate the stacked diff-in-diff model analogous to Equation 4, separately for each of the 10 treatment states in the estimation sample. The point estimates are negative for 8 of the 10 states, implying that our estimated earnings effects are not driven by a few outliers, but rather are broadly represented in a range of states.

4.2.3 Long-Panel Event Study

While our stacked model in Section 4.2.2 addresses the potential sources of bias common to difference-in-difference models with staggered treatment timing, an additional complication in our setting is the non-absorbing nature of NCA policies: states have the ability to change NCA enforceability multiple times, such as reversing or enhancing previously changed laws. We address this issue by employing a long-panel event study design, in which the event in each treated state is simply the change in NCA enforceability between the beginning and end of the panel. To do so, we include the years 1991-1993 and 2012-2014 (the first and last three years in our panel) for each state, and we calculate the change in the NCA enforceability score over this time period.⁴² We use the CPS ASEC data for this analysis, since many states only started reporting data to QWI after 1993.

Figure B.4 displays results. As in the stacked event studies and the distributed lag model, there is no evidence of a trend in earnings that is different for treated versus untreated states. Earnings are substantially lower (higher) in states that experienced NCA enforceability increases (decreases) in the intervening years, with coefficients that are significantly different than zero and of essentially identical magnitude to our estimates in Panels A and B of Figure 4.

This result provides evidence that our results are not being driven by peculiarities of the methods we employ, as well as demonstrating that the effects of NCA enforceability changes appear to persist in the long run.

4.3 Assessing Robustness of Our Estimates to a Range of Concerns

4.3.1 Interpreting Estimates from a Continuous Treatment Variable

Recent research reveals that difference-in-difference estimates can be challenging to interpret when the treatment variable is continuous (Callaway et al., 2021). In light of this concern, we can use our stacked event study model to assess whether our

⁴²For states in which there were enforceability changes in the first three years or in the last three years, we omit the odd year out (and keep the two identical years). There were no states with multiple changes in either of those periods.

estimated earnings effects are driven by the scaling of our enforceability variable or by particular types of law changes. We report results in Table B.3. Column 1 reports the overall estimated earnings effect from the stacked difference-in-difference model. In Column 2 we replace the continuous NCA score with a signed indicator variable that is equal to 1 in the years following a positive law change, to -1 following a negative change, and to 0 otherwise. This model yields a coefficient of -0.018 ($p < 0.01$). To interpret this coefficient, consider that the average NCA law change in this estimation sample resulted in an absolute change in the enforceability index of 0.077; together, these imply an effect size of NCA enforceability of $-0.018/0.077 = -0.234$, similar to the effect size we directly estimate with the continuous variable.

We then estimate if the *direction* of the law change matters. In Columns 3 and 4 we separately estimate the effects of positive and negative enforceability changes, using the same signed indicator variable in place of the continuous enforceability measure. We obtain an estimate of -0.018 in each model ($p = 0.019$ and $p = 0.012$, respectively). The symmetric effects illustrate that our estimated earnings effects are general to both increases and decreases in enforceability.

Finally, in Columns 5 and 6 we estimate separate effects for small and large NCA law changes, as defined by whether the treatment state's NCA score change (in absolute value) is below or above the median. The average small change leads the mean treated state's NCA score to change by 0.039 in absolute value, and the estimated earnings effect (using the signed indicator variable for treatment) is -0.017 ($p = 0.008$). The average large change leads the mean treated state's score to change by 0.121 in absolute value, and the estimated earnings effect is -0.024 ($p = .026$). These differences suggest that the scale of our enforceability measure has economic content: the magnitude of NCA law changes, and not just the sign of the change, affects wages.

These estimates show that the earnings effects are not driven by a particular direction or magnitude of law change.

4.3.2 Heterogeneous Earnings Effects Based on Prevalence of NCA Use

In this section, we examine heterogeneity in the effect of enforceability by prevalence of NCA use. This exercise serves two useful purposes. First, it serves as a test of the robustness of the results reported in Section 4.1. If we find that enforceability has larger earnings effects among groups less likely to be bound by NCAs, it might raise questions about the research design. Second, this exercise offers a closer sense of the impact that changes in NCA enforceability will have on the earnings of groups more likely to be exposed to NCAs.

While we do not observe whether individual workers have or have not signed an NCA, Starr et al. (2021) report several sources of heterogeneity in NCA use by worker characteristics. We focus on three sources: workers' education, occupation, and industry. First, Starr et al. (2021) find that workers with a Bachelor's degree

or higher are significantly more likely to sign NCAs than workers without a college degree. Second, Starr et al. (2021) find heterogeneity in use across 22 occupation categories and 19 industry categories. We use the occupation and industry in which an individual reports working to the CPS to classify workers as working in *High or Low NCA Use Occupations* and *High or Low NCA Use Industries*.⁴³ We replicate our main difference-in-difference specification, Equation 2, except that we now add an interaction term of *Enforceability* with an indicator for *College Educated Worker*, *High NCA Use Occupation*, or *High NCA Use Industry* (as well as an indicator for the respective main effects).

Table 5 reports these heterogeneity estimates. Column 1 reports the baseline average effect on earnings, corresponding to Column 1 in Table 3. Column 2 includes an interaction of NCA Enforceability Score with an indicator for whether a worker has a college degree (*College Educated Worker*). The main effect on *NCA Enforceability Score* is close to zero and statistically insignificant, implying that enforceability has little to no effect on earnings for non-college-educated workers. On the other hand, the interaction term ($-0.138, p < .01$) implies that enforceability has a much stronger effect on the earnings of college-educated workers. The sum of the main effect on *NCA Enforceability Score* and the interaction effect implies that going from the 25th to 75th percentile of enforceability leads to a 2.6% decrease in earnings for college-educated workers ($\exp((-0.038 - 0.138) * 0.15) - 1 = -0.026, p < .01$), an earnings effect that is over 50 percent larger than the earnings effect for the whole population implied by Column 1 of Table 3.

Column 3 reports heterogeneity by occupational use of NCAs. The estimates imply that going from the 25th to 75th percentile of enforceability leads to a 2.1% decrease in earnings in high-use occupations ($\exp((-0.085 - 0.059) * 0.15) - 1 = -0.021, p < 0.01$); the effect for low-use occupations is about 60% as large ($p = 0.02$), and the difference is statistically significant ($p < 0.01$). Finally, Column 4 reports heterogeneity by industries' use of NCAs. Going from the 25th to 75th percentile of enforceability leads to a 2.4% decrease in earnings in high-use industries ($p < 0.01$); the effect for low-use industries is roughly 60% as large ($p < 0.01$), and the difference is statistically significant ($p < 0.01$).

In Column 5, we simultaneously estimate the heterogeneous impacts of NCA enforceability along these three categories. The coefficients on the interactions of NCA Score with *High Use Occupation* and *High Use Industry* attenuate, but remain neg-

⁴³We define Low NCA Use Occupations as Farm, Fish and Forestry; Legal Occupations; Grounds Maintenance; Food Preparation and Serving; Construction; Extraction; Transport and Materials Moving; Office Support; and Community and Social Services, and High NCA Use Occupations as all others. Low NCA Use Industries are Agriculture and Hunting; Accommodation and Food Services; Arts, Entertainment, and Recreation; Construction; Real Estate; Transportation and Warehousing; Retail Trade; Other Services; and Management of Companies. These occupations and industries represent those with NCA use below or above the national average, according to Figures 5 and 6 in Starr et al. (2021).

ative and significant. The interaction of NCA Score with *College Educated* changes little and remains statistically significant.⁴⁴

4.3.3 Accounting for Potentially Endogenous NCA Law Changes

Considering that the vast majority of NCA law changes arise from court decisions rather than statutory changes; that economic, social, political, and legal factors do not collectively predict changes in NCA enforceability (Table 2 and Figure B.2); and that there is no evidence of pre-trends in the distributed lag and event study models, it is exceedingly unlikely that NCA law changes are endogenous to omitted variables that could contaminate our estimates. Still, we can conduct some additional analyses to further address this concern.

Even though the majority of NCA law changes arise through court decisions, one might worry that the few changes arising from statutory changes might be endogenous to underlying trends in ways that could bias our results. We directly address this concern in Panel A of Table B.4, where we re-estimate our baseline TWFE model but exclude the 8 states that ever experience a statutory NCA law change. The estimated coefficient on *NCA Enforceability Score* is similar to our baseline estimates in Table 3; the standard errors (unsurprisingly) increase in size, though the estimates remain statistically significant.

While judicial decisions are less prone to endogeneity than are statutory changes from legislative action, there is some evidence that judges' decision-making can be swayed by external forces like business interests, particularly for judges that are elected rather than appointed (Katz, 2018). To ensure that our results are not driven by confounding influences on elected judges, we obtained data on how judges are selected across states from Bannon (2018). We recreate our main TWFE analyses a) excluding the 6 states that have partisan judicial elections (i.e., judges are selected via election and the judge's political party is listed on the ballot) and b) excluding the 21 states in which judges are elected (whether or not the elections are partisan). We report results in Panels B and C of Table B.4, respectively. If anything, our point estimates are *larger* in magnitude with these restricted samples (they become substantially more imprecise in Panel C, which is to be expected since we are eliminating over 40% of the states in our sample). Since judicial elections are a key mechanism through which political or economic preferences of voters might affect judicial decisions, this evidence provides further reassurance against this potential form of endogeneity.

⁴⁴Since college-educated workers tend to get paid more than those without a college degree, this stability of the *College Educated* estimate is consistent with the evidence in Starr et al. (2021) that NCA use is increasing in workers' annual earnings.

4.3.4 Robustness to Construction of NCA Enforceability Index

Though our construction of the NCA Enforceability index reflects the reasoning and judgment of leading legal scholars, a natural question is whether some of the decisions that go into this index affect our results. Two such decisions are how we treat missing values of individual enforceability components and the weights we give to each individual component in constructing the aggregate index. In Appendices C.2 and C.3, we show that our estimates are insensitive to alternative approaches to both of these decisions.

5 Spillover Effects of NCA Enforceability on Earnings

The results in Section 4 demonstrate that NCA enforceability has a negative effect on overall earnings. How do these estimates relate to our model? As described in Section 2 (and shown in Equation 13 in Appendix A), the effect of enforceability on average earnings is a weighted sum of two terms: 1) the average difference in earnings between workers that are and are not bound by NCAs and 2) the spillover effect of enforceability on earnings of workers not bound by NCAs. Theoretically, this second term is unambiguously negative: strict NCA enforceability will decrease the earnings of workers not bound by NCAs. This effect arises due to the assumption that strict enforceability slows down the job offer arrival rate for workers who are not constrained by NCAs, reducing their ability to leverage outside offers and climb the job ladder. In this section, we discuss existing evidence supporting this assumption and provide new evidence to corroborate it. We then show that enforceability does have spillover effects that are present and economically meaningful. Finally, we provide a brief discussion of what our results can say about the first term in Equation 13, the difference in average earnings between constrained and free workers, which our model suggests is indeterminate.

5.1 Effects of Enforceability on Job Vacancies

Our model predicts that NCA enforceability reduces earnings of workers not bound by NCAs under the assumption that NCAs cause offer arrival rates to fall for all employed workers in a labor market, not just those bound by NCAs. Prior work supports this assumption. Using survey data, Starr et al. (2019) find a large and significant negative effect of the interaction of incidence of NCA use in a state-industry cell and NCA enforceability on job offers received in either the prior year or over the course of their job spell—even among workers who are not bound by NCAs. Similarly, Goudou (2022) finds a decreased job-finding rate in industries with greater NCA incidence,

consistent with his model that enforceable NCAs make job vacancies more difficult for firms to fill.⁴⁵

We provide additional corroborating evidence for the prediction that NCAs reduce offer arrival rates using data on job vacancy posting rates. Vacancy rates measure the existence of potential jobs both for workers bound by NCAs and those who are not (and, arguably, more so for those who are not, since those bound by NCAs are unable to take certain jobs) (Bagger et al., 2022). Our primary proxy for offer arrival rates is the number of unemployed people per job opening, a metric used by the Bureau of Labor Statistics that reflects how tight or slack the labor market is. A higher ratio indicates that it would take longer for a worker to receive a job offer, on average. We additionally consider the number of job openings to demonstrate that changes in the ratio are not solely driven by changes in the number of unemployed people. Both of these measures are available at the state–year level starting in 2001 from the Job Openings and Labor Turnover Survey (JOLTS) conducted by the BLS.⁴⁶

In Table 6, we present estimates of the impact of NCA enforceability on these measures of job offer arrival rates. Formally, we estimate an analog of Equation 2 at the state-time level, with no individual controls, and with t representing a month-year. Column 1 shows that stricter NCA enforceability leads to increases in the count of unemployed individuals per job opening: going from the 25th to the 75th percentile of enforceability leads to a reduction in that rate of 0.27 ($p = 0.094$), or 10.7% relative to a mean of 2.51. In other words, when enforceability is stricter, the number of individuals vying for any given vacancy increases. Column 2 shows that, while statistically insignificant, this effect is driven, at least in part, by changes in the count of job openings: going from the 25th to the 75th percentile of enforceability leads to a reduction in job openings of 3.4%.

These results, taken together with the existing literature, corroborate the assumption that NCA enforceability reduces offer arrival rates to workers in the labor market, especially for those who are not bound by NCAs.

5.2 Estimating Spillover Effects of NCA Enforceability

Having provided empirical support for our model’s assumption that NCA enforceability affects offer arrival rates for all workers, we now turn to the implication of this assumption: that changes to NCA enforceability have spillover effects on the earnings of workers not bound by NCAs.

To test this prediction, we examine whether changes in NCA enforceability in

⁴⁵Other factors, however, could push this relationship the other way: in theory, NCAs could encourage recruitment by providing more flexible contracting structures. See Potter et al. (2022) for the implications that follow from that assumption.

⁴⁶We use monthly data aggregated across industries (total nonfarm) at the state level, seasonally adjusted. The BLS does not report data at a more granular level. See <https://www.bls.gov/jlt/data.htm>

a “donor” state affect workers who share a local labor market with that state but work in a different state. Our goal is to directly assess the extent of spillovers onto workers not directly affected by a change in NCA enforceability. Consider the St. Louis metro area, which includes counties in Missouri but also several counties across the state border in Illinois. If Illinois experiences an NCA law change, does it affect the earnings of workers employed on the Missouri side of the St. Louis metro area? And vice versa if Missouri experiences a law change?

We measure local labor markets as commuting zones, which are clusters of counties that have strong commuting ties and have been used in many prior studies as measures of local labor markets (e.g., Autor et al. (2013)). We identify commuting zones that straddle state borders: these commuting zones are local labor markets that include business establishments in two states and are therefore subject to two different NCA enforcement regimes. We remove 8 commuting zones that contain counties in more than 2 states to ensure clarity in defining the donor state. These restrictions leave us with a set of 137 commuting zones and 742 counties in them. In our main analysis, we focus on the 545 counties in these commuting zones that themselves lie directly on state borders; with this restriction, we avoid counties such as Los Angeles County, which shares a commuting zone with counties in Arizona but is nearly 200 miles driving distance from anywhere in Arizona.

We employ data from the QWI, which, as described in Section 3, includes quarterly earnings and employment flows at the county level, separated by various firm characteristics and worker demographics. Each observation in the dataset represents a unique year, quarter, county, sex, and age group cell.

To test for spillovers, we use an analog of the difference-in-difference model corresponding to Equation 2 to estimate the impact of a change in NCA enforceability across a state border, among workers employed in a commuting zone that straddles the state border. The outcome variable is the log of average quarterly earnings within each cell for all private sector employees. We estimate the model:

$$Y_{ctga} = \phi_0 + \phi_1 * Enforce_{ct} + \phi_2 * BorderEnforce_{ct} + \phi_3 * Female_g + \psi_a + \zeta_c + \Omega_{d(c)t} + \varepsilon_{ctga}, \quad (5)$$

where c indexes county, t indexes year-quarter, g indexes sex, a indexes age group, and $d(c)$ indexes the Census division in which county c is located. ψ_a and ζ_c are fixed age group and county effects, respectively. $\Omega_{d(c)t}$ is a Census division by year-quarter fixed effect. The primary coefficient of interest is ϕ_2 , which is an estimate of the spillover effect on workers in county c of enforceability in the state that borders the commuting zone in which county c is located. ϕ_1 estimates the direct effect of enforceability in a worker’s own state, analogous to our estimates thus far. We cluster standard errors two ways by state and commuting zone.

We report results in Table 7. Column 1 verifies that the direct relationship between (own) state NCA scores and earnings holds in this restricted sample. The coefficient on *Own State NCA Score* is -0.160 and statistically significant ($p < 0.01$). This magnitude is slightly larger than the main estimates reported in Table 3. Column 2 includes the *Donor State NCA Score*. In this model the direct effect of *Own State NCA Score* increases slightly to -0.181, $p < 0.01$, while the coefficient on *Donor State NCA Score* reveals evidence of meaningful spillover effects: the coefficient is -0.137 ($p = 0.059$), which equals 76% of the own state effect.

In the next section we conduct several tests to evaluate the reliability and clarify the interpretation of these spillover estimates.

5.3 Assessing the Interpretation of Spillover Estimates

We conduct three tests to corroborate the interpretation that the estimates in Table 7 reflect spillover effects of NCA enforceability across state borders. First, we test whether the magnitude of spillover effects varies in proportion to the relative sizes of the labor forces on each side of a bisected commuting zone. Second, we estimate heterogeneity in the magnitude of spillover effects by distance from state borders. Finally, we consider whether alternative mechanisms can explain our spillover results.

We first examine heterogeneity in spillover effects among border counties. Intuitively, in a commuting zone bisected by a state border, the magnitude of a spillover effect from a donor state’s law change should be smaller if the donor state comprises a small share of total employment in the commuting zone. Conversely, if the donor state is the primary location of employers in the commuting zone, a change in NCA enforceability in the donor state should create a larger change in job offer arrival rates (and thus earnings) across the border in the neighboring state.

Column 3 of Table 7 shows our estimates of this heterogeneity. Along with their main effects, we include interactions of the ‘own state’ and ‘donor state’ NCA Scores with the share of the commuting zone labor force that is employed on the ‘own state’ side of the border. Since the unit of observation in this regression is at the county-demographic group-quarter level, we calculate these shares at the demographic group (age-sex combinations) level.⁴⁷ The results show that spillover effects are heterogeneous in a manner consistent with the logic above. The main effect of *Donor State NCA Score*, representing the spillover effect in a county that comprises zero percent of its CZ’s employment (and thus where the donor state comprises essentially all of the CZ’s total employment), is negative (-.167, $p = 0.032$). However, the spillover effect is substantially smaller in counties that account for a large share of employment in their commuting zone. In the extreme case in which a county contains 100% of commuting zone employment, the estimated spillover effect is close to zero (-0.009 =

⁴⁷We also include the main effect of this ratio but do not report its coefficient in the table.

-0.167 + 0.157) and statistically insignificant ($p = 0.891$).⁴⁸

Our main estimates of spillover effects consider earnings in adjacent pairs of counties bisected by state borders. Our second test of the interpretability of these estimates relies on the intuition that the magnitude of spillovers should attenuate with distance to the state border; if they did not one might worry our spillover estimates are driven by a spurious correlation. In Table B.6 we present three supplemental estimates from samples that include (1) interior counties that are neither in commuting zones that straddle state borders nor on state borders; (2) the subset of these interior counties that lie at least 50 miles from any state border; and (3) the subset that lie at least 100 miles from a border. We assign to each county a ‘Donor State NCA Score’ that corresponds to the state geographically closest to that county.⁴⁹ Reassuringly, the point estimate on *Nearest Neighboring State’s NCA Score* is substantially attenuated in each of these three subsamples, with coefficients -0.059, -0.027, and -0.036, respectively.⁵⁰ None of the coefficients are statistically significant.

As a third test, we examine whether spillover effects of NCA enforceability could be driven by alternative mechanisms that we have not considered. We have argued theoretically (and shown empirically in Section 5.1) that strict NCA enforceability slows job offer arrival rates, and that this is the mechanism that underlies negative spillover effects on earnings. However, other explanations are possible. For example, workers may decide to find a job across state lines if their own state increases NCA enforceability. Such behavior would cause an outward shift in labor supply in border states, causing the market-clearing wage to decline. We find no evidence, however, that such worker behavior can explain the spillover effects on earnings. In Table B.7, we present estimates of the spillover effects of enforceability on workers’ *mobility*. The structure mimics Table 7, except that our dependent variables are the log quarterly

⁴⁸Unlike the analysis with the QWI dataset that we reported in Table 3 and Figure 4, we leave the regressions in Table 7 unweighted. We do this for two reasons. First, we weight the prior QWI analysis by employment to estimate an average treatment effect for the US population; because the sample in Table 7 is limited to border counties, weighting serves no such purpose. Second, spillover effects (as we show) are more pronounced in counties with a small share of employment. Therefore, an estimate that weights observations by employment would likely reveal little to no average impact of Donor State NCA Score. We report a weighted version of Table 7 in Table B.5, which indeed shows an attenuated average effect. However, Column 3 reveals that the heterogeneity based on employment shares in the CZ in Column 3 persists in the weighted specification, as expected.

⁴⁹Specifically, we calculate the distance between county centroids. If the centroid of a county in a different state is less than m miles from the centroid of the focal county, we exclude that focal county from the relevant regression. We assign Donor state NCA scores by finding the county in a different state whose centroid is closest to the focal county’s centroid, and using that donor state’s NCA score. Note that this approach to assign Donor state NCA scores is slightly different from the approach used in the results reported in Table 7, where we assigned the cross-border state’s NCA score to be a focal county’s Donor score. These two approaches to assigning Donor Score are often identical, but they diverge in a handful of cases; this discrepancy drives the slight divergence in estimates of earnings effect of the *Donor State Score* reported in Table B.6 and Table 7.

⁵⁰At the same time, however, the point estimate on *Own State NCA Score* reveals that the direct effect of own-state NCA score remains stable across these various geographic restrictions.

number of hires and separations from QWI in Columns 1 to 3 and 4 to 6, respectively. Across all six columns, enforceability in a worker’s *own* state has a negative effect—of roughly similar magnitude—on hires and separations, corroborating the mobility results we found in Section 4.1.1 using the J2J dataset. The spillover effects (reported in Columns 2 and 5) are imprecisely estimated, though they are negative and of a magnitude that is 53-66% smaller than the direct effect.⁵¹ Thus, there is no evidence that workers move across state lines in response to an NCA law change in their own state; if anything, these estimates suggest that strict NCA enforceability *reduces* cross-border mobility.

Collectively, these results on earnings and mobility provide evidence that NCA enforceability reduces earnings and labor market churn, even across state borders. Though we cannot observe which workers sign NCAs, these results suggest that NCA use has external effects on workers and firms that do not use them, consistent with the theoretical considerations discussed in Section 2.

5.4 Interpreting Enforceability Effects in the Presence of Spillovers

The spillover effects reported above have two important implications for interpreting our estimates of the overall earnings effect of NCA enforceability.

The first implication is theoretical. As described in Section 2, the overall effect of enforceability on average earnings depends not just on spillovers, but also on a second term: the average difference in earnings between constrained workers bound by an enforceable NCA and unconstrained workers not bound by one. This term can be positive or negative and is what makes the overall effect on average earnings indeterminate. We are not able to directly estimate this term in this paper; nevertheless, the spillover results allow us to provide some perspective on it.

We first note that, even if a panel dataset on NCA use existed (which, to our knowledge, does not), it is not obvious that the causal effect of signing an NCA is straightforward to identify. The decision by workers and firms to use NCAs is likely to be correlated with many unobserved worker and firm characteristics, such as intangible capital and opportunities for investments, causing endogenous selection into employment contracts with NCAs (Starr et al., 2021). This endogeneity makes it challenging to estimate the causal effect of signing an NCA on earnings. Some prior correlational studies indicate that workers who are bound by NCAs have 5–6% higher earnings than observationally similar workers not bound by one (Starr et al., 2021; Starr and Rothstein, 2022). However, these comparisons likely suffer from omitted variable bias; Balasubramanian et al. (2023) estimate a *negative* effect of signing an NCA on earnings when accounting for plausible selection effects.

⁵¹Additionally, Columns 3 and 6 document an identical pattern of heterogeneity to that observed on earnings: an NCA law change in a donor state has a larger effect on mobility in a focal county among counties comprising a small portion of the commuting zone’s total employment, compared to counties comprising a large share.

That said, our results can provide some perspective on the magnitude of this term. As shown in Table 7, the spillover effect of NCA enforceability in a border state is roughly three-quarters of the magnitude of the direct effect in a worker’s focal state, our empirical analog of $\frac{d\bar{w}}{d\theta}$ from Equation 1. If our estimate of spillovers is a perfect empirical analog of $\frac{d\bar{w}^F}{d\theta}$, this comparison suggests that $\bar{w}^C - \bar{w}^F$ is *negative* (that is, earnings for workers bound by NCAs are less than earnings for workers without NCAs). On the other hand, if our spillovers analysis underestimates $\frac{d\bar{w}^F}{d\theta}$ (for example, if “true” local labor markets are smaller than Commuting Zones), then our results still leave open the possibility that $\bar{w}^C - \bar{w}^F$ is positive. Regardless, this comparison indicates that, whatever the sign of $\bar{w}^C - \bar{w}^F$, a meaningful share of the overall earnings effect of NCA enforceability is borne by workers not actually bound by NCAs.

The second implication is econometric. Our primary estimating equation (Equation 2) relies on the stable unit treatment value assumption (SUTVA): that control units—states not experiencing legal changes—do not have counterfactual earnings trajectories that are affected by treated units (states experiencing law changes). However, our spillover estimates indicate that this assumption is violated for some control units—namely, counties in control states that are located near the border of a treated state. Since the direction of contamination is the same as the direction of the main effect, this suggests that our primary specification, which includes these contaminated counties, may underestimate the earnings effect of enforceability. We examine this concern in Table B.8, which replicates Column 5 of Table 3, but restricts the sample to counties progressively further away from a state border. Excluding counties near state borders increases the magnitude of the coefficient, though the estimates also become noisier due to the decrease in the number of counties included in the sample.

6 Does NCA Enforceability Reduce Earnings By Worsening the Value of Outside Options?

According to our model, the key channel through which NCA enforceability lowers earnings is by slowing down the arrival rate of new job offers. For constrained workers, NCAs explicitly prevent workers from considering outside job offers that compete with their current employer. For unconstrained workers not bound by an NCA, Corollary A.6 demonstrates that this slowdown occurs if high enforceability leads employers to post fewer vacancies (as shown in Section 5.1). Fewer job offers mean that workers have less ability to use improvements in outside options to negotiate for higher earnings and to climb the job ladder (that is, find better-paying jobs).

In this section, we use two approaches to test whether this “outside options” channel explains the negative earnings effect of NCA enforceability. First, we show that the earnings effect of changes in NCA enforceability is largest for those workers whose outside options are most affected by changes in enforceability in their state.

Second, we show that NCA enforceability disrupts workers’ ability to take advantage of tight labor markets to raise earnings.

6.1 Heterogeneous Earnings Effects Based on Workers’ Outside Options

As demonstrated in the second part of Corollary A.6, if strict NCA enforceability reduces earnings by preventing workers from leveraging outside options, then changes in enforceability will have a larger effect on the earnings of workers whose set of outside options is most affected by NCA enforceability.

We consider two margins that could govern the impact of enforceability on workers’ outside options: the likelihood that a worker can move across state lines, or switch occupations. The ease with which a worker can move across state lines could directly affect the outside option bite of NCA enforceability among both constrained and unconstrained workers. Because NCAs often restrict movement within a local geographic area, all else equal an NCA eliminates a smaller share of outside options for workers who are more mobile across state lines. If higher state-level NCA enforceability slows down in-state job offer arrival rates, this has less of a bite for unconstrained workers who are more mobile across state lines. Similarly, NCAs often restrict within-occupation mobility (Marx, 2011; Johnson and Lipsitz, 2019). For workers who are outwardly occupationally mobile, such limitations will be less restrictive, since a smaller portion of potential job offers are limited by the use of enforceable NCAs.

We measure variation in cross-state mobility at the industry level using the J2J data (described above in Section 4.1.1). J2J includes a variable equal to the share of job-to-job changes that are across state lines at the state-industry-year (where industry corresponds to 2-digit NAICS code). We collapse this measure to the industry level by averaging across all states for the years 2000–2006.⁵² This process gives us a measure of the share of job changes that are across state lines for each 2-digit NAICS industry. One complication for our purposes is that (as shown in Table 4) the share of job changes across state lines is potentially endogenous to NCA enforceability. To partially address this issue, in some specifications we also control for each industry’s incidence of NCA *use* as used in Section 4.3.2.

We measure variation in cross-occupational mobility at the occupation level using data from Schubert et al. (2021). Schubert et al. (2021) use data from 16 million resumes compiled by Burning Glass Technologies over the period 2002–2018 to construct the “occupational leave share:”⁵³ the share of job transitions in which a worker

⁵²We choose this time-window to avoid any confounding effects from the 2007–2009 Great Recession.

⁵³We are incredibly grateful to the authors, who directly provided us with the dataset on each occupation’s share of job changes that are to a different occupation.

switches occupations, at the 6-digit SOC occupation level.⁵⁴

We first consider heterogeneity in the earnings effects of NCA enforceability across industries, based on the share of job changes in each industry that are across state lines (the “cross-state leave share”). Panel (a) of Figure 5 displays this relationship graphically. The figure is a scatterplot in which the unit of observation is a 2-digit NAICS industry: on the vertical axis is the earnings effect of NCA enforceability in that industry,⁵⁵ and on the horizontal axis is the industry’s share of job changes across state lines. The relationship is positive, meaning that the earnings effect of enforceability is attenuated when workers can more easily move across state lines. Column 1 of Table B.9 displays corresponding regression results:⁵⁶ a one standard deviation increase in the share of an industry’s job changes that are across state lines attenuates enforceability’s negative effect on earnings by 0.050 log points ($p = 0.052$), or roughly half of the main effect. Column 2 shows that this estimate is robust to also interacting NCA enforceability with each industry’s NCA incidence.

We next consider heterogeneity in the earnings effect across occupations, based on the “occupational leave share.” Panel (b) of Figure 5 displays a scatterplot in which the unit of observation is a 6-digit SOC occupation: on the vertical axis is the earnings effect of NCA enforceability in that occupation,⁵⁷ and on the horizontal axis is the occupation’s share of job changes in which the worker switches occupations. The relationship is positive, which again demonstrates that the earnings of workers whose outside options are less affected by NCAs are less affected by enforceability. Column 3 of Table B.9 displays corresponding regression results:⁵⁸ a one SD increase in the share of an occupation’s job changes that are to a different occupation attenuates enforceability’s negative effect on earnings by 0.011 log points ($p < .01$), or roughly 17% of the main effect. Column 4 shows that this estimate is robust to also interacting NCA enforceability with each occupation’s NCA incidence.

These analyses show remarkably consistent evidence that strict NCA enforceability has the largest effect on the earnings of workers whose outside options are most

⁵⁴In theory, this measure could also be endogenous to NCA enforceability, for example if workers bound by NCAs are more likely to switch occupations to escape their NCA (Marx, 2011). Unfortunately, the occupational leave share measure is only measured nationally, so we cannot construct it for the state of California (like we did for industry-level cross-state job transitions.)

⁵⁵Using the QWI dataset, we separately regress earnings on NCA enforceability for each industry, and we save the coefficient from each regression. In each regression, we include fixed effects for state, sex, age group, and year–quarter–region, and we weight observations by employment.

⁵⁶Here, we run a single regression with an interaction term. We also normalize the “cross-state leave share” to be mean 0 and standard deviation 1 for interpretability.

⁵⁷Using the CPS ASEC (which is required since it includes information on workers’ occupations), we separately regress earnings on NCA enforceability for each occupation, and we save the coefficient from each regression. In each regression we include fixed effects for state, year–region, and we include basic demographic controls. For this plot, we restrict attention to occupations with at least 5,000 observations in our sample period, comprising roughly the most common 100 occupations.

⁵⁸Here, we run a single regression with an interaction term. We also normalize the “cross-occupation leave share” to be mean 0 and standard deviation 1 for interpretability.

plausibly impacted by the use and stringency of NCAs in their state.

6.2 NCA Enforceability Reduces Workers' Ability to Leverage Tight Labor Markets

The results in the prior section corroborate our model's implication that strict NCA enforceability reduces earnings by slowing down workers' arrival rate of outside offers, thus interrupting an important channel of workers' overall earnings growth (Bagger et al., 2014). In this section, we consider a second way that NCA enforceability might interrupt this channel of earnings growth: by reducing workers' ability to take advantage of tight labor markets to raise their earnings.

We embed NCA enforceability in an empirical model, first used by Beaudry and DiNardo (1991), that considers how a worker's current earnings depend on prior labor market conditions. Beaudry and DiNardo (1991) (hereafter, BDN) consider a model in which firms insure workers against negative productivity shocks using implicit contracts. Their model implies that improvements in labor market conditions enable workers to bargain for higher earnings that persist through their job spell—but only if their mobility is costless (that is, they can easily switch jobs). In this case, because the worker can threaten to quit if her outside option improves, improvements in labor market conditions compel employers to raise wages. If, instead, workers' mobility is costly, they cannot credibly threaten to leave, and improvements in labor market conditions will not translate into higher earnings.

BDN develop a simple empirical test of their model. If mobility is costless, a worker's current earnings will be correlated with the most favorable labor market conditions over the course of her current job spell; if mobility is costly, her earnings will be correlated with the initial market conditions at the start of the spell. BDN find strong evidence consistent with costless mobility: the effect of the most favorable labor market conditions over a worker's job spell (measured as the minimum unemployment rate over the spell) exceeds and washes out any effect of the unemployment rate at the time of hire (predicted by an implicit contracts model with costly mobility) or the contemporaneous unemployment rate (predicted by a spot market).⁵⁹

More recently, Hagedorn and Manovskii (2013) (hereafter, HM) propose a different explanation for why current earnings could be tied to prior labor market conditions. HM model workers' earnings as set in spot markets (in contrast with Beaudry and DiNardo (1991)). However prior labor market conditions still affect a worker's current earnings through their effect on a worker's current match quality. In favorable labor markets, workers receive many job offers and are able to climb the job ladder, enabling workers to choose a job with a higher match quality. HM show that their model rationalizes the same reduced form relationship between current earnings and

⁵⁹Other papers in this literature have replicated this baseline result, using different datasets and time periods (e.g., Molloy et al., 2016; Schmieder and Von Wachter, 2010).

history of unemployment rates, but they provide evidence to suggest their model better explains this relationship than BDN.

While BDN and HM provide differing reasons for why prior labor market conditions matter for current earnings, they both illustrate ways that strict NCA enforceability attenuates workers' ability to take advantage of tight labor markets. By slowing down the arrival rate of job offers that workers might otherwise expect, strict NCA enforceability interrupts both channels through which tight labor markets translate to higher earnings, by preventing them from climbing the job ladder (in the spirit of HM) and by diminishing the *threat* of climbing the job ladder (in the spirit of BDN). Both of these mechanisms are important elements of earnings growth in the search model of Bagger et al. (2014).

To test this idea, we revisit the empirical model used by BDN and HM that relates a worker's earnings to prior labor market conditions. We hypothesize that when NCAs are more easily enforceable, a worker's current earnings will be less correlated with the most favorable market conditions during her job spell—and more correlated with initial labor market conditions—relative to workers in states where NCAs are less enforceable.

We begin by replicating the baseline analysis of BDN using the CPS JTS,⁶⁰ and limiting our analysis to full-time, private sector workers, for the years 1996-2014 (compared to BDN, who used the years 1976 to 1984).⁶¹ We estimate the model:

$$\ln w_{(i,t+j,t)} = \Omega_1 X_{i,t+j} + \Omega_2 C(t,j) + \rho_{s(i,t)} + \delta_{d(i,t)t} + \varepsilon_{i,t+j}, \quad (6)$$

where $w_{(i,t+j,t)}$ is the earnings of individual i at time $t + j$ who began her job spell at time t . $X_{i,t+j}$ is a vector of individual level characteristics. Following BDN, in $X_{i,t+j}$ we include race, Hispanic status, sex, marital status, age, age squared, tenure, tenure squared, education, and industry dummies. $C(t,j)$ is a vector of unemployment rates which, depending on the model, include *Initial UR* (the unemployment rate at the beginning of the individual's job spell) and/or *Minimum UR* (the lowest unemployment rate between the beginning of the job spell and the time of measurement of earnings). Following BDN, we use annual national unemployment rates from the Bureau of Labor Statistics. $\rho_{s(i,t)}$ is a fixed effect for the state in which worker i lives in year t . $\delta_{d(i,t)t}$ is a fixed census division by year effect.⁶²

This model departs in some ways from the BDN specification. First, we do not include Metropolitan Statistical Area (MSA) fixed effects: doing so decreases our sample size by approximately 25% (due to individuals whose MSA has been omitted

⁶⁰Hagedorn and Manovskii (2013) use a similar specification to Beaudry and DiNardo (1991), though they use the National Longitudinal Survey of Youth rather than the CPS.

⁶¹We omit years prior to 1996 due to a lack of data availability: though BDN use CPS data collected prior to 1996, the dataset we employ (the CPS JTS) has only been collected since 1996.

⁶²BDN do not use state fixed effects; we include them to harmonize this model with our benchmark earnings models and to only use within-state variation in enforceability.

from public use extracts of CPS supplements). In their stead, we use dummy variables for metropolitan area status (as used in Equation 2). Second, we do not consider the contemporaneous unemployment rate, which is collinear with $\delta_{d(i,t)t}$. Each of these adjustments ultimately has little impact on our estimates.⁶³

We report these results in Table 8. Columns 1–3 replicate the Beaudry and DiNardo (1991) main results for our sample period. In Column 1 we include only the unemployment rate at the time of hire (*Initial UR*): our estimated coefficient has a smaller magnitude than that estimated in BDN (ours: -0.008; BDN: -0.030), but it is negative and statistically significant ($p < 0.01$). Column 2 uses, instead, the minimum unemployment rate over the course of the worker’s job spell (*Minimum UR*); we find a negative and statistically significant effect. Column 3 mimics the main finding of BDN: including both *Initial UR* and *Minimum UR* attenuates the coefficient on *Initial UR* close to zero but leaves the coefficient on *Minimum UR* negative and significant ($p < 0.01$). In other words, on average, prior experience with tight labor markets leads to higher current earnings—consistent with either a model of implicit contracts with costless mobility (Beaudry and DiNardo, 1991) or a model in which match quality matters for earnings (Hagedorn and Manovskii, 2013).

To test the hypothesis that NCA enforceability shuts down the ability of workers to leverage strong labor markets (via either improvements in bargaining position or moves to stronger matches), we estimate the model:

$$\ln w_{(i,t+j,t,s)} = \Omega_1 X_{i,t+j} + \Omega_2 C(t, j) + \Omega_3 Enf_{t,s} + \Omega_4 C(t, j) * Enf_{t,s} + \varepsilon_{i,t+j}, \quad (7)$$

where $Enf_{t,s}$ is the NCA enforceability score in state s at time t , the beginning of the worker’s job spell. This model allows the effect of labor market conditions to vary with the strength of NCA enforceability at the time the worker was hired. If NCA enforceability affects the cost of mobility in an implicit contracts environment, or if NCA enforceability prevents workers from attaining better match quality, we expect two effects. First, we expect the coefficient on $Enf_{t,s} \times Minimum UR$ to be positive, indicating that employees have *less* ability to leverage favorable labor markets over the course of their job spell when NCA enforceability is high. Second, we expect the coefficient on $Enf_{t,s} \times Initial UR$ to be *negative*, indicating that earnings are *more* responsive to labor market conditions at the time of hire when NCA enforceability is high.

We report the results in Columns 4 and 5. Column 4 mirrors Column 3, but includes an additional control: NCA enforceability at the employee’s time of hire

⁶³Inclusion of MSA fixed effects (unreported) has little effect on our estimates. Our estimates are also robust to excluding Census division-by-year fixed effects, and to using state-level unemployment rates in lieu of national unemployment rates, which allows us to include contemporaneous unemployment rates in our regressions (since they are not collinear with division-year fixed effects). We choose to use national rates to follow BDN, and also because state-level unemployment rates could in theory be an outcome of NCA enforceability policies.

($Enf_{t,s}$). Encouragingly, the coefficients on *Initial UR* and *Minimum UR* do not change, indicating that NCA enforceability is not acting as a de facto proxy for one of the unemployment rates.

In Column 5, we include the interactions demonstrating the change in the cost of mobility. First, consider the main effects of *Initial UR* and *Minimum UR*, which indicate the effect of initial and most favorable labor market conditions, respectively, for a state with the lowest NCA enforceability. These coefficients mirror, and amplify, the findings from BDN and HM: a higher initial unemployment rate for a worker in a low-enforcing state does not reduce her earnings today—if anything it leads to *higher* earnings—whereas the main effect of *Minimum UR* indicates that a worker’s earnings today are strongly responsive to her most favorable labor market condition over her tenure. In other words, earnings in a state with low NCA enforceability are *even more* aligned with an implicit contracts model of costless mobility, or alternatively reflect a *greater* ability of workers to find high-quality matches, relative to the overall population.

Next, consider the two interaction terms, indicating the differential effects of these conditions for a worker in the highest enforcing state. The coefficient on $Enf_{t,s} \times Initial\ UR$ (-0.017 ; $p < 0.01$) shows that a higher unemployment rate at the time of hire affects current earnings much more negatively when NCAs are more enforceable. The coefficient on the other interaction term, $Enf_{t,s} \times Minimum\ UR$ (0.020 ; $p < 0.05$), shows that the most favorable labor market condition over job tenure has a much more muted effect on current earnings for workers in states with higher enforceability. Combining the main effect on *Minimum UR* with this interaction term reveals that the most favorable labor market condition over the course of tenure has essentially no effect on the earnings of a worker in a state with the highest observed enforceability ($-0.028 + 0.020 = -0.008$, $p = .19$).

These results provide even more evidence to support the theory that strict NCA enforceability reduces earnings by limiting workers’ outside options. The increased rate of job offers that workers can expect in tight labor markets can have long-lasting positive effects on their earnings, either by increasing their bargaining power or by enabling them to switch to better matches. The estimates in Table 8, however, show that this effect is effectively shut down when NCAs are strictly enforced.

7 Heterogeneity in NCA Enforceability’s Earnings Effect by Sex and Race

We have shown that strict NCA enforceability has a particularly detrimental earnings effect in industries and occupations in which state-level NCA enforceability has the largest effect on workers’ outside options. Extending this logic suggests that the earnings effect of NCA enforceability may differ across demographic groups. For

example, it is plausible that NCA enforceability has a larger effect on women’s outside options than men’s. Women tend to be less willing than men to commute far distances for their job (Le Barbanchon et al., 2019; Caldwell and Danieli, 2018), and married women are less likely to relocate in response to labor market opportunities than are married men (Jayachandran et al., 2023), both of which could be due to imbalanced household gender norms. Women are also less willing (and able) to violate NCAs than are men (Marx, 2022). These differences would imply that geographically-restrictive NCAs (or state-level enforceability changes) would have a larger effect on women’s outside options than on men’s. Similar differences could arise for racial minorities relative to White individuals: Black individuals are less likely to migrate far away from their hometown, and they are less likely to migrate in response to earnings increases elsewhere (Sprung-Keyser et al., 2022). Together with our model, these differences predict that NCA enforceability will cause greater earnings penalties for historically disfavored workers.

Figure 6 displays results from two regressions that add demographic group indicators, alone and interacted with NCA Score, to the regression reported in Column 1 of Table 3.⁶⁴ (Table B.10 reports the underlying regression estimates.) The coefficients reported in the Figure are on the interaction of the relevant group indicator with the *NCA Enforceability Score*, and they represent the impact of NCA enforceability on the earnings of individuals in that group. We report coefficients from two models: our main estimate and a second model that includes interactions between the *NCA Enforceability Score* and indicators for college-educated, high-NCA-use occupations, and high-NCA-use industries, alone and interacted with *NCA Enforceability Score*, in order to account for the fact that workers in different demographic groups may hold different jobs and have different education levels, on average.

The figure reveals meaningful heterogeneity in the earnings effect across demographic groups. In the baseline model the estimates are negative and statistically significant for all demographic groups; however, the magnitudes of earnings effects for Black men and other female minority workers are 94% and 145% larger, respectively, than the effect for White men.⁶⁵ A test of equality of the earnings effects across all six groups is strongly rejected ($p < 0.001$). These differences persist in the regression specification with additional controls—the test of equality in coefficients yields a p-value below 0.001.⁶⁶

⁶⁴We make two additional modifications to the regression specification. First, we remove the restriction that workers must be working full-time to avoid selecting the sample on an outcome that is known to differ across men and women, though the results do not meaningfully change if we reimpose the full-time restriction. Second, we include more detailed (interacted) demographic categories in the model.

⁶⁵The p-values of pairwise comparisons reported in Figure 6 are Bonferroni-corrected to account for five pairwise comparisons.

⁶⁶We note that our results do not accord with a model in which the penalties faced by non-White workers and women are additive; this pattern has been observed in other work on racial and gender earnings gaps (Paul et al., 2022).

These results suggest that strict NCA enforceability not only reduces earnings *on average*, but it also exacerbates existing disparities across demographic groups. In Column 2 of Appendix Table B.10 we show that these coefficients imply that moving from the 25th to 75th percentile of the NCA Score distribution would decrease average earnings of white men by approximately 1.3%, vs. decreases ranging from 1.5% to 3.2% for the other demographic groups. Together with the estimates in Column 1, these results imply that if a state that enforces NCAs at the 75th percentile of the distribution were to switch to enforcing NCAs at the 25th percentile of the distribution, the earnings gap between white men and each other demographic group would close by 1.5% for nonblack, nonwhite men, 1.9% for black women, 2.3% for white women, 3.6% for black men, and 3.8% for nonblack, nonwhite women.

Of course, we cannot say conclusively that the disparate impacts of NCA enforceability by sex and race arise from differential impacts on outside options. Still, these results do provide further (albeit indirect) evidence that our model has explanatory power for understanding the mechanism through which strict NCA enforceability reduces earnings. A promising avenue for future research would be to more comprehensively examine the ways in which NCAs differentially impact workers of different demographic groups.

8 Comparison to Prior Studies: How Generalizable Are the Earnings Effects of NCA Enforceability?

Ours is not the first paper to consider the earnings effect of NCAs and NCA enforceability. Prior work on this topic has considered the effects of NCA use and/or enforceability for specific subsets of workers or subsets of law changes. Relative to this important work, our paper provides the first estimates of earnings effects of NCA enforceability for a broad, representative sample of the US labor force using all law changes over a 24-year period. We also connect our empirical analysis to a theoretical model, which both helps interpret the reduced form effect of NCA enforceability on earnings and implies sources of heterogeneity in those effects. Collectively, these features of our paper allow us to revisit these prior studies, some of which find facially contrasting results.

First, our paper helps make sense of seemingly conflicting findings on the effects of NCA *use* versus NCA *enforceability*. Prior work tends to find that NCA use has either no association or a positive association with earnings (Balasubramanian et al., 2023; Lavetti et al., 2018; Starr and Rothstein, 2022; Starr et al., 2021). In contrast, studies of enforceability of NCAs (including ours) tend to find negative impacts on earnings

(Lipsitz and Starr, 2021; Balasubramanian et al., 2022; Garmaise, 2011).⁶⁷ Our paper rationalizes these disparate findings. Our model shows that the effect of increasing enforceability on earnings is the sum of two terms: the difference in earnings between workers who do and do not sign enforceable NCAs (which we show can be positive or negative), and the spillover effect on non-signers (which we show theoretically and empirically is unambiguously negative).⁶⁸ Thus, our model provides an explanation for why there could be positive/null earnings effects of use and negative earnings effects of enforceability.⁶⁹

Second, our paper can help rationalize heterogeneity in the estimated earnings impacts of NCA enforceability among existing studies. For example, Lipsitz and Starr (2021) find a 2-3% earnings effect of a ban on NCAs for low-wage workers in Oregon, while Balasubramanian et al. (2022) find a 4-5% earnings impact of a ban on NCAs for high-tech workers in Hawaii. Our model suggests that the differences in the magnitudes of these effects could be due to disparities in the outside options of workers in these different segments of the labor force. In Section 6.1, we find that workers whose outside options are most impacted by NCA enforceability (for example, because NCAs typically cover specific locations, occupations, or industries) are those whose earnings are most affected by changes in enforceability. There is evidence that low-wage workers are more mobile across industries than are high-wage workers, perhaps due to differences in the industry-specificity of human capital.⁷⁰ By comparison, high-tech workers may have skills that are more industry-specific, meaning their outside options would be more affected by NCA use and enforceability.⁷¹ At a more extreme tail of the labor market, Garmaise (2011) estimates that CEOs at large publicly-traded US firms have 8.2% lower earnings growth under stricter NCA enforceability. This especially large earnings effect is consistent with CEOs having

⁶⁷An exception is (Young, 2021), who finds that an NCA ban in Austria for low-wage workers had a limited effect on earnings.

⁶⁸This insight is particularly useful for interpreting the results from Kini et al. (2019), who estimate the interaction effect of NCA enforceability and NCA use on CEO earnings. They find a *positive* effect of this interaction term (suggesting CEOs with enforceable NCAs get an earnings premium) but a *negative* effect on the main effect of enforceability, which is consistent with negative spillovers. See Table 7, Column 1 of that paper.

⁶⁹Another potential explanation for these differences is that the correlation between NCA use and earnings may not reflect a causal effect, since factors such as access to proprietary knowledge may simultaneously contribute to the use of NCAs and higher earnings. See Starr and Rothstein (2022) for a deeper discussion of this point.

⁷⁰Figure 1 of Lipsitz and Starr (2021) shows that workers in lower earnings brackets are much more likely to change industries than are workers in higher brackets.

⁷¹At the same time, high-tech workers might be more mobile across state lines than the typical worker, enabling them to escape increases in NCA enforceability in their origin state, which could explain why the 4-5% earnings increase from the Hawaii ban from Balasubramanian et al. (2022) is smaller than our implied overall earnings increase from a nationwide NCA ban (8.7%). Indeed, in the J2J data, the share of job changes that are across state lines in NAICS code 51 (which contains several high-tech industries based on Balasubramanian et al. (2022)'s definition) is 20%, compared to 15% across all other sectors.

substantially lower outside-occupation mobility than other occupations (which the data from Schubert et al. (2021) shows is the case).

Finally, our paper offers the most comprehensive understanding of the labor market effects of NCA enforceability to date. We show that the effect on earnings is negative for a wide range of states (as displayed in Figure B.3), implying that the negative effects in prior case studies are not aberrations. At the same time, we show substantial heterogeneity in the earnings effects across industries and occupations—something not feasible to estimate in a single case study. These analyses can inform which groups are likely to be most affected by ongoing policy discussions to restrict or ban NCAs. Finally, we offer (and provide evidence for) a theoretical channel through which NCA enforceability affects earnings; this extends prior work that has, for example, referenced the role of worker mobility but has been unable to explicitly test why lower mobility would translate to lower earnings.

9 Conclusion

Using newly-assembled panel data on state-level NCA enforceability, we show that stricter NCA enforceability leads to a decline in workers' earnings and mobility. The earnings effect of NCA enforceability extends across legal jurisdictions, illustrating that NCA enforceability has far-reaching consequences on labor market outcomes that likely extend far beyond the subset of workers that actually sign NCAs. Multiple sources of evidence indicate that strict enforceability reduces earnings by dampening workers' outside options, shutting down a primary way that workers can otherwise attain higher pay over the course of their careers. Finally, strict enforceability has an especially negative effect on the earnings of women and racial minorities and thus exacerbates existing disparities in the labor market.

Our results also inform a longstanding debate regarding freedom of contract. An argument frequently cited in this debate is that workers would not sign NCAs if they were made worse off by doing so. Evidence that workers sign NCAs either unwittingly or after they have any chance to bargain over them (Marx, 2011) already casts doubt on this argument. Our findings that NCAs create negative *market-level* externalities provide a further challenge to this argument.

Our findings suggest several avenues for future research. An important question is how incomplete markets interact with workers' willingness to sign NCAs: for example, liquidity-constrained workers might sign NCAs that are damaging to their lifetime earnings if they are unable to alternatively accept an initial earnings cut to pay for training or other human capital investment; in this case, NCA enforceability might exacerbate inequality between high- and low-wealth individuals. The earnings effects of NCA enforceability might also interact with unionization and other labor market institutions. Finally, given our findings that strict NCA enforceability reduces the extent to which strong labor markets translate into higher earnings, it is possible

that increases in NCA enforceability (or in NCA use) have contributed to the decline in the labor share of income over the past several decades.

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10 Tables and Figures

Table 1: Descriptive Statistics on NCA Law Changes, 1991-2014

Region	Northeast	Midwest	South	West	Total
Average Index	0.75	0.79	0.76	0.40	0.69
Standard Deviation of Index	0.10	0.12	0.13	0.35	0.25
Maximum Index	0.97	0.97	1.00	0.91	1.00
Minimum Index	0.63	0.00	0.47	0.07	0.00
Number of Law Changes	15	19	23	16	73
Number of States in Region	9	12	17	13	51
Number of Index Increases	11	14	13	9	47
Number of Index Decreases	4	5	10	7	26
Average Magnitude Positive Index Change	0.03	0.05	0.08	0.05	0.05
Maximum Positive Index Change	0.15	0.11	0.24	0.19	0.24
Average Magnitude Negative Index Change	-0.05	-0.03	-0.04	-0.02	-0.04
Maximum Negative Index Change	-0.06	-0.06	-0.17	-0.09	-0.17
Between-State Standard Deviation	0.09	0.25	0.12	0.22	0.18
Within-State Standard Deviation	0.03	0.03	0.04	0.03	0.03

Notes: Statistics in the table represent data from 1991–2014, and the unit of observation is a state-year. The minimum and maximum of the NCA Score are normalized to 0 and 1, respectively. With the exception of the numbers of law changes, states, index increases, and index decreases, the descriptive statistics in Table 1 are weighted to reflect population demographics by matching the scores from each state-year to corresponding observations in the CPS ASEC and using the relevant weights provided by the Census Bureau

Figure 1: Timing of NCA law changes from 1991 through 2014

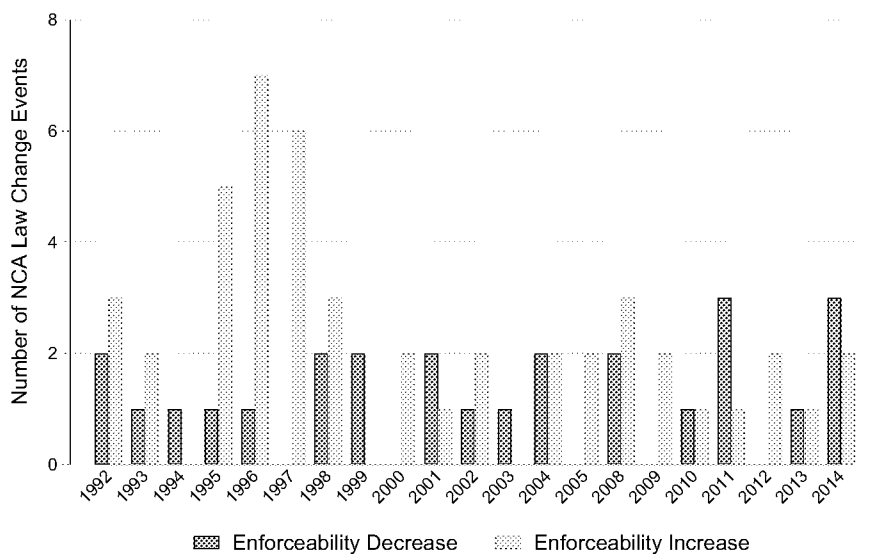
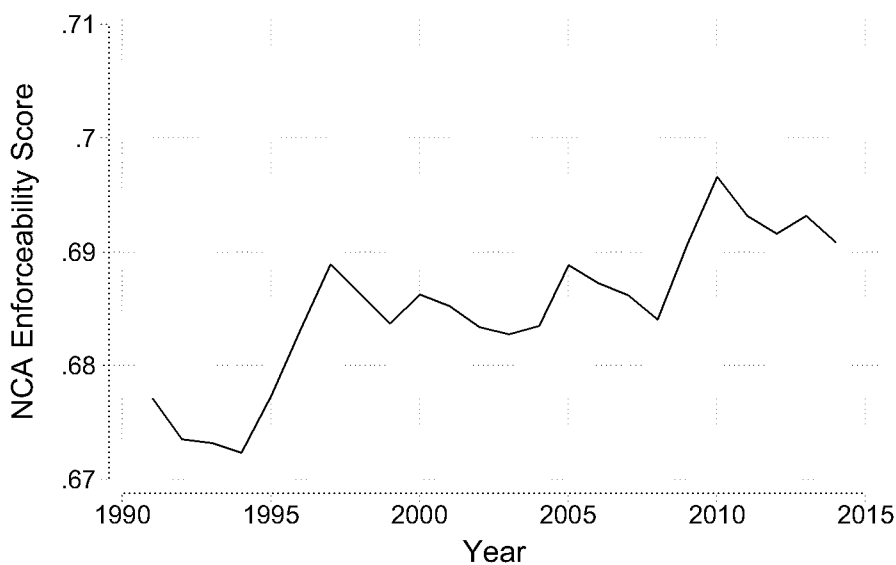


Figure 2: Average NCA Enforceability Score from 1991 to 2014



Notes: The series in this figure represents the population-weighted average NCA Score in the US in each year.

Table 2: Can Economic and Political Factors Explain Changes in NCA Enforceability?

Dependent Variable:	NCA Enforceability	
Population (100,000s)	-0.00	(0.00)
Unemployment Rate	0.00	(0.00)
Number of Workers Compensation Beneficiaries	-0.00	(0.00)
Democratic Party Governor	-0.01	(0.00)
% of State House from Democratic Party	0.03	(0.06)
% of State Senate from Democratic Party	0.05	(0.03)
State Minimum Wage	-0.01*	(0.01)
Number of Medicaid Beneficiaries (100,000s)	0.00	(0.00)
Social Policy Liberalism Score	-0.01	(0.02)
Economic Policy Liberalism Score	-0.02	(0.01)
Social Mass Liberalism Score	0.00	(0.02)
Economic Mass Liberalism Score	0.04	(0.04)
Democratic Party ID Count	-0.07	(0.31)
State House Ideology Score	-0.00	(0.01)
State Senate Ideology Score	0.01	(0.01)
House Democrats Ideology Score	-0.05	(0.04)
House Republicans Ideology Score	0.02	(0.05)
Senate Democrats Ideology Score	-0.04**	(0.02)
Senate Republicans Ideology Score	-0.00	(0.02)
Union Membership	-0.00	(0.00)
N		
	829	
R^2		
	0.114	
F-Test p-Value		
	0.197	

Notes: Models also include state and year fixed effects. Reported R^2 calculated after residualizing on state and year fixed effects. Standard errors reported in parentheses are clustered by state.

*** p<0.01, ** p<0.05, * p<0.1

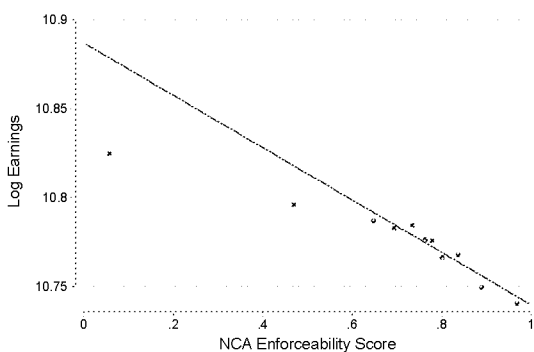
Table 3: The Effect of NCA Enforceability on Earnings

	Log Earnings		Log Hours	Log Wage	Log Average Earnings
	(1)	(2)	(3)	(4)	(5)
NCA Enforceability Score	-0.118*** (0.036)	-0.107*** (0.028)	-0.021 (0.017)	-0.106*** (0.027)	-0.137*** (0.034)
Observations	1216726	1216726	1545874	1216726	3548827
R^2	0.275	0.357	0.132	0.346	0.941
Geographic FE	State	State	State	State	County
Time FE	Div x Year	Div x Year	Div x Year	Div x Year	Div x Quarter
Occupation FE	N	Y	Y	Y	N
Sample	ASEC	ASEC	ASEC	ASEC	QWI

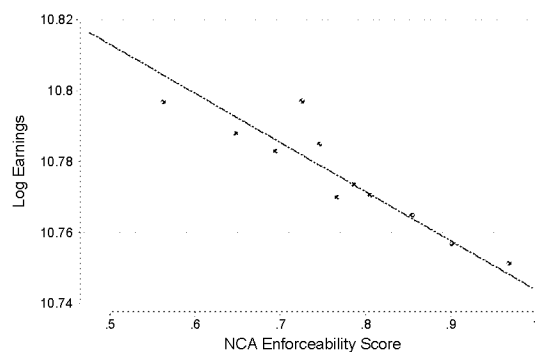
ASEC samples use years from 1991-2014 and include individuals between ages 18-64 who reported working for wage and salary income at a private employer. All ASEC regressions include controls for male, white, Hispanic, age, age squared, whether the individual did not complete college, and indicators for the metropolitan city center status of where the individual lives. Column (5) includes controls for male, age group, and county fixed effects. The dependent variable in Column (4), log hourly wage, is calculated as the log of total annual earnings and salary income last year divided by (usual weekly hours last year times 52). Columns (1), (2), and (4) include full-time workers only, while Column (3) includes part-time workers to avoid selection on the dependent variable.

SEs clustered by state in parentheses. *** $P < .01$, ** $P < .05$, * $P < .1$

Figure 3: The Relationship between NCA Enforceability and Earnings:
Binned Scatterplots



(a) Full Joint Distribution



(b) Joint Distribution Excluding CA & ND

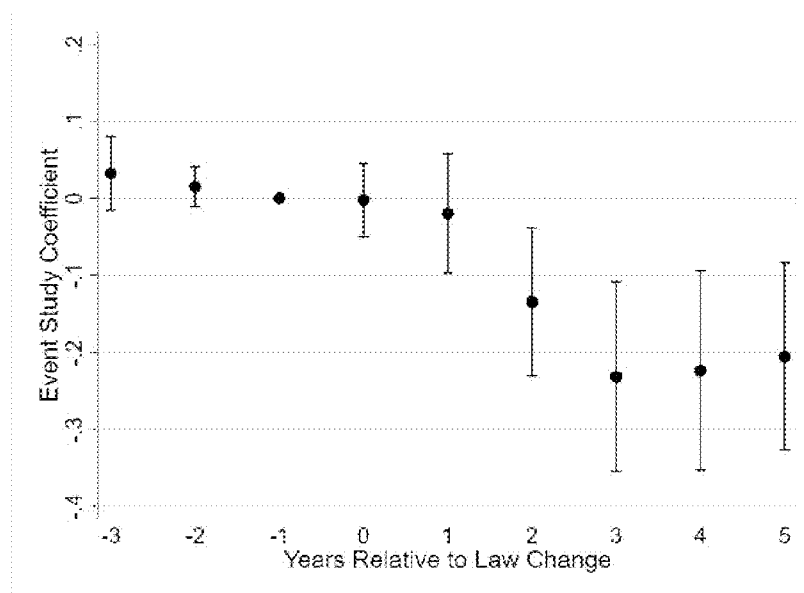
Figures are binned scatterplots depicting the conditional joint distribution of NCA enforceability and log annual earnings, controlling for the same variables included in Column 2 of Table 3 (fixed state effects, census division-by-year effects, 1-digit occupation effects, age, age-squared, and indicators for white, Hispanic, male, less than college education, and metro area status.) Conditional means are constructed using the semiparametric partial linear regression approach developed in Cattaneo et al. (2023). Panel (a) includes all states and years, panel (b) excludes California and North Dakota to visually focus on the main sources of identifying variation that we use for estimation.

Table 4: The Effects of NCA Enforceability on Job Mobility

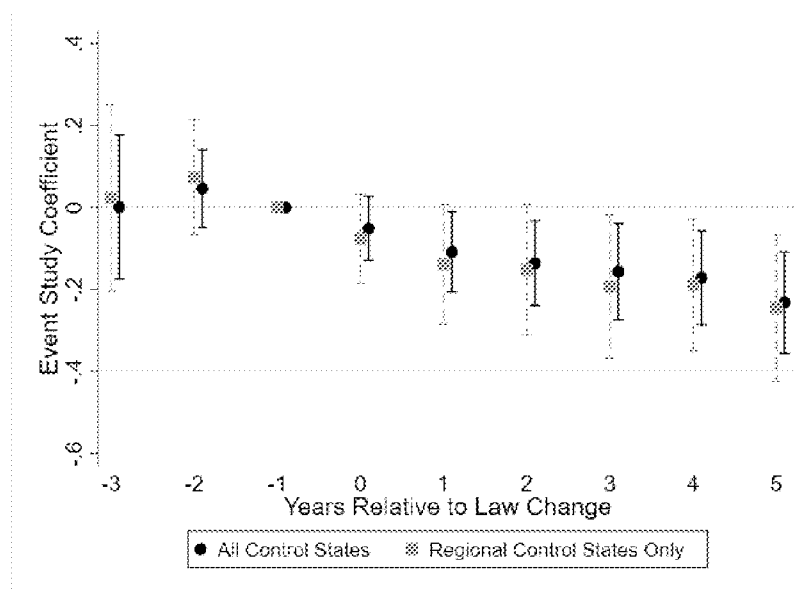
	All J2J Separations (1)	(2)	Across Ind. (3)	Within Ind. (4)	Across State (5)	Within State (6)
NCA Enforceability Score	0.064 (0.114)	0.112 (0.108)	0.102 (0.127)	0.121 (0.089)	-0.008 (0.070)	0.130 (0.120)
High NCA Use Ind \times NCA Score		-0.241*** (0.085)	-0.122 (0.089)	-0.380*** (0.109)	-0.058 (0.126)	-0.270** (0.110)
Observations	652024	652024	651664	619283	638444	650404
Mean Dep Var	1,421.69	1,421.69	794.65	627.60	165.38	1,256.38

Estimates are Poisson pseudo-likelihood coefficients from a model using LEHD Job-to-Job flows data from 1991-2014. Each observation is a state-sex-age group-quarter-industry cell. All regressions include controls for sex, age group, and fixed state-by-origin-industry effects and census-division-by-origin-industry-by-year-by-quarter effects. Regressions are weighted by employment, and standard errors are clustered by state. ***P<.01, **P<.05, *P<.1.

Figure 4: Dynamic Effects of NCA Enforceability Changes on Earnings from Two Different Models



(a) Distributed Lag Model



(b) Stacked Event Study

The graphs plot two estimates of the dynamic effects of NCA law changes on earnings, from a distributed lag model (Panel A), and a stacked event study model (Panel B). Both regressions use data from QWI. See Section 4.2.1 for the regression equations and further details. The coefficients represent the effect of an NCA law change that occurred j years ago ($j \in \{-4, 5\}$) on log earnings. The coefficient representing one year prior to law change is normalized to zero. In Panel A, the dependent variable is the yearly change in the log average earnings in a county-group; in Panel B the dependent variable is the log average earnings in a county-group. Standard errors are clustered by state.

Table 5: Heterogeneous Effects of NCA Enforceability on Earnings by Education, Occupation, and Industry

	(1)	(2)	(3)	(4)	(5)
NCA Enforceability Score	-0.118*** (0.036)	-0.038 (0.040)	-0.085** (0.035)	-0.097*** (0.035)	-0.033 (0.038)
College Educated Worker	0.415*** (0.013)	0.510*** (0.020)	0.376*** (0.012)	0.391*** (0.010)	0.442*** (0.014)
College Educated Worker × NCA Score		-0.138*** (0.030)			-0.118*** (0.022)
High NCA Use Occ × NCA Score			-0.059*** (0.014)		-0.015* (0.008)
High NCA Use Occ			0.254*** (0.007)		0.194*** (0.005)
High NCA Use Ind × NCA Score				-0.065*** (0.013)	-0.035*** (0.010)
High NCA Use Ind				0.267*** (0.008)	0.219*** (0.007)
Observations	1216726	1216726	1216726	1216726	1216726
R^2	0.275	0.275	0.290	0.292	0.304

The sample in all columns is the CPS ASEC from 1991-2014 and includes individuals between ages 18-64 who reported working for wage and salary income at a private employer the prior year. All regressions include fixed effects for state, fixed effects for Census region by year, and individual controls for male, white, Hispanic, age, age squared, whether the individual did not complete college, and indicators for the metropolitan city center status of where the individual lives. In Columns (3) and (4), High NCA Use Occupations are occupations with NCA use greater than the national average, as tabulated by Starr et al. (2021).

SEs clustered by state in parentheses. *** $P < .01$, ** $P < .05$, * $P < .1$

Table 6: The Effects of NCA Enforceability on Job Openings

	Unemployed People Per Job Opening (1)	Job Openings (2)
NCA Enforceability Score	1.783* (1.045)	-0.225 (0.233)
Observations	8568	8568
R^2	0.922	0.9308
Estimation Methodology	OLS	Poisson

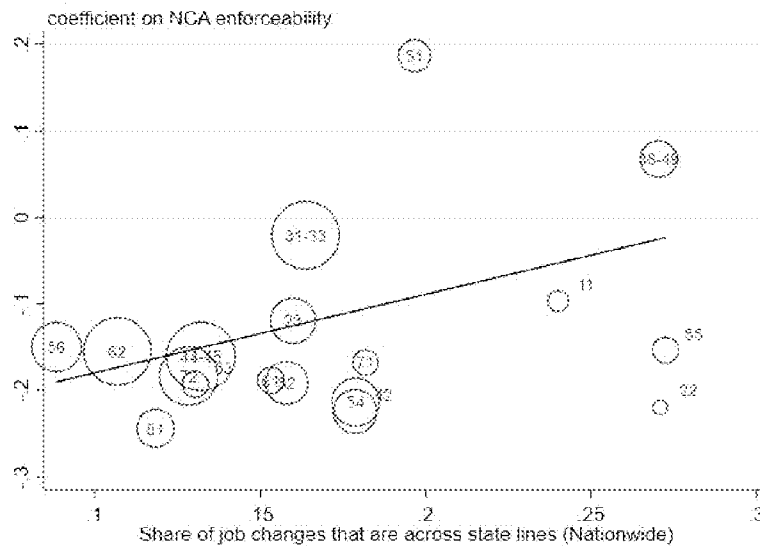
Estimates are OLS or Poisson pseudo-likelihood coefficients from a model using BLS JOLTS data from 2001-2014. Each observation is a state-year-month cell. All regressions include fixed state and census-division-by-year-by-month effects. Regressions are weighted by employment, and standard errors are clustered by state. ***P<.01, **P<.05, *P<.1.

Table 7: The External Effects of NCA Enforceability on Earnings

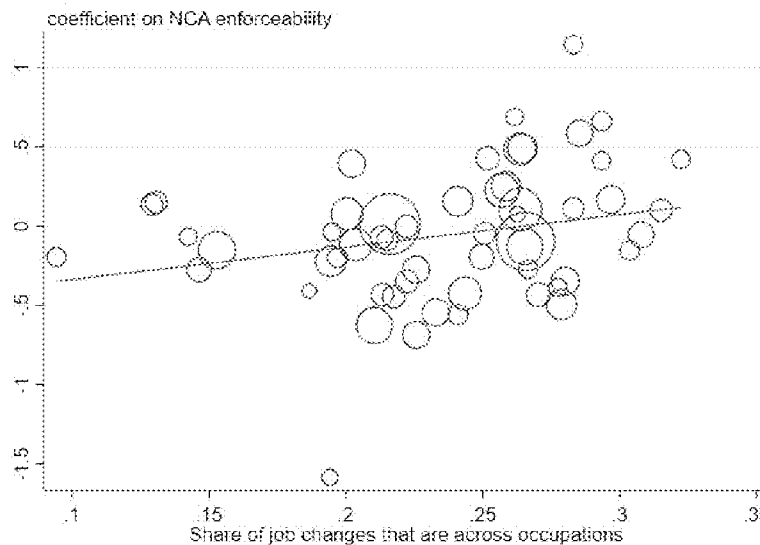
	(1)	(2)	(3)
Own State NCA Score	-0.160*** (0.058)	-0.181*** (0.066)	-0.161** (0.069)
Donor State NCA Score		-0.137* (0.071)	-0.167** (0.075)
Own Cty Emp/CZ Emp \times Own State NCA Score			-0.110 (0.150)
Own Cty Emp/CZ Emp \times Donor State NCA Score			0.157*** (0.054)
Observations	615191	615191	613762
R^2	0.899	0.899	0.902

The dependent variable is log earnings. The sample is the QWI from 1991-2014 restricted to counties directly on state borders in commuting zones that straddle a state border. An observation is a county-sex-age group-quarter. All regressions include controls for sex, age group, as well as division by year by quarter and county fixed effects. Own Cty Emp/CZ Emp is the ratio of sex- and age-group-specific employment in own county divided by sex- and age-group-specific employment in the entire commuting zone. Standard errors are clustered by own state in Column (1), and two-way clustered by own state and commuting zone in columns (2) and (3). ***P<.01, **P<.05, *P<.1

Figure 5: NCA Enforceability Has a Larger Effect on Earnings When it Has a Bigger Impact on Workers' Outside options



(a) Industry-level cross-state mobility [QWI]



(b) Occupation-level cross-occupation mobility [CPS]

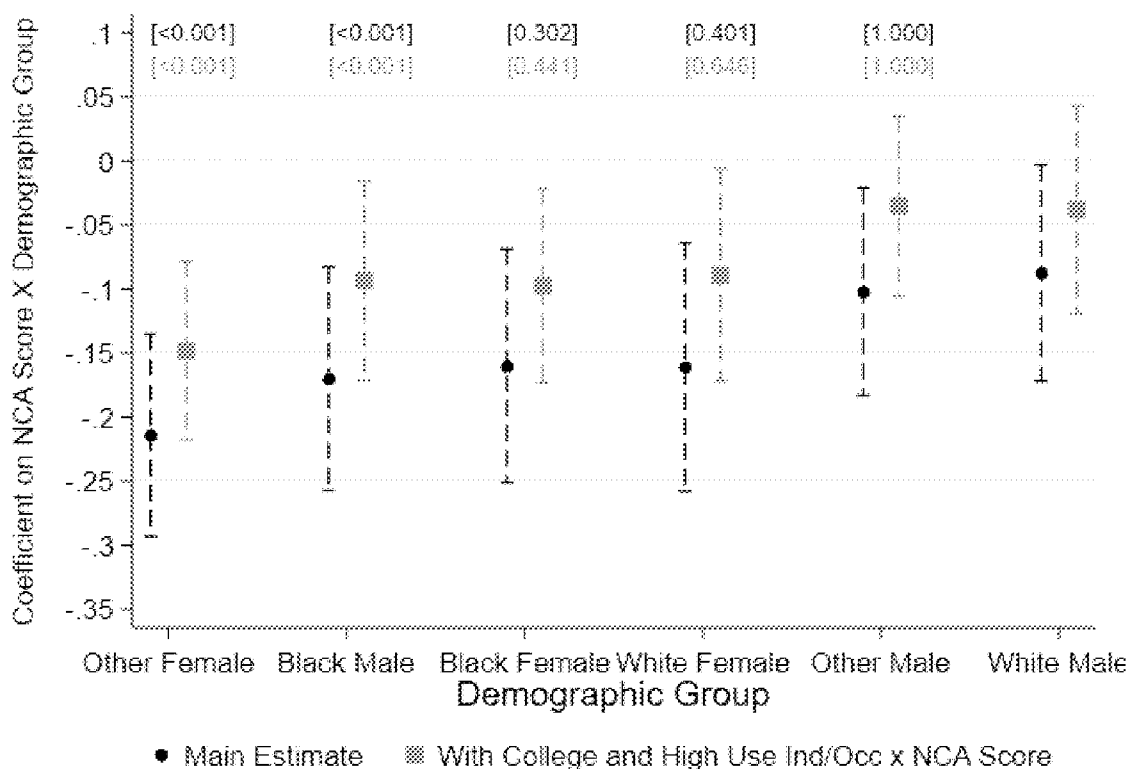
Each figure is a scatterplot relating the earnings effect of NCA enforceability against the “bite” of enforceability on workers’ outside options, using two dimensions of this “bite.” In Panel (a), a unit of observation is a 2-digit NAICS industry: on the vertical axis is the earnings effect of NCA enforceability in that industry (estimated using the QWI dataset) and on the horizontal axis is the share of job transitions in that industry that are across state lines (measuring using the J2J dataset). In Panel (b), a unit of observation is a 6-digit SOC occupation: on the vertical axis is the earnings effect of NCA enforceability in that occupation (estimated using the CPS ASEC dataset) and on the horizontal axis is the share of job transitions in that occupation that to different occupations (based on data from Schubert et al. (2021)). See Section 6.1 for details.

Table 8: NCA Enforceability Changes How Workers and Employers Negotiate Implicit Contracts

	Log Earnings				
	(1)	(2)	(3)	(4)	(5)
Initial UR	-0.008*** (0.002)		-0.002 (0.003)	-0.002 (0.003)	0.010** (0.004)
Minimum UR		-0.017*** (0.003)	-0.014*** (0.005)	-0.014*** (0.005)	-0.028*** (0.006)
Initial NCA Score				-0.013 (0.059)	-0.033 (0.074)
Init. NCA Score × Init. UR					-0.017*** (0.006)
Init. NCA Score × Min. UR					0.020** (0.009)
No. Obs.	76350	76350	76350	76350	76350
R ²	0.364	0.364	0.364	0.364	0.364

The dependent variable is log weekly earnings. All regressions include state, Census division by year, and industry fixed effects, as well as controls for quadratics in age and tenure, and indicators for high school or less, black, Hispanic, married, union member, metro center status, and female. SEs clustered by state in parentheses. ***P<.01, **P<.05, *P<.1

Figure 6: Heterogeneous Effects of NCA Enforceability on Earnings by Race and Sex



The figure depicts coefficients from two regressions of earnings on NCA Score, interacted with demographic groups. The first regression builds on Column 1 of Table 3, adding indicators for each demographic group, as well as interactions of those indicators with NCA Score (the coefficients on which are depicted in the figure, along with 90% confidence intervals). The second regression adds controls for college education, high-NCA-use occupation, and high-NCA-use industry, and each of these controls interacted with NCA Score. The values in brackets report Bonferroni-corrected p-values for the *difference* between each coefficient and the coefficient for white males, with the main estimates in the first row and the estimates including extra controls in the second row.

A Formalization of Theory

This appendix considers an augmentation of the model of Bagger et al. (2014). Bagger et al. (2014)’s baseline model of workers’ earnings growth over their career uses a search and matching framework with human capital accumulation and on-the-job search. We consider a modification in which some workers sign NCAs with a firm, preventing their job mobility while employed by that firm. We consider channels linking earnings and NCAs posited in Section 2, and derive conditions under which those channels would lead to the expected relationships in the model.

A.1 Summary of Bagger et al. (2014)

First, we introduce and summarize the model of Bagger et al. (2014). In that model, unemployed and employed workers match with prospective employers at rates λ_0 and λ_1 , respectively. Workers produce according to their human capital: a worker with human capital level h_t produces, in log terms, $y_t = p + h_t$, where p is the productivity of the firm, drawn from exogenous distribution $F(p)$. Workers are paid according to a piece rate: their earnings are (again, in log terms) $w_t = r + p + h_t$, where $R = e^r \leq 1$ is the piece rate. The logged piece rate, r , is actually negative, meaning that it represents the amount of productivity that is “returned” to the employer. When exponentiated, the piece rate, R , therefore represents the *share* of productivity that is “returned” to the employer.

When unemployed workers match with a new employer, their earnings are determined by setting the piece rate such that the worker receives a share, β , of the value of their match above and beyond the value of unemployment, which is assumed to be the value of matching with the least productive firm type, p_{min} . Employed workers who contact new employers may leave their current job (if the new employer is able to offer more attractive contract terms) or may leverage an outside offer to receive an earnings increase (if the incumbent employer is able to offer more attractive contract terms), in either case receiving a share, β , of the match-specific rents above and beyond their relevant threat point. Workers also exogenously separate from their employers at rate $\delta \in [0, 1]$ (and immediately rematch at rate $\kappa \in [0, 1]$), and leave the labor force altogether at exogenous rate $\mu \in [0, 1]$. The discount rate is ρ .

We selected this model as a baseline due to the harmony between the drivers of earnings growth in the model and the channels through which NCAs could affect earnings that we discussed in Section 2. In the baseline model, workers’ earnings growth occurs because of growth in their human capital, h_t , and their ability to search for higher-paying jobs. These two mechanisms for earnings growth match well to potential roles for NCAs. First, NCAs are typically justified as a solution to a hold-up problem, where firms are not willing to invest in workers’ human (or other) capital (e.g., training, imparting trade secrets, client lists, etc.) for fear that the

worker will depart the firm and therefore deny the firm its return on investment.⁷² Therefore, an NCA in this model should cause h_t to grow at a greater rate, as the firm is more willing to invest in the worker. Second, NCAs prevent workers from changing jobs or threatening to change jobs, meaning that workers will not be able to increase earnings by moving to a firm offering higher earnings, or by leveraging an outside offer to increase their earnings at their current firm. The tradeoff between these two competing mechanisms will partially determine the difference in the rates of earnings growth with and without an NCA for the worker.

A.2 Modifications to Bagger et al. (2014)

We hypothesize that NCAs and NCA enforceability impact labor markets through three primary channels: first, via the offer arrival rates, second, via human capital accumulation, and third, via the ability of constrained workers to change jobs (and, similarly, to use the threat of changing jobs in earnings bargaining). We model NCA enforceability as an exogenous parameter, θ , which may be viewed as the probability that a randomly selected NCA will be enforced (therefore, $\theta \in [0, 1]$).

The first modification we make is that workers with enforceable NCAs are unable to change jobs. We let workers sign NCAs with exogenous probability γ when they commence their first employment relationship, which are enforceable with probability θ . The offer arrival rate of new jobs for employed workers with NCAs is zero, or $\lambda_1^C = 0$, where C indicates that the worker is *constrained* by an enforceable NCA.⁷³ This modification means that if a worker has an enforceable NCA, they will continue to work for the same employer unless they experience an exogenous separation.⁷⁴ Though assuming that NCAs strictly prohibit job changing is a simplification (because, for example, workers may be able to buy out of NCAs or can move to firms in different industries or geographic locations), this assumption substantially improves tractability and does not change the predictions of the model, assuming the friction to job switching is great enough. We could instead model NCAs as introducing a cost

⁷²One reason that enforceable NCAs might raise investment is due to incomplete markets: namely, that liquidity-constrained workers cannot “pay” for general human capital training in the form of lower initial earnings, but they *can* sign an NCA. See (Rubin and Shedd, 1981) for more discussion on this topic.

⁷³The superscript C and F will be used frequently to differentiate functions and parameters that differ between signers (constrained workers) and non-signers (free workers).

⁷⁴We make two additional modifications related to this one. First, we assume that, after an exogenous separation, a worker who had previously signed an NCA will continue to work in a job with an NCA. This assumption significantly increases tractability by limiting flows between the two types of jobs. One way to view this assumption is that workers work in industries that use NCAs or in industries that do not; this could occur due to the value of accumulated industry-specific human capital. The second assumption is that workers may immediately find new work upon an exogenous separation with their employer. This assumption also increases tractability of the model. Furthermore, we view it as reasonable: roughly half of states do not enforce NCAs when employees are fired, leaving such workers able to find other jobs quickly in the event of an involuntary separation.

on job switching. In the limit, if the cost is steep enough to limit job changes, this is identical to assuming that the worker is unable to change jobs.

The second modification we make is assuming that the offer arrival rate for workers without NCAs is lower when NCA enforceability is stricter (θ is larger). One plausible foundation for this assumption is that, when enforceability is nonexistent, firms can be sure that a worker to whom they offer a job will be unencumbered by an NCA. However, when enforceability is strict, firms may worry that they will ultimately have to pay high costs to buy workers out of their NCA (see, e.g., Shi (2023)) or that the worker ultimately will not be able to work for the offering firm. This higher expected cost or greater uncertainty effectively raises the recruitment cost to the firm, reducing the rate at which firms are willing to make offers (see Starr et al. (2019)). Whether or not this foundation is exactly accurate, the relationship between NCA enforceability and job posting is empirically testable: indeed, we find in Section 5 that NCA enforceability causes lower rates of *vacancy posting* (which, notably, does not simply affect workers bound by NCAs) and higher ratios of unemployed workers to vacancies. These results directly underpin this modification to the model.

Specifically, we allow the offer arrival rate for employed workers without enforceable NCAs (workers who are *free* to move), λ_1^F , to vary with θ . We assume that $\frac{d\lambda_1^F(\theta)}{d\theta} < 0$: the more strictly NCAs are enforced in the labor market, the less often workers will be contacted on-the-job.

The final modification we make is to assume that workers with enforceable NCAs accumulate human capital at a faster rate. In Bagger et al. (2014), accumulation of human capital, h_t , is stochastic, with the deterministic component of workers' human capital at time t represented by $g(t)$. Here, we define $g^C(t)$ and $g^F(t)$ to be the deterministic component of, respectively, a constrained and free worker's human capital at time t . Since human capital evolves faster for those with NCAs, if $g^C(t - 1) = g^F(t - 1)$, then $g^C(t) > g^F(t)$. This assumption is a natural implication of the argument that NCAs solve a hold-up problem. Firms might be unwilling to invest in human capital of workers who can freely leave, because they do not expect to recoup the returns on their investment. NCAs, by ensuring that workers cannot freely leave, incentivize firms to invest in workers, causing workers' human capital to develop more rapidly.⁷⁵

Under these modifications, we now generate multiple predictions which relate directly to the empirical work found in this paper.

⁷⁵Rubin and Shedd (1981) formalize this argument in a model of incomplete markets, in which liquidity-constrained workers cannot “pay” for general skills training in the form of lower initial earnings, so signing NCAs is an alternative way to facilitate such training that would not otherwise occur.

A.3 Effects of Enforceability on Average Earnings

First, we examine what happens to average earnings when NCAs become more easily enforceable (that is, when enforceability becomes “stricter”). Earnings depend on human capital (which develops more rapidly for workers with enforceable NCAs) and on mobility (which is lower when NCAs are more easily enforceable). This tension generates the ambiguous effect of (enforceable) NCAs on earnings.

Since we do not observe NCA use, our empirical investigation focuses on average earnings (across enforceable NCA signers and non-signers). For notational simplicity, we define $\bar{w}_t^k \equiv E[w_{i,t}|j(i) = k]$ for $k \in \{C, F\}$, where $j(i)$ denotes whether worker i is constrained by an enforceable NCA or free to change jobs. These values represent average earnings, at time t , for the two respective types of workers. Thus, the average earnings in period t , which we denote \bar{w}_t , is given by $\bar{w}_t = \theta\gamma\bar{w}_t^C + (1 - \theta\gamma)\bar{w}_t^F$.⁷⁶ The value $\theta\gamma$ is the probability that the worker is bound by an enforceable NCA (the product of the probability of having an NCA, γ , and the probability that it is enforceable, θ).

The quantity we are therefore interested in computing is $\frac{d\bar{w}}{d\theta}$: the change in average earnings which results from a change in NCA enforceability. Omission of the subscript, t , indicates that we are interested in the derivative of average earnings in steady state. Taking the derivative and rearranging, this quantity has three components:

$$\frac{d\bar{w}}{d\theta} = \gamma(\bar{w}^C - \bar{w}^F) + \theta\gamma\frac{d\bar{w}^C}{d\theta} + (1 - \theta\gamma)\frac{d\bar{w}^F}{d\theta} \quad (8)$$

We consider each component in turn.

A.3.1 Difference in Average Earnings

We begin with $\gamma(\bar{w}^C - \bar{w}^F)$. Intuitively, this term captures the additional weight put on earnings of workers subject to enforceable NCAs in overall average earnings. As θ rises, more workers are subject to enforceable NCAs, and the overall average is pushed closer to average earnings for constrained workers, \bar{w}^C .

As in Bagger et al. (2014), with our modifications, the earnings of worker i at any time t is given by $w_{i,t} = \alpha_i + g^{j(i)}(t) + \varepsilon_{i,t} + p_{i,t} + r$, where α_i is a worker heterogeneity parameter, $g^{j(i)}(t)$ is the deterministic component of human capital accumulation of the worker, and $\varepsilon_{i,t}$ is a stochastic worker human capital shock. Firm productivity, $p_{i,t}$ (where i represents the worker and t represents time), and r (the piece rate of the worker) round out earnings.

In order to calculate the difference in earnings across workers with and without enforceable NCAs, we compare the individual components of earnings. By assump-

⁷⁶Note that flow balance into and out of unemployment implies that an identical proportion of C and F type workers are employed in steady state, and we therefore may omit that proportion in calculation of average earnings.

tion, ε is distributed identically across workers and across time, and α is distributed identically across workers, so in expectation, there are no differences in ε or α for workers with and without enforceable NCAs.

By assumption, human capital evolves at a higher rate for those with enforceable NCAs: if $g^C(t-1) = g^F(t-1)$, then $g^C(t) > g^F(t)$.

What is left to compare are firm productivities and the piece rates of workers. Workers with NCAs will face a worse (i.e., first order stochastically dominated) distribution of firm productivities because they are unable to search for higher-paying jobs—*i.e.* they are unable to climb the job ladder. In fact, since they are immobile and exit occurs independently of firm productivity, the distribution of productivities at firms at which NCA-constrained workers are employed (denoted by $L^C(p)$) is exactly equal to the exogenous productivity distribution for a worker entering employment: $L^C(p) = F(p)$.⁷⁷

The steady state distribution for those who do not have enforceable NCAs is derived in Bagger et al. (2014) (equation A15): $L^F(p) = \frac{(\mu+\delta)F(p)}{\mu+\delta+\lambda_1(\theta)F(p)}$, where $\bar{F}(p) = 1 - F(p)$. Since workers only move *up* the job ladder, $L^F(p)$ first-order stochastically dominates $L^C(p)$, regardless of the value of θ . Note that, since $\lambda_1'(\theta) < 0$ by assumption, as enforceability becomes stricter, the distribution of firm productivities shifts leftwards (i.e., $\frac{dL^F(p)}{d\theta} \geq 0 \forall p$).

Finally, we turn to piece rates. Piece rates for workers without enforceable NCAs evolve identically to those in the baseline model of Bagger et al. (2014). However, the piece rate for enforceable NCA signers does not evolve over time: lacking the ability to change the piece rate by leveraging outside offers or engaging in job-to-job mobility, the piece rate for a worker with an NCA is determined at the advent of their job spell.

In Bagger et al. (2014), the piece rate (r) is a function of the most recent firm from which the worker was able to, or would have been able to, extract all available surplus (by virtue of having a high enough competing offer)⁷⁸:

$$r = - \int_{q_{i,t}}^{p_{i,t}} \phi(x, \theta) dx$$

⁷⁷We note that an alternate modeling assumption would be that NCAs directly affect the productivity distribution of firms. For example, strict NCA enforceability could directly reduce productivity, as might be suggested by work showing that firms are less innovative when NCAs are more enforceable (Johnson et al., 2023). One concern might be that this assumption generates dynamics in *average* wages that are similar to the effects of enforceability on average earnings that we present in Section 4, making it hard to disentangle whether our proposed mechanism or this alternative assumption drives these empirical results. However, this alternative assumption cannot explain other results, such as those in Sections 5 and 6.2 that show heterogeneous earnings effects, which *can* be explained by our own modeling assumptions.

⁷⁸Note that the piece rate is negative: earnings are given by $w_t = r + p + h_t$, where $p + h_t$ is the marginal product of the worker (p is the firm's productivity and h_t is the worker's productivity due to human capital accumulation). Therefore, the piece rate r represents the share of the worker's productivity that is allocated to the firm.

where $\phi(x, \theta) = (1 - \beta) \frac{\rho + \delta + \mu + \lambda_1(\theta) \bar{F}(x)}{\rho + \delta + \mu + \lambda_1(\theta) \beta \bar{F}(x)}$, $\bar{F}(x) = 1 - F(x)$ is the exogenous distribution of firm productivities from which workers draw upon matching with a firm, and $q_{i,t}$ represents the productivity of the last firm from which the worker was able to extract all surplus, by virtue of leveraging a competing offer (see Equation 6 in Bagger et al. (2014) for details on the derivation of this equation). The greater is $q_{i,t}$, the greater the worker's earnings will be. If $q_{i,t} = p_{i,t}$, then the worker was able to extract all surplus from their current firm and therefore $r = 0$: they return none of the full value of productivity to the employer.

In the case of an enforceable NCA signer, the last "job" from which the worker was able to extract all surplus was unemployment, since workers cannot leverage outside options or job hop. The piece rate of signers is therefore determined by the worker having outside option p_{min} (the lowest productivity a firm can have), since by assumption, the value of unemployment is equal to the value of employment in the least productive firm. Simplifying (since $\lambda_1^C = 0$ for signers by assumption), the piece rate of NCA signers will be:

$$\begin{aligned} r &= - \int_{p_{min}}^{p_{i,t}} \phi(x, \theta) dx \\ &= - \int_{p_{min}}^{p_{i,t}} (1 - \beta) \frac{\rho + \delta + \mu + \lambda_1^C \bar{F}(x)}{\rho + \delta + \mu + \lambda_1^C \beta \bar{F}(x)} dx = -(p_{i,t} - p_{min})(1 - \beta) \end{aligned}$$

The earnings processes of signers of enforceable NCAs versus nonsigners are therefore given by:

$$\begin{aligned} \text{Nonsigners: } w_{i,t}^F &= \alpha_i + g^F(t) + \varepsilon_{i,t} + p_{i,t} - \int_{q_{i,t}}^{p_{i,t}} \phi(x, \theta) dx \\ \text{Signers: } w_{i,t}^C &= \alpha_i + g^C(t) + \varepsilon_{i,t} + p_{i,t} - (p_{i,t} - p_{min})(1 - \beta) \end{aligned} \quad (9)$$

We now compare *expected* earnings for workers with and without an NCA. First, we examine workers new to the workforce:

Proposition A.1. *In steady state, workers signing enforceable NCAs will receive higher initial earnings in expectation than workers not signing NCAs: for i that transition from unemployment to work in period t , $E_{i,t-1}[w_{i,t}|j(i) = C] > E_{i,t-1}[w_{i,t}|j(i) = F]$.*

Proof. In the first period in which workers match, the firm productivity distributions are identical (since workers have not had a chance to switch jobs). In expectation, α_i and $\varepsilon_{i,t}$ are identical for those with and without NCAs. By assumption, $E_{t-1}[g^C(t)] > E_{t-1}[g^F(t)]$, so the proposition is proven if

$$E_{i,t}[(p_{i,t} - p_{min})(1 - \beta)] < E_{i,t} \left[\int_{p_{min}}^{p_{i,t}} \phi(x, \theta) dx \right],$$

since the worker initially bargains with outside option p_{min} .

Rewriting the left hand side, we must show that

$$E_{i,t} \left[\int_{p_{min}}^{p_{i,t}} (1 - \beta) dx \right] < E_{i,t} \left[\int_{p_{min}}^{p_{i,t}} \phi(x, \theta) dx \right],$$

which is true since $\phi(x, \theta) > (1 - \beta) > 0$, regardless of the value of θ . \square

The proof of this proposition highlights two reasons for greater (initial) pay with enforceable NCAs: first, a greater accumulation of human capital leading to greater productivity, and second, the compensating differential associated with NCAs (which is embedded in $\phi(x, \theta)$). Workers who initially match with NCAs are compensated to some extent for their limited future mobility.

However, as workers remain at their jobs longer, three things happen: first, workers with enforceable NCAs accumulate more human capital. Second, workers without enforceable NCAs climb the job ladder, moving to jobs with greater firm productivities, $p_{i,t}$. Third, when workers without enforceable NCAs leverage outside offers, they negotiate better piece rates, r . The first increases earnings by more for those who sign enforceable NCAs, while the latter two increase earnings by more for those who do not sign enforceable NCAs. The overall comparison, then, is indeterminate: if human capital grows more quickly than mobile workers climb the job ladder and negotiate better piece rates, workers with NCAs will have earnings that grow more quickly than those without, and vice versa. We summarize in Proposition A.2, but first introduce the condition used in the proposition. The condition states that the growth rate of human capital is lower than the growth rate of the lost ability of the worker to bargain for higher earnings. Ultimately, the goal of the proposition is to show that there is a direct tradeoff between human capital growth and job mobility which governs earnings dynamics.

Condition 1.

$$\begin{aligned} & E_t[(g^C(t+1) - g^C(t)) - (g^F(t+1) - g^F(t))] \\ & < \left(\int_{q_{j,t}}^{p_{j,t}} \int_{p_{j,t-1}}^p \phi(x, \theta) dx dF(p) \right) \\ & + \left(\int_{p_{j,t}}^{p_{max}} p - p_{j,t} - \left(\int_{p_{j,t}}^p \phi(x, \theta) dx - \int_{q_{j,t}}^{p_{j,t}} \phi(x, \theta) dx \right) dF(p) \right) \end{aligned}$$

Proposition A.2. *Suppose worker i has an enforceable NCA and worker k does not. Conditional on remaining employed and experiencing identical shocks in period t (i.e., $\varepsilon_{i,t} = \varepsilon_{k,t}$), in steady state, expected earnings growth is faster for k than for i under Condition 1: i.e., $E_t[w_{i,t+1}] - w_{i,t} < E_t[w_{k,t+1}] - w_{k,t}$ whenever Condition 1 holds, and $E_t[w_{i,t+1}] - w_{i,t} > E_t[w_{k,t+1}] - w_{k,t}$ when it does not.*

Proof. The condition is a (reversible) algebraic simplification of the inequality $E_t[w_{i,t+1}] - w_{i,t} < E_t[w_{k,t+1}] - w_{k,t}$. The left hand side may be rewritten as:

$$E_t[\alpha_i + \varepsilon_{i,t+1} + g^C(t+1) + p_{i,t+1} - (1-\beta)(p_{i,t+1} - p_{min})] - [\alpha_i + \varepsilon_{i,t} + g^C(t) + p_{i,t} - (1-\beta)(p_{i,t} - p_{min})]$$

Since $p_{i,t} = p_{i,t+1}$ for i , who has an NCA, this reduces to $E_t[g^C(t+1) - g^C(t) + \varepsilon_{i,t+1} - \varepsilon_{i,t}]$. The right hand side may be rewritten as

$$\begin{aligned} & E_t[\alpha_k + \varepsilon_{k,t+1} + g^F(t+1) + p_{k,t+1} - \int_{q_{k,t+1}}^{p_{k,t+1}} \phi(x, \theta) dx] - [\alpha_k + \varepsilon_{k,t} + g^F(t) + p_{k,t} - \int_{q_{k,t}}^{p_{k,t}} \phi(x, \theta) dx] \\ &= E_t[g^F(t+1) - g^F(t) + \varepsilon_{k,t+1} - \varepsilon_{k,t}] \\ &\quad - \left[\int_{q_{k,t}}^{p_{k,t}} \left(\int_p^{p_{k,t}} \phi(x, \theta) dx - \int_{q_{k,t}}^{p_{k,t}} \phi(x, \theta) dx \right) dF(p) \right] \\ &\quad + \left[\int_{p_{k,t}}^{p_{max}} p - p_{k,t} - \left(\int_{p_{k,t}}^p \phi(x, \theta) dx - \int_{q_{k,t}}^{p_{k,t}} \phi(x, \theta) dx \right) dF(p) \right] \\ &= E_t[g^F(t+1) - g^F(t) + \varepsilon_{k,t+1} - \varepsilon_{k,t}] \\ &\quad + \left(\int_{q_{k,t}}^{p_{k,t}} \int_{q_{k,t}}^p \phi(x, \theta) dx dF(p) \right) \\ &\quad + \left[\int_{p_{k,t}}^{p_{max}} p - p_{k,t} - \left(\int_{p_{k,t}}^p \phi(x, \theta) dx - \int_{q_{k,t}}^{p_{k,t}} \phi(x, \theta) dx \right) dF(p) \right] \end{aligned}$$

We expand the expectation by using the fact that the lowest productivity level a worker will be able to leverage to achieve an increase in earnings is $q_{k,t}$. If the worker contacts a new employer whose productivity is less than $q_{k,t}$, productivity will not change and the worker will not renegotiate the piece rate. If the worker contacts a new employer with productivity between $q_{k,t}$ and $p_{k,t}$, they will remain employed at productivity $p_{k,t}$ but will renegotiate the piece rate. Finally, if the worker contacts a new employer with productivity above $p_{k,t}$, the worker will change jobs, changing both productivity and the piece rate.

Combination of the reduced right and left hand sides yields the condition stated in the proposition. \square

Proposition A.2 simplifies the condition under which workers have larger earnings growth with NCAs versus without. An alternative way of interpreting this proposition is that, when the inequality condition holds, workers without NCAs will see earnings increases relative to workers with NCAs.

Averaging over workers in the population, Propositions A.1 and A.2 immediately generates an indeterminacy with respect to the overall rank ordering of average earnings. When Condition 1 does not hold, average *initial* earnings are greater for workers with enforceable NCAs and earnings growth is faster for workers with enforceable

NCAAs, meaning that average earnings for workers with enforceable NCAs are greater than for those without. However, when Condition 1 holds, greater earnings growth for workers without enforceable NCAs may overtake greater initial earnings for workers with enforceable NCAs, leading to the possibility that average earnings are greater for workers without enforceable NCAs.

Corollary A.3. *Condition 1 is necessary, but not sufficient, for $\bar{w}_t^F > \bar{w}_t^C$.*

A.3.2 Effects on Average Earnings for Constrained and Free Workers

The impact of θ on \bar{w}_t^C is straightforward:

Proposition A.4. $\frac{d\bar{w}_t^C}{d\theta} = 0$

Proof. Using Equation 9:

$$\frac{d\bar{w}_t^C}{d\theta} = \frac{d}{d\theta} [E[\alpha_i + g^C(t) + \varepsilon_{i,t} + p_{i,t} - (p_{i,t} - p_{min})(1 - \beta)]]$$

Since the distribution of $p_{i,t}$, $L^C(p)$, is independent of θ (since it is always equal to $F(p)$), and since $\frac{dE[\alpha_i]}{d\theta} = \frac{dE[\varepsilon_{i,t}]}{d\theta} = \frac{dE[g^C(t)]}{d\theta} = 0$, the proposition is shown. \square

The impact of θ on \bar{w}_t^F is less straightforward. In Bagger et al. (2014), the value function for a given worker is given by $V(r, h_t, p)$, and the value function of an unemployed worker (who does not have a piece rate, r , or a productivity, p) is given by $V_0(h_t)$. It is straightforward to write $V_0(h_t)$ recursively, using the transition probabilities given in Bagger et al. (2014), as:

$$V_0(h_t) = w_u + \frac{\lambda_0}{1 + \rho} \int_{p_{min}}^{p_{max}} E_t[V(r_0, h_{t+1}, x)] dF(x) + \frac{1 - \lambda_0}{1 + \rho} V_0(h_t), \quad (10)$$

where w_u represents the flow value of unemployment.

We index workers such that workers $i \in [0, u]$ are unemployed, and workers $i \in [u, 1]$ are employed. Let average earnings in period t for workers who do not have enforceable NCAs be given by $\bar{w}_t^F = \int_{i=u}^1 w_{i,t} di$, and let \bar{w} represent average earnings in steady state. Then:

Proposition A.5. *In steady state, average earnings are increasing in the arrival rate of offers to employed workers. Formally, $\frac{d\bar{w}}{d\lambda_1} > 0$.*

Proof. Consider the generic value functions for employed and unemployed workers, $V(r, h_t, p)$ and $V_0(h_t)$. Integrating each across workers and summing the two expressions yields

$$\int_0^u V(0, h_{i,t}) di + \int_u^1 V(r_i, h_{i,t}, p_i) di,$$

where variables indexed by i represent worker i 's human capital, piece rate, or the productivity of their matched firm, respectively.

Using the recursive definition of $V(r, h_t, p)$ given by Equation 5 in Bagger et al. (2014), as well as the recursive definition of $V_0(h_t)$ given in Equation 10, and simplifying (making use of the fact that, in steady state, the distribution of h is identical across time periods), this expression may be written as:

$$\frac{1 + \rho}{\rho} \left(\int_{i=0}^u V(0, h_{i,t}) di + \int_{i=u}^1 V(r_i, h_{i,t}, p_i) di \right) = \int_{i=0}^u w_u di + \int_{i=u}^1 w_{i,t} di$$

This expression is intuitive: the sum of the per-period value accrued by workers in the model is given by the sum of payments to unemployed workers and payments to employed workers. Taking derivatives of both sides with respect to λ_1 , and exchanging the order of differentiation and integration (since u is not a function of λ_1 , as shown in Bagger et al. (2014)), we generate the following expression for $\frac{d\bar{w}}{d\lambda_1}$:

$$\frac{d\bar{w}_t}{d\lambda_1} = \int_{i=0}^u \frac{dV(0, h_{i,t})}{d\lambda_1} di + \int_{i=u}^1 \frac{dV(r_i, h_{i,t}, p_i)}{d\lambda_1} di \quad (11)$$

It therefore suffices to show that the right hand side is positive.

The first term may be rewritten to simplify the proof of this fact. First, we substitute for $V(r_0, h_t + 1, x)$ using Equation (3) in Bagger et al. (2014) into Equation 10:

$$V_0(h_t) = w_u + \frac{\lambda_0}{1 + \rho} \int_{p_{min}}^{p_{max}} (1 - \beta)V_0(h_t) + \beta E_t[V(0, h_{t+1}, x)] dF(x) + \frac{1 - \lambda_0}{1 + \rho} V_0(h_t),$$

Next, we solve for $V_0(h_t)$:

$$V_0(h_t) = \frac{1 + \rho}{\rho + \lambda_0 \beta} w_u + \frac{\lambda_0 \beta}{1 + \rho} \int_{p_{min}}^{p_{max}} E_t[V(0, h_{t+1}, x)] dF(x)$$

Therefore, for worker i :

$$\frac{dV(0, h_{i,t})}{d\lambda_1} = \frac{\lambda_0 \beta}{1 + \rho} \int_{p_{min}}^{p_{max}} E_t \left[\frac{dV(0, h_{t+1}, x)}{d\lambda_1} \right] dF(x) \quad (12)$$

Moving to the second term of the right hand side of Equation 11, Equation (2), the unnumbered equation which follows (2), and Equation (3) from Bagger et al. (2014) show that each $V(r_i, h_{i,t}, p_i)$ may be rewritten as either:

$$(1 - \beta)E_t[V(0, h_{t+1}, p')] + \beta E_t[V(0, h_{t+1}, p)]$$

or

$$(1 - \beta)V_0(h_t) + \beta E_t[V(0, h_{t+1}, p)]$$

Therefore, given these expressions and Equation 12, the proposition is proven if $\frac{dV(0, h_t, p)}{d\lambda_1} > 0, \forall h_t, p$.

This fact is straightforward. Consider Equation (5) in Bagger et al. (2014), the recursive definition of $V(r, h_t, p)$. Since $r = 0$ in the case we are considering, an increase in λ_1 simply increases the probability that the worker moves to a higher quality firm to get paid more (the third line of Equation (5)) or stays at their current firm but negotiates better earnings (the fourth line), and decreases the probability that the worker stays at their current firm. Therefore, the result is shown. \square

Since $\frac{d\bar{w}^F}{d\theta} = \frac{d\bar{w}^F}{d\lambda_1} \cdot \frac{d\lambda_1}{d\theta}$, and since $\frac{d\lambda_1}{d\theta} < 0$ by assumption, we immediately get the following results:

Corollary A.6. $\frac{d\bar{w}^F}{d\theta} < 0$ and $\frac{d\left[\frac{d\bar{w}^F}{d\theta}\right]}{d\left[\frac{d\lambda_1}{d\theta}\right]} > 0$

The first result says that earnings for free workers are decreasing in NCA enforceability. The second result says that the relationship between NCA enforceability and earnings for free workers is steeper when NCA enforceability has a greater (negative) impact on the arrival rate of offers.

A.3.3 Overall Effect on Average Earnings

We now return to the overall effect of θ on average earnings, $\frac{d\bar{w}}{d\theta}$. First, we may reduce Equation 8 using Proposition A.4:

$$\frac{d\bar{w}}{d\theta} = \gamma(\bar{w}^C - \bar{w}^F) + (1 - \theta\gamma)\frac{d\bar{w}^F}{d\theta} \quad (13)$$

Due to the indeterminacy in the sign of $\bar{w}^C - \bar{w}^F$, the sign of the overall expression is also indeterminate. If $\bar{w}^C - \bar{w}^F < 0$, then by A.6, $\frac{d\bar{w}}{d\theta} < 0$. If $\bar{w}^C - \bar{w}^F > 0$, then $\frac{d\bar{w}}{d\theta}$ may be positive or negative.

A.4 Empirical Implications of Theoretical Results

Overall, our empirical results are able to address several of the model's implications.

First, our results in Section 4 resolve the indeterminacy of the sign of $\frac{d\bar{w}}{d\theta}$.

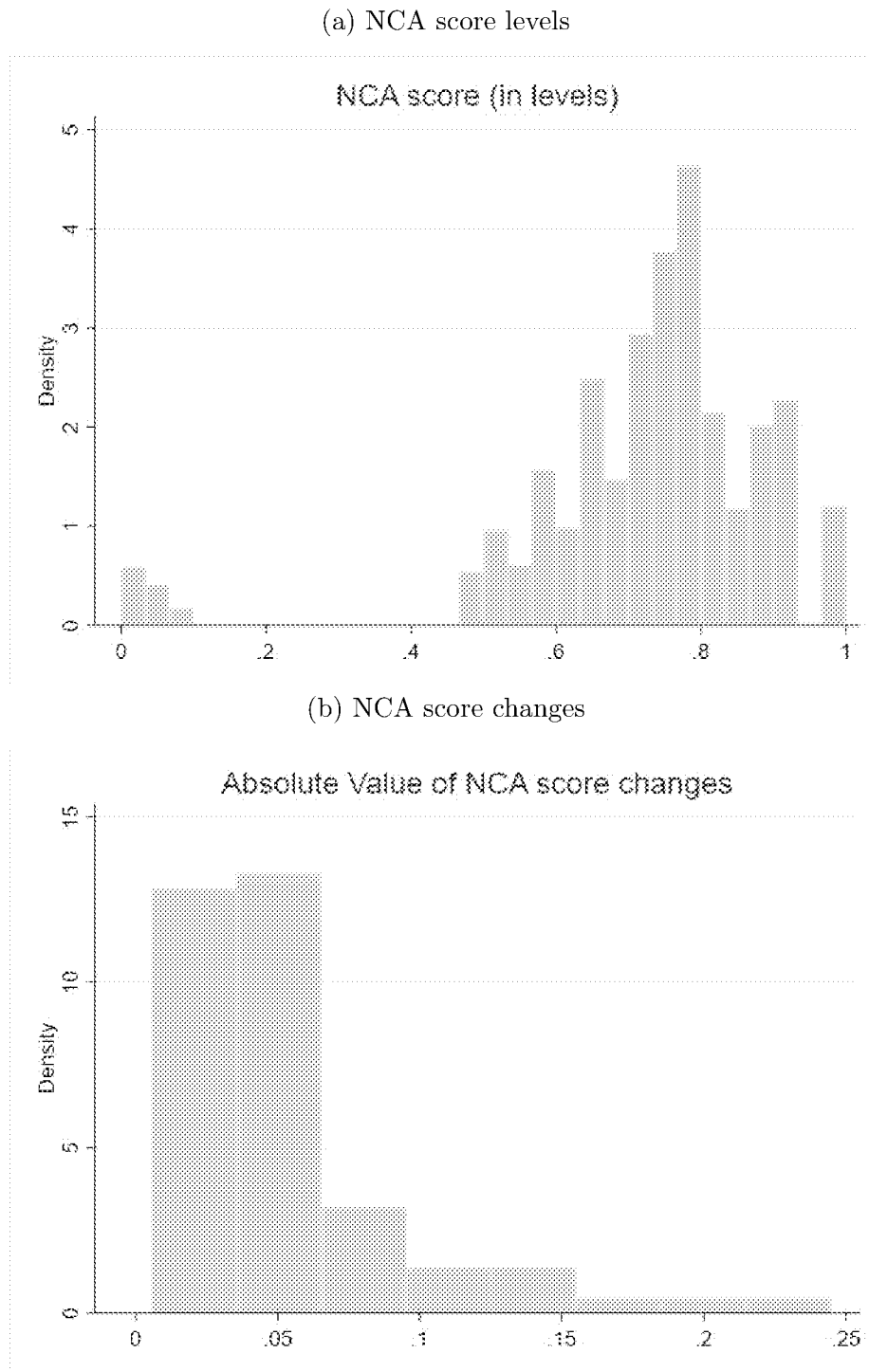
Second, our results in Section 5 test the model's prediction that $\frac{d\bar{w}^F}{d\theta} < 0$ (the first half of Corollary A.6).

Third, in Section 6, we test the second half of Corollary A.6: that stricter NCA enforceability will have a more negative effect on earnings when enforceability has a larger impact on a worker's offer arrival rate. We test this corollary two ways. In Section 6.1, we directly test this prediction by estimating whether the earnings

effect of NCA enforceability are heterogeneous depending on the degree to which workers' offer arrival rates would be affected by NCA enforceability. In Section 6.2, we indirectly test this prediction by estimating whether strict NCA enforceability attenuates the degree to which strong labor market conditions translate into higher earnings over the course of a worker's job spell.

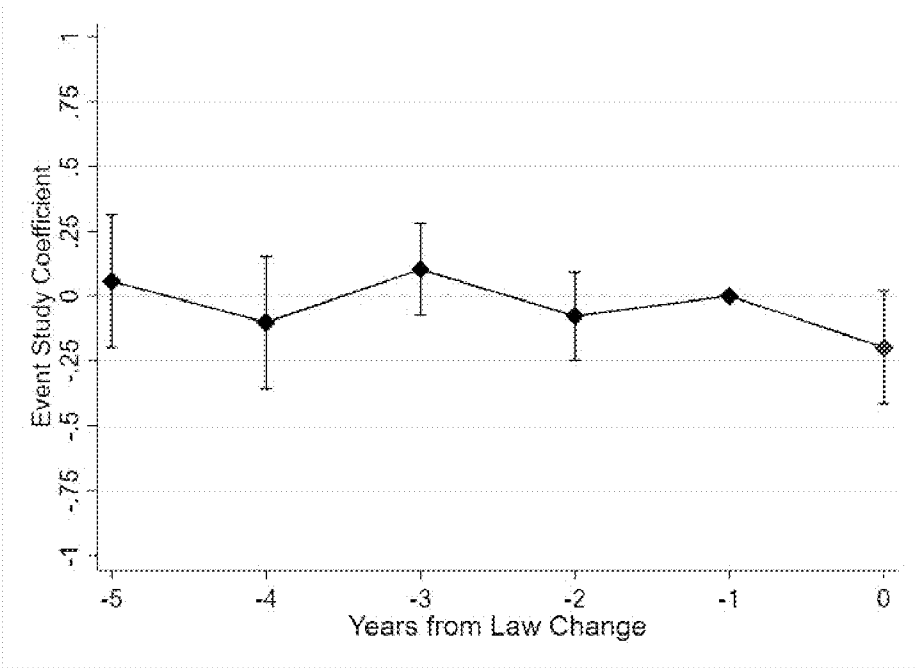
B Appendix Figures & Tables

Figure B.1: The Distribution in NCA Scores Across states, 1991–2014 (in Levels and Changes)



Notes. Panel (a) is a histogram of the NCA enforceability score in levels, at the state-year level over our sample period 1991–2014. Panel (b) is a histogram of the size (in absolute value) of score changes over this same sample period.

Figure B.2: Do NCA Court Filings Increase Prior to Legal Changes?



Notes: This figure presents the pre-period of a stacked difference-in-difference design, where the coefficients (vertical axis) represent the net impact of being in the state which has a future legal change versus states which do not.

Table B.1: The Effect of NCA Enforceability on Earnings:
Robustness to Political & Economic Controls

	Log Earnings		Log Hours	Log Wage	Log Average Earnings
	(1)	(2)	(3)	(4)	(5)
NCA Enforceability Score	-0.095*** (0.031)	-0.087*** (0.023)	-0.025* (0.013)	-0.085*** (0.022)	-0.121*** (0.030)
Observations	1184797	1184797	1506230	1184797	3459572
R^2	0.275	0.357	0.132	0.346	0.941
Geographic FE	State	State	State	State	County
Time FE	Div x Year	Div x Year	Div x Year	Div x Year	Div x Quarter
Occupation FE	N	Y	Y	Y	N
Sample	ASEC	ASEC	ASEC	ASEC	QWI

This table replicates Table 3, but additionally controls for all variables introduced in Table 2 except ideology variables and variables that are themselves directly related to labor market outcomes (unemployment, Medicaid enrollment, and union membership). SEs clustered by state in parentheses. *** $P < .01$, ** $P < .05$, * $P < .1$

Table B.2: The Effect of NCA Enforceability on Earnings, by Component of NCA Score

Q1: State Statute	-0.029	(0.025)
Q2: Protectable Interest	-0.051**	(0.025)
Q3: Plaintiff Burden of Proof	0.033	(0.031)
Q3a: Consideration, Start of Employment	-0.051***	(0.013)
Q3b/c: Consideration, Continued Employment	-0.029**	(0.012)
Q4: Judicial Modification	-0.023	(0.016)
Q8: Enforceable if Employer Terminates	0.001	(0.035)
NCA Score without Question 1	-0.117***	(0.037)
Observations	1216726	

Each of the first seven rows represents a separate regression (corresponding to Column 1 of Table 3) in which the variable $Enforceability_{st}$ in Equation 2 has been replaced with each component of the NCA Enforceability Score separately. The coefficient on the score component is reported, alongside SEs clustered by state in parentheses. The final row uses as an independent variable a modified NCA Enforceability Score that omits the score for Q1 (whether there exists a state statute that governs NCA enforceability) in the calculation, but is otherwise equivalent to the NCA Enforceability Score used in the main analysis.

***P<.01, **P<.05, *P<.1

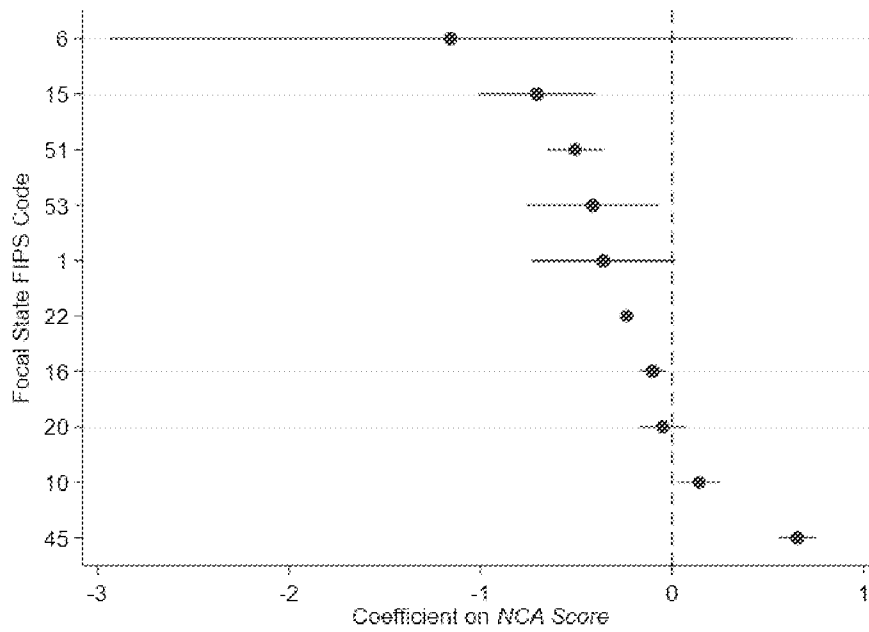
Table B.3: The Effect of NCA Enforceability on Earnings: Heterogeneity by Magnitude, Direction, and Source of Law Changes (Stacked Design)

	(1) Baseline	(2) Extensive	(3) + change	(4) - change	(5) small change	(6) big change
NCA score	-0.246*** (0.070)					
Has NCA change (signed)		-0.018*** (0.005)	-0.018** (0.008)	-0.018** (0.007)	-0.017*** (0.006)	-0.024** (0.010)
Observations	5,698,274	5,698,274	3,971,622	1,726,652	2,854,985	2,843,289
R^2	0.94	0.94	0.94	0.94	0.94	0.95
Mean NCA score change		0.077	0.095	0.045	0.039	0.121

Each column reports the main regression coefficient from the stacked diff-in-diff model in Equation 3, with various modifications described in the table footer.

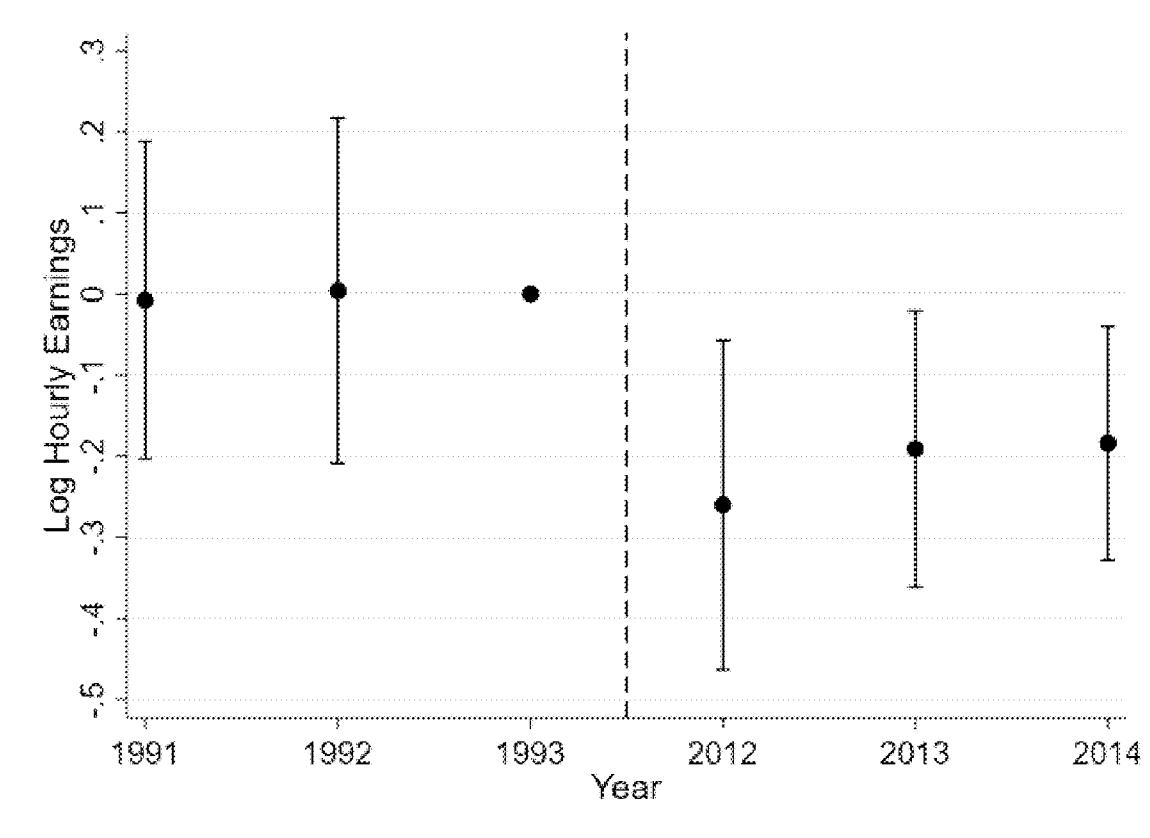
SEs clustered by state in parentheses. *** $P < .01$, ** $P < .05$, * $P < .1$

Figure B.3: Estimated Effect of NCA Enforceability on Earnings, from Separate Stacked Diff-in-diff Models for Each Focal State



Notes: This figure presents the point estimate and 95% confidence interval from separate stacked difference-in-difference models estimated separately for each “focal” treatment state in the estimation sample for the stacked event study model described in Section 4.2.2.

Figure B.4: Long-Panel Event Study



The sample includes the years 1991-1993 and 2012-2014 for each state, dropping “odd year out” observations for each state (for states for which there were enforceability changes in the first three years or in the last three years). The estimating equation includes controls for sex, age, age squared, level of education, race, Hispanic status, and whether or not the respondent lives in a metropolitan area, as well as state and Census division-by-year fixed effects. Coefficient estimates and 95% confidence intervals pictured (normalized to coefficient estimate for 1993).

Table B.4: The Effect of NCA Enforceability on Earnings: Excluding States in which NCA Law Changes Could in Theory be Endogenous

	(1)	(2)	(3)	(4)	(5)
	Log Earnings		Log Hours	Log Wage	Log Average Earnings
Panel A: Drop States with a Legislative NCA Law Change					
NCA Enforceability Score	-0.136** (0.056)	-0.120*** (0.044)	-0.013 (0.027)	-0.122*** (0.042)	-0.109 (0.071)
Observations	1055609	1055609	1346663	1055609	2926080
R^2	0.278	0.362	0.134	0.350	0.942
Panel B: Drop States with Partisan Judicial Elections					
NCA Enforceability Score	-0.135*** (0.043)	-0.121*** (0.033)	-0.041*** (0.013)	-0.122*** (0.033)	-0.156*** (0.039)
Observations	989854	989854	1262128	989854	2696241
R^2	0.272	0.356	0.130	0.345	0.941
Panel C: Drop States with Judicial Elections (Partisan or Non-Partisan)					
NCA Enforceability Score	-0.128 (0.095)	-0.122 (0.078)	-0.038* (0.019)	-0.117 (0.077)	-0.113 (0.090)
Observations	699036	699036	890737	699036	1531774
R^2	0.272	0.359	0.128	0.348	0.942
Geographic FE	State	State	State	State	County
Time FE	Div x Year	Div x Year	Div x Year	Div x Year	Div x Year-Quarter
Occupation FE	N	Y	Y	Y	N
Sample	ASEC	ASEC	ASEC	ASEC	QWI

This table replicates Table 3, but with different sample restrictions in each panel. Panel A drops the 8 states that ever experience a legislative NCA enforceability change. Panel B drops the 6 states in which judges are selected via partisan election. Panel C drops the 21 states in which judges are selected via election (partisan or non-partisan)

SEs clustered by state in parentheses. ***P<.01, **P<.05, *P<.1

Table B.5: The External Effects of NCA Enforceability on Earnings (Weighted by Employment)

	(1)	(2)	(3)
Own State NCA Score	-0.067* (0.035)	-0.067* (0.036)	-0.057 (0.047)
Donor State NCA Score		-0.002 (0.056)	-0.109 (0.067)
Own Cty Emp/CZ Emp \times Own State NCA Score			-0.054 (0.091)
Own Cty Emp/CZ Emp \times Donor State NCA Score			0.263** (0.110)
Observations	613762	613762	613762
R^2	0.944	0.944	0.944

The dependent variable is log earnings. The sample is the QWI from 1991-2014 and includes individuals between ages 19-64. All regressions include controls for male, age group, as well as division by year by quarter and county fixed effects. Own Cty Emp/CZ Emp is the ratio of sex- and age-group-specific employment in own county divided by sex- and age-group-specific employment in the entire commuting zone. Each regression is weighted by cell-specific employment. Standard errors are clustered by own state in Column (1), and two-way clustered by own state and commuting zone in columns (2) and (3). ***P<.01, **P<.05, *P<.1

Table B.6: The External Effects of NCA Enforceability on Earnings on Counties Far from State Borders

	(1)	(2)	(3)	(4)
Own State NCA Score	-0.184*** (0.061)	-0.182*** (0.060)	-0.147*** (0.053)	-0.073 (0.181)
Nearest Neighboring State's NCA Score	-0.152** (0.060)	-0.059 (0.061)	-0.027 (0.059)	0.036 (0.092)
Observations	615191	2015843	1595005	545732
R^2	0.899	0.889	0.887	0.874
Border Sample	Y	N	N	N
Distance to Nearest State Restriction	None	None	50 miles	100 miles

The dependent variable is log earnings. The sample is the QWI from 1991-2014 and includes individuals between ages 19-64. Column 1 uses the sample from Table 7, while Columns 2, 3, and 4 use counties that are neither on state borders nor members of border-straddling commuting zones. Columns 3 and 4 further restrict by the distance from the focal county's centroid to the nearest county centroid in a different state. All regressions include controls for male, age group, as well as division by year by quarter and county fixed effects. Standard errors are clustered by own state. ***P<.01, **P<.05, *P<.1

Table B.7: The External Effects of NCA Enforceability on Mobility: Hires and Separations

	Hires			Separations		
	(1)	(2)	(3)	(4)	(5)	(6)
Own State NCA Score	-0.277** (0.129)	-0.292** (0.141)	-0.221 (0.159)	-0.256* (0.152)	-0.275* (0.162)	-0.189 (0.182)
Donor State NCA Score		-0.099 (0.143)	-0.171 (0.166)		-0.129 (0.145)	-0.198 (0.169)
Own Cty Emp/CZ Emp × Own State NCA Score			-0.429 (0.533)			-0.518 (0.570)
Own Cty Emp/CZ Emp × Donor State NCA Score			0.396** (0.169)			0.396** (0.165)
Observations	603965	603965	603108	604160	604160	603300
R^2	0.951	0.951	0.952	0.950	0.950	0.951
Sample	Border	Border	Border	Border	Border	Border

The sample is the QWI from 1991-2014 and includes individuals between ages 19-64. All regressions include controls for male, age group, as well as division by year by quarter and county fixed effects. Standard errors are clustered by own state in columns (1) and (4), and two-way clustered by own state and commuting zone in columns (2), (3), (5), and (6). ***P<.01, **P<.05, *P<.1

Table B.8: The Effect of NCA Enforceability on Earnings as Potentially Contaminated Control Groups Are Removed

	(1)	(2)	(3)	(4)
Own State NCA Score	-0.137*** (0.034)	-0.159*** (0.033)	-0.293*** (0.073)	-0.603*** (0.194)
Observations	3548827	1860301	1078739	602968
R^2	0.941	0.941	0.941	0.941
Sample Restriction	No restriction	Distance > 50 miles	Distance > 75 miles	Distance > 100 miles

The sample is the QWI from 1991-2014 and includes individuals between ages 19-64. All regressions include controls for male, age group, as well as division by year by quarter and county fixed effects, and are identical to Column 5 of Table 3 with different samples. Columns (2), (3), and (4) include only counties whose centroids are at least the specified distance away from the nearest county centroid in a different state. Standard errors are clustered by state. ***P<.01, **P<.05, *P<.1

Table B.9: Heterogeneous Earnings Effects Based on the “Bite” of NCA Enforceability on Workers’ Outside Options

Dependent variable: Sample:	(1) Log (Average Quarterly Earnings) QWI	(2) Quarterly Earnings	(3) Log (Weekly Earnings) CPS	(4)
NCA Enforceability Score	-0.091** (0.027)	-0.109** (0.030)	-0.088* (0.043)	-0.065 (0.042)
NCA Enforceability Score × Industry’s State leave share [US]	0.050+ (0.025)	0.043+ (0.021)		
NCA Enforceability Score × Occupation’s occupational leave share			0.011** (0.003)	0.011** (0.003)
High NCA Use Industry=1 × NCA Enforceability Score		0.049 (0.046)		
High NCA Use Occ=1 × NCA Enforceability Score				-0.044** (0.016)
Observations	1075767	1075767	739219	739219

Each column contains coefficients from a pooled regression across industries or occupations, comparable to Equation 2. Columns (1) - (2) interact NCA Enforceability with the industry’s state leave share (defined as the share of job-to-job changes in that industry from 2001–2006 in which the worker moved across state lines) using J2J data. Columns (3) and (4) use occupational leave share (defined as the share of job changes in an occupation in which the worker moved to a different occupation), calculated using data from Schubert et al. (2021)).
 **P<.01, *P<.05, +P<.1

Table B.10: Heterogeneous Effects of NCA Enforceability on Earnings by Race and Sex

	(1)	(2)	(3)	(4)
NCA Score	-0.131*** (0.049)			
Female & White	-0.469*** (0.011)	-0.418*** (0.025)	-0.424*** (0.025)	-0.417*** (0.025)
Female & Black	-0.572*** (0.011)	-0.521*** (0.025)	-0.528*** (0.024)	-0.515*** (0.029)
Male & Black	-0.339*** (0.008)	-0.281*** (0.016)	-0.283*** (0.017)	-0.272*** (0.015)
Female & Not Black or White	-0.502*** (0.019)	-0.427*** (0.015)	-0.441*** (0.013)	-0.439*** (0.015)
Male & Not Black or White	-0.146*** (0.010)	-0.133*** (0.016)	-0.144*** (0.015)	-0.142*** (0.014)
White Male × NCA Score		-0.087* (0.050)	-0.029 (0.056)	-0.067 (0.050)
Female & White × NCA Score		-0.161*** (0.058)	-0.094* (0.056)	-0.135** (0.055)
Female & Black × NCA Score		-0.160*** (0.054)	-0.092* (0.052)	-0.148*** (0.053)
Male & Black × NCA Score		-0.170*** (0.052)	-0.109* (0.059)	-0.129** (0.051)
Female & Not Black or White × NCA Score		-0.214*** (0.047)	-0.136*** (0.048)	-0.194*** (0.045)
Male & Not Black or White × NCA Score		-0.102** (0.048)	-0.027 (0.048)	-0.080* (0.045)
College Educated Worker × NCA Score			-0.110*** (0.025)	
High NCA Use Occ × NCA Score				-0.037*** (0.012)
Observations	1537454	1537454	1537454	1537454
R^2	0.275	0.275	0.276	0.289

The dependent variable is log weekly earnings. The sample in all columns is the CPS ASEC from 1991-2014 and includes individuals between ages 18-64 who reported working for wage and salary income at a private employer the prior year. All regressions include fixed effects for state, fixed effects for Census division by year, fixed effects for broad occupational class, and individual controls for male, white, Hispanic, age, age squared, whether the individual completed college, and indicators for the metropolitan city center status of where the individual lives. In Column (4), High NCA Use Occupations are occupations with NCA use greater than the national average, as tabulated by Starr et al. (2021). A separate indicator for High NCA Use Occupation is included in those regressions. SEs clustered by state in parentheses. ***P<.01, **P<.05, *P<.1

C Appendix: Creating our Database of Noncompete Laws

C.1 Law Database Construction Procedures and Principles

The state-year level NCA database that we constructed for this paper was guided by the method developed in Bishara (2010) for quantifying the enforceability of state NCA laws on seven dimensions. These seven dimensions are themselves defined by the organization system used in a series of legal reference books by Brian Malsberger titled “Covenants Not to Compete: A State-by-State Survey.” There are currently fourteen editions of this reference book, published respectively in 1991 (1st), 1996 (2nd), 2002 (3rd), 2004 (4th), 2006 (5th), 2008 (6th), 2010 (7th), 2012 (8th), 2013 (9th), 2015 (10th), 2017 (11th), 2018 (12th), 2021 (13th), 2022 Edition (Ebook). There are additionally several supplemental editions of the Malsberger text that update new information between these editions. The supplements include: 1999 Cumulative Supplement, 2003 Supplement, 2005 Supplement, 2009 Supplement, and 2016 Supplement.

The Malsberger series is organized around 12 guiding legal questions, in addition to 11 sub-components of these questions. For each of these 23 components in each state, the series describes the current state of the law, including detailed descriptions of relevant case decisions or statutes, and discussion of how the law has changed, including which cases were precedential. In constructing a method to quantify the enforceability of NCAs, Bishara (2010) chose seven of these questions and sub-components to be used in an enforceability index. Bishara’s quantification method also includes his expert opinion on weights that should be used for each of these seven elements to construct a weighted index that reflects the relative legal importance of the components. The rationales behind the choices of these weights is discussed in Bishara (2010). The weighted index is designed to measure cardinal differences in laws, as opposed to an ordinal ranking of states.

Table C.1 shows the seven components and weights used to construct the enforceability index, along with a few benchmark enforceability scores for each legal component.

Bishara (2010) uses these questions, along with the Malsberger series, to develop two cross-sectional measures of the enforceability index, for every state in 1991 and 2009. Accompanying the paper, Professor Bishara also shared with us a document that contains his internal notes that helped guide the decision-making process behind the assignment of the scores. These internal notes provide important context for decisions about scores that do not perfectly align with the approximate benchmarks shown in Table C.1.

In the construction of our panel measures of NCA enforceability, our guiding principle was to treat the expert opinion expressed in Bishara (2010), and the ac-

Table C.1: Bishara (2011) Rating of the Restrictiveness of Non-Compete Agreements

Question #	Question	Criteria	Question Weight
Q1	Is there a state statute that governs the enforceability of covenants not to compete?	10 = Yes, favors strong enforcement 5 = Yes or no, in either case neutral on enforcement 0 = Yes, statute that disfavors enforcement	10
Q2	What is an employer's protectable interest and how is that defined?	10 = Broadly defined protectable interest 5 = Balanced approach to protectable interest 0 = Strictly defined, limiting the protectable interest of the employer	10
Q3	What must the plaintiff be able to show to prove the existence of an enforceable covenant not to compete?	10 = Weak burden of proof on plaintiff (employer) 5 = Balanced burden of proof on plaintiff 0 = Strong burden of proof on plaintiff	5
Q3a	Does the signing of a covenant not to compete at the inception of the employment relationship provide sufficient consideration to support the covenant?	10 = Yes, start of employment always sufficient to support any CNC 5 = Sometimes sufficient to support CNC 0 = Never sufficient as consideration to support CNC	5
Q3b/c	Will a change in the terms and conditions of employment provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun? Will continued employment provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun?	10 = Continued employment always sufficient to support any CNC 5 = Only change in terms sufficient to support CNC 0 = Neither continued employment nor change in terms sufficient to support CNC	5
Q4	If the restrictions in the covenant not to compete are unenforceable because they are overbroad, are the courts permitted to modify the covenant to make the restrictions more narrow and to make the covenant enforceable? If so, under what circumstances will the courts allow reduction and what form of reduction will the courts permit?	10 = Judicial modification allowed, broad circumstances and restrictions to maximum enforcement allowed 5 = Blue pencil allowed, balanced circumstances and restrictions to middle ground of allowed enforcement 0 = Blue pencil or modification not allowed	10
Q8	If the employer terminates the employment relationship, is the covenant enforceable?	10 = Enforceable if employer terminates 5 = Enforceable in some circumstances 0 = Not enforceable if employer terminates	10

Source: Bishara (2010). Notes: The questions in the table correspond to the NCA law components used in the IV estimates throughout the paper. In the paper and tables, we refer to Q1 as the 'Statutory Index', to Q2 as the 'Protectable Interest Index', to Q3 as the 'Burden of Proof Index', to Q3a as 'Consideration Index Inception', to Q3b and Q3c together as 'Consideration Index Post-Inception', to Q4 as 'Blue Pencil Index', and to Q8 as 'Employer Termination Index'. In the raw data, the laws are scaled in each state-year from 0 to 10, as indicated by this table. In the estimations, each component is rescaled to range from 0 to 1, where 0 is the least restrictive observation in the data and 1 is the most.

companying replication materials, as truth, and to find the timing of law changes between 1991 and 2009 that align with the cross-sectional measures and reflect as closely as possible the decision-making process used by Bishara in the construction of the cross-sectional measures.

Operationally, we implemented this database construction process by hiring two third-year law student research assistants (one at Ohio State University and one at Duke University) to make the decisions about the timing and magnitude of law changes. The research assistants were first trained by reading Bishara (2010), reading the relevant components of Malsberger (1991), and going through the notes from Prof. Bishara to understand how different scores were assigned in 1991. The law students then attempted to blindly match Bishara's scores in 2009 for each of the seven law components for all states. They were told which of the components were scored correctly and iterated the calibration process until there was a match with the Bishara 2009 index. The students then went through all of the editions of Malsberger between 1991 and 2009 and coded the timing of changes in enforceability for each of the components in each year. The same RAs then extended the index forward beyond 2009 using subsequent editions of Malsberger. The RAs did not interact directly with each other and were hired in series such that independent revisions and refinements to the database were made over time.

After these two law students completed the raw state-question-year enforceability scores, we hired a third law student at Duke to go over the index completely and construct an accompanying file that includes citations to each case or statute that generated each of the law changes in the database, citations to the locations in the Malsberger series that describe each change, and write brief overviews of the legal substance of each change.

Using the raw component scores, we constructed a weighted average NCA enforceability index using the same quantification system developed in Bishara (2010). In this system, the index score is calculated by taking the weighted total score in each state-year. This quantification system sometimes yields missing values for particular components of the NCA enforceability index in certain state-years. Missing values exist when a state has never had a court case or written a legislative statute that codified a particular dimension of NCA law. In constructing the weighted average enforceability index, Bishara (2010) adjusts for missing components by calculating the weighted sum of non-missing components and scaling the total upwards by the maximum possible score (550) divided by the maximum achievable score given the missing values in a state-year. Since our primary guiding principle is to follow the approach developed in Bishara (2010), we do the same.

One nominal (but important) way that we deviate from Bishara is that we normalize the scale of the index by dividing all scores by the maximum observed score in any state-year. This results in an index that ranges from 0 to 1 and has an interpretation as the range of the observed policy space.

C.2 Sensitivity of Results to Treatment of Missing Values

A natural concern is whether our estimated earnings effects of NCA enforceability hinge on the treatment of missing values in the Bishara NCA enforceability index. Here we discuss the sensitivity of our approach to decisions about the treatment of missing values.

Of the 8,568 component-state-year law measures in our sample period (51 states*24 years*7 components), 900 (10.5%) are missing. Given that our empirical models use within-state variation, the NCA components that are always missing in a state do not meaningfully contribute to our identifying variation. Of the 900 missing values, 744 (83%) fall into this category of being always missing for all years in the corresponding states. The remaining 156 missing values (1.8%) change from being missing to non-missing over time, which typically means that a new case was decided in which a judge opined on the issue the index is measuring.

We also consider alternative ways one might treat missing values. One alternative approach is to replace missing values with their future non-missing values. This approach might be reasonable if judicial decisions that go from missing to non-missing reflect cases in which a judge's decision reflected reasoning that was implicitly known by legal experts but not yet codified in the law. Redefining the index in this way causes switches to/from missing to become static values, so they no longer contribute to identification. We reconstruct the NCA index using this different assumption and rerun the main results, which are presented in Table C.2.

Table C.2: Robustness to Changes in Assumption about Missing NCA Index Components

	Log Earnings		Log Hours	Log Wage	Log Average Earnings
	(1)	(2)	(3)	(4)	(5)
Baseline Estimates	-0.118*** (0.036)	-0.107*** (0.028)	-0.021 (0.017)	-0.106*** (0.027)	-0.137*** (0.034)
Alternative NCA Enforceability Score	-0.108*** (0.037)	-0.095*** (0.029)	-0.023 (0.018)	-0.095*** (0.028)	-0.135*** (0.034)
Observations	1216726	1216726	1545874	1216726	3548827
R^2	0.275	0.357	0.132	0.346	0.941
Geographic FE	State	State	State	State	County
Time FE	Div x Year	Div x Year	Div x Year	Div x Year	Div x Quarter
Occupation FE	N	Y	Y	Y	N
Sample	ASEC	ASEC	ASEC	ASEC	QWI

The point estimates are slightly attenuated under this alternative assumption, but the qualitative patterns (and 95% confidence intervals) all overlap with our baseline estimates.

C.3 Sensitivity of Results to Weights Used in Enforceability Index

The weights used to construct the enforceability index were chosen by Professor Bishara to reflect the legal importance of each dimension in determining whether an NCA was enforceable. Bishara notes that “Because this data includes an element of assigning weights to influence the ranking based on the importance of the question to the dependent variable of strength of enforcement, the data can easily be utilized to highlight other outcomes by adjusting the emphasis and rationale for the weight factors” (Bishara, 2010).

We assess the sensitivity of our main results from Table 3 to choices of alternative weights. To do this, we sequentially increased or decreased the weight of each NCA law component by 50%, recalculated the weighted average index, and used the reweighted index to rerun the main earnings, hours, and wage models. As shown below in Table C.3, the main estimates are not very sensitive to these changes in weights. In both the log earnings and log wage models the largest deviation of any coefficient is 11% of the baseline estimate. In all cases, the estimates remain statistically significant.

A second approach we take to gauge the sensitivity of our estimate to the choice of weights is to use the weights from Starr (2019), which uses a confirmatory factor analysis model to infer the weights that optimize model fit. We reconstruct the weighted average NCA index using Starr (2019) statistical weights and again find estimates that are quite similar to our baseline results, as shown in Table C.4.

Table C.3: Robustness to Changes in NCA Index Weights

	Log Earnings		Log Hours	Log Wage
	(1)	(2)	(3)	(4)
Baseline Estimates	-0.118*** (0.036)	-0.107*** (0.028)	-0.021 (0.017)	-0.106*** (0.027)
Increase Q1 Weight 50%	-0.115*** (0.036)	-0.105*** (0.028)	-0.023 (0.018)	-0.103*** (0.028)
Increase Q2 Weight 50%	-0.117*** (0.035)	-0.105*** (0.027)	-0.019 (0.017)	-0.103*** (0.027)
Increase Q3 Weight 50%	-0.116*** (0.038)	-0.106*** (0.029)	-0.021 (0.018)	-0.105*** (0.029)
Increase Q3a Weight 50%	-0.125*** (0.036)	-0.113*** (0.028)	-0.021 (0.018)	-0.112*** (0.027)
Increase Q3bc Weight 50%	-0.118*** (0.035)	-0.106*** (0.027)	-0.018 (0.018)	-0.106*** (0.027)
Increase Q4 Weight 50%	-0.105*** (0.035)	-0.094*** (0.026)	-0.018 (0.014)	-0.094*** (0.026)
Increase Q8 Weight 50%	-0.116*** (0.037)	-0.110*** (0.027)	-0.023 (0.017)	-0.108*** (0.027)
Decrease Q1 Weight 50%	-0.119*** (0.036)	-0.107*** (0.028)	-0.018 (0.017)	-0.108*** (0.027)
Decrease Q2 Weight 50%	-0.111*** (0.036)	-0.104*** (0.027)	-0.022 (0.017)	-0.104*** (0.027)
Decrease Q3 Weight 50%	-0.117*** (0.035)	-0.106*** (0.026)	-0.020 (0.016)	-0.104*** (0.026)
Decrease Q3a Weight 50%	-0.108*** (0.035)	-0.099*** (0.027)	-0.020 (0.017)	-0.098*** (0.027)
Decrease Q3bc Weight 50%	-0.110*** (0.036)	-0.102*** (0.027)	-0.023 (0.016)	-0.100*** (0.027)
Decrease Q4 Weight 50%	-0.124*** (0.038)	-0.114*** (0.030)	-0.022 (0.020)	-0.112*** (0.031)
Decrease Q8 Weight 50%	-0.117*** (0.036)	-0.101*** (0.028)	-0.018 (0.017)	-0.101*** (0.028)
Observations	1216726	1216726	1545874	1216726

Table C.4: Robustness to Changes in NCA Index Weights

	Log Earnings		Log Hours	Log Wage
	(1)	(2)	(3)	(4)
Baseline Estimates	-0.118*** (0.036)	-0.107*** (0.028)	-0.021 (0.017)	-0.106*** (0.027)
NCA Index using Weights from Starr (2019)	-0.130*** (0.038)	-0.116*** (0.032)	-0.015 (0.021)	-0.115*** (0.032)
Observations	1216726	1216726	1545874	1216726

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INNOVATION AND THE ENFORCEABILITY OF NONCOMPETE AGREEMENTS

Matthew S. Johnson
Michael Lipsitz
Alison Pei

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Innovation and the Enforceability of Noncompete Agreements
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ABSTRACT

Worker mobility across firms can enhance innovation by spreading knowledge, but such mobility may also hinder innovation by making firms reluctant to invest in R&D. A common way that firms limit workers' mobility is with noncompete agreements (NCAs). We examine how the legal enforceability of NCAs affects innovation, as measured by patenting, using data on every state-level NCA enforceability change between 1991–2014. We find that making NCAs easier to enforce (“stricter” enforceability) substantially reduces the rate of patenting: an average-sized increase in NCA enforceability leads a state to have 16-19% fewer citation-weighted patents over the following 10 years. This effect reflects a true loss in innovation rather than a reduction in useless or strategic patents. We then reconcile these findings with contrasting theoretical predictions. Stricter NCA enforceability reduces job mobility and new business formation in innovative industries, suggesting slower knowledge spread. Within publicly-traded firms, stricter NCA enforceability increases investment, but still leads to less innovation, suggesting that any gains from enhanced incentives to invest are more than offset by other ways that NCAs slow down innovation. Finally, using variation in technology classes’ exposure to NCA enforceability changes, we show that the economy-wide losses to innovation from strict enforceability are even larger than what our state-level estimates imply.

Matthew S. Johnson
Sanford School of Public Policy
Duke University
Box #90312
Durham, NC 27708
and NBER
matthew.johnson@duke.edu

Alison Pei
Duke University
xinyue.pei@duke.edu

Michael Lipsitz
Federal Trade Commission
mlipsitz@ftc.gov

1 Introduction

Innovation is essential for sustained economic growth (Jones, 2002). An open question is how the fluidity of the labor market affects the pace of innovation. The movement of skilled workers between firms facilitate interactions between inventors and knowledge spread, both of which are key to the development of ideas that lead to innovation (Akcigit et al., 2018). However, such movements can be costly to firms because they allow valuable ideas to spread to competitors; frequent inventor mobility could thus discourage firms from investing in R&D, potentially translating into lower rates of innovation.

A common way that employers prevent the movements of inventors and other innovative workers is with noncompete agreements (NCAs): contractual restrictions that prohibit workers from joining or starting a competing firm.¹ How the legal *enforceability* of NCAs—the key policy lever governing their use—affects innovation has been the subject of contentious debate. NCAs by construction limit job mobility—and thereby limit associated inventor interactions and knowledge spread—potentially hampering innovation: Gilson (1999) hypothesized that Silicon Valley overtook Massachusetts’ Route 128 as a major technological hub due to NCAs being unenforceable in California. On the other hand, others argue that enforceable NCAs *facilitate* innovation (Barnett and Sichelman, 2020) by solving an investment hold-up problem that discourages firms from investing in R&D and workers’ human capital (Rubin and Shedd, 1981; Grossman and Hart, 1986). While a large literature has examined aspects of this relationship, to date there is no definitive evidence that resolves this debate.

This paper provides comprehensive evidence that more stringent legal enforceability of NCAs reduces innovation, as measured by multiple measures of the quantity and quality of patenting. We: 1) use a dataset that measures NCA enforceability according to legal scholars and contains the universe of relevant legal changes; 2) distinguish between NCA

¹As examples of their prevalence in innovative workplaces, 35% of surveyed workers in “Computer, Mathematical” occupations had signed NCAs in 2014 (Starr et al., 2020), and 54.2% of surveyed firms in “Information” industries used NCAs for at least some workers in 2019 (Colvin and Shierholz, 2019).

enforceability’s effect on truly innovative versus purely strategic patents; 3) provide evidence to reconcile the contrasting theoretical predictions of how NCA enforceability affects the innovative process; and 4) estimate the effect of enforceability on *economy-wide* innovation using a method that accounts for potential cross-state spillover effects.

The paper proceeds in three parts. First, we estimate how changes in NCA enforceability affect state-level patenting. We use a new dataset from Johnson et al. (2021) that quantifies the multiple dimensions of NCA enforceability for all 50 states and the District of Columbia for each year from 1991 to 2014. The dataset draws from the work of leading legal scholars to quantify a summary measure of states’ enforceability of NCAs. Changes to NCA enforceability over this period were evenly spread out across geographic regions and typically arose from precedent-setting judicial decisions. We combine this enforceability dataset with rich data on patenting from the US Patent and Trademark Office (PTO) and other sources that enables us to track rates of patenting, and the quality thereof, across states, technology classes, inventors, and firms over time.

Our primary measure of innovation is the number of (eventually granted) patent applications in a given year, weighted by the number of forward citations each patent receives. To avoid the bias that can arise from estimating the effect of a treatment that not only changes across states in a staggered fashion (Goodman-Bacon, 2021), but also is continuous and can increase or decrease in value, we conduct a stacked event study design around a state’s first law change (Cengiz et al., 2019; De Chaisemartin and D’Haultfoeuille, 2022a).

We find that when a state makes NCAs easier for firms to enforce (that is, when enforceability becomes “stricter”), that state experiences a statistically and economically significant decrease in patenting. The average enforceability increase during our sample period led to a 16-19% reduction in the number of (citation-weighted) patents granted in a state. Event study estimates reveal that this effect grows over time and is persistent for at least 10 years. An average-sized NCA enforceability increase reduces patenting by roughly as much as: a 10 percent increase in the tax price of R&D (Bloom et al., 2019), moving a computer scientist

from a technology cluster at the 75th percentile size to one at the median size (Moretti, 2021), and a one standard deviation increase in exposure to Chinese import penetration (Autor et al., 2020).

We must be careful to interpret a change in patenting as a change in innovation. First, patents noisily measure true innovation: they vary enormously in their value and importance (Schankerman and Pakes, 1986; Trajtenberg, 1990). If changes to NCA enforceability only affect low-value patents, it would be difficult to conclude that NCA enforceability matters for underlying innovation. While our baseline measure—forward citation-weighted patent counts—accounts for this issue to some extent (Hall et al., 2005), we consider additional measures of quality including whether a patent’s forward-citation count is in the top 1%, 5%, or 10% of its technology class, and whether it is a “breakthrough” patent based on textual similarity to previous and subsequent work (Kelly et al., 2021). Based on each of these measures, higher enforceability reduces high-quality patents by just as much as—if not more than—lower-quality patents.

A second reason changes in state-level patenting might not reflect changes in state-level innovation is that firms’ decisions to patent a new idea is also a strategic choice. Because NCAs reduce the risk that a firm’s ideas leak to its competitors, stricter NCA enforceability might make firms feel less compelled to patent new ideas without affecting the number of ideas they discover. To assess whether this strategic margin is behind our results, we focus on pharmaceutical and medical device industries, where the risk of reverse engineering leads firms to patent almost all new ideas (Cohen et al., 2000). Stricter NCA enforceability reduces patenting for these sectors by essentially the same as the overall reduction we estimate, suggesting a slowed pace of innovation above and beyond firms’ strategic patenting choices.

How do our results square with the contrasting arguments that have characterized the debates regarding the relationship between NCA enforceability and innovation? In the second part of the paper, we revisit these arguments. We start with Gilson (1999)’s hypothesis (applied to California’s Silicon Valley) that strict NCA enforceability slows innovation by sti-

fling interfirm knowledge transfer and start-up vitality.² Consistent with Gilson’s argument, we find that innovative industries experience less job mobility, lower new business formation, and an especially large drop in patenting among start-ups when states make NCAs more easily enforceable. To the extent that worker mobility across firms spreads tacit technological knowledge (Saxenian, 1994) and increases inventor interaction (Akcigit et al., 2018), and startups function as “engines of innovation” (Chatterji et al., 2014), these effects could partially explain why stricter NCA enforceability lowers overall innovation.

What about the counterargument that NCAs solve holdup problems (e.g., Grossman and Hart (1986)), raising firms’ willingness to invest in R&D, training, and other inputs into innovation? Is this effect non-existent, or just dominated by countervailing forces? To investigate, we examine investment and innovative activity in publicly-traded firms using Compustat and the Duke Innovation & Scientific Enterprises Research Network (DISCERN) database (Arora et al., 2021). Consistent with the holdup story, we find that stricter NCA enforceability leads firms to increase intangible investment but leaves physical investment unchanged.³ However, stricter NCA enforceability still leads to a large decline in (overall, citation-weighted, and value-weighted) patenting within firms. That is, any potential gain from enhanced investment is more than offset by the countervailing effects of reduced knowledge transfer and inventor interaction.

In the third and final part of the paper, we consider how NCA enforceability affects the *economy-wide* effects of innovation. Our state-level estimates may misrepresent this economy-wide effect if NCA enforceability changes in one state have spillover effects across state lines. On the one hand, these spillover effects might be positive if NCA enforceability increases in one state simply reallocate innovative activity to other states. Anecdotes abound of technology workers leaving Route 128 in Massachusetts (a state that broadly enforces

²Lobel (2013) argues that another way enforcing NCAs can dampen innovation is by reducing *worker* incentives to invest in discovering new ideas.

³Jeffers (2023) also investigates this relationship using a slightly different empirical strategy. Unlike us, Jeffers (2023) finds that strict enforceability increases physical investment with no effect on intangible investment. Our findings mirror Shi (2023), who considers the effect of NCA *use* on investment.

NCAAs) to found new firms in California’s Silicon Valley (where NCAs are unenforceable) (Saxenian, 1994). If ideas that would have been discovered in the Route 128 corridor instead were eventually discovered in Silicon Valley, then NCA enforceability in one state might not matter for *overall* innovation. On the other hand, these spillover effects might be negative, either because multi-state firms reallocate resources to high-enforcing states or because the discovery of ideas is a cumulative process that crosses state lines.

We introduce a novel approach to examine the overall effects of enforceability on innovation that accounts for such spillovers. We change the unit of observation from *state* to *technology class* (3-digit CPC code). Intuitively, we make use of variation in the baseline dispersion of CPCs’ patenting rates across states. CPCs with initial concentration in patenting in states that subsequently experience NCA enforceability increases had higher “exposure” to strict enforceability than CPCs with initial concentration in states without changes (or that went on to decrease enforceability). If state-level NCA enforceability changes simply reallocate innovation across state lines, then such CPC-level exposure should have zero effect on CPCs’ overall patenting.

This is not what we find: CPCs more exposed to NCA enforceability increases had significantly lower rates of patenting than CPCs less exposed. Our estimates imply that if all states experienced an average-sized NCA enforceability increase, the average CPC’s citation-weighted patenting would decrease by 23%. Compare this to our state-level estimates, which implied that the same-sized enforceability increase in a single state would lead a typical CPC’s in-state patenting to decrease by 18.7%. That is, the state-level analysis slightly *under-estimates* the effect of enforceability on overall innovation, due to negative spillovers within technology classes across state lines.

This paper contributes to a wide literature that has considered various aspects of the relationship between NCA enforceability and innovative activity. Several studies have examined the effects of NCA enforceability on firm investment, entrepreneurship, and inventor migration—what might be considered inputs in the innovation process. Jeffers (2023) finds

that stricter NCA enforceability leads to higher investment in publicly-traded firms, but also leads to a decrease in new firm entry. Starr et al. (2018), Baslandze (2022), and Marx (2021) also find lower rates of employee spinoffs and entrepreneurship in states that enforce NCAs. Specific to inventor mobility, Marx et al. (2015) finds that inventor outmigration increased when Michigan made NCAs more enforceable, and Mueller (2022) finds that strict NCA enforceability makes inventors more likely to switch industries. One paper contemporaneous to ours, He (2021), analyzes the impact of several changes in NCA enforceability on rates of patenting and the value of patents, finding that stricter enforceability decreases those outcomes.⁴

Other studies have considered the role of firms' strategic decisions in this relationship between enforceability and innovation. Conti (2014), using two NCA law changes (in Texas and Florida), estimates that increased NCA enforceability leads firms to undertake riskier R&D projects. Using a broad set of NCA law changes, Xiao (2022) finds somewhat contrary results that stricter enforceability promotes "exploitative" invention (that builds on prior knowledge) but stifles "exploratory" invention (that departs from existing knowledge) in the medical devices industry. Kang and Lee (2022) find that a decrease in NCA enforceability in California led firms to make a strategic substitution between patents and secrecy. One challenge to comparing the findings from these papers is they all use differing subsets of NCA law changes and different subsets of industries.

Our paper contributes to these literatures by providing a comprehensive analysis of how NCA enforceability affects innovation. We use an exhaustive and carefully-measured database of NCA enforceability, use multiple methods to distinguish between "true" innovation and strategic patenting, and show that state-level NCA law changes do not simply reallocate innovative activity across state lines. As such, our paper addresses the several

⁴Other papers provide indirect evidence on the relationship between NCAs and innovation: Samila and Sorenson (2011) show that an expansion in the supply of venture capital financing leads to a larger increase in patenting in states that (in the cross section) have lower NCA enforceability, and Belenzon and Schankerman (2013) find that knowledge spillovers from university patents have wider geographic scope in states that have lower NCA enforceability.

issues that Barnett and Sichelman (2020) highlight have made it challenging to derive substantive conclusions from extant literature on this subject. Additionally, our test for the reallocation effect of NCA enforceability across state lines provides an interesting parallel to an adjacent literature on how migration decisions mediate the effects of taxes on innovation.⁵ This approach also offers a methodological contribution: a similar approach could be used to examine the extent to which state-level taxation and other policies geographically reallocate economic activity.⁶

We also contribute to prior work that has more generally considered the relationship between the dynamism of the labor market and innovation. Akcigit et al. (2018) show theoretically and empirically that inventor interactions—which are facilitated (among other ways) through job mobility across firms—are crucial for the discovery of new ideas. Dasaratha (2023) shows theoretically that firms over-invest in “secrecy” (discouraging worker mobility to protect investment) at the expense of “openness” (encouraging mobility to learn about ideas), which results in inefficiently low innovation in equilibrium. Our findings corroborate this theoretical result: making NCAs more difficult to enforce—which is akin to ensuring firms increase “openness”—increases overall innovation, even though it leads to a decrease in firms’ investment.

2 Data and Empirical Methods

2.1 Main Datasets

To conduct our empirical analysis, we link panel data on state-level NCA enforceability with several patent, job mobility and business dynamics datasets. We briefly discuss these

⁵For example, Akcigit et al. (2022) find that the state-level reductions in patenting due to corporate tax rates are predominately due to the (zero sum) relocation of firms to lower-tax states, whereas personal income tax rates induce an actual innovation output response.

⁶Bryan and Williams (2021) discuss how the relocation responses of inventors and firms to tax policies makes it particularly challenging to estimate the effects of tax incentives on overall innovation. Akcigit et al. (2022) attempt to overcome this challenge by estimating effects of state-level tax incentive changes on incumbent inventors that did not relocate.

datasets below and provide further details in Appendix A.

2.1.1 Measuring NCA Enforceability

The extent to which an NCA is legally enforceable is governed by employment law, which is set at the state level. As described by Bishara (2010), the relative strength of NCA enforceability varies widely across states, and over time within states, in sometimes subtle but often meaningful ways. For example, there is substantial variation across states in what is considered a “reasonable” NCA, or what is considered a legitimate business interest that justifies an NCA. Moreover, precedent-setting court cases—and, more rarely, statutory changes—have led to changes *within* states in NCA enforceability.

We use a state-level panel dataset—constructed by Johnson et al. (2021), extending a dataset created by Hausman and Lavetti (2021)—with annual measures of states’ NCA enforceability for each of the 50 US states and the District of Columbia from 1991 to 2014. This database draws from Bishara (2010) (an authoritative legal expert on NCAs)⁷ that identifies seven quantifiable dimensions governing the extent to which an NCA is enforceable.⁸ Bishara (2010) develops a theoretically-grounded approach to quantify states’ treatment of each dimension on an integer scale from 0 (unenforceable) to 10 (easily enforceable), and he proposes a weighted sum of these seven dimensions to create an overall enforceability index, with weights based on legal reasoning regarding the likely importance of the dimension in a court’s ruling over an NCA’s enforceability.⁹ Using these rules, Bishara (2010) quantified each dimension and an overall index for each state for the years 1991 and 2009. Hausman and Lavetti (2021) and Johnson et al. (2021) carefully replicate the approach in Bishara

⁷Bishara (2010) draws from a series of legal treatises titled “Covenants Not to Compete: A State by State Survey,” updated annually by Brian Malsberger.

⁸For example, one dimension (Q3a) indicates the extent to which employers are legally required to compensate workers that sign NCAs at the beginning of a job spell. Another dimension (Q8) reflects whether the NCA is enforceable when the employer terminates the employee who signed the NCA (as opposed to a voluntary separation).

⁹Subsequent research uses confirmatory factor analysis as an alternative approach to determine these weights, and settles on an essentially identical weighting scheme as Bishara (Starr, 2019)

(2010) and extend the dataset for every year from 1991–2014.¹⁰ Overall, there were 82 changes in NCA enforceability over this period, 90% of which arose through case law rather than statutory changes. Johnson et al. (2021) provide further details of the construction of this database, justifications of the cardinality of the index, as well as extensive institutional background and empirical evidence that within-state changes to NCA enforceability were orthogonal to underlying trends in economic, social, and political forces.

2.1.2 Data on Patents and Other Measures of Innovative Activity

We begin with public-use administrative data (PatentsView) on the universe of granted utility patent applications submitted to the United States Patent and Trademark Office (USPTO) between 1991 and 2014.¹¹ For each patent, we obtain the name and address of the inventors and the assignees,¹² and we assign each patent to a state based on the inventor’s state of residence (assigning fractional patents in the case of multiple inventors). Each patent also has a unique patent number, application date, and a grant date. We focus on the year of application (Akcigit et al., 2022) for our empirical analysis, because it may take multiple years for a patent to be granted after the initial application.¹³

Many patents generate little to no value (Hall et al., 2005; Allison et al., 2003). Our primary measure of innovation therefore weights each patent by the number of forward citations that the patent receives (Trajtenberg, 1990; Lanjouw and Schankerman, 2004; Hall et al., 2005). Because citation counts are not necessarily comparable across time (more recent patents mechanically have less time to accumulate citations) or across technology

¹⁰Law students at Ohio State University and Duke University used Bishara’s internal notes and the annual Malsberger treatises to construct the enforceability database.

¹¹According to the USPTO, utility patents are “issued for the invention of a new and useful process, machine, manufacture, or composition of matter, or a new and useful improvement ... Approximately 90% of the patent documents issued by the USPTO in recent years have been utility patents, also referred to as “patents for invention;” see USPTO for more details. It is common practice to only consider utility patents as measures of innovation (e.g., Hall et al. (2001)).

¹²The entity that owns the property right to the patent is known as the assignee. In our sample, around 89% of the patents are assigned to a U.S. company or corporation. The remaining 11% of assignees are distributed among US individuals, various categories of governmental entities, and other categories.

¹³According to the USPTO, it takes an average of 25.6 months after a patent application is submitted for the patent to be granted. See: <https://www.uspto.gov/dashboard/patents/pendency.html>.

class (some technologies might rely on prior knowledge more than others), we take each focal patent’s citations received within the first five years after it was granted and normalize it by the average forward citation count in the focal patent’s three-digit CPC code (Hall et al., 2005; Arora et al., 2023)¹⁴ and grant year cohort. (We consider the (raw) count of patents in robustness checks.)

We use additional datasets in secondary analyses to examine other dimensions of innovative activity. We use the Census Bureau’s Job-to-Job (J2J) Flows dataset to measure the mobility of workers across firms. We use the Census Bureau’s Business Dynamics Statistics (BDS) to measure new business formation and use the Crunchbase dataset¹⁵ to measure startup innovation performance. We use Compustat and the Duke Innovation & Scientific Enterprises Research Network (DISCERN) database (Arora et al., 2021), which links the USPTO and Compustat data, to examine *firm-level* innovative activity in publicly-traded firms. We discuss the details of these datasets in Section 4.

2.2 Empirical Strategy: Stacked Difference-in-Differences

Our empirical setting includes continuous (nonbinary) changes in NCA enforceability which occur at different times in different states. Furthermore, states may have multiple law changes over the sample period. To avoid the potential biases that can arise from using the traditional two-way fixed effects approach in such a setting (Goodman-Bacon, 2021; De Chaisemartin and D’Haultfoeuille, 2022b), we conduct a “stacked” event-study analysis around a state’s first law change during our sample period. The stacked design has been used in other recent applied settings (Cengiz et al., 2019; Deshpande and Li, 2019), and De Chaisemartin and D’Haultfoeuille (2022a) show that the treatment effect of a unit’s *first* change can be estimated without bias. We first identify the subset of NCA law changes that

¹⁴Each patent has a technological classification following the Cooperative Patent Classification (CPC) scheme. Patents can be separated into 9 sections (1-digit CPC) or 125 subsections (3-digit CPC). See <https://www.uspto.gov/web/patents/classification/cpc/html/cpc.html> for details.

¹⁵Crunchbase is a startup directory that includes a set of high growth oriented private firms and startups backed by Venture Capital and Private Equity funding.

satisfy the following criteria: 1) are a state’s first law change during the sample period; 2) occur at least four years after the start of our sample period (1991); 3) occur at least 10 years before the end of our sample period (2014); and 4) are not followed by subsequent countervailing law changes. We use the 11 states that never experienced a law change during our sample period as the set of control states. For each treatment state, we create a “subexperiment” (hereafter, a “block”): a panel dataset for that treatment and the control states comprising the four years prior and ten years following the treatment state’s law change.

We take one additional step to refine our analysis sample. The distribution of patent counts 1) is prone to outliers, and 2) varies widely across states in the cross section (in both level and trend). While these features should not in theory bias our estimates if NCA law changes are orthogonal to prior patenting activity, in practice they can make our estimates sensitive to pre-existing trends in a small number of outlier states. In particular, California’s trend (and level) of patenting vastly outpaced all other states, especially during the dot-com technology boom of the 1990s. Since California experienced a (relatively small) change in NCA enforceability in 1998,¹⁶ the rapid pace of innovation in California generates a pre-trend for this law change. A similar situation applies to the state of Washington, which also experienced a rapid acceleration in innovation during the dot-com boom of the 1990s and experienced an NCA law change in 2004. For these two states, there is no reasonable control group: their trend in innovation is “out-of-support” with respect to the trends in control states over the four years prior to treatment. We thus omit those two treated states from our primary analysis. That is, we omit blocks for which the treated state has the *most extreme* linear trend in patenting in the pre-period (in either the positive or negative direction) compared to control states; these omitted states end up being California and Washington.¹⁷

¹⁶Though noncompetes have been essentially unenforceable in California since the 1800s, a 1998 case confirmed that judicial modifications to contracts—in order to make otherwise unenforceable contracts enforceable—were not allowed, leading to a small decrease in our measure of enforceability.

¹⁷In robustness checks, we add these omitted treated states back into our analysis and, if anything, obtain even stronger results.

Figure A1 provides a visual representation of the specific states that meet the criteria to be included in our estimation sample. Figure A2 shows that the subset of law changes that we use is broadly representative of the full variation in NCA enforceability over our sample period: the distribution of both the *level* of NCA enforceability (Panel a) and the *size* of enforceability changes (Panel b) is similar for the full set of states and the subset of states in our estimation sample. This comparison suggests that the subset of states we examine broadly captures the variation in NCA enforceability across the entire country.

Formally, we estimate the following model:

$$Y_{s,t,b} = \beta_1 * Enforceability_{s,t} + \rho_{s,b} + \gamma_{t,b} + \varepsilon_{s,t,b}, \quad (1)$$

where s indexes states, t indexes year, and b indexes block. Our two primary outcomes of interest, $Y_{s,t,b}$, are 1) annual patent counts weighted by the number of forward citations (described in Section 2.1.2), and 2) raw annual patent counts. The coefficient of interest, β_1 , estimates the effect of a change in NCA enforceability on the outcome variable, relative to the “clean control” states. $\rho_{s,b}$ is a state by block fixed effect, and $\gamma_{t,b}$ is a year by block fixed effect. Finally, $\varepsilon_{s,t,b}$ is the error term. We weight each observation by the sum of normalized citation-weighted patent counts in the pre-period. We report robust standard errors clustered at the state by block level (see, e.g., Cengiz et al. (2019)).

In some specifications, we amend Equation 1 so that the unit of observation is a state-CPC-block-year, rather than state-block-year. That is, we estimate how changes in NCA enforceability affect state-level patenting rates *within* technology classes.

3 The Effect of NCA Enforceability on State-Level Innovation

Figure 1 presents coefficients from an event study regression analogous to Equation 1 that estimates the effect of NCA enforceability on state-level patenting in each year relative to a state's first law change. In Panels (a) and (b), the outcome variable is normalized citation-weighted patent counts, respectively estimated at the state-CPC level and the state level. For both levels of analysis, the event study graphs reassuringly do not demonstrate differential trends prior to the year of the treatment state's first law change. In the post period, the coefficients in each panel become negative just after the year of the law change and gradually become more negative over the following ten years, indicating that an increase in NCA enforceability leads to a decline in patenting that increases in magnitude over time. The overall difference-in-difference estimate (reported in the upper right corner of each figure, as well as in Column 1 of Table A3) reveals that these effects are statistically significant and economically meaningful. Among the treatment states in our estimation sample, the average magnitude (in absolute value) of initial enforceability changes was equal to 0.081 (on a 0 to 1 scale). Thus, an increase in enforceability of average size induced a decrease in normalized citation-weighted patenting by 18.7% within CPC, and 16.0% at the state level.

In Panels (c) and (d) of Figure 1, the dependent variable is raw (unweighted) patent counts. The coefficients are somewhat smaller but qualitatively similar.

One useful way to interpret our estimates is by comparing their magnitude to how other economic and policy factors affect innovation. We estimate that an average-sized NCA enforceability increase leads to a 16-19% decline in citation-weighted patenting. A 16% reduction in patenting is comparable to the effect of: a 10 percent increase in the tax price of R&D (Bloom et al., 2019), moving a computer scientist from a technology cluster at the 75th percentile size to one at the median size (Moretti, 2021), and a one standard

deviation increase in exposure to Chinese import penetration (Autor et al., 2020).¹⁸ Another constructive comparison is Akcigit et al. (2022), who analyze the impact of personal income and corporate tax rates on innovation. They estimate that higher personal and corporate tax rates both decrease innovation, with the elasticity of state-level patents in response to personal income (corporate) net-of-tax rates ranging from 0.8 to 1.8 (1.3 to 2.8).¹⁹

Table A3 shows that the negative estimated effect of NCA enforceability on state-level patenting is robust to a range of potential confounds and specification concerns. We consider: the full sample (including the “out of support” treatment states, California and Washington); weights based on 1991 normalized citation weighted patent counts; a binary (rather than continuous) NCA score change variable; positive and negative changes only; using ordinary least squares instead of Poisson pseudo-maximum likelihood; using a Census region by year by block fixed effect; and using two-way fixed effects (rather than the stacked estimator) on the baseline sample and the full sample. By and large, our main estimate is quite robust, and indeed conservative compared with many other possible estimates. We describe these results further in Appendix C.

3.1 Does a Change in Patenting Reflect a Change in the Pace of Innovation?

Changes in state-level patent counts might not necessarily reflect changes in the state-level pace of innovation, particularly in our context.

One issue is that many patents generate little to no private value to firms (Hall et al.,

¹⁸Specifically, Moretti (2021) finds that the elasticity of inventor productivity (measured by the number of annual patents filed) with respect to cluster size is 0.0676. To put this in context, a computer scientist moving from a cluster at the median size in computer science to one at the 75th percentile of size would experience a 12.0 percent increase in the number of patents filed per year. Bloom et al. (2019) report that a 10 percent fall in the tax price of R&D generates at least a 10 percent increase in R&D in the long run, based on a reasonable summary of the estimated elasticities found in this literature. Autor et al. (2020) found that a one standard deviation increase in import penetration from China is estimated to reduce firm-level patent counts by 10–15 percent.

¹⁹Our estimate is not directly comparable to Akcigit et al. (2022) since we do not report estimates as elasticities.

2001; Kline et al., 2019), let alone social value. If NCA enforceability only affects the creation of relatively low-value patents, its impact on underlying innovation may be minimal. Our finding that NCA enforceability similarly affects raw and citation-weighted patent counts indicates that this scenario is unlikely; however, the number of citations is a noisy measure of a patent’s “value” (Jaffe et al., 2000; Hall et al., 2001). We thus follow prior studies to consider several alternative approaches to capture a patent’s contribution to innovation: (a) patents in the top 1, 5, and 10% of the normalized citation distribution of their “cohort”²⁰ (Gambardella et al., 2008; Abrams et al., 2013), and (b) “breakthrough” patents based on a given patent’s textual similarity to previous and subsequent work.²¹

A second issue is that changes in NCA enforceability could affect firms’ strategic decisions to protect new ideas, rather than affecting the creation of those ideas. Firms do not patent every new discovery: to apply for and maintain a patent can be costly,²² and firms have other means to protect newly-developed trade secrets and other discoveries (Cohen et al., 2000).²³ If stricter NCA enforceability makes it harder for workers to move to competitors (and bring newly-discovered ideas with them), it might make firms feel less compelled to patent new discoveries. That is, NCA enforceability might be a substitute for patents as a source of knowledge protection. If so, the relationship observed in Figure 1 might simply reflect fewer new ideas getting patented, rather than fewer new ideas being generated.

To examine this concern, we use the number of state-level (forward-citation-weighted) patents in the medical devices and pharmaceutical sectors²⁴ as an outcome variable. Cohen et al. (2000) show that patents are the most effective way to protect product innovation in these industries due to the ease of reverse engineering. As a result, nearly all new product

²⁰We define a “cohort” as patents granted in the same year.

²¹Breakthrough patents differ from previous patents but are strongly associated with successive innovation; see Kelly et al. (2021).

²²According to Leavitt & Eldredge, a firm’s costs associated with filing a utility patent can range from \$7,000 to \$20,000.

²³See Ganglmair and Reimers (2019) for a discussion of the relationship between trade secrecy and innovation.

²⁴We define these two sectors based on CPC codes, using methods from Belenzon and Schankerman (2013).

discoveries in these sectors are patented. Thus, any change in patenting in these sectors is likely to reflect changes in the discovery of new ideas, rather than changes in firms' strategic protection of ideas.

Figure 2 displays results that examine these two issues.²⁵ Rows (1) – (5) test whether NCA enforceability affects the rate of patenting for patents that are most likely to be valuable or innovative. Rows 1, 2 and 3 show that stricter NCA enforceability leads to a reduction in patents with citation counts in the top 1, 5, and 10%, though only the estimate for the top 10% is statistically significant at conventional levels (possible due to the scarcity—by construction—of patents in the top 1% or 5% leading those estimates to be underpowered). Rows 4 and 5 show that stricter NCA enforceability reduces both breakthrough and non-breakthrough patenting, though the magnitude is substantially (and statistically significantly) larger for breakthrough patents.²⁶

Row 6 of Figure 2 considers normalized citation-weighted patent counts in the medical device and pharmaceutical sectors.²⁷ We find a large and negative effect on medical device and pharmaceutical patents, though the estimate is only statistically significant at the 10% level ($p = 0.08$).

These results collectively indicate that the reduction in state-level patenting caused by strict NCA enforceability reflects a reduction in underlying state-level innovation.

4 Interpreting our Estimates in Light of Contrasting Theoretical Arguments

The paper's introduction described two arguments for how NCA enforceability could affect innovation. One side argues that NCAs stifle innovation by reducing the flow of ideas across

²⁵Appendix Table A1 reports the regression output underlying this figure.

²⁶The p-value on the difference between the breakthrough and non-breakthrough coefficients is 0.079

²⁷We include separate observations for medical device and for pharmaceutical patents, analogous to the model at the CPC level, which accounts for the additional observations in Column 6.

firms and the frequency and vitality of entrepreneurship (Gilson, 1999). Supporting this view is evidence that interactions between inventors—which NCAs limit—are critical for the discovery of new ideas Akcigit et al. (2018). On the other side is the argument that NCAs can enhance innovation by alleviating an investment holdup problem, increasing firms’ incentives to invest in R&D and other knowledge inputs (Rubin and Shedd, 1981).

Our results thus far suggest that the former effect dominates the latter. In this section, we examine intermediate outcomes and conduct heterogeneity analysis to understand the extent to which these two contrasting arguments contribute to the aggregate effect of NCA enforceability on innovation.

4.1 NCA Enforceability, Job Mobility, and Startup Activity

Gilson (1999)’s argument that NCAs stifle innovation centers on the idea that strict NCA enforceability limits the movement of workers between employers and to start-ups, thereby limiting the spread of knowledge between firms. We directly test if NCA enforceability affects these intermediate outcomes.

Job Mobility: NCAs limit worker mobility by construction, and stricter NCA enforceability can reduce job mobility more broadly by slowing labor market churn and making it more costly for firms to post vacancies (Johnson et al., 2021). Prior work has shown that stricter NCA enforceability reduces job mobility (Johnson et al., 2021; Lipsitz and Starr, 2022; Balasubramanian et al., 2016; Jeffers, 2023). We build on this work by testing whether NCA enforceability affects job mobility in innovative industries, where the dynamic movements of workers are most likely to spur the discovery of new ideas.

We measure rates of worker mobility using data from the Job-to-Job Flows²⁸ (J2J) and Quarterly Workforce Indicators²⁹ (QWI) datasets compiled by the US Census Bureau. The

²⁸U.S. Census Bureau. (2023). Job-to-Job Flows Data (2000-2019). Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on April 7, 2020 at <https://lehd.ces.census.gov/data>. Version R2019Q1.

²⁹U.S. Census Bureau. (2023). Quarterly Workforce Indicators (1990-2022). Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on April 7, 2020 at

datasets contain information on total employment, the number of employee separations, and the number of job-to-job changes,³⁰ by state, year, quarter, sex, and age group, as well as industry (for employment and separations) or industry-of-origin (for job to job changes). We combine and aggregate the datasets to the state-industry-year-quarter-sex-age group level, where industries are measured at the 2-digit NAICS level, and represent the industry-of-origin (rather than destination) for J2J data.

The outcomes of interest are the count and rate of both job-to-job changes and overall job separations, where rates are calculated as proportions of start-of-quarter employment. An advantage of focusing on job-to-job changes (from J2J) is that these are the types of job transitions most closely linked to NCAs, as such changes are likely due to on-the-job-search or firm poaching. An advantage of focusing on the overall separation rate (from QWI) is that it is a more comprehensive measure of worker mobility and labor market dynamism. We define innovative industries based on the National Science Foundation's (NSF's) classification of high-technology industries (National Science Foundation, 2014). Since NSF classifies industries at the level of 4-digit 2002/2007 NAICS codes, we include all 2-digit NAICS industries which contain any 4-digit industries classified as innovative.

We estimate a regression comparable to Equation 1, with some minor changes. First, we include an additional 2-digit NAICS-by-block fixed effect, a year-by-quarter-by-block fixed effect (replacing the year-by-block fixed effect), and controls for sex and age group which define the bins in the J2J and QWI data. Second, we weight each observation by a state-industry's total employment in the baseline year. Finally, whereas we estimate effects on innovation using a 10-year post-period, we estimate effects of enforceability on job mobility using a four-year post period window. We do this for statistical power: since the J2J data begins in the year 2000, using a 10-year window would leave us with only one block (since many of our treatment states' first law change occurred prior to 2000). Using a four-year

<https://lehd.ces.census.gov/data>. Version R2019Q1.

³⁰We measure job to job changes as new hires with no nonemployment spell or a short nonemployment spell.

window enables us to include 2 additional treatment states with law changes occurring after 2004.

We report results in Panel A of Table 1. Column 1 shows that we estimate a negative effect of NCA enforceability on the rate of job to job changes, significant at the 10% level. The coefficient implies that an average-sized increase in NCA enforceability (0.081) leads to a 2.8% reduction in job-to-job changes (relative to the sample mean). In Column 2 we estimate the same specification, but with a Poisson regression on the *count* (as opposed to *rate*) of job changes: the estimated effect size (-0.36) is similar in magnitude (2.9% reduction for an average change), but is much more precise ($p < .01$). Column 3 hints at why using counts improves precision so much: stricter NCA enforceability has a negative (albeit noisy) effect on employment.³¹ A change in both the numerator and denominator introduces noise into the impact on the rate variable, making it clearer to interpret the effect in Column 2. Finally, Column 4 shows that stricter NCA enforceability also negatively affects the overall separation rate by a similar magnitude as the more restricted job-to-job changes.

New Business Formation, and Startup Patenting: A longstanding literature posits that entrepreneurship spurs innovation (Chatterji et al., 2014), and NCA enforceability might affect the ability of new startup firms to form and be successful. Prior studies have indeed found that stricter NCA enforceability reduces rates of entrepreneurship (Jeffers, 2023; Marx, 2021; Starr et al., 2018). Additionally, stricter NCA enforceability could attenuate the “creative destruction” capacity of new firm entrants that do form (Schumpeter, 1942), for example by giving incumbent firms superior access to human capital.

To measure the rate of new business formation, we use the Business Dynamics Statistics (BDS) dataset from the U.S. Census Bureau, which contains annual measures of establishment births and job creation from new establishment births. We use the BDS aggregated at the state by 2-digit NAICS level and restrict attention to innovative industries (as used in the job mobility analysis above).

³¹This negative effect on employment could arise if, for example, stricter NCA enforceability expands firms’ monopsony power.

To investigate whether NCA enforceability affects innovation performance among startups that do form, we measure the count of state-level patents in which the assignee is a startup. To identify whether an assignee is a startup, we conduct fuzzy linking between USPTO and CrunchBase, an online database with business information on over 200,000 companies and 600,000 entrepreneurs, with extensive information on each company's name, address, products, acquisitions, age, and other features. To link CrunchBase with USPTO, we implement string fuzzy match using company names and addresses; see Appendix A for further details.

We report results in Panel B of Table 1. Columns 5 and 6 reports estimates of the effects on new business formation. We estimate that stricter NCA enforceability leads to a substantial decline in both the counts of new establishment openings (Column 5) and job creation from new establishment openings (Column 6). An average-sized increase in NCA enforceability leads to a 3.0% decline in new business formation, and a 7.6% decline in new job creation at new businesses. Column 7 reports our estimate that stricter NCA enforceability reduces the number of state-level patents for which the assignee is a startup: the coefficient is negative, large in magnitude, and highly statistically significant ($p < .01$). Column 8 provides a basis for comparison: at the state level, the impact of NCA enforceability on citation-weighted patenting for all other companies is approximately half that for startups, though the coefficient is more noisily estimated.

The movement of workers between employers and to startups facilitates the spread of knowledge across firms and the interactions between inventors. By limiting such movements, Gilson (1999) argued that strict NCA enforceability slows down innovation. Our results in this section provide evidence that supports this argument.

4.2 NCA Enforceability, Investment, and Patenting Within Publicly-Traded Firms

Even if stricter NCA enforceability reduces overall innovation by slowing down job mobility and entrepreneurship, it could in theory increase innovation within incumbent firms by alleviating investment hold-up problems (Shi, 2023; Jeffers, 2023).

We examine this idea by testing the effect of NCA enforceability on investment and patenting within publicly-traded firms. We use the Compustat database and, following Jeffers (2023) and Shi (2023), measure both intangible³² and physical investments.³³ To measure firm-level patenting, we use the DISCERN database (Arora et al., 2021), which links patents from the USPTO to Compustat.

To measure the NCA enforceability that a given firm faces, we must address the fact that most publicly-traded firms operate in multiple states. Since NCA enforceability is determined by state employment law, the most relevant law is the law in the state in which a worker works, not the state in which a firm is headquartered. Thus, simply using the NCA enforceability score of a firm’s headquarter’s state would result in severe measurement error and attenuation bias. We construct a firm-specific NCA score in each year that is a weighted average based on a firm’s employee-inventors’ locations. That is, for every patent filed between 1991–2014 in which firm i is the assignee, we note the state in which the patent was filed based on inventors’ locations. We then calculate the share of firm i ’s patents over this period that were filed in each state s : $\omega_{is} = \frac{\#Patents_{is}}{\sum_{s'=1}^{51} \#Patents_{is'}}$. Firm i ’s NCA score in year t is a weighted average of the NCA score across all states in that year, with weights equal to ω_{is} . The score therefore varies over time (as states change their laws), though the weights do not (to avoid endogenous selection of firms into states).

Since we measure firms’ exposure to NCA enforceability as a weighted average across

³²Research and development expenses (xrd) scaled by one year-lagged total assets (at). Following prior work (Jeffers, 2023), we do not replace missing values of R&D with zeros. We topcode this variable at the 99th percentile in each year to prevent undue influence from extreme outliers.

³³Capital investment less the sales of property (capxv-sppe) and scale by one-year lagged total assets (at). As with intangible investment, we topcode at the 99th percentile.

states, we cannot use the stacked design used thus far. Instead, we estimate the effect of NCA enforceability on firm-level investment and patenting using the following regression:

$$Y_{it} = \beta * \text{NCA Score}_{it} + \rho_{r(i)t} + \iota_i + \epsilon_{it},$$

where ρ and ι are region-year and firm fixed effects, respectively.

We report results in Table 2. Columns 1 and 2 consider effects on firm investment. We estimate a positive and statistically significant effect of NCA enforceability on intangible investment (Column 1): the point estimate suggests that that an average-sized increase in NCA enforceability leads intangible investment to increase by 8.1% ($p = 0.035$). However, we estimate essentially no effect of NCA enforceability on capital investment.³⁴ These estimates suggest that stricter NCA enforceability may increase firms' incentives to invest in R&D.

While the results in Columns 1 and 2 suggest that enforceable NCAs may indeed alleviate an investment hold-up problem, investment is but one of many inputs into innovation. Despite this increase in investment, the remaining columns show that stricter NCA enforceability still leads to a large decline in innovation within publicly-traded firms. Columns 3 and 4 report a statistically significant negative effect on raw and normalized citation-weighted patent counts, respectively. An average-sized increase in NCA enforceability leads to a 28.4% percent decrease in patent counts and 32.7% percent decrease in citation-weighted patent counts.³⁵ In Column 5, we consider an additional measure of patent quality, other than forward citations, that has been developed for publicly-traded firms: the excess stock returns

³⁴These results are consistent with Shi (2023), who finds that intangible investment is higher in firms with a higher proportion of executives under NCAs. They contrast somewhat with Jeffers (2023), who estimates that strict NCA enforceability has a positive effect on physical investment but no effect on intangible investment. However, our magnitudes are not directly comparable to those in Jeffers (2023) since we measure firms' exposure to NCA enforceability differently, examine a different set of legal changes, and use a different estimation sample.

³⁵These magnitudes are larger than what our state-level estimates (reported in Figure 1), but the estimates are not necessarily comparable: these estimates are of *within-firm* (not within-state) effects, they do not include the in-support restriction of our state-level estimates, and they are not from a stacked design. We note that when we estimate the state-level effect of enforceability using two-way fixed effects and without the in-support restriction, our state-level estimate is closer to these within-firm estimates, as shown in Table A3.

on the date a patent is granted, which proxies for a patent’s private financial return (Kogan et al., 2017). Stricter NCA enforceability leads to a 28.5% decline in patent counts weighted by this measure of financial value ($p = 0.046$).

The negative effects of NCA enforceability on innovation are far-reaching, affecting both startups and publicly-traded firms, and even occurring *within firms*. Additionally, this section helps reconcile the conflicting theoretical predictions of this relationship: stricter NCA enforceability might indeed increase firm-level investment, but this increase in investment is swamped by the other ways that NCA enforceability hinders innovation.

5 The Economy-Wide Impact of NCA Enforceability on Innovation

The results in Section 3 indicate that increases in state-level NCA enforceability lead to less innovation in that state, and Section 4 offers evidence of mechanisms underlying this effect. However, enforceability changes in one state could have spillover effects on innovation across state lines. If such spillover effects are present and economically meaningful, then our state-level estimates might misrepresent the effect of NCA enforceability on overall innovation.

On the one hand, these spillover effects might be *positive* if changes in NCA enforceability in one state reallocate innovation to other states. In a similar context, increases in state corporate tax rates lead to a large outflow of inventors to other states, causing a big reduction in state-level patenting but little change in overall patenting (Akcigit et al., 2022). In our context, inventors might move across state lines to escape NCAs (Marx et al., 2015) and subsequently patent ideas elsewhere that they otherwise would have discovered in their initial state. Such effects would lead our state-level analysis to *over-estimate* the impact of NCA enforceability on economy-wide innovation.

On the other hand, these spillover effects might be negative. If firms value high NCA

enforceability,³⁶ then multi-state firms might reallocate their internal resources *toward* high-enforcing states. Moreover, innovation is a cumulative process and is the result of the reuse, recombination, and accumulation of prior ideas (Murray and O’Mahony, 2007). A slowdown in the discovery of ideas in one state could thus have ripple effects that reduce subsequent innovation in other states within the same technology class. This scenario would lead our state-level analysis to *under-estimate* the effects of NCA enforceability on economy-wide innovation.

To better understand the economy-wide effects of NCA enforceability, we examine whether *technology classes* whose geographic footprint exposed them to stricter NCA enforceability had differential rates of patenting over our sample period. For idiosyncratic reasons, inventors specializing in different technology classes (measured by CPC codes) might be clustered in different states (Bell et al., 2019). As a result, CPCs with initial clusters in states that experienced subsequent increases in NCA enforceability had higher “exposure” to NCA increases than CPCs with initial clusters in states without changes (or states that decreased enforceability). This *CPC-level* exposure measure enables us to estimate the broader effect of NCA enforceability on innovation that accounts for potential spillovers across state lines.

Formally, we measure the change in NCA exposure for CPC c over time period t as:

$$\Delta Exposure_{ct} = \sum_s \omega_{cst} \Delta NCA_{st}, \quad (2)$$

where

$$\omega_{cst} = \frac{\#Patents_{cst-1}}{\#Patents_{ct-1}}.$$

We partition our sample period into four sub-periods t : 1991–1996, 1997–2002, 2003–2008, and 2009–2014. Here, ΔNCA_{st} is the change in NCA Enforceability score for state s over sub-period t . ω_{cst} captures, for a particular CPC c in sub-period t , the share of that CPC’s

³⁶This might occur because, for example, high enforceability enables firms to pay lower wages (Johnson et al., 2021). Marx (2021) finds that higher NCA enforceability leads to an increase in firm valuation.

patents over the prior sub-period that were applied for in state s .³⁷ We use these shares to create CPC-specific changes in NCA enforceability exposure over the sub-period. Thus, a CPC's change in NCA exposure, $\Delta Exposure_{ct}$, is a weighted average of the change in NCA enforceability across all 51 states over the sub-period, where the weights correspond to the CPC's baseline state-specific patenting shares. We use the baseline (prior sub-period's) allocation of patenting across states since contemporaneous state-specific patenting is endogenous to NCA law changes.

We use this measure to estimate the effect of a change in a CPC's exposure to NCA enforceability on the change in the number of (citation-weighted or unweighted) patents applied for in that CPC:

$$\Delta Patents_{ct} = \alpha + \beta \Delta Exposure_{ct} + \gamma_{s(c)t} + \epsilon_{ct}, \quad (3)$$

where $\Delta Patents_{ct}$ is the annualized percent change in patents for CPC c between period $t-1$ and t , and $\gamma_{s(c)t}$ is a technology class \times sub-period fixed effect, where technology classes are broad categories of CPCs.

Figure 3 provides binned scatterplots of the relationship described in Equation 3, for citation-weighted (Panel (a)) and raw (Panel (b)) patent counts. There is a clear negative relationship in both plots, indicating that CPCs exposed to increases in NCA enforceability went on to have lower rates of patenting. Table A2 reports the regression estimates of $\hat{\beta}$ from Equation 3; the estimated effect is economically meaningful and highly statistically significant ($p < .01$) in both cases.

Estimating this relationship between CPCs' patenting and exposure to NCA enforceability in first differences (rather than with fixed effects as in prior analyses) allows a more interpretable graphical exposition in the binned scatterplots in Figure 3. In Columns 3 and 4 of Table A2, we report estimates from fixed effects difference-in-difference regressions to

³⁷An example is illustrative. Consider CPC XYZ for the period 1991–1996. We calculate the number of XYZ's patents applied for between 1985–1990 in each of the 51 states. We divide by the total number of XYZ's patents 1985–1990 to create state-specific shares for XYZ.

more closely mirror the specifications in our state-level analysis. We modify Equation 3 to model the effect of CPCs’ initial *level* of effective NCA exposure on subsequent counts of patents over the sub-period, and we additionally include a CPC fixed effect.³⁸ Using this approach yields essentially identical estimates as the first differences approach.

We can compare the results from this CPC-level analysis to our state-level results to estimate the size and direction of spillovers across state lines. Consider what each result implies would be the reduction in patenting within a typical CPC if every state experienced an average-sized enforceability increase (equal to 0.081 on the 0-to-1 scale). As reported in Section 3, $\hat{\beta}_1$ from Equation 1 implies that an enforceability increase of this size reduces a CPC’s within-state (citation-weighted) patenting by 18.7% ($=\exp(-2.56 * .081) - 1$). The estimate from the CPC-level analysis ($\hat{\beta}$ from Equation 3) implies that a nationwide enforceability increase of this size would reduce a CPC’s *overall* citation-weighted patenting by 23% ($-2.84 * .081$)—an effect size that is 23% *larger* than the state-level effect. That is, NCA enforceability increases in one state have *negative* spillover effects on innovation across state lines within the same technology class.

These results indicate that increases in NCA enforceability lead to lower economy-wide rates of patenting that are not limited to state boundaries. Moreover, they suggest that changes in NCA enforceability may have an even larger effect on overall innovation than what our state-level estimates imply.

6 Conclusion

Prior literature has highlighted a tension between positive and negative ways that worker mobility could affect innovation: while mobility may encourage the spread and sharing of ideas,

³⁸The regression model is:

$$\#Patents_{ct} = \alpha + \beta Exposure_{ct} + \delta_c + \gamma_{s(c)t} + \epsilon_{ct}.$$

where $Exposure_{ct}$ is the CPC’s effective NCA exposure score in the first year of the sub-period, $\#Patents_{ct}$ is the number of patents for CPC c over sub-period t , and δ is a CPC fixed effect. We estimate this model with a Poisson regression.

thus facilitating innovation, mobility may also discourage firms from making innovation-enhancing investments. Given this ambiguity, it is no surprise that academics and policy makers have fiercely contested whether NCAs—a common way that employers directly limit workers’ mobility—enhance or stifle innovation.

We find that patenting diminished by an economically meaningful amount when states made NCAs more easily enforceable. Using multiple quantitative and qualitative metrics, we show that this relationship reflects a true loss of innovation, rather than simply substitutions in the methods firms use to protect new ideas. We conduct secondary analyses to reconcile the motivating theoretical tension. Stricter NCA enforceability decreases mobility rates among workers in innovative industries, drives down rates of entrepreneurship, and causes an especially large decline in patenting by startups. Finally, we show that the state-level reductions in innovation do not simply reflect zero-sum effects via reallocation to other states; on the contrary, the economy-wide reductions in innovation extend beyond state lines.

We find some evidence that stricter NCA enforceability has a positive effect on publicly-traded firms’ investment in R&D and other intangible assets. However, investment is not a socially valuable outcome unto itself. Even though investment is an important input in the innovation production function, we find that the net impact of NCA enforceability on innovation at those firms is still substantially negative. In theory, higher intangible investment could lead to other material benefits. However, given prior evidence that stricter NCA enforceability reduces workers’ earnings (Johnson et al., 2021), leads to higher industrial concentration and prices for consumers (Hausman and Lavetti, 2021; Lipsitz and Tremblay, 2021), and is not demonstrably valued by firms (Hiraiwa et al., 2023), it is hard to think of an economic actor that is evidently made better off when NCAs are more easily enforceable.

At the same time, it is interesting that, in light of the evidence in this paper, many still argue that firms need enforceable NCAs to stay competitive.³⁹ One possible way to

³⁹For an outline of such arguments, see, e.g., the Chamber of Commerce’s comment on the Federal Trade Commission’s Notice of Proposed Rulemaking on the Non-Compete Clause Rule, available at https://www.uschamber.com/assets/documents/FTC-Noncompete-Comment-Letter_FINAL_04.17.23.pdf.

rationalize these arguments is a tension between private and social optimality. It could very well be that it is privately optimal for a firm to use an (enforceable) NCA—for example, to ensure a greater return on intangible investments— regardless of whether their competitors are also using them. But, it could be that the slowed rates of interactions, difficulties hiring, and other externalities from enforceable NCAs are so large that all firms would be more innovative if NCAs were unenforceable. Such externalities might be less salient or difficult to quantify for those who continue to argue for NCAs. This distinction between the private and social benefits of NCA enforceability has important implications for policy discussions.

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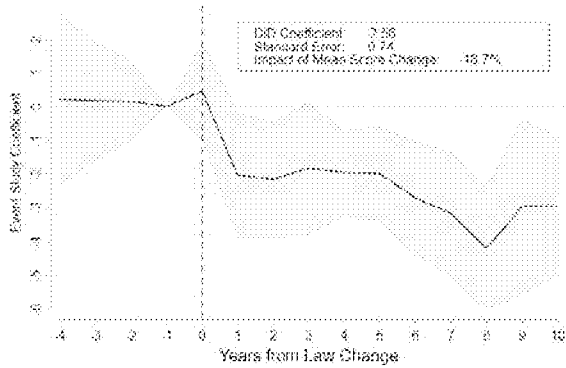
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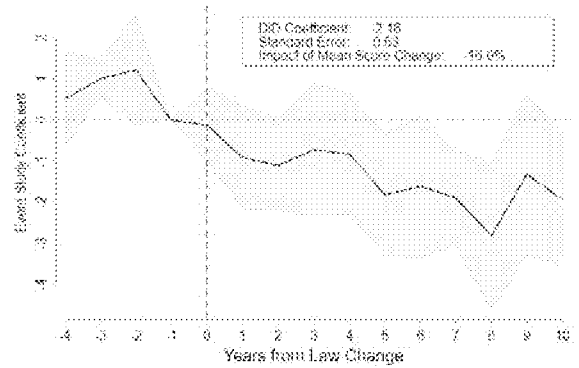
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7 Exhibits

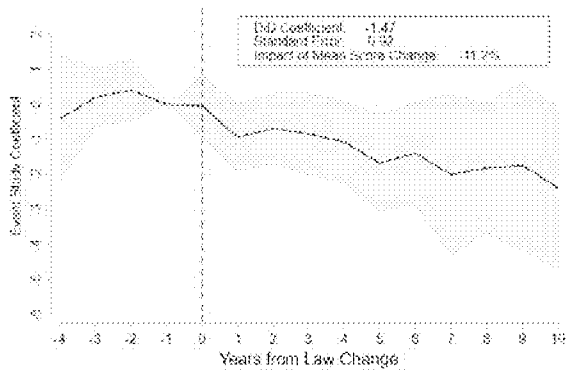
Figure 1: Event Study Estimates of the Effect of NCA Enforceability on State-level Patenting



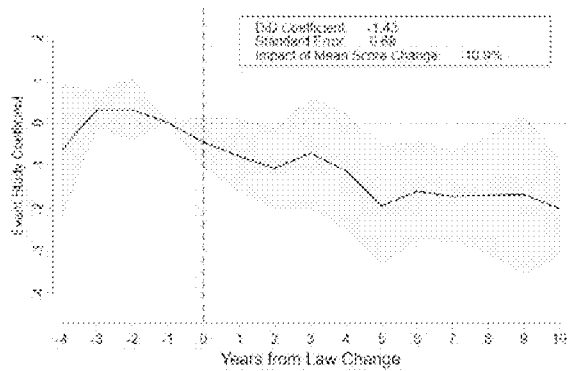
(a) Normalized Forward-Citation-Weighted Patent Counts - State CPC Year



(b) Normalized Forward-Citation-Weighted Patent Counts - State Year



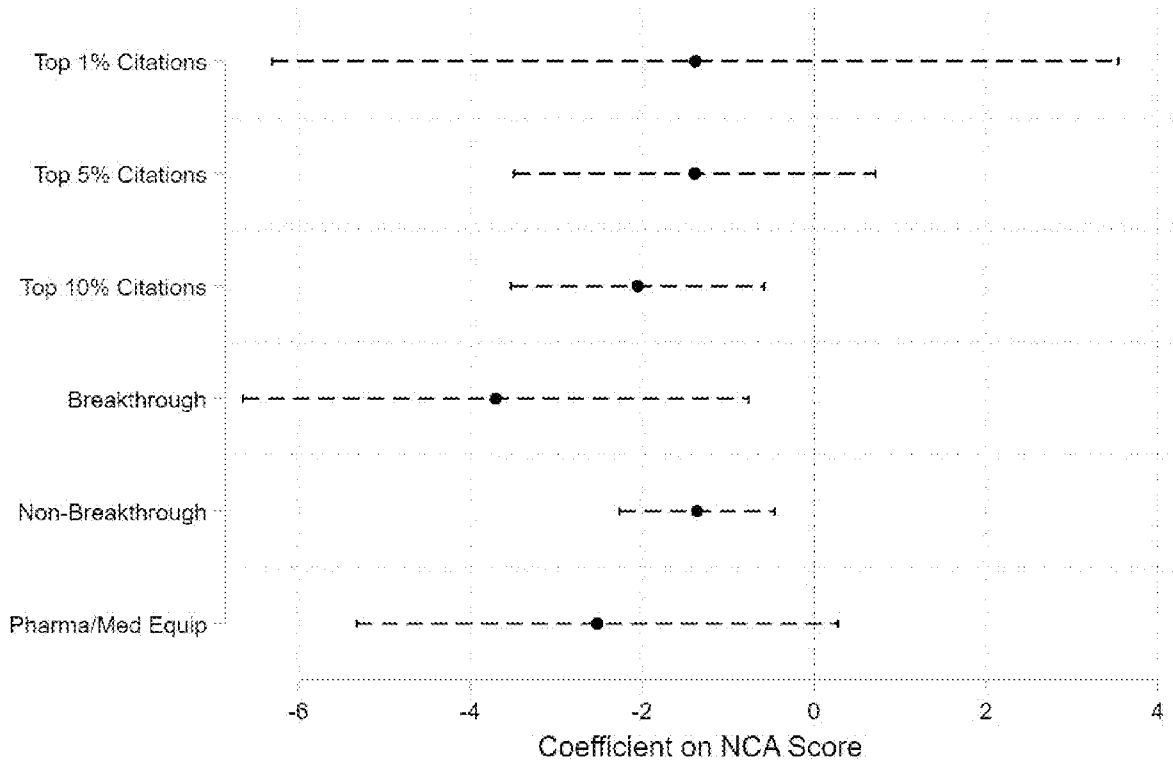
(c) Unweighted Patent Count - State CPC Year



(d) Unweighted Patent Count - State Year

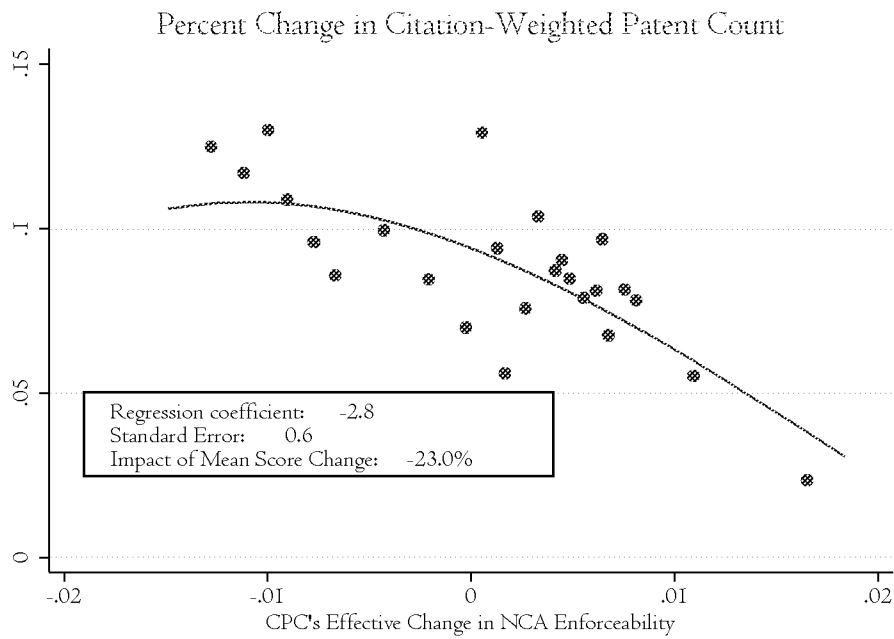
Notes. Each panel displays the coefficients and 95% confidence intervals from event-study Poisson pseudo-likelihood stacked difference-in-difference regression models, weighted by the count of normalized citation-weighted patents before the treatment year in each state in each subexperiment. See Equation 1 for an analogous regression equation. The dependent variables are forward-citation-weighted patent counts and unweighted patent counts in the top and bottom rows respectively; the level of analysis is the state by CPC by year level and the state by year level in the left and right columns, respectively. The stacked difference-in-difference coefficient and standard error, as well as the estimated impact of a mean score change on the relevant dependent variable, are reported on each plot.

Figure 2: The Effect of NCA Enforceability on Various Measures of “True” Innovation

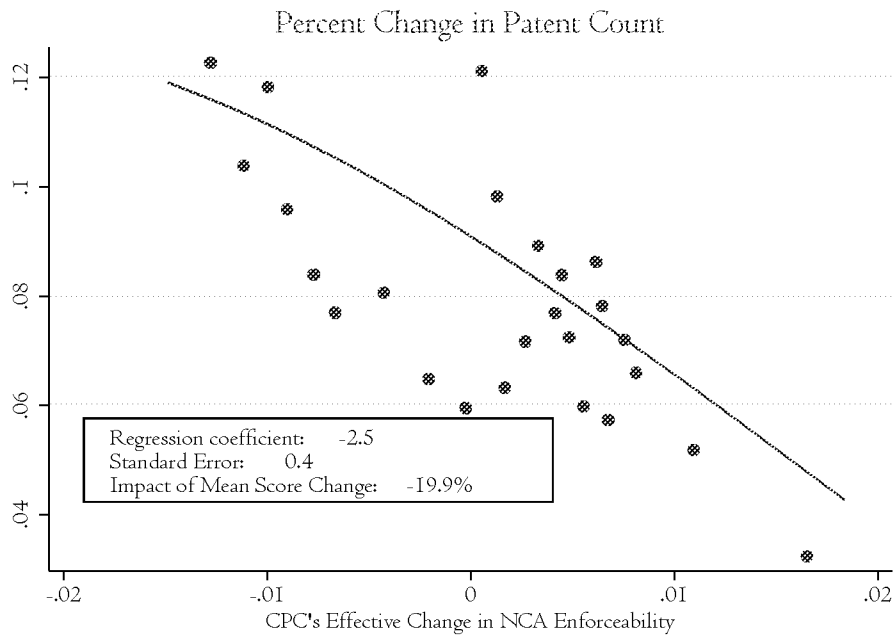


Notes. Each row displays the coefficient and 95% confidence interval from a separate Poisson psuedo-likelihood regression model, weighted by the count of normalized citation-weighted patents before the treatment year in each state in each subexperiment. See Equation 1 for details. The dependent variable for each regression is listed on the vertical axis. The dependent variables are: the number of state-year patents with forward citations in the top 1, 5, and 10% of the distribution, respectively; the number of state-year patents that are and are not considered “breakthrough” (from Kelly et al. (2021)); and the number of (citation-weighted) patents, with the sample restricted to the pharmaceutical and drug/medical device sectors.

Figure 3: CPCs More Exposed to NCA Enforceability Increases Experience Lower Rates of Patenting



(a) Forward-Citation-Weighted Patent Count



(b) Unweighted Patent Count

Notes: Each panel displays a binned scatterplot in which the unit of observation is a CPC–5-year-period. On the horizontal axis is $\Delta Exposure_{ct}$, a CPC's change in NCA exposure over the 5-year period, as defined in Equation 2. On the vertical axis is the annualized percent change in the number of (citation-weighted or raw) granted patents for that CPC over the sub-period, relative to the number of patents for that CPC over the prior sub-period. The values are residualized on CPC section–period fixed effects, where CPC sections are broad technology sectors.

Table 1: The Effect of NCA Enforceability on Job Mobility and Entrepreneurship

	(1) J2J Changes (Rate)	(2) J2J Changes (Count)	(3) Employment (Count)	(4) Separation (Rate)
NCA Score	-.0215* (.0124)	-.36*** (.134)	-.236 (.184)	-.0715*** (.0168)
Mean DV	0.062	234.0	4970.2	0.235
Effect of Mean Change	-2.8%	-2.9%	-1.9%	-2.5%
N	167,845	167,928	167,848	167,045
	(5) Establishment Entry Rate	(6) Job Creation Rate	(7) Startups' C-W Patents	(8) Non-Startups' C-W Patents
NCA Score	-.49* (.256)	-.565** (.218)	-2.54*** (.923)	-1.25 (1.11)
Mean DV	1.3	0.6	65.0	328.7
Effect of Mean Change	-3.2%	-7.2%	-18.6%	-9.6%
N	2700	2700	2700	2700

Standard error clustered at state \times subexperiment level in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes. This table reports the effect of NCA enforceability on job mobility (Panel A) and entrepreneurship (Panel B). Columns (1), (4), (5) and (6)—those with outcomes that are rate variables—report estimates from OLS models. Columns (2), (3), (7) and (8)—count variables—report estimates from Poisson pseudo-likelihood regression model. The outcome variables in column (5) and (6) are taken from BDS. The *establishment entry rate* is the number of new establishments formed in year t divided by the number of existing establishments averaged over years t and $t - 1$. The *job creation rate* from new establishment formation is the count of employment gains from establishments that open in year t divided by the overall employment count averaged over years t and $t - 1$. Regressions in Panel A include state \times subexperiment, year \times quarter \times subexperiment, industry \times subexperiment, sex, and age-group fixed effects. Regressions in Panel B include year \times subexperiment and state \times subexperiment fixed effects.

Table 2: The Effects of NCA Enforceability on Firm-level Investment and Patenting

	(1) Intangible Investment	(2) Capital Investment	(3) Patent Counts	(4) Citation Weighted Patents	(5) Patents' KPSS Value
NCA Score	.190** (.088)	-.0227 (.052)	-4.13*** (1.03)	-4.88** (2.22)	-4.15** (2.08)
Mean DV	0.190	0.060	20.3	18.4	314.6
Effect of Mean Change	8.1%	-3.1%	-28.4%	-32.6%	-28.6%
N	45,747	41,337	53,987	52,798	49,637

Standard errors in parentheses

Standard error clustered at state level

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes. This table shows the impact of NCA enforceability on firm-level outcomes. Samples comprised of publicly traded firms with at least one patent during the period of 1991 to 2014. Results in column (1) and (2) are from OLS and results in column (3) - (5) are from a Poisson pseudo-likelihood regression model. All regressions include firm and year \times Census region fixed effects.

A Data Appendix

A.1 Patent Data Construction

Starting with the patent-assignee data from Patentsview, we first drop patents with multiple assignees, which comprises 3.2% of patents. We then match the patent to its inventor(s) and inventors' geographic location. We end up with 2,391,805 unique patents with applications between years 1991 to 2014. These patents are invented by 1,249,369 unique inventors, and assigned to 133,500 unique assignees.

Some patents have inventors living in different states. For our analysis that aggregates the patent-inventor-year level data to the state-year level, we assign each inventor on a patent an equal fraction of the patent (and the patent's weighted citations).

A.2 Linkage of USPTO data to other data sources

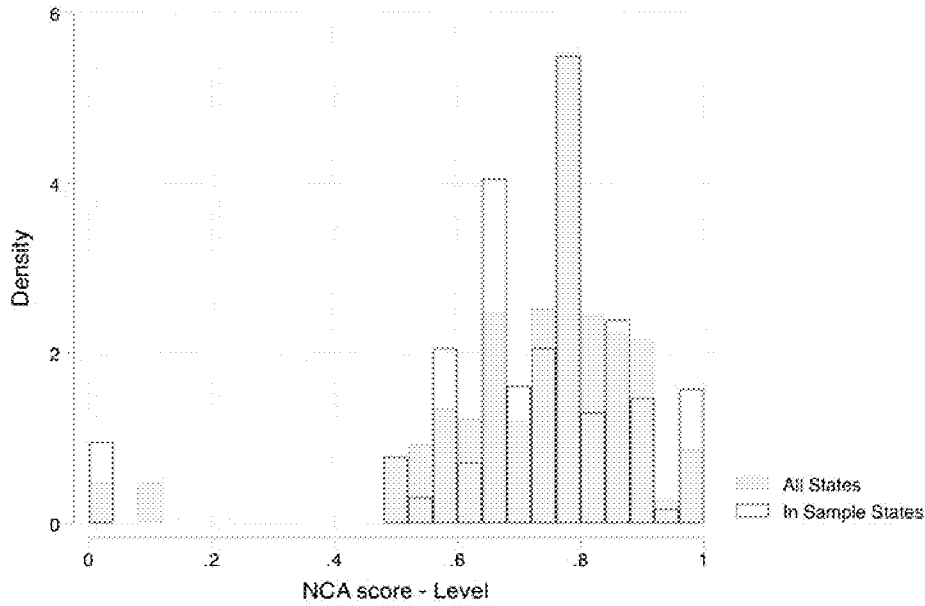
DISCERN and Compustat: To identify patents assigned to publicly-traded firms, we use the Duke Innovation & Scientific Enterprises Research Network (DISCERN) database created by Arora et al. (2021). DISCERN enables us to match patent assignees to publicly-traded firms and their subsidiaries from Compustat, while accommodating changes in corporate names and ownership structures. DISCERN extends the NBER 2006 patent dataset (Hall et al., 2001) from 1980 to 2015. By matching on patent IDs directly, we match 985,402 patents (41.2%) in our sample to GVKEYs provided by DISCERN, which allows us to further match to Compustat to obtain firm-level information.

Crunchbase: To identify patents assigned to startups, we utilize Crunchbase, an online database with business information on over 200,000 companies and 600,000 entrepreneurs. We first exclude the patents with assignees already matched to Compustat. Among the remaining patents, we conduct a fuzzy match between a patent's assignee in the USPTO data and firm names in Crunchbase, requiring that matched records have the same state and city. For the cases when a patent assignee is matched to multiple Crunchbase records, we further conduct a Levenshtein string distance on their names again to keep the one with the smallest string distance. Crunchbase includes each firm's founding year, enabling us to calculate the age of a firm, as well as firms' IPO and M&A status. We define a patent as being assigned to a startup if the assignee company is 1) matched to Crunchbase 2) not acquired or IPOed; 3) is less than 10 years old relative to the patent application year. Using this approach, we identify 289,729 patents (12.1%) in our sample as startup patents.

Breakthrough patents: We take the measure of breakthrough patents from (Kelly et al., 2021), which can be directly linked to the USPTO dataset using patent IDs. We define breakthrough patents as those that fall in the top 10 percent of the unconditional distribution of the "importance measure," where importance is defined as the ratio of the 5-year forward to the 5-year backward textual similarity to other patents, net of year fixed effects. (Kelly et al., 2021) calculate this textual similarity for patents granted 1840–2010, which makes the above five-year measure valid for patents granted before 2005. Because we use patent *application* year in our analysis—which is years earlier than the grant year—we only include

patents with an application year prior to 2001 to ensure our breakthrough measure is not truncated.

(a) NCA score levels



(b) NCA score changes

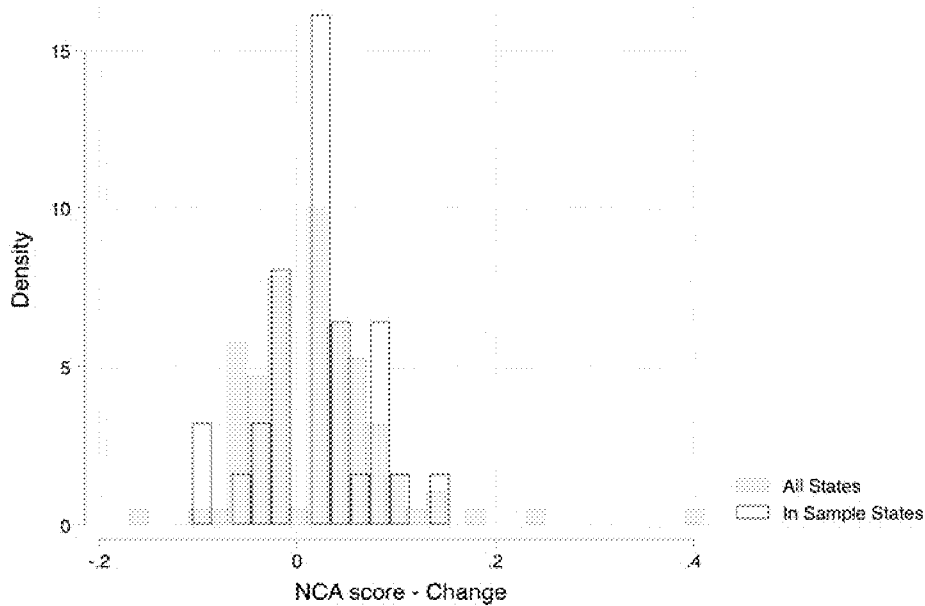


Figure A2: The Distribution in NCA Scores Across states, 1991–2014 (in Levels and Changes): all states and the “in-sample” subset

Notes. This figure shows a comparison of NCA score between all states and in sample states at state-year level. Panel (a) is a histogram of score levels, with binwidth=0.04. Panel (b) is a histogram of score changes, with binwidth=0.02.

Table A1: The Effect of NCA Enforceability on Various Measures of “True” Innovation at the State-level

	(1) Top 1%	(2) Top 5%	(3) Top 10%
NCA Score	-1.38 (2.51)	-1.39 (1.07)	-2.05*** (.752)
Mean DV	9.9	51.6	105.8
Effect of Mean Change	-10.6%	-10.6%	-15.3%
N	2700	2700	2700
	(4) Breakthrough	(5) Non-Breakthrough	(6) Pharma/Med Equip
NCA Score	-3.70** (1.50)	-1.36*** (.460)	-2.52* (1.43)
Mean DV	169.3	747.3	33.94
Effect of Mean Change	-25.9%	-10.4%	-18.5%
N	1332	1332	5250

Standard error clustered at state \times subexperiment level in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes. Each column reports estimates from a Poisson pseudo-likelihood regression model, weighted by the count of normalized citation-weighted patents before the treatment year in each state in each subexperiment. All regressions include year \times subexperiment and state \times subexperiment fixed effects. See Equation 1 for details. In Columns 1–3, the dependent variable is the number of state-year patents with forward citations in the top 1, 5, and 10% of the distribution. In Columns 4 and 5, the dependent variable is the number of state-year patents that are and are not considered “breakthrough” respectively. The measure of breakthrough patents is from Kelly et al. (2021); we restrict this analysis to patents with applications before 2000 to avoid truncation problems (see details in data appendix A.1). Therefore, the sample size in Columns 4 and 5 is smaller than in Columns 1–3. In Column 6, the unit of observation is expanded to the state-sector-subexperiment-year, the dependent variable is the number of (citation-weighted) patents, and we restrict the sample to the pharmaceutical sector and the drug and medical device sector.

Table A2: The Effect of Exposure to NCA Enforceability on CPCs' Patenting

Dependent variable:	Annualized Percent Change in:		Total Count of:	
	Citation-weighted patents	Unweighted patents	Citation-weighted patents	Unweighted patents
	(1)	(2)	(3)	(4)
Δ NCA Exposure	-2.841*** (0.612)	-2.456*** (0.449)		
Initial NCA Exposure			-3.03*** (1.01)	-5.10*** (1.74)
% change in patents if mean score increase	-23.0	-19.9	-21.8	-33.8
N	486	489	492	492
Section-year FE	Y	Y	Y	Y
Subsection FE	N	N	Y	Y
Specification	OLS	OLS	Poisson	Poisson

Notes: Columns 1 and 2 display an estimate of β from Equation 3. The unit of observation is a CPC–10-year-period. Δ NCA Exposure is a CPC's change in NCA exposure over the 10-year period, as defined in Equation 2, and the dependent variable is the percent change in the number of citation-weighted (Column 1) or raw (Column 2) granted patents for that CPC over the 10-year period, relative to the number of patents in the prior 10-year period. Columns 3 and 4 display estimates from a Poisson regression that is a modification to Equation 3, in which the dependent variable is the *count* of patents over the 105-year period, and *Initial NCA Exposure* is the CPC's effective NCA exposure in the first year of the 10-year period.

C Robustness Checks on the Effects of NCA Enforceability on State-level Patenting

Table A3 considers the sensitivity of our estimated effect of NCA enforceability on state-level patenting to a range of potential alternative specifications and other concerns. Column 1 represents our baseline estimate on state-level patenting (the unit observation is a state-block-year, and the regression is estimated based on Equation 1). In Column 2, we estimate the same model, except that we include the two treatment states with out-of-support baseline patenting (California and Washington) that lacked a suitable control group. In Column 3, we estimate the baseline model except that we weight observations by a state's 1991 citation-weighted patent count, rather than the patent count in the block's four baseline years. In both cases, the coefficient is similar and, if anything, larger in magnitude.

Recent work has highlighted that using a continuous treatment variable in a difference-in-difference setting can yield magnitudes that are difficult to interpret (Callaway et al., 2021). In light of this issue, in Column 3 we replace our *Enforceability* measure, a continuous variable (between 0 and 1), to instead be a dichotomous variable. That is, for treated states whose focal leads to an enforceability increase (decrease), we code this new variable to equal 1 (−1) in the years beginning with year 0. The variable is equal to 0 for treated states in the pre-period and for control states in all years. The coefficient is negative (−0.104) and statistically significant ($p = 0.010$). Considering that the average size (in absolute value) of law changes in our estimation sample was 0.081, the implied effect of enforceability on patenting is $-0.104/0.081 = -1.28$, which is comparable to our magnitude using the continuous treatment variable.

An interesting question is whether enforceability increases and decreases have symmetric effects on patenting. In Columns 5 and 6, we estimate our baseline model but only consider blocks in which the treated state experiences a positive and negative enforceability change, respectively. In both cases, the estimates are negative and large in magnitude. The estimate for negative changes is not quite statistically significant ($p = 0.145$), though this is not surprising since the sample size is smaller due to the fact that negative score changes only make up a third of law changes in our estimation sample.

The remaining columns consider other tweaks to our specification. In Column 7, we estimate our baseline model except that we use OLS and switch the dependent variable to be the log number of patents in a state-year. In Column 8, we again use Poisson but include region–block–year (rather than just block–year) fixed effects, so that we compare treated states only to control states in their same Census region. In Columns 9 and 10 we instead estimate the effect of enforceability using a two-way fixed effects regression instead of our stacked design, omitting California and Washington (Column 9) and not omitting them (Column 10). In all cases, the coefficient remains statistically significant and qualitatively similar to our baseline estimate.

Table A3: The Estimated Effect of NCA Enforceability on State-Level Patenting is Robust to a Range of Potential Confounds and Specification Checks

	(1) Baseline	(2) Full Sample	(3) 1991 Weights	(4) Binary Changes	(5) Positive Changes Only
NCA Score	-2.56*** (.736)	-4.82*** (.944)	-2.89*** (.726)		-4.25*** (.676)
Binary Score				-.104** (.0406)	
Mean Dep Var	10.14	11.49	14.13	10.14	10.02
N	246,798	281,352	172,373	246,798	240,949
	(6) Negative Changes Only	(7) OLS with log(CWP)	(8) Interact Region in FE	(9) TWFE Baseline	(10) TWFE Full Sample
NCA Score	-1.37 (.95)	-1.45*** (.322)	-3.18*** (.893)	-2.00*** (.276)	-3.50* (2.01)
Mean Dep Var	10.41	1.19	10.62	13.41	24.44
N	231,910	248,925	227,887	19,787	78,401

Standard errors in parentheses

Standard error clustered at state \times subexperiment level

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes. In Column (4), the mean of binary changes in the sample is 0.05 and the standard deviation is 0.22.

THE FITZPATRICK MATRIX

Hourly Rates (\$) for Legal Fees for Complex Federal Litigation in the District of Columbia

Years Exp. / Billing Yr.	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
35+	535	563	591	619	647	675	703	731	736	760	807
34	534	562	590	618	646	674	702	729	734	758	805
33	532	560	588	616	644	672	700	728	733	757	804
32	530	558	586	614	642	670	698	726	730	754	801
31	527	555	583	611	639	667	695	723	728	752	799
30	524	552	580	608	636	664	692	720	725	749	795
29	521	549	577	605	633	661	689	717	721	745	791
28	517	545	573	601	629	657	685	713	717	741	787
27	512	540	568	596	624	652	680	708	713	736	782
26	508	536	564	592	620	648	676	704	708	731	776
25	502	530	558	586	614	642	670	698	703	726	771
24	497	525	553	581	609	637	665	693	697	720	765
23	491	519	547	575	603	630	658	686	691	714	758
22	484	512	540	568	596	624	652	680	684	707	751
21	477	505	533	561	589	617	645	673	677	699	742
20	470	498	526	553	581	609	637	665	670	692	735
19	462	490	518	546	574	602	630	658	662	684	726
18	453	481	509	537	565	593	621	649	653	675	717
17	445	473	500	528	556	584	612	640	645	666	707
16	435	463	491	519	547	575	603	631	635	656	697
15	426	454	482	510	538	566	593	621	626	647	687
14	416	443	471	499	527	555	583	611	615	635	674
13	405	433	461	489	517	545	573	601	605	625	664
12	394	422	450	478	506	534	562	590	594	614	652
11	382	410	438	466	494	522	550	578	582	601	638
10	371	399	427	455	483	510	538	566	570	589	625
9	358	386	414	442	470	498	526	554	558	576	612
8	345	373	401	429	457	485	513	541	545	563	598
7	332	360	388	416	444	472	500	528	532	550	584
6	319	347	375	403	431	458	486	514	518	535	568
5	305	332	360	388	416	444	472	500	504	521	553
4	290	318	346	374	402	430	458	486	489	505	536
3	275	303	331	359	387	415	443	471	474	490	520
2	260	287	315	343	371	399	427	455	458	473	502
1	244	272	300	328	356	384	412	439	442	457	485
0	227	255	283	311	339	367	395	423	426	440	467
P*	130	140	150	160	169	179	189	199	200	207	220

* = Paralegals/Law Clerks

Explanatory Notes

1. This matrix of hourly rates for attorneys of varying experience levels and paralegals/law clerks has been prepared to assist with resolving requests for attorney's fees in complex civil cases in District of Columbia federal courts handled by the Civil Division of the United States Attorney's Office for the District of Columbia. It has been developed to provide "a reliable assessment of fees charged for complex federal litigation in the District [of Columbia]," as the United States Court of Appeals for the District of Columbia Circuit urged. *DL v. District of Columbia*, 924 F.3d 585, 595 (D.C. Cir. 2019). The matrix has not been adopted by the Department of Justice generally for use outside the District of Columbia, nor has it been adopted by other Department of Justice components.
2. The matrix is intended for use in cases in which a fee-shifting statute permits the prevailing party to recover "reasonable" attorney's fees. *E.g.*, 42 U.S.C. § 2000e-5(k) (Title VII of the 1964 Civil Rights Act); 5 U.S.C. § 552(a)(4)(E) (Freedom of Information Act); 28 U.S.C. § 2412(b). A "reasonable fee" is a fee that is sufficient to attract an adequate supply of capable counsel for meritorious cases. *Perdue v. Kenny A. ex rel. Winn*, 559 U.S. 542, 552 (2010). The matrix is not intended for use in cases in which the hourly rate is limited by statute. *E.g.*, 28 U.S.C. § 2412(d).
3. For matters in which a prevailing party agrees to payment pursuant to this fee matrix, the United States Attorney's Office will not request that a prevailing party offer the additional evidence that the law otherwise requires. *See, e.g., Eley v. District of Columbia*, 793 F.3d 97, 104 (D.C. Cir. 2015) (quoting *Covington v. District of Columbia*, 57 F.3d 1101, 1109 (D.C. Cir. 1995) (requiring "evidence that [the] 'requested rates are in line with those prevailing in the community for similar services'")).
4. The years in the column on the left refer to an attorney's years of experience practicing law. Normally, an attorney's experience will be calculated based on the number of years since an attorney graduated from law school. If the year of law school graduation is unavailable, the year of bar passage should be used instead. Thus, an attorney who graduated from law school in the same year as the work for which compensation is sought has 0 years of experience. For all work beginning on January 1 of the calendar year following graduation (or bar admission), the attorney will have 1 year of experience. (For example, an attorney who graduated from law school on May 30 will have 0 years of experience until December 31 of that same calendar year. As of January 1, all work charged will be computed as performed by an attorney with 1 year of experience.) Adjustments may be necessary if an attorney did not follow a typical career progression or was effectively performing law clerk work. *See, e.g., EPIC v. Dep't of Homeland Sec.*, 999 F. Supp. 2d 61, 70-71 (D.D.C. 2013) (attorney not admitted to bar compensated at "Paralegals & Law Clerks" rate).
5. The data for this matrix was gathered from the dockets of cases litigated in the U.S. District Court for the District of Columbia using the following search in July 2020 in Bloomberg Law: keywords ("motion n/5 fees AND attorney!") + filing type ("brief," "motion," or "order") + date ("May 31, 2013 – May 31, 2020" under "Entries (Docket and Documents)"). This returned a list of 781 cases. Of those, cases were excluded if there was no motion for fees filed, the motions for fees lacked necessary information, or the motions involved fees not based on hourly rates, involved rates explicitly or implicitly based on an existing fee matrix, involved rates explicitly or implicitly subject to statutory fee caps (e.g., cases subject to the Equal Access to Justice Act (EAJA), 28 U.S.C. § 2412(d)), or used lower rates prescribed by case law (e.g., *Eley*, 793 F.3d at 105 (Individuals with Disabilities in Education Act

cases)). After these excisions, 86 cases, many of which included data for multiple billers (and 2 of which only provided hourly rate data for paralegals), remained.

6. The cases used to generate this matrix constitute complex federal litigation—which caselaw establishes as encompassing a broad range of matters tried in federal court. *E.g.*, *Reed v. District of Columbia*, 843 F.3d 517, 527-29 (D.C. Cir. 2016) (Tatel, J., concurring) (noting that cases arising under the Freedom of Information Act, Title VII, the Americans with Disabilities Act, Constitutional Amendments, antitrust statutes, and others have been deemed complex, and even “relatively small” cases can constitute complex federal litigation, as they too require “specialized legal skills” and can involve “complex organizations,” such as “large companies”); *Miller v. Holzmann*, 575 F. Supp. 2d 2, 14-16, 17 (D.D.C. 2008) (prevailing market rates for complex federal litigation should be determined by looking to “a diverse range of cases”). That the attorneys handling these cases asked the court to award the specified rates itself demonstrates that the rates were “adequate to attract competent counsel, [while] not produc[ing] windfalls to attorneys.” *West v. Potter*, 717 F.3d 1030, 1033 (D.C. Cir. 2013) (quoting *Blum v. Stenson*, 465 U.S. 886, 897 (1984)). As a consequence, the resulting analysis yields the “prevailing market rate[] in the relevant community” for complex litigation undertaken in federal courts in the District of Columbia. *See Blum*, 465 U.S. at 895.
7. From these 86 complex federal cases, the following information was recorded for 2013 and beyond: hourly rate, the calendar year the rate was charged, and the number of years the lawyer was out of law school when the rate was charged (or, if law school graduation year was unavailable, years since bar passage), as defined above. If the graduation or bar passage year was not stated in a motion or its exhibits, then the lawyer’s biography was researched on the internet. Although preexisting fee matrices for the District of Columbia provide for mid-year rate changes, very few lawyers in the data submitted rates that changed within a calendar year. For this reason, the matrix was modeled using one rate for each calendar year. On the occasions when a lawyer expressed an hourly rate as a range or indicated the rate had increased during the year, the midpoint of the two rates was recorded for that lawyer-year.
8. The matrix of attorney rates is based on 675 lawyer-year data points (one data point for each year in which a lawyer charged an hourly rate) from 419 unique lawyers from 84 unique cases. The lawyer-year data points spanned from years 2013 to 2020, from \$100 to \$1250, and from less than one year of experience to 58 years.
9. Paralegal/law clerk rates were also recorded. The following titles in the fee motions were included in the paralegal/law clerk data: law clerk, legal assistant, paralegal, senior legal assistant, senior paralegal, and student clerk. The paralegal/law clerk row is based on 108 paralegal-year data points from 42 unique cases. They spanned from 2013 to 2019 and from \$60 to \$290. (It is unclear how many unique persons are in the 108 data points because paralegals were not always identified by name.)
10. The matrix was created with separate regressions for the lawyer data and the paralegal data. For the paralegal data, simple linear least-squares regression was used with the dependent variable hourly rate and the independent variable the year the rate was charged subtracted from 2013; years were

combined into one variable and subtracted from 2013 rather than modeled as separate indicator variables to constrain annual inflation to a constant, positive number. The resulting regression formula was $\text{rate} = 129.8789 + 9.902107 * (\text{year}-2013)$. For the lawyer data, least-squares regression was used with the dependent variable hourly rate and independent variables the year the rate was charged and the number of years of experience of the lawyer when the rate was charged. The year the rate was charged was subtracted from 2013 and modeled linearly as with the paralegal data. The number of years out of law school (or since year of bar passage) was modeled with both linear and squared terms, as is common in labor economics to account for non-linear wage growth (e.g., faster growth earlier in one's career than at the end of one's career). See, e.g., Jacob Mincer, *Schooling, Experience, and Earnings* (1974). The resulting regression formula was $\text{rate} = 227.319 + 16.54492 * \text{experience} - 0.2216217 * \text{experience}^2 + 27.97634 * (\text{year}-2013)$. Regressions were also run with log transformed rates and with a random-effect model (to account for several lawyers appearing more than once in the data), but both alternatives resulted in mostly lower rates than those reflected here; in order to minimize fee disputes, these models were therefore rejected in favor of the more generous untransformed, fixed-effect model. Rates from one case comprised 20% of the data; the regression was also run without that case, but the resulting rates were mostly lower and therefore rejected, again to minimize fee disputes.

11. The data collected for this matrix runs through 2020. To generate rates for 2021 and subsequent years, an inflation adjustment (rounded to the nearest whole dollar) was added. The United States Attorney's Office determined that, because courts and many parties have employed the legal services index of the Consumer Price Index to adjust attorney hourly rates for inflation, this matrix will do likewise. E.g., *Salazar v. District of Columbia*, 809 F.3d 58, 64-65 (D.C. Cir. 2015); *Eley*, 793 F.3d at 101-02; *DL*, 924 F.3d at 589-90.
12. This matrix was researched and prepared by Brian Fitzpatrick, the Milton R. Underwood Chair in Free Enterprise and Professor of Law at Vanderbilt Law School, with the help of his students.
13. This matrix and an alternative, preexisting matrix were extensively examined, and, based on that analysis, this matrix was the one selected for computation of the hourly rates for the attorneys' fees awarded in *J.T. v. District of Columbia*, Civ. A. No. 19-0989, 2023 WL 355940 (D.D.C. Jan. 23, 2023) (Howell, C.J.).

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THE STRANGE AND AWFUL PATH OF PRODUCTIVITY
IN THE U.S. CONSTRUCTION SECTOR

Austan Goolsbee
Chad Syverson

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The Strange and Awful Path of Productivity in the U.S. Construction Sector
Austan Goolsbee and Chad Syverson
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ABSTRACT

Aggregate data show a large and decades-long decline in construction sector productivity. This decline in such a large sector has had a material effect on secular productivity growth for the economy as a whole. Prior work has focused on the role of potential measurement problems in construction, particularly output deflators in the measurement of productivity. This paper brings some new evidence to bear on the industry's measured productivity problems and suggests that measurement error is probably not the sole source of the stagnation. First, using measures of physical productivity in housing construction, productivity is falling or, at best, stagnant over multiple decades. Second, there has been a noticeable decline over time in the efficiency with which construction firms translate materials inputs into output, and a corresponding shift toward more value-added-intensive production. Third, using state-level data, we do not find evidence of patterns of within-industry reallocation that might be expected of efficiently operating input and output markets. States with more productive construction sectors do not see growth in their shares of total U.S. construction activity; if anything, their shares fall. This may point to frictions in these markets that slow or stop what is in many other markets an important channel for productivity growth.

Austan Goolsbee
Booth School of Business
University of Chicago
5807 S. Woodlawn Avenue
Chicago, IL 60637
goolsbee@chicagobooth.edu

Chad Syverson
University of Chicago
Booth School of Business
5807 S. Woodlawn Ave.
Chicago, IL 60637
and NBER
chad.syverson@chicagobooth.edu

Aggregate productivity growth is the prime determinant of long-run growth in income per capita, and an economy's productivity growth reflects the productivity growth rates of the industries and sectors within it.

Yet despite decided growth in aggregate productivity for the U.S. economy as a whole, the U.S. construction sector has diverged considerably. Indeed, for decades now, measures of labor and total factor productivity (TFP) in the sector have trended downward. To be clear, the raw BEA data suggest that the sector has become *less* productive over time. A lot less productive: value added per worker in the sector was about 40 percent lower in 2020 than it was in 1970.

Economic researchers have remarked on these troubling patterns before; see, e.g., Stokes (1981), Allen (1985), Schriver and Bowlby (1985), Sveikauskas et al. (2016, 2018), and contemporaneous work by Garcia and Molloy (2022). The problem has also attracted the attention of broader analysts and audiences; see Changali et al. (2015), Economist (2017), Potter (2021), and Smith (2021) for examples. A great deal of attention has gone to the issue of whether measurement problems explain the sector's disappointing performance.

In this paper, we update some of this previous work and extend it to some new data sources and hypotheses. Together, these new approaches seem to reinforce the view that the poor performance is not just a figment of measurement error. We see similar stagnation using physical measures of productivity that are not dependent on price deflators. We also see that firms' abilities to turn materials into output has deteriorated and we document real issues with the sector's adjustment mechanisms; there is little reallocation from low productivity places to high-productivity places.

I. The Core Issue with Construction Productivity

Figure 1 shows indexes of U.S. construction sector labor productivity and TFP from 1950 to 2020. For comparison, it also plots the same indexes for the overall economy.¹

Throughout the 1950s and well into the 1960s, both measures of construction sector productivity grew steadily. Indeed, they outpaced their whole-economy counterparts during that period. By 1970, however, the construction sector's labor productivity and TFP had both begun to fall. This downturn was not temporary; the decline has continued for the past half-century.

This downturn did not mirror the economy-wide productivity pattern. Productivity in the entire economy grew throughout the period (albeit with some well-documented accelerations and decelerations). By 2020, while aggregate labor productivity and TFP were 290 percent and 230 percent higher than in 1950, both measures of construction productivity had fallen *below* their 1950 values.

This is stunningly bad productivity performance for a major sector. It is brought into special relief when compared to the over nine-fold increase in labor productivity the manufacturing sector experienced during the same period. Manufacturing, like construction, deals with the configuration and assembly of physical objects in preparation for use as either inputs into production or final consumption. Yet the two sectors experienced totally different productivity trajectories over the past 50 years.

¹ We compute productivity using the Bureau of Economic Analysis national and industry accounts data. Labor productivity is real value added divided by full-time-equivalent (FTE) employees. The change in total factor productivity (which we convert to an index level) is the growth rate in value added minus a weighted sum of the growth rates of labor and capital. The weights in a given year are the cost shares of the factor inputs, averaged across the current and prior year in the usual Divisia fashion. Labor costs are total labor compensation plus 67 percent of proprietor's income. (We base the 0.67 multiplier on labor's historical share of income being roughly two-thirds.) Capital costs are the sum of depreciation, the product of the real interest rate and the current value of installed capital, and 33 percent of proprietor's income. Analogous productivity series computed using gross output rather than value added (and in the case of TFP, subtracting the implied contribution of intermediate inputs) show similar patterns. We explore the trends in gross output, value added, and intermediate materials in the construction sector in more detail below.

Construction’s poor performance might be just a curiosity if it were a trivial fraction of economic activity, but it is not. The sector’s value added averaged 4.3 percent of GDP between 1950 and 2020. This share, while experiencing fluctuations, has remained fairly steady over the long-run. Construction is a sizable share of aggregate output. It is large enough that its poor productivity performance noticeably drags down aggregate productivity growth. Construction labor productivity fell at an average rate of about 1 percent per year from 1970-2020. Had it instead *grown* at the (relatively modest) rate of 1 percent per year, annual aggregate labor productivity growth would have been roughly 0.18 percent higher.² This would have resulted in current aggregate labor productivity (and plausibly, income per capita) being about 10 percent higher than it actually was.

While we focus in this paper on U.S. construction sector, the problem of laggard construction productivity growth appears more widespread. In the 29 countries for which the OECD reports construction sector value added per employee growth data over 1996-2019, 16 of the countries—as well as the EU-27 area as a whole—saw negative average labor productivity growth in their construction sectors over that 25-year period.³

Even in countries that saw positive construction productivity growth, it typically substantially lagged overall productivity growth in their economies. Average labor productivity growth across all 29 countries was 0.4 percent per year, in contrast to those countries’ average overall labor productivity growth rates of 1.6 percent over the same period. The phenomena we explore at a detailed level within the U.S. may well apply more broadly. Their full international extent is worthy of future inquiry.

² This is calculated by multiplying the notional 2 percentage point increase in construction labor productivity growth by its average Domar weight (the sector’s gross output as a share of GDP) of 0.090. This weight—see Domar (1961)—is the first-order approximation of the contribution of a sector or industry’s productivity growth to aggregate productivity growth.

³ We use the “Productivity and ULC by Main Economic Activity” data from the OECD for these computations.

II. The Failure of Capital-Based Explanations for the Decline

First, we address perhaps the most obvious potential source of poor productivity growth, a lack of capital investment. If laggard investment led to lower capital-to-labor ratios, it would directly affect labor productivity. This could also influence TFP, if TFP were partially capital-embodied (Hulten, 1992).

At first glance, though, this does not seem consistent with data for the construction industry. Figure 2 compares changes in the construction sector's current-value capital stock to that of the entire economy. While capital in construction did not grow as steadily as capital in the wider economy, construction's total capital stock growth since 1950 has actually been a bit larger, rising 7.8-fold as opposed to the 6.5-fold increase for total capital in the economy. There was no noticeable slowdown in capital growth after 1970, when sector productivity started to fall. Moreover, capital intensity—capital stock per FTE employee—did not fall in the sector relative to the overall economy. To the contrary, it actually rose a bit faster.

A more nuanced view of capital's role in construction productivity would include intangible capital, which by definition is not contained in the capital series above. We can look, however, at what the BEA terms the capital stock of intellectual property (IP) products in the industry. The BEA defines this category of capital assets as including the capitalized value of R&D, software purchases, and—perhaps less relevant to construction—artistic originals. Following work like Brynjolfsson, Rock, and Syverson (2021), we can use IP capital stock as a proxy for intangible capital in the industry (which would include things like know-how, organizational strength, trade secrets, buyer-supplier relationships, sector-specific human capital, and so on).

The U.S. construction sector is less IP-capital-intensive than the economy overall. For instance, in 2020 IP capital accounted for 4.0 percent of the sector's total capital stock, while the same ratio for the broader economy

was 7.4 percent. On a per-employee basis, IP intensity in construction is an order of magnitude smaller than in the rest of the economy.⁴

However, the IP capital data in the construction sector are not really consistent with intangible capital driving the path of construction productivity, either. The sector had *no* recorded IP capital in the national accounts until 1970. Thus, throughout the 1950-1970 period when the sector's productivity growth kept up with or even exceeded aggregate productivity growth, there was no strong indication that the sector was putting into place large intangible investments. Only after the productivity slowdown had begun did the sector begin to invest in IP capital, and despite accumulating such capital at a rate exceeding that in the overall economy, the sector's productivity level continued to diverge from aggregate productivity growth.

III. The Traditional Confound: Measurement Problems

Because productivity is a residual—the variation in output unexplained by variation in measured inputs—mismeasurement of either output or inputs will be labeled productivity, even if unrelated to the actual efficiency of the production process. Understatements of output or overstatements of inputs would cause measured productivity to be lower than true productivity, so it is important to think about whether such issues might explain the patterns in construction.

We start from the observation in Syverson (2017) that attributing a *change* in productivity to mismeasurement requires not just establishing the presence of mismeasurement, but also a change in the *amount* of mismeasurement in the necessary direction at the same time as the measured productivity change. If we are to explain the reversal in productivity growth in construction in the late 1960s as resulting from measurement problems, we

⁴ Though part of this enormous difference is accounted for by the inclusion of the residential housing stock in economy-wide capital, which is limited in its market-activity marginal product.

need to demonstrate that some combination of growth in the understatement of output or overstatement of input occurred in the late 1960s.

We first consider labor input measurement. There are several plausible channels for labor measurement difficulties in construction, including a higher than average frequency of employees working irregular hours, contractor labor that may be misclassified by survey respondents, and, especially in more recent decades, labor supplied by undocumented workers.

Figure 3 plots three series for labor inputs in the construction sector: the sum of full-time and part-time employees (from the BEA), FTE employees (also from the BEA), and total employment (from the Current Employment Statistics of the BLS). These series capture different elements of labor inputs, such as the implied differential treatment of hours per worker when comparing summed full-time and part-time employees with FTE employees.

None of the series shows an obvious kink in the late 1960s. Moreover, they track one another closely, with no divergence at the time construction productivity started falling. The average pairwise correlations among the three series before 1970 is 0.983 and is 0.999 from 1970 on. In addition, the average annual growth rates of all three series were *lower* after 1970 than before. A mismeasurement-driven productivity slowdown would imply inputs that are growing misstatedly fast—that measured labor accelerated rather than decelerated as the data seem to show.

Given our earlier discussion about the trajectory of the construction industry's capital stock, mismeasurement of capital also seems unlikely to explain the measured productivity declines. Moreover, capital measurement problems cannot be responsible for labor productivity mismeasurements, and labor productivity in construction exhibits the same broad pattern as does TFP (and likewise for intermediate/materials inputs).

Given the lack of obvious issues with measured inputs, much of the attention in the literature has centered on problems with measuring output.

As noted above, construction's value added share of GDP exhibited no long run trend over 1950-2020, so *nominal* construction value added grew at a

similar rate to the overall economy. The components of this ratio are both nominal values, so the measured slowdown must, mechanically, be coming from differences in the output price deflators.⁵

Indeed, the construction sector's output deflator and the aggregate GDP deflator clearly start to diverge after the late 1960s. From 1950-69, the average annual growth rates of the construction and GDP deflators were almost identical—2.40 percent and 2.42 percent. From 1970 on, however, the GDP deflator averaged annual growth of 3.37 percent, while the construction value added deflator grew 5.47 percent per year. This sustained 2.1 percentage point annual difference means that even if nominal construction value added grows at a similar rate to GDP, real construction value added would grow much more slowly, and perhaps even fall.

This kink in the construction price deflator is also perhaps large enough to quantitatively explain the observed downturn in construction productivity. Figure 4 repeats the plot of Figure 1, except it computes real construction output by deflating nominal construction value added with the GDP deflator rather than the deflator for the construction sector. The difference is striking. Now construction sector productivity grows throughout the entire 1950-2020 period, nearly matching the pace of overall productivity growth.

Clearly, the construction sector price deflator is, mechanically speaking, a key source of the downturn in measured construction productivity. Computing productivity by deflating nominal construction activity with the whole-economy deflator makes the construction productivity series look like overall productivity.

Note, however, that this is not evidence that we should use the aggregate GDP deflator for the construction industry or that the construction deflator is *wrong*. It could well be right and true construction productivity has, indeed, fallen for 50 years. However, the fact that it matters so much puts onus on

⁵ The potential role of price deflators in real construction output measurement in earlier decades was taken up by Gordon (1968) and Pieper (1991).

those interested in understanding construction productivity to check the deflator's accuracy.

This is why some of the most important work on construction productivity in the existing literature, like Sveikauskas et al. (2016, 2018) and Garcia and Molloy (2022), focuses on subsets of the construction industry where they can build more accurate output price deflators to explore productivity growth dynamics. This work has found that in such cases, productivity declines are not as extreme in the last 30 years as suggested in the aggregate data, and in some cases productivity was in fact growing (albeit modestly). It is this idea that brings us to search for settings where we can potentially get around the output deflator issues, as we do in Section IV below.

a. Potential Sources of Growth in Construction Output Prices

Given that the construction sector output deflator is rising considerably faster than prices in the rest of the economy, it is worth exploring whether there are visible sources of this relative price increase.

A logical place to look is at construction input prices. If these are also rising faster than the overall price level after 1970, it would be a clue as to the origin of the fast-rising prices and declining real output of the sector.

We first look at construction's intermediate inputs prices, using the sector's intermediate inputs deflator from the BEA's KLEMS database. Figure 5 plots this deflator and its change since 1950, along with the construction sector output and GDP deflators for comparison. It is readily apparent that construction intermediates price growth has been on the order of price growth in the overall economy rather than the faster growth measured in construction output prices. Its time path overlaps considerably with the GDP deflator and lags the construction output deflator.⁶

⁶ In separate work, we have looked at the PPIs of 10 major construction sector inputs over the sample period. These are conceptual components of the intermediates deflator above. While there is variation in the average growth rate of these inputs' prices, their mean tracks the GDP deflator, just as the intermediates deflator does.

We next look at relative labor prices by computing the nominal implied salary per worker for the sector and comparing its trajectory to that for the overall economy. We compute the implied salary as total labor compensation plus 0.67 times sole proprietor income, divided by the sum of employees and self-employed. The construction and overall-economy series track each other quite closely throughout 1950-2020. Construction salary growth is higher, but only slightly so (a difference of 0.14 percent in average annual growth rates). Moreover, there is no obvious divergence after 1970. Given the 2.1 percentage point average annual difference in construction and GDP deflators, this difference in relative labor prices is less than a tenth of that. Thus it may explain a part of the divergence in relative output prices, but this part is very small.

Direct measures of industry-specific capital prices are not readily available, but a prominent component of capital user costs is the depreciation rate. We compute depreciation rates for both the overall economy and the construction sector using BEA data on depreciation and capital stocks. While annual depreciation rates are higher in construction than for the overall economy, averaging 3.7 percent overall and 13.6 percent for construction over 1950-2020, there is no sign that *changes* in depreciation rates imply the relative user costs of construction capital are rising. In fact, the gap between construction and overall depreciation rates fell during the period, implying that this major element of capital costs was becoming relatively cheaper in construction. For the first five years of the period, the average difference between the overall and construction depreciation rates was 13.5 percent. For the last five years, it was 9.3 percent.

In sum, there is no obvious sign that changes in the relative prices of the construction sector's major inputs—intermediates, labor, and capital—drove the observed growth of relative construction output prices.

If relative unit input prices do not account for the increase in construction's relative output price, perhaps markups rose instead. To explore this possibility, we construct an approximation for markups by comparing

sector revenues to its total measured input costs. Construction input costs include expenditures on intermediates (which we observe directly in the KLEMS data), total payments to labor (the numerator in the average salary calculation above), and payments to capital (depreciation plus the real interest rate multiplied by the industry capital stock plus 0.33 times proprietor's income). We divide revenues by the sum of these input expenditures as a proxy for markups.

The average of this markup ratio over 1950-2020 is 1.016, indicating a modest average margin of 1.6 percent in the construction sector. This margin has a slightly increasing trend of 0.024 percent per year. This corresponds to growth in the average margin of 1.7 percent over the entire 70-year period. To the extent this higher accounting margin reflects larger markups over costs, some of the increase in construction's relative output price came from growing markups.

However, there are two important caveats to this interpretation. First, this overall change is miniscule compared to the overall growth in construction prices observed during the period. It is two orders of magnitude smaller than the 2.1 percentage point annual growth in the relative price of construction output after 1970. Second, this is an increase in construction's absolute markup. If markups are also increasing in the economy overall (see De Loecker, Eeckhout, and Unger, 2020, for evidence of this, at least since 1980), then there may be no increase in construction's *relative* markup and hence relative prices.

In sum, our analysis to this point indicates that only a small part of the large increase in relative output prices of the construction sector may come from increased relative wages and (perhaps) higher markups. The vast majority of the increase in construction's price deflator relative to average overall prices cannot be explained by increasing relative prices of construction inputs or markups.

This leaves a few possibilities to explain the divergence of the construction output and GDP deflators. One is that construction sector

productivity did indeed fall, raising unit input requirements. Even though prices per unit of inputs did not rise (or rise faster than other prices outside the construction sector), the unit costs of output would increase because construction firms would need to buy more inputs than before to build a unit of output.

Another possibility is that construction output price mismeasurement became worse in the late 1960s. If, say, the quality of construction output accelerated as did prices along with it, but the deflator does not properly account for that quality difference, the increase in output quality would have to occur in a way that was not correlated with increases in construction input prices. But, increased output quality from using more expensive inputs (better materials, much more skilled labor, etc.) is not consistent with the input price evidence above that input prices have not moved together with output prices.

IV. Measuring Productivity in Physical Units

We next turn to methods that do not rely on output price measurement. Our approach is to focus on a setting where output and productivity can be measured in physical units rather than expenditure requiring a deflator. Researchers have applied this approach in the broader productivity literature, especially the part dealing with producer microdata, but of course doing so relies on having a setting where individual units are measured and there is reasonable homogeneity.⁷ In this section we consider a part of the construction industry where those conditions might hold (loosely): home construction.

Output data are available for the U.S. housing construction industry not just in value but in *number of housing units* as well. Exploring the evolution of the industry's productivity measured in houses per unit input, rather than deflated house value per unit input, lets us track a measure of the efficiency of the industry's production process that does not rely on a price index.

⁷ A few recent examples include De Loecker et al. (2016); de Roux et al. (2021), and Orr (forthcoming).

This advantage does come at an obvious cost, however. If the physical housing units change in quality over time, then a given number of housing units in one period will not be the same “real” quantity of housing as in another period. And we know that the average attributes of houses have changed over time; for instance, they have trended toward larger floor areas. Given the amount of data available on homes, however, we can also explore whether such changes materially affect the conclusions from using housing-unit-based productivity measures.

Our output data come from annual housing completions reported by the U.S. Census Bureau. These begin in 1968 and are broken out by number of units per building: 1 unit, 2-4 units, and 5+ units. We combine this with CES employment data for the housing construction industry. After 1990, the employment data are reported separately by single-family and multi-family housing construction sub-industries. An older employment series for all residential construction activity extends from 1972-2002. It unfortunately precludes a breakout into single- and multi-family construction and also includes employment in repair and remodeling that is not reflected in the Census housing construction output data. Nevertheless, it is instructive to compare the (combined single- and multi-family housing construction) results from this older series to the more precise values starting in 1990, and we do so below.

Figure 6 shows the resulting annual productivity series, measured in housing units per employee. Looking first at the two post-1990 series, while there are some notably large swings in the average number of housing units built per employee in both the single-family and multi-family housing subindustries (the largest in each being troughs during the Great Recession), there is no discernable upward trend over the three decades. Linear time trends fit to both series have statistically significant and negative slopes. For single-family housing, it is -0.023 (s.e. = 0.007) per year, and for multi-unit housing the slope is -0.081 (s.e. = 0.037) per year. Average productivity in the first five years of the single-family (multi-unit) series is 2.63 (10.6) units per

employee and in the last five years is 2.35 (10.0) units per employee.⁸

Comparing the magnitudes of the negative trend estimates to the levels of these productivity measures, housing productivity measured in units per employee is declining at a rate of roughly -1 percent per year. This is about the same as seen above in the broader construction sector and using deflated value to measure output.

The older, 1972-2002 series exhibits, if anything, a stronger downward trend than the other two series.⁹ The linear trend slope is -0.042 (s.e. = 0.005), and average units per worker in the first and last five years of the period are respectively 3.1 and 2.1. Though it is worth noting that during the 1990-2002 period of overlap, this productivity measure is basically level.

These data offer a complementary view into stagnant or declining construction productivity uninfluenced by price mismeasurement. The new residential construction industry, at least, does not seem to be becoming more efficient at building housing units.

As noted, however, the usefulness of physical-quantity-based productivity measures depends on the homogeneity of the units across settings and time. If housing units are getting better, the industry may be becoming more productive in terms of *housing quality* produced with a unit of input, even if the number of housing units per input has not increased.

One of the more obvious changes in housing units over the past several decades has been the increase in floor space per unit. Houses have been getting bigger. Data on the average square footage of completed single-family housing units is available from 1973-2020, and it rose from 1660 ft² to 2480 ft² over that period. The average size of multi-family units rose as well, but more moderately, from 1021 ft² to 1121 ft².

⁸ As seen in the figure, since the Great Recession, houses per worker recovered to roughly their pre-Great Recession levels. Time will tell if this growth extends beyond the prior level or instead merely returns to the long-run average.

⁹ Because the employment data for this series includes not just single- and multi-family housing employment but repair and remodeling employment as well, this extra employment not generally dedicated to new home construction will cause the level of this productivity series to be lower than either of the other two.

Recomputing our unit productivity series for residential construction as square footage of housing per employee, of course, exhibits more positive trends than do the housing-unit-based productivity values above (because the floor area has been trending up). The question is how much, and whether the prior significantly negative trends remain so.

The three series are in Figure 7. The significant downward trend seen in the old series remains (the series now spans 1974-2002, as no average square footage per unit for multi-family buildings was available before 1974). The linear yearly trend coefficient is -30.8 ft² per employee (s.e. = 9.4).

The newer series do see some changes relative to their units per employee patterns. For multi-family housing, which had a negative and significant trend in units per employee, the trend for square footage still has a negative point estimate (-42.6) but is now insignificant (s.e. = 37.9). Single-family housing now has a *positive* and significant annual trend growth of 37.4 ft² per employee (s.e. = 16.0).

The magnitudes are instructive, however. Average square footage built per employee in single-family housing construction over 1990-2020 is 7120 ft². An annual trend growth of 37.4 ft² per employee off that base is 0.5 percent per year. So even in the most optimistic case, this is one quarter of the 2.0 percent annual labor productivity growth in the overall economy during the period.¹⁰

V. Deteriorating Materials Productivity

Setting aside measurement problems, in this section we document a new type of productivity slowdown in the construction sector involving trends in the way which the sector converts intermediate inputs into outputs.

One summary measure of this process is the ratio of the sector's value added to gross output. The difference between these two is expenditures on

¹⁰ Recent work by Garcia and Molloy (2022) makes more elaborate corrections for housing quality changes and similarly find only modest deflator-driven understatement in official measures of the sector's productivity growth. Schmitz (2020) has proposed that lack of competition, perhaps structurally supported by industry trade associations, could explain poor productivity growth in housing construction.

intermediate inputs. Their ratio captures how much of the sector’s final revenues are created through the application of value-added factors (labor and capital) as opposed to purchased from outside the sector.

Value added as a share of gross output in construction rose over the 1950-2020 period, from a level just below 0.4 in the early years to just above 0.5. The period of highest growth is circa 1985 to 2000, after which the series levels off. The sector has therefore shifted a greater portion of its final output production to activities inside the sector, done by its own labor and capital. As noted in Sveikauskas et al. (2018), specialized subcontractor labor is treated as a purchased service (a type of intermediate input) in standard KLEMS accounting. A shift toward less intensive use of subcontractors could account for some of the sector’s shift toward a greater share of value added in gross output.

We break down this pattern further by looking at the separate trajectories of the revenue shares of each of the three major inputs into gross output (i.e., revenues): labor, capital, and intermediates.¹¹ Intermediate inputs’ share fell throughout 1950-2020, from an average of 60.5 percent during the first five-year period (1950-54) to 48.9 percent over the last five years. About two-thirds of this 11.6 percentage point drop was recovered by labor inputs taking a larger share (growing from 33.6 to 41.9 percent) and another third by an increase in capital’s share (5.9 to 9.3 percent).

We can also look at intermediate input efficiency by computing the relative growth of real gross output and real intermediates use. This growth in “materials productivity”—output obtained per unit of intermediate input—is an analog to the more commonly measured labor productivity.

Materials productivity for both all industries and the construction sector show an interesting pattern in Figure 8. Materials productivity in construction looks much like labor productivity does, rising until the late 1960s, at which

¹¹ Results reported here are similar if we use inputs’ shares of sector costs instead of revenues, which is not surprising given the low and slow-changing markups we estimated above.

time the series turns downward and begins a half-century of decline. All industries materials productivity, on the other hand, has a slow positive trend throughout the entire 1950-2020 period.

This turnaround is curious, especially when paired with the result that the sector's value added as a share of its gross output is growing. Given that the difference between these two values is intermediates purchases, this implies that over time the sector has been spending less on inputs to produce a given amount of gross output production. These productivity figures indicate this reduction in input spending is not because the sector has become more adept at converting intermediates into output (which would reduce the quantity of intermediates required). Instead, it seems to embody a substitution effect: as the industry became worse at converting intermediates into output, thereby raising the implied (output) unit costs of intermediates, the industry has shifted toward a more value-added-intensive production process.

VI. Productivity and Reallocation in Disaggregated Data

In this section we drill down below the sectoral aggregate data and investigate patterns in the disaggregated numbers. Specifically, we test whether, when there are producers with heterogeneous productivity levels, the market reallocates activity away from lower-productivity producers and toward higher-productivity producers. This would be consistent with efficiently operating input and output markets in the sector. The productivity literature has documented this reallocation mechanism as one way in which aggregate productivity growth can rise (indeed, it would facilitate aggregate productivity to grow even if no single producer's productivity rises).¹²

We employ the state-level output and employment data from the Census of Construction conducted every five years from 1972 to 2017. Our analysis assumes that construction inputs' marginal products are positively correlated with their average products. This would be the case, for example, if the

¹² This is sometimes referred to as the "between" mechanism (De Loecker and Syverson, 2021).

production function were Cobb-Douglas, though this property holds for many other production functions as well.

The testable empirical prediction of efficient reallocation is that states or firms with higher construction productivity today should, all else equal, see construction activity grow faster in the future, as additional resources are moved to production in that setting.¹³

Using the state-level output and employment data from the Census of Construction, we first compute the labor productivity level (real net construction value per employee) of the construction sector in each state and census year. We then regress the future change in the state's share of all US net construction value on the labor productivity level in the baseline period. With allocative efficiency, we should see a positive coefficient: states with construction sectors that are initially higher productivity see an increase in their share of total construction value.

We run this regression using data computed at two different timings. The first uses a state-by-census-year panel that regresses the five-year change in share of US construction value from year t to year $t + 5$ on the state's construction labor productivity in year t . We include year and state fixed effects in this specification. We have data for 9 inter-census changes from 1972 to 2017. The second specification is similar, but uses only a single long-difference of a state's share spanning 1972 to 2017 and regresses it on the state's 1972 construction labor productivity level.

The results are in Table 1. Column 1 shows the results from the panel; column (2) reports the outcome of the long-difference specification. Neither indicates the hypothesized positive relationship between initial productivity and future growth. Both coefficients are negative, significantly so in the panel regression.

Thus at best there is no clear relationship between the productivity of a state's construction sector and the amount of construction activity that state

¹³ This is akin to the "dynamic allocation" test done for U.S. hospitals in Chandra et al. (2016).

should expect to gain, be it the near or distant future. If anything, resources seem to move away from the more productive states.

This result may indicate the presence of market frictions that limit the ability of the construction sector's input and output markets to reallocate activity toward higher-productivity uses. The failure of this market mechanism blocks one of the two major channels through which productivity in an industry can grow, and may be a partial explanation of the aggregate productivity problems facing the industry.

VII. Conclusion

Measured productivity performance in the construction sector has been unusually awful for 50 years. This has caught economic researchers' attention before but has gained increasing attention in broader policy-related circles in recent years. In this paper, we have updated some of this earlier work to show that measurement problems alone likely cannot explain all of the decline and that there are some problems facing productivity in the industry that have not been documented previously.

First, from a purely accounting perspective, input-based explanations simply cannot account for the half-century decline in productivity. Most of the observed productivity decline results from the divergence between the construction sector's output price deflator from average price growth in the economy. This is summarized by the fact that if nominal construction activity is deflated by the GDP deflator instead of the sector-specific deflator, the path of implied productivity in the sector is much closer to that observed in economy-wide productivity. This importance of the deflator to the measured decline is not itself evidence that the construction sector output deflator is wrong, however.

Further exploring the deflator's growth, we find that increases in input unit prices do not seem to be driving its divergence. Either construction productivity truly is declining, raising unit input requirements, or there is some form of mismeasurement that is uncorrelated with higher input prices (i.e.,

ruling out quality-based explanations where the sector shifts to higher-quality and more expensive inputs).

Several pieces of evidence suggest that measurement errors in the deflator are not the sole cause of poor productivity performance in the sector. When we measure productivity performance in physical units in a key industry in the sector—residential housing construction—it also shows declining or stagnant productivity.

The sector's ability to transform intermediates into finished products has deteriorated.

We also document evidence that something keeps producers in areas where the sector is more productive from growing. Rather than construction inputs flowing to areas where they are more productive, the activity share of these areas either stagnates or even falls. This problem with allocative efficiency may be accentuating the aggregate productivity problem for the industry.

The productivity struggle is not just a figment of the data. It is real. Further research is needed to test between competing explanations and sharpen the picture of what has been happening in the sector. Certainly construction is an important enough component of total economic activity to warrant attention.

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Figure 1

Indexes of Value Added Per Worker and TFP, Overall U.S. and Construction Sector (BEA Data)

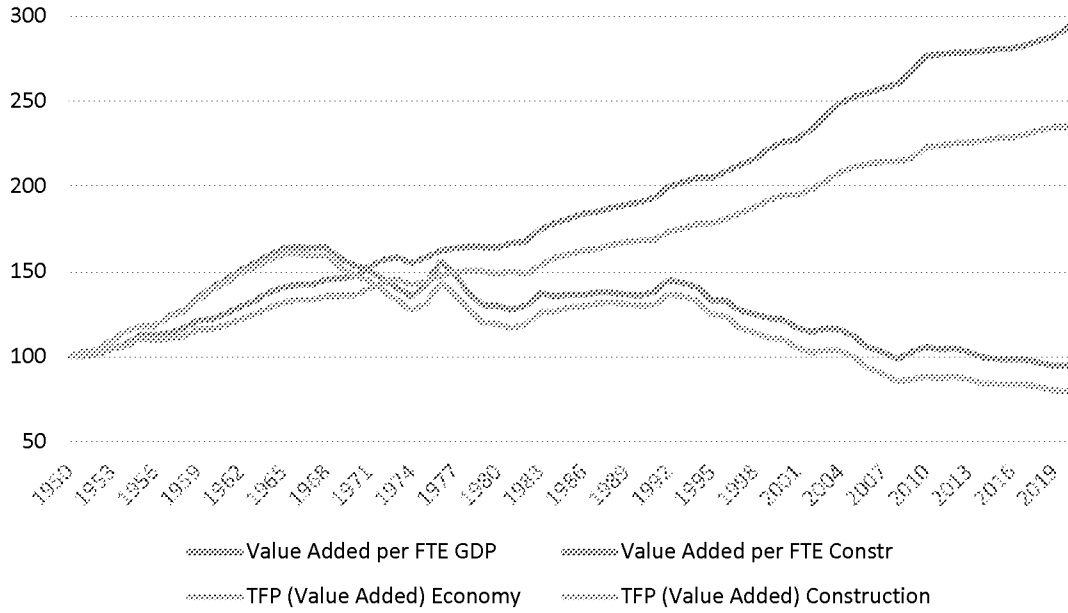


Figure 2

Capital Stocks (2012 = 100), Total Economy and Construction Sector

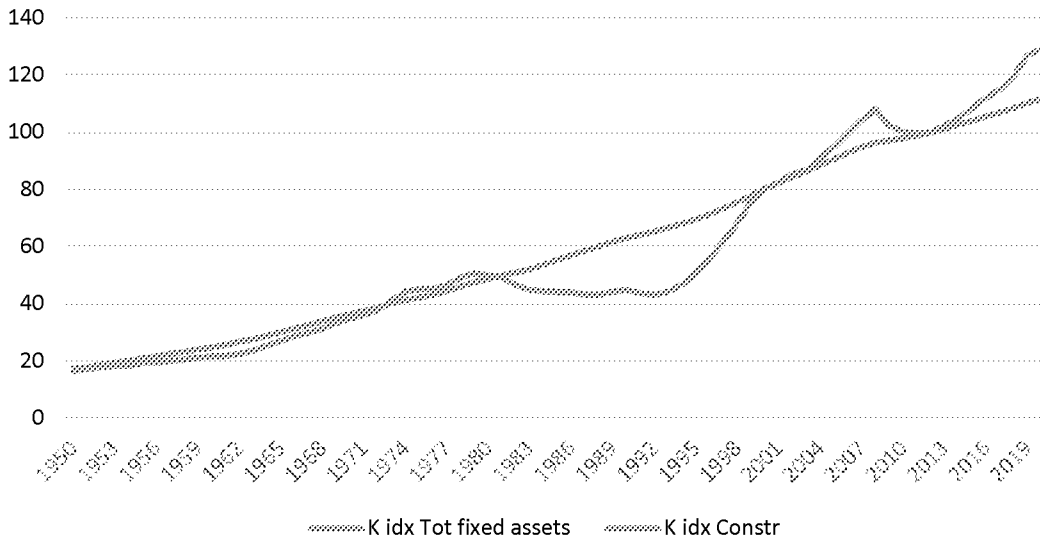


Figure 3

Construction Sector Labor Inputs, Three Measures

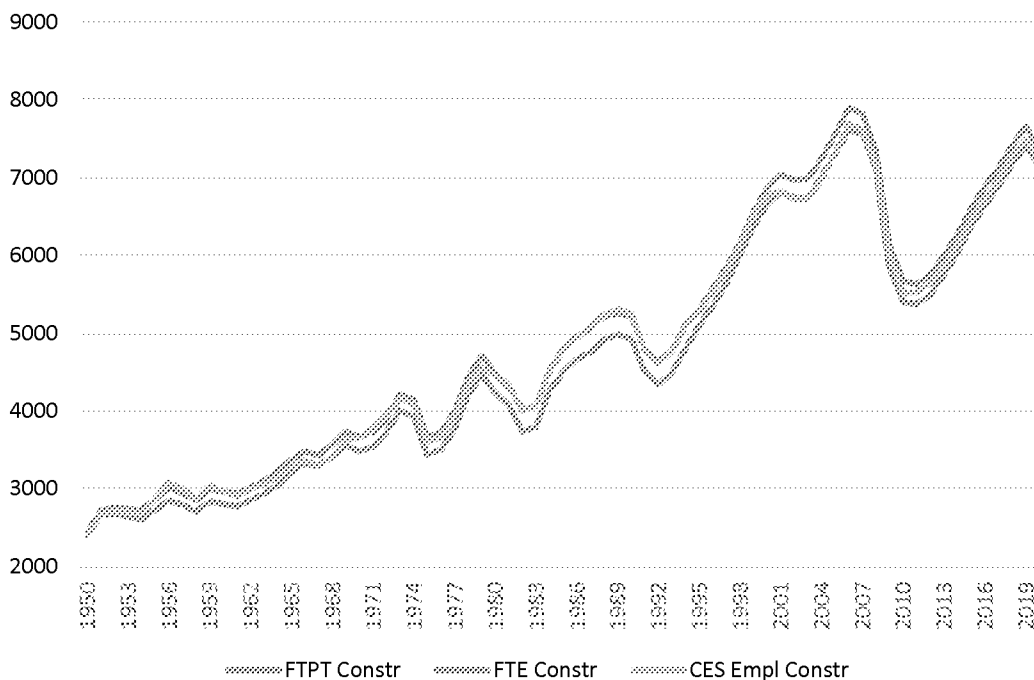


Figure 4

Indexes of Value Added Per Worker and TFP, Overall U.S. and Construction Sector (BEA Data)

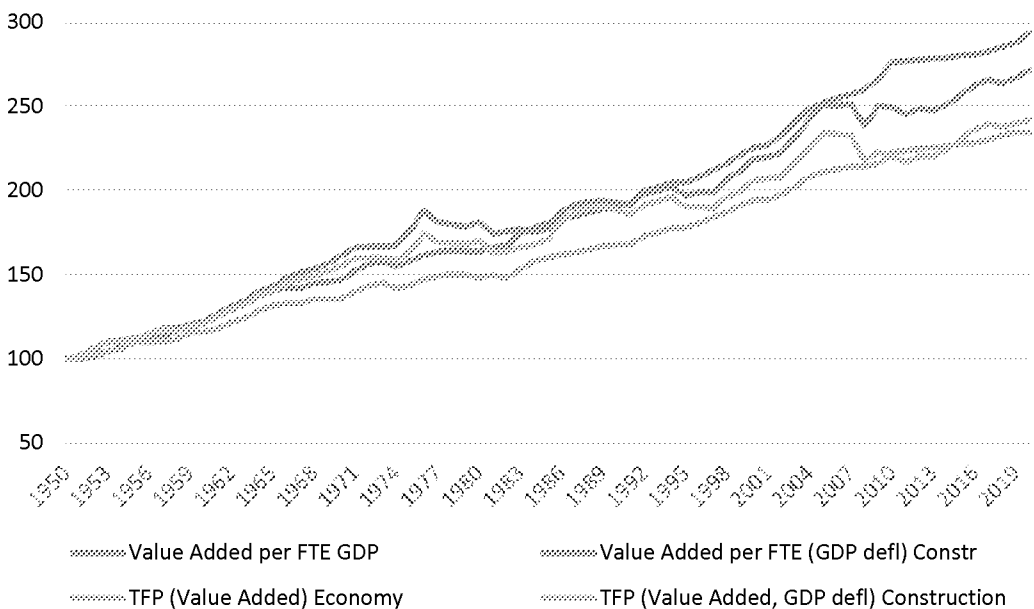


Figure 5

Construction and GDP Output Price Index Compared to Construction Intermediates Price Index

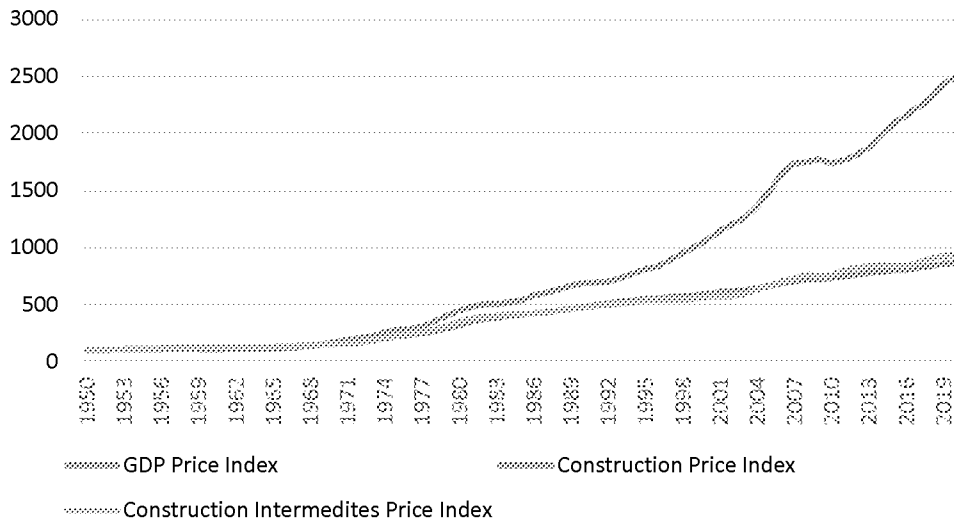


Figure 6

Housing Units per Employee, Housing Industry

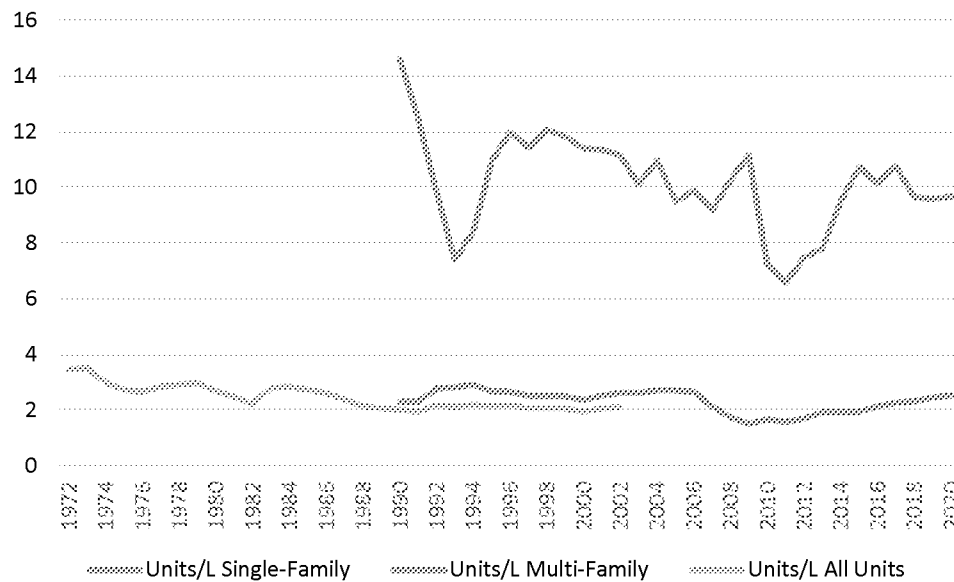


Figure 7

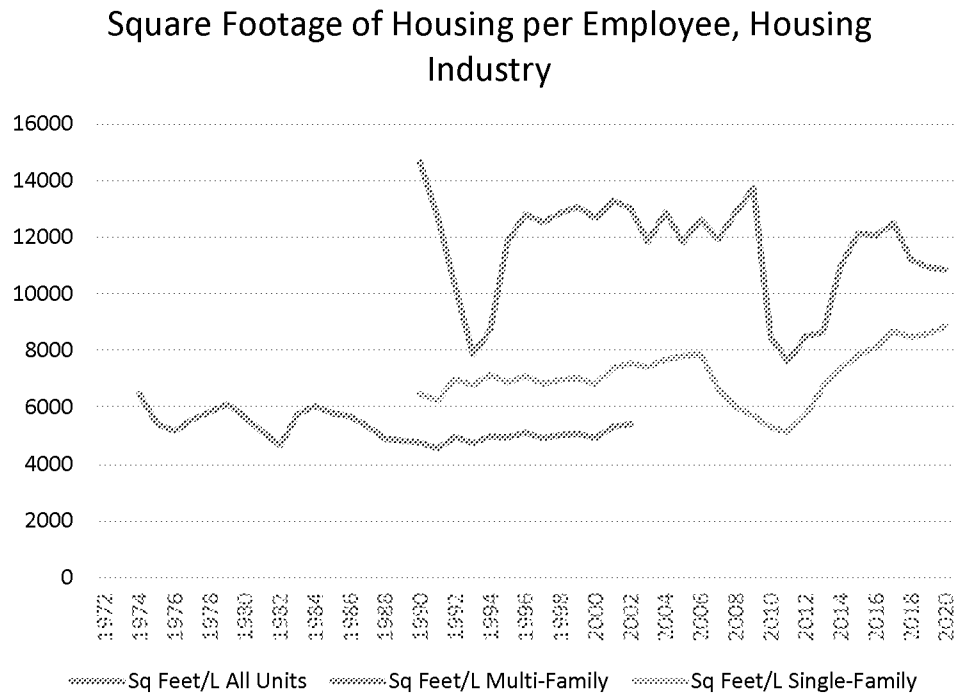


Figure 8

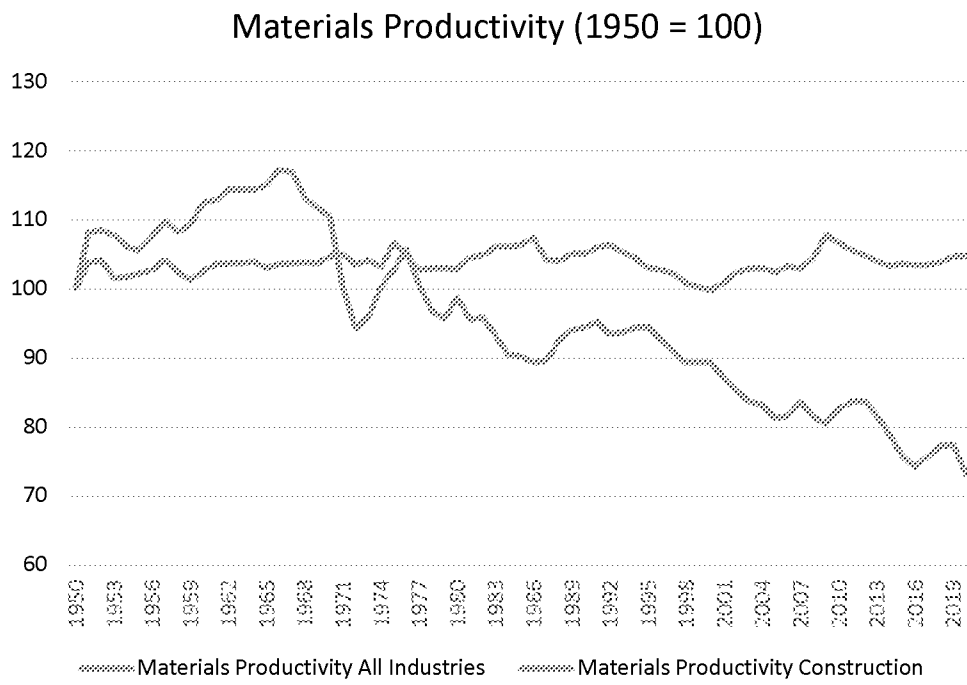


Table 1. Change in State's Share of U.S. Construction Value on Initial Labor Productivity Level

	(1) Change in state's share of U.S. net construction, year t to $t+5$ (percent)	(2) Change in state's share of U.S. net construction, 1972-2017 (percent)
$\ln(\text{state's real net construction value per employee})_t$	-2.92 (0.48)	-2.40 (3.01)
Year FE	Yes	No
State FE	Yes	No
N	459	51



Research Note Series

**The Effects of Noncompete
Agreement Reforms on Business
Formation: A Comparison of
Hawaii and Oregon**

Author: Benjamin Glasner
Contact: benjamin@eig.org
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1307 NEW YORK AVE NW, WASHINGTON, DC 20005

Research Question

What happens to new business formation when states introduce legislation limiting the enforceability of noncompete agreements?

Context

In order to better understand the implications of noncompete agreements and their enforceability, we compare how targeted noncompete agreement reforms in Hawaii and Oregon affected business formation in each state. While Hawaii's reform focused on noncompete agreements among technology workers, Oregon's reform focused on low-wage hourly workers. Following previous work on entrepreneurship and noncompete agreements, we expect that the two reforms would have different impacts on business formation. Because technology workers are more likely to have the technical expertise and access to the financial assets necessary to start a business in their chosen field relative to low-wage hourly workers, we expect that the Hawaii reform will have a greater positive impact on business formation.

Summary of Results

- Legislation limiting the enforceability of noncompete agreements can change patterns of business formation.
- The Hawaiian reform, which exempted workers in technology focused industries, resulted in a 10.2 percent increase in the number of technology establishments and a diffusion of skilled technology workers across the labor market.
- The Oregon reform, which exempted low-wage workers, did not result in a statistically significant increase in the number of establishments or a significant shift in employment.

Why We Care

This research suggests that policymakers must ensure that noncompete agreement reforms include higher-earning knowledge workers if they aim to encourage entrepreneurship and foster economic dynamism with their efforts. This research finds that legislation limiting the enforceability of noncompete agreements among a subset of high-wage workers with in-demand skills resulted in the formation of new businesses and increased transfer of knowledge as workers changed jobs. It found no such impact to reforms covering only lower-earning workers. There are many reasons to curtail the use of noncompetes for low-wage workers, and this research helps build the case for curtailing the use among higher-wage workers, too.

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1 Literature Review

Noncompete agreements (NCAs) have been a growing element of the U.S. labor market and a recent focus for state and federal regulation. Since 2011, 28 states and Washington, DC, have enacted regulations and bans or modified their laws on the use of NCAs. Subsequently, enforcement regimes across states have become increasingly dissimilar. These changes have inspired a great deal of research exploring the effects of NCAs on wages, innovations, entrepreneurship, and the labor market as a whole^[26].

The motivation for, and assumed effects of, NCAs are a necessary component of our understanding of the literature. Arrow's^[2] work on innovation across firms offers a great perspective on the potential motivations for NCAs: Firms are caught in a balancing act of developing innovative ideas and training skilled workers, while also maintaining control over their intellectual property and keeping the cost of retaining workers low. Although NCAs are just one tool at a firm's disposal, they are used frequently. It is estimated that roughly 18 percent of workers are covered by NCAs^[25], though this share could be even higher.^[8] This high level of coverage results in two major negative effects.

First, a noncompete agreement limits the capacity of workers to transition to competing firms. While this may be in the interest of an employer looking to capture an investment, it significantly limits one of the primary avenues for a worker to acquire higher wages. NCAs have been shown to prevent workers from transitioning out of jobs,^[10;11;15;19;23;25] make it more difficult to hire workers,^[9;23;24] and reduce the earnings of workers.^[17;23] This limitation on labor market churn can also significantly impede new firms from accessing talent and growing, which can act as a support for large incumbent firms, limit competition, reduce innovation, and increase consumer prices.

Second, NCAs act as a barrier to the entrepreneurial efforts of individuals looking to start a business in their chosen field. For those workers who feel capable of striking out on their own, a noncompete can act as a deterrent, limiting the number of innovative thinkers allowed to shake up an industry. Together, these detrimental impacts can harm workers embedded in an industry as well as firms that are new entrants. When considering the effect of NCAs on entrepreneurship, the anticipated negative effect appears to be true, with new firms being significantly less likely to form in areas with greater enforceability of NCAs.^[4;15;16;18;21;27]

Given that numerous alternative solutions exist to preserve a firm's investment in the research and innovation pipeline (non-disclosure agreements, non-solicitation of client agreements, etc.), NCAs have attracted attention from policymakers, and most recently, the Federal Trade Commission.

As policymakers have looked to support workers, stoke entrepreneurship, and rein in the excesses of noncompetes, subsets of the labor force have been offered exemptions. In Oregon, low-wage and hourly workers were exempted from NCAs which were voided for new contracts for individuals earning less than the "median family income for a four-person family." But the exceptions for this law, workers who could still be subject to NCAs, included workers "engaged in administrative, executive or professional work who: (a) Performs predominantly intellectual, managerial or creative tasks; (b) Exercises discretion and independent judgement; and (c) Earns a salary and is paid on a salary basis" (ORS 653.295 section (1)(b) and ORS 653.020 (3)). Hawaii opted for a very different approach, banning NCAs for technology workers. The Hawaii policy prohibits noncompete clauses for "any employment contract relating to an employee of a technology business" (HB 1090 H.D 2 S.D.2 C.D.1).

Importantly, the Hawaiian reform also included a ban on co-worker non-solicitation covenants, which limit the capacity of employees to “recruit” their colleagues to start a new venture and can exhibit similar tendencies as NCAs.^[34] These two factors were implemented simultaneously and are likely to both support entrepreneurial activities.

The differences in policy design offer an opportunity to explore how variation in legislative approaches might alter the effects of partial noncompete bans: In particular, how entrepreneurship may vary across exempted industries and workers. Following the literature on self-employment and entrepreneurship, we would expect that individuals with higher levels of human capital,^[7] prior work experience,^[5] knowledge of a system, market, or technology,^[1;22] and access to non-banking networks of capital^[1;8;12;13;22;28] are more likely to create businesses that survive and grow. These features of entrepreneurship support a hypothesis that bans on NCAs for technology workers are more likely to produce an increase in entrepreneurial activities relative to bans for hourly and low-wage workers.

2 Data

Our analysis uses the U.S. Census Bureau’s County Business Patterns (CBP) data set from 2000 to 2020 to explore what effect the Hawaii and Oregon noncompete agreement reforms had on new business formation and employer establishment size. The CBP is an annual series which is available at the county level by industry according to the North American Industry Classification System (NAICS). The CBP includes the number of employer establishments within a NAICS-county as of March 12th of a given year and breaks this count out across establishment size bins, as defined by the number of employees of each establishment. Using the CBP we can build a panel of establishment counts across multiple NAICS categories at the county-year level.

We support our analysis with the use of Quarterly Workforce Indicators (QWI) data from the U.S. Census Bureau. The QWI measures employment flows at the county-industry-year level, allowing us to validate the results on employment estimates from the CBP using an additional source of data.

Following Lipsitz and Starr^[17], we restrict our analysis of the Oregon reform to cover five years before the ban (2003) and until 2014. Our analysis of the Hawaiian reform extends from 2000 to 2020. As of 2017, the CBP changed their policies on censorship of employee bins for establishment counts, which restricted binned analyses to data ranging from 2000 to 2016 in Hawaii (the analysis of the total count of establishments was unaffected). We do not perform binned analyses of the QWI data.

3 Methodology

Using the panel design of the CBP and QWI, we employ a difference-in-differences estimator, namely the Callaway and Sant’Anna difference-in-differences estimator (CSDID).^[3] The CSDID addresses the recent literature on two-way fixed effect estimators, as it can accommodate multiple treatment periods, construct conditional parallel trends, and allow for disaggregated group-time treatment effects. The CSDID estimator is suitable for panel data with binary treatments.

For the purposes of this analysis, we favor a “Cross-State” design at the four-digit NAICS-county-year level, which allows us to assess the relative impact of the Hawaii and Oregon noncompete reforms by contrasting the four-digit NAICS industries in the treated states with states that have not instituted any noncompete legislation as of 2020. Where the two analytic strategies for both states differ is in the identification of the quasi-control groups within the treated states as a robustness check for our effect estimates.

The noncompete agreement reform implemented by Hawaii targeted technology workers within the state. Assuming that these workers are more likely to transition into entrepreneurial activities within their industries of occupation, the NAICS industries most likely to be impacted by the Hawaiian policy are technology-focused industries. Using the industry classification from Paytas and Berglund,^[23] we define the four-digit NAICS codes with a technological focus and build two distinct industry subsets: (i) technology NAICS identified by Paytas and Berglund,^[23] our technology group, and (ii) non-technology NAICS industry sectors where the Hawaii policy is less likely to have had an effect. It is possible that spillover into our non-technology focused industries could occur, and so these distinct industry subsets represent a quasi-treated and quasi-control group. Both samples will be contrasted with the out-of-state industries for the purpose of effect estimates.

4 Results and Conclusion

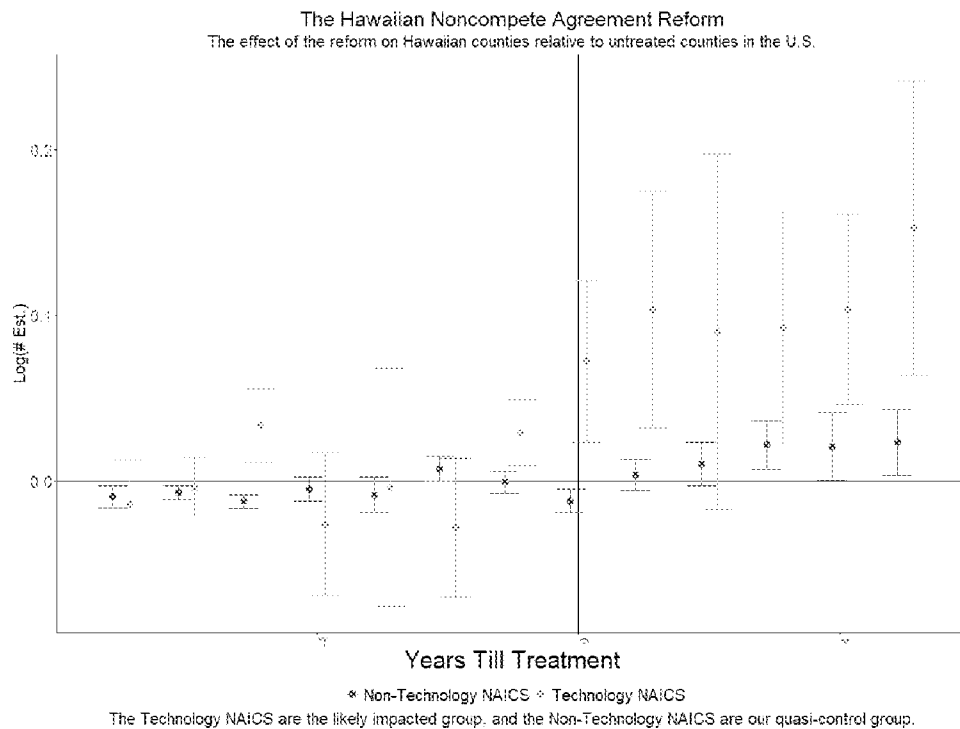
We find evidence that NCAs significantly hinder the entrepreneurial activities of highly-paid knowledge workers, and that curtailing the use of NCAs among such workers boosts establishment formation. While previous work has demonstrated the detrimental effects of NCAs on worker compensation, job match, and cross-firm innovation, we highlight how industry and wage cutoffs to noncompete agreement reforms can lead to significantly different levels of entrepreneurial activity. Table 2 describes the results of each reform on both defined industry subsets within Hawaii and Oregon, as well as the aggregate effect across all reported four-digit NAICS industry codes. The effect on employer establishments is shown in Figures 1 and 2. Tables 4 and 5 break out the effect of noncompete agreement reform across different employer size bins.

The Hawaiian policy leads to a significant increase in the number of employer establishments relative to untreated states, as seen in Table 2. We find that the Hawaiian reform resulted in a 10.2 percent increase in the number of technology establishments following the reform. This increase in technology establishments was paired with a decline in employment among identified technology industries of 9.7 percent. This decrease would be concerning if not for the increase in employment at the aggregate level, implying that any reduction in the work force among identified technology industries is actually a transition to alternative industry types, potentially on the periphery of the identified technology industries. This change is likely an indication that many workers were prevented from taking up jobs they were otherwise interested in as a result of noncompete and co-worker non-solicitation covenants.

Statewide, the number of workers in these occupations has risen modestly in the years since reform. Combined, the findings suggest that Hawaii’s noncompetes reform had the dual effect of boosting establishment formation in technology industries while facilitating the diffusion of tech workers and their skills into other sectors of the economy. We validate this by checking for changes in the share of workers in Honolulu who fall under the “Computer and mathematical” major occupational group in the Occupational Employment Statistics

(OES) survey. In 2014, 1.8 percent of total employment in Honolulu was employed under the “Computer and mathematical” tag, and this share of the workforce remained consistent at 1.8 percent in 2015 and 2016. As anticipated, our non-technology set of NAICS industries appear largely unresponsive to the reform, given the targeted nature of the legislation. Statewide, the number of workers in these occupations has risen modestly in the years since reform. Combined, the findings suggest that Hawaii’s noncompetes reform had the dual effect of boosting establishment formation in technology industries while facilitating the diffusion of tech workers and their skills into other sectors of the economy.

Figure 1



This figure plots the dynamic effect estimates of the Hawaiian reform to noncompete agreements. The blue lines and dots are the effect estimates of the reform among technology heavy NAICS industries. The red lines and dots are the effect estimates among NAICS industries which were not likely to be impacted by the reform.

The Oregon reform, on the other hand, led to a statistically insignificant 1.4 percent increase in the number of new employer establishments among likely low-wage NAICS industries relative to untreated counties. The Oregon reform does appear to have led to a reduction in employment among likely-low-wage industries when using the CBP, but no significant impact on aggregate employment. Given the timing of the reform lining up with the 2008 recession, and the observed negative effect on likely-high-wage industries, the Oregon reform had little impact on entrepreneurship among the treated population of workers.

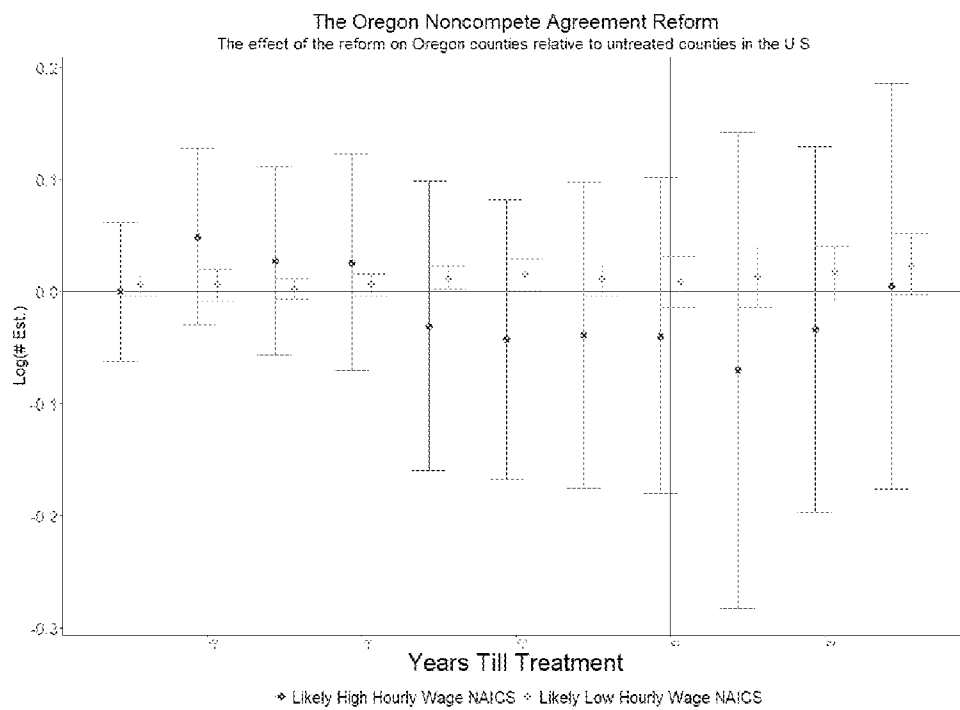
Using the QWI data, we validate the estimated effect on total employment in both states. Table 3, and

Figures 3 and 4, report that the estimated effect of the Hawaiian reform on employment is largely consistent across the CBP and QWI, with a reported negative effect on employment among technology industries but a positive effect on total employment. In Oregon, the QWI contradicts the results of the CBP, finding that the removal of NCAs had no significant effect on employment, likely doing a better job of accounting for the 2008 recession thanks to the increased frequency of data collection.

To test for the validity of the parallel trends assumption, we plot the dynamic treatment effect estimates for both Hawaii and Oregon in Figures 1 and 2. Figure 1 demonstrates that the Hawaiian noncompete agreement reform resulted in an increase in the number of business establishments in the years following the legislation. It appears that the primary increase in business formation occurred in the first two years after the policy was put in place before stabilizing. This is indicative of a stock of nascent entrepreneurs who were previously locked behind NCAs rather than the noncompete agreement reform inducing employees to convert to entrepreneurs. When comparing the technology industries to non-technology industries in Hawaii, we see an indication that the Hawaiian policy was well-targeted, with no clear spillover into non-technology focused industries.

Figure 2 indicates that the Oregon noncompete agreement reform had a substantially smaller effect on entrepreneurial activity relative to the Hawaii reform. These muted impacts on entrepreneurship in Oregon are distinct from the previous work showing that wages increased 2-3 percent on average, with as much as a 14-21 percent increase among noncompete agreement-bound workers. Given the effect estimates of the pretreatment period, it seems likely that the Oregon reform, while reporting significant aggregate estimates, had no significant effect after conditioning on pre-treatment trends. Unfortunately, the Oregon reform did occur during the 2008 recession, which may have limited our capacity to detect new establishment formation which would have occurred during an economic expansion period.

Figure 2



The likely low hourly wage group is the likely impacted group, and the likely high hourly wage group is our quasi-control group.

This figure plots the dynamic effect estimates of the Oregon reform to noncompete agreements. The blue lines and dots are the effect estimates of the reform among likely low-wage NAICS industries. The red lines and dots are the effect estimates among likely high-wage NAICS industries.

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Table 1: Descriptive Statistics

Statistic	N	Mean	St.Dev.	Min	Max
<u>Hawaiian Counties</u>					
Employed	1,248	1,586.62	11,121.81	0	358,309
Employer Estab.	1,248	106.79	699.939	1	22,279
Nonemployer Estab.	792	458.824	2,381.42	3	58,293
Labor Force	4	168,411.80	193,287.40	36,835	455,815
Population	4	302,847.50	384,150.00	58,463	876,156
Urban	4	277,056.20	390,942.90	47,351	862,113
White	4	73,516.00	76,465.63	17,255	186,484
Black	4	5,500.75	10,081.13	177	20,619
Male	4	152,149.50	193,220.30	29,252	440,518
Avg. Household Size	4	2.87	0.086	2.75	2.95
<u>Oregon Counties</u>					
Employed	9,075	605.58	5,880.57	0	404,018
Employer Estab.	9,075	49.903	397.784	1	24,622
Nonemployer Estab.	4,652	209.52	1,283.93	3	55,781
Labor Force	36	60,722.03	102,437.80	732	476,120
Population	36	95,038.86	143,655.70	1,547	660,486
Urban	36	74,837.33	135,392.90	0	649,010
White	36	82,267.31	118,696.40	1,444	522,825
Black	36	1,546.17	6,237.51	1	37,434
Male	36	47,126.39	71,161.42	782	326,886
Avg. Household Size	36	2.499	0.168	2.19	2.9
<u>Control Counties</u>					
Employed	374,328	509.807	7,126.58	0	2,051,315
Employer Estab.	374,328	36.147	405.002	1	104,063
Nonemployer Estab.	181,302	187.877	1,633.98	3	220,602
Labor Force	1,723	40,731.82	99,631.77	230	1,174,908
Population	1,723	72,588.21	176,214.00	444	2,465,326
Urban	1,723	53,344.46	172,891.00	0	2,465,326
White	1,723	56,518.92	116,425.90	332	1,200,755
Black	1,723	10,606.15	48,714.10	0	898,350
Male	1,723	35,463.54	84,824.11	224	1,156,446
Avg. Household Size	1,723	2.522	0.174	2	3.87

This table reports a set of descriptive statistics across the counties and industries of interest. All of the reported information comes from 2007, the last year before either of our treated states instituted a reform to noncompete agreements.

Table 2: Effect of Noncompete Agreement Reforms

Outcome	Technology-NAICS	Hawaii	
		Other NAICS	All NAICS
Log(# Est.)	0.102*** (0.035)	0.011* (0.006)	0.034** (0.016)
Log(# Employed)	-0.097*** (0.029)	-0.004 (0.014)	0.018* (0.01)
# Est.	3.141*** (0.247)	0.052 (0.084)	129.9*** (18.985)
# Employed	-75.776*** (22.406)	0.567 (4.789)	2,679.19 (2013.19)

Outcome	Likely Low-wage NAICS	Oregon	
		Likely High-Wage NAICS	All NAICS
Log(# Est.)	0.014 (0.009)	-0.036 (0.068)	-0.003 (0.01)
Log(# Employed)	-0.027*** (0.01)	0.042 (0.086)	-0.026 (0.018)
# Est.	-0.514*** (0.157)	-0.569 (0.767)	-73.315** (36.365)
# Employed	-6.197*** (2.45)	-77.583*** (23.911)	-1,258.257* (673.06)

Bootstrapped standard errors in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01 and standard errors are clustered at the county level. Results for Hawaii cover the years 2000 to 2020 while Oregon's results cover 2003 to 2014.

Table 3: Effect of Noncompete Agreement Reforms, QWI Data

Outcome	Technology-NAICS	Hawaii	
		Other NAICS	All NAICS
Employed #	-97.4*** (15.31)	19.57*** (3.57)	15.37*** (3.66)

Outcome	Likely Low-wage NAICS	Oregon	
		Likely High-Wage NAICS	All NAICS
Employed #	2.82 (8.12)	12.21 (68.51)	9.45 (8.43)

Bootstrapped standard errors in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01 and standard errors are clustered at the county level. Results for Hawaii cover the years 2000 to 2020 while Oregon's results cover 2003 to 2014.

Table 4: Effect of Noncompete Agreement Reforms – Mutually Exclusive Employer Establishment Bins

Outcome	Hawaii	
	Technology-NAICS	Other NAICS
Log(# Est.)	0.082*** (0.03)	0.01*** (0.004)
Log(# Est. 1 – 4)	0.146*** (0.055)	0.025*** (0.006)
Log(# Est. 5 – 9)	0.141 (0.126)	-0.021*** (0.005)
Log(# Est. 10 – 19)	-0.147 (0.172)	0.002 (0.005)
Log(# Est. 20 – 49)	-0.204 (0.13)	-0.034*** (0.013)
Log(# Est. 50 – 99)	-0.041* (0.021)	-0.057*** (0.018)
Log(# Est. 100 – 249)	-0.048** (0.023)	0.046*** (0.007)
Outcome	Oregon	
	Likely Low-wage NAICS	Likely High-Wage NAICS
Log(# Est.)	0.014 (0.009)	-0.036 (0.069)
Log(# Est. 1 – 4)	0.027 (0.016)	-0.055 (0.101)
Log(# Est. 5 – 9)	-0.01 (0.017)	-0.113 (0.123)
Log(# Est. 10 – 19)	-0.001 (0.018)	0.063 (0.057)
Log(# Est. 20 – 49)	-0.023 (0.038)	-0.051 (0.21)
Log(# Est. 50 – 99)	-0.023 (0.034)	-0.103 (0.204)
Log(# Est. 100 – 249)	0.001 (0.05)	-0.052 (0.442)

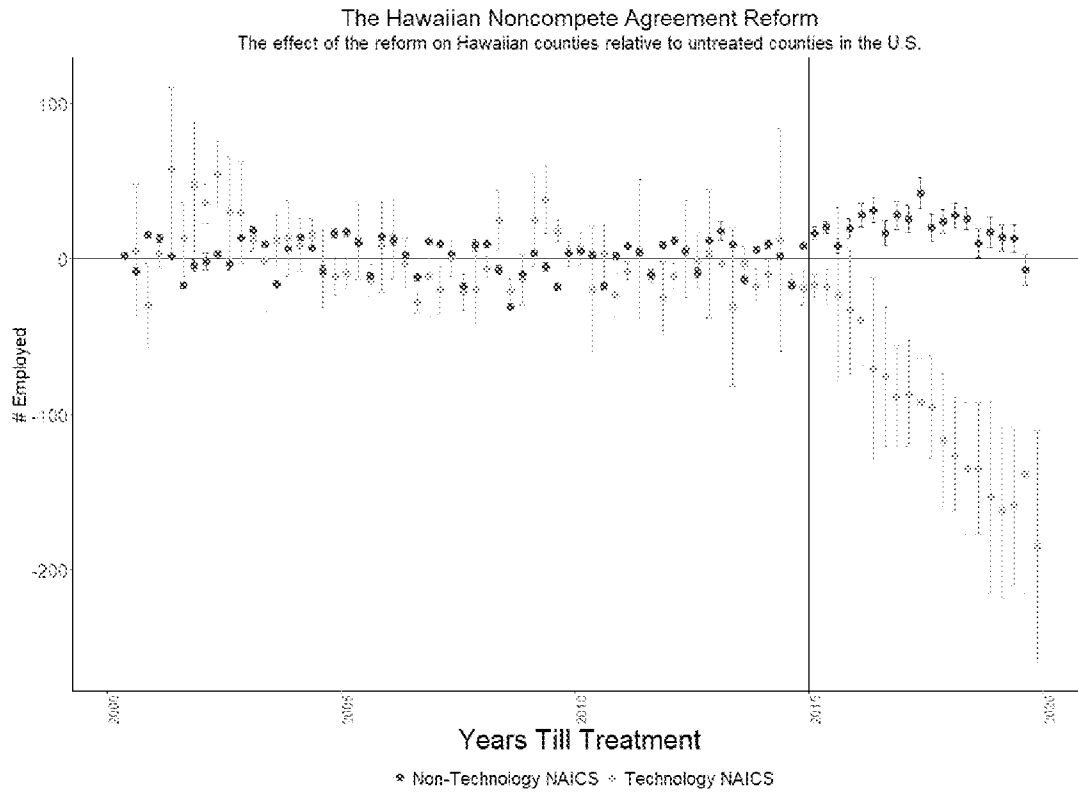
Bootstrapped standard errors in parentheses, * p <0.1, ** p <0.05, *** p <0.01 and standard errors are clustered at the county level. Results for Hawaii cover the years 2000 to 2017 while Oregon's results cover 2003 to 2014.

Table 5: Effect of Noncompete Agreement Reforms – Aggregated Employer Establishment Bins

Outcome	Technology-NAICS	Hawaii	
		Other NAICS	
Log(# Est.)	0.082*** (0.028)	0.01*** (0.004)	
Log(# Est. 1 – 4)	0.146*** (0.054)	0.025*** (0.006)	
Log(# Est. 1 – 9)	0.133*** (0.024)	0.01* (0.006)	
Log(# Est. 1 – 19)	0.068*** (0.023)	0.006 (0.005)	
Log(# Est. 1 – 49)	0.078*** (0.025)	0.012*** (0.003)	
Log(# Est. 1 – 99)	0.088*** (0.021)	0.008* (0.004)	
Log(# Est. 1 – 249)	0.083*** (0.031)	0.011*** (0.004)	
Outcome	Oregon		
	Likely Low-wage NAICS	Likely High-Wage NAICS	
Log(# Est.)	0.014 (0.009)	-0.036 (0.071)	
Log(# Est. 1 – 4)	0.027 (0.018)	-0.055 (0.098)	
Log(# Est. 1 – 9)	-0.01 (0.017)	-0.113 (0.132)	
Log(# Est. 1 – 19)	-0.001 (0.018)	0.063 (0.054)	
Log(# Est. 1 – 49)	-0.023 (0.038)	-0.051 (0.212)	
Log(# Est. 1 – 99)	-0.023 (0.033)	-0.103 (0.204)	
Log(# Est. 1 – 249)	0.001 (0.05)	-0.052 (0.442)	

Bootstrapped standard errors in parentheses, * p <0.1, ** p <0.05, *** p <0.01 and standard errors are clustered at the county level. Results for Hawaii cover the years 2000 to 2017 while Oregon's results cover 2003 to 2014.

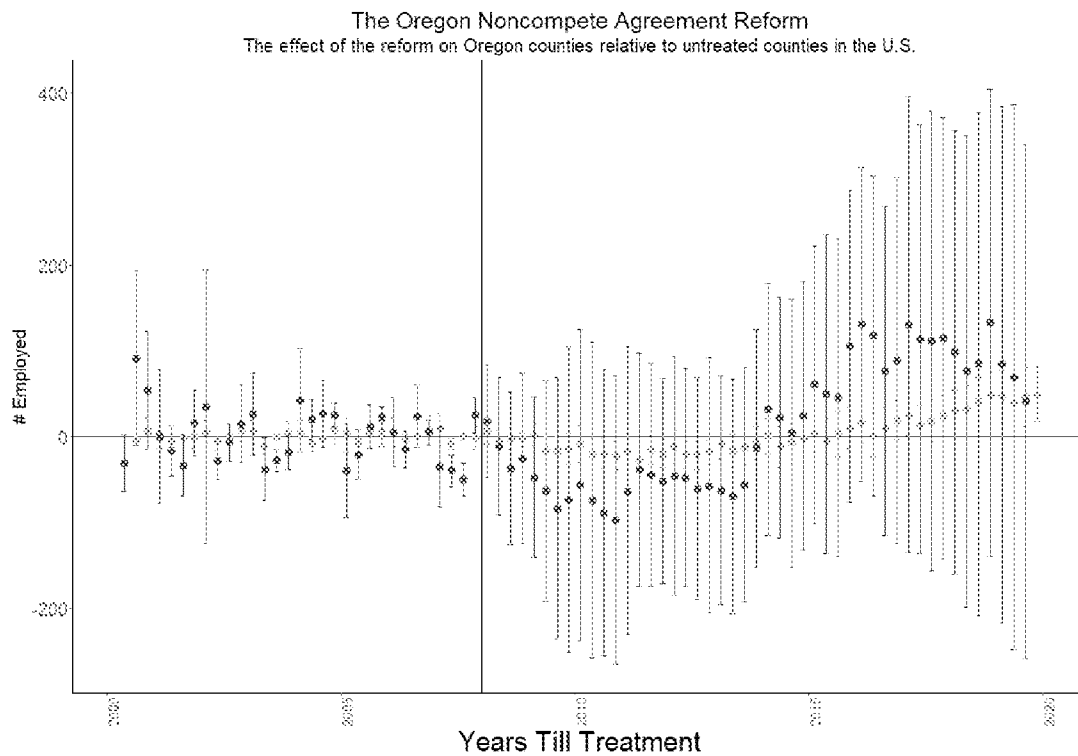
Figure 3



The Technology NAICS are the likely impacted group, and the Non-Technology NAICS are our quasi-control group.

This figure plots the dynamic effect estimates of the Hawaiian reform to noncompete agreements using QWI data. The blue lines and dots are the effect estimates of the reform among technology heavy NAICS industries. The red lines and dots are the effect estimates among NAICS industries which were not likely to be impacted by the reform.

Figure 4



The Technology NAICS are the likely impacted group, and the Non-Technology NAICS are our quasi-control group.

This figure plots the dynamic effect estimates of the Oregon reform to noncompete agreements using QWI data. The blue lines and dots are the effect estimates of the reform among likely low-wage NAICS industries. The red lines and dots are the effect estimates among likely high-wage NAICS industries.

Non-Compete Agreements and Labor Allocation Across Product Markets

Clemens Mueller¹

University of Mannheim

Abstract

I analyze the effect of non-compete agreements (NCAs) on career trajectories of inventors in the US. NCAs constrain the within-industry employment choice set of inventors. I show causal effects that 1.5 in 100 inventors annually bypass their NCAs by moving to new employers in more distant product markets. Reallocated inventors are subsequently less productive. Inventors move to new employers who are less reliant on NCAs and there is a lower quality match between inventors and their new employers. Firms affected by labor outflows grow less whereas firms with labor inflows grow more. I highlight regulatory frictions which lead to unintended detrimental reallocation of human capital in the economy.

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1. Introduction

Non-compete agreements (NCA) are covenants that restrict employees from working for competitors during and after employment. Employers commonly use NCAs to retain valuable human capital within firm boundaries and to protect trade secrets. There is an ongoing debate in economics and finance about benefits and drawbacks of these agreements,¹ and the FTC, on January 5th 2023, has proposed a ban on NCAs.² On the one hand, NCAs can benefit employees, because of increased incentives for employers to retain and invest in employees' human capital (Garmaise 2011). However, the cost is reduced wages (Lipsitz and Starr (2021)) as well as lower labor mobility (Marx et al. 2009).

In this paper, I add a novel and important dimension to the literature: product markets. Non-compete agreements effectively constrain the within-industry employment choice set of inventors. Inventors who want to move to a new employer thus face the following trade-off: either 1) terminate the employment contract and wait until the NCA expires to be able to move to a competitor or 2) "bypass" the NCA and immediately work for a new employer, however in a more distant product market. The evidence provided in this paper supports the existence of this trade-off and extensively analyzes consequences of the latter.

I use data of around 600,000 US corporate inventors from 1976 to 2018. Patent data provides a suitable laboratory to study NCAs and allocation of labor for several reasons: First, patents provide the precise location of inventors and as patent ownership rights are assigned to their employers, they provide detailed employment histories. Second,

¹See among others Chen et al. (2022); Shi (ming); Garmaise (2011); Starr (2019); Marx and Fleming (2012); Samila and Sorenson (2011); He (2021).

²<https://www.ftc.gov/news-events/news/press-releases/2023/01/ftc-proposes-rule-ban-noncompete-clauses-which-hurt-workers-harm-competition>

corporate employers of these inventors provide measures of industry affiliation. Third, inventors are highly skilled individuals and, as such, are likely affected by NCAs. Fourth, patent data provides measures of a technology dimension as well as a time series measure of productivity (e.g. citations received and the economic value based on employers' market reactions to patent grants) on a granular level.

Staggered changes of NCA enforceability across U.S. states provide variation for estimating causal effects. In a staggered difference-in-differences event time regression, increases in NCA enforcement are positively related to the probability that an inventor moves to a more distant product market. In terms of economic magnitude, on average 1.5 out of 100 inventors move to another industry *per year*, an increase of 35%. These results hold using several industry definitions such as SIC and NAICS codes as well as textual-based definitions of product markets. The baseline regression uses inventor and year fixed effects, and thus exploits the staggered timing of 9 NCA enforcement increases across states either in the form of precedent-setting court cases or state laws. There is no effect for decreases in NCA enforcement.

Econometric theory provides guidance on the event study design: I compare treated inventors (i.e. those exposed to an increase in NCA enforceability) to never-treated in an event time framework (Baker et al. 2022; Borusyak et al. 2021, de Chaisemartin and d'Haultfoeuille 2021, Callaway and Sant'Anna 2021, Sun and Abraham 2021). I match treated inventors to control inventors based on their quality as measured by number of patents and the number of citations received, as well as the technology they patent in. Inventors move to more distant product markets after NCAs become more enforceable. Consistent with a causal interpretation of the results, there are no pre-trends.

It would be problematic, if the introduction of state-level legislation is due to economic and potentially unobserved reasons. I address the potential endogeneity of state-level shocks by using within state-year variation in the *intensity* in treatment. Specifically, I

construct a firm-level proxy, based on 10-K and 10-Q filings, whether an employer heavily relies on NCAs. If inventors indeed bypass their NCA and move to more distant product markets, then inventors employed at firms that heavily rely on such agreements should be more affected. I include state-year fixed effects, and show that the effect is confined to inventors whose employers do rely on NCAs. This is in line with a causal interpretation of the results.

I show that the effect is confined to inventors with more available outside opportunities. Inventors who move after an increase in the enforcement of NCAs subsequently work for firms that are less likely to rely on NCAs. Inventors thus seem to avoid NCAs in their future employment.

The natural follow-up question to ask is: What is the effect of NCA-constrained reallocation on the productivity of inventors, measured by the economic value of patents and citation-weighted patents? On one hand, it might be beneficial to society if increased inter-industry mobility leads to more idea recombination, and thus more innovation. On the other hand, inventors might perform worse after a NCA-constrained industry move. In a difference-in-differences analysis, those inventors who move (i.e. leave) to more distant product markets subsequently perform worse compared to those who do not (i.e. stay). I compare all inventors who are affected by more enforceable NCAs, however one subgroup decides to stay and another leaves to more distant product markets. This result thus does not allow for a causal interpretation as it relies on a revealed choice. Those inventors who stay patent with similar quality before and after, however those inventors who move subsequently perform worse. There is little evidence of negative selection into moving: inventors who move and those who stay are virtually identical and patent with similar quality before. Only afterwards a performance gap emerges. I augment this analysis with an intent-to-treat regression, which confirms the evidence on lower future productivity.

To shed some light on this finding, I subsequently analyze what characterizes the observed industry mobility. I compare NCA-constrained to other, unconstrained, industry movers. I calculate a measure for matching quality between inventors and their new employers based on patent technologies. The technological similarity between inventor and her new employer is reduced by 20% after an increase in NCA enforcement. Regulatory frictions in the form of NCA enforcement and the associated limited choice set of inventors thus leads to a lower matching quality in the labor market.

NCA's usually expire 1-2 years after the termination of the employment contract. I find evidence of the existence of the trade-off to either move immediately after contract termination to a firm which is further away in the product market or to terminate the employment contract and wait until the NCA expires to join a close competitor. The duration between two employment spells increases after an increase in NCA enforcement, especially for inventors who move to close industry competitors.

Generally, unconditional across industry mobility is associated with *higher* future productivity. Inventors are subsequently even more productive when there is a high product market as well as technology similarity. From a social planner point of view, to the extent employers retain incentives to invest in their human capital, regulation should therefore foster inventor mobility of closely related employers.

I analyze firm-level effects and show that inflows of human capital due to NCA's are associated with higher future firm productivity growth. Outflow of human capital is associated with lower future firm growth. NCA's thus not just shape career trajectories of inventors but also have a first order effect on firm boundaries and firm productivity.

The results emphasize an important distinction between ex-ante and ex-post effect of labor market regulation. Ex-ante, NCA's are designed to incentivize employers to invest in their employees. Ex-post however, NCA's create a hold-up problem and shift bargaining power to employers. Inventors cannot credibly threaten to move to another firm and

retain their industry-specific human capital. It might thus be optimal for them to leave and retain a higher share of their productivity output.

This paper contributes to several strands of literature. First, on real effects of labor market frictions (Bena et al. (2021); Shen (2021)). Previous research has shown that NCAs lead to lower labor mobility (Fallick et al. (2006); Marx et al. (2009); Jeffers (2017); Garmaise (2011); Balasubramanian et al. (2020)), as well as a brain drain of enforcing states (Marx et al. (2015)). In contrast to lower labor mobility, by focusing on a product market dimension, I instead show *higher* labor market mobility. The paper is thus closely related to Marx (2011), who provides survey evidence consistent with the empirical results presented in this paper. My setting allows to analyze long run employment outcomes and an important outcome for society: productivity of labor, in this context innovation output. This paper is closely related to two theoretical papers on NCAs. Chen et al. (2022) theoretically and empirically argue that current regulatory restrictions are near optimal for growth. Shi (ming) on the other hand suggests that a complete ban on NCAs might be the optimal policy.

I also add to the allocation of labor literature (Babina et al. (2020); Babina (2020); Hombert and Matray (2017); Hombert and Matray (2018); Hacamo and Kleiner (2022)). I show how labor market frictions can lead to some reallocation of labor in the economy, which is likely an unintended consequence for policy makers in the context of NCAs. Lastly, I add to the literature on firm and industry boundaries (Seru (2014)). I show that NCAs have profound impact on career choices of employees, shape firm boundaries, and they affect firm productivity. While unconstrained inter-industry mobility seems to be beneficial for society, NCA-constrained industry mobility is detrimental.

2. Data

2.1. Employment Histories of Corporate Inventors

I obtain data on corporate innovation from 1976 until 2020 from two sources. I obtain patents matched to firms from Kogan et al. (2017), commonly referred to as KPSS. This list is complemented with the DISCERN database of Arora et al. (2021).³ The first dataset is thus a list of patent numbers and an associated unique corporate identifier.

The next step is to match individual inventors to these patents. The United States Patent and Trademark Office (USPTO) provides detailed data on patents such as who invented which patents, the location of the inventor, and the application year which is used to proxy for innovation generation. Most importantly, the USPTO provides disambiguated inventor-level data.⁴ Disambiguated data allows researchers to track individual inventors over time. I obtain this data from patentsview.org.

2.2. Non-Compete Agreements: Institutional Details and Data on Enforcement Changes

What exactly are Non-Compete Agreements? A NCA usually puts limitations on industry, geographic reach (sometimes specified, and ranges between a well defined radius to a state, country or even worldwide), and duration (usually 1-2 years) of an employee. The Appendix lists some examples of NCAs obtained from firms' 10-K or 10-Q. Microvision states in the annual statement that the firm heavily relies on NCAs. In an appendix to a 10-Q, Nuance Communications explicitly mentions that they prohibit employees "from

³The KPSS data with matched patent data is updated until the end of 2020 and available here: <https://github.com/KPSS2017/Technological-Innovation-Resource-Allocation-and-Growth-Extended-Data>; The DISCERN database includes patents matched to firms (including subsidiaries) until 2015 and is available here: <https://zenodo.org/record/4320782>

⁴The provided data builds on previous efforts such as the NBER patent citation data file as well as disambiguated inventor-level data of Li et al. (2014).

working for an employer who is engaged in activities or offers products that are competitive with the activities and products of the company.”

I summarize changes in state-level NCA enforcement in Table 1. I rely on Ewens and Marx (2018), who provide an extensive discussion on court rulings and legislative changes from 1985-2016.⁵ Kini et al. (2021) is the second source of data. They extend a score of NCA enforceability across states originally developed by Garmaise (2011) to the years 1992-2014.

What happens when NCAs are more enforceable? Restrictions included in a NCA and what is ultimately enforceable can differ. California does not allow the use of NCAs. Florida is on the other end of the spectrum and enforces NCAs most strictly. Often, NCAs are enforceable conditional on passing a ”reasonableness” test. After a 1996 legislative change, NCAs in Florida need to protect “legitimate business interests” in order to be enforceable. This clarified previous uncertainty and shifted power towards employers.⁶

For some specifications, I use data on firm-level reliance on NCAs. I proceed in similar fashion as Kini et al. (2021). First, I obtain form 10-K and form 10-Q filings from EDGAR. I parse and strip the text of figures, pictures and html tags. I obtain identifiers from historical Compustat from WRDS servers, as well as a historical CIK-CUSIP mapping.⁷ Form 10-K and form 10-Q filings commonly include NCAs of senior employees at a firm. I use the information to construct a panel of US corporations with an indicator

⁵The data is available here: <https://github.com/michaelewens/Non-compete-Law-Changes>

⁶There are many other examples on how NCAs become more enforceable. For example, the Ohio Supreme Court decided in 2004 that a sufficient consideration to uphold a NCA was continued employment. Another example is Idaho, which changed to a so-called ”blue pencil” rule where a judge can modify the contract to make it more reasonable whereas in other states one invalid part of a NCA renders the whole agreement void. Interested readers should refer to Marx and Fleming (2012) for history and background literature. Ewens and Marx (2018) provide extensive details on individual court cases and legislative changes

⁷Ekaterina Volkova provides this mapping here: <https://sites.google.com/view/evolkova/data-cik-cusip-link>

variable equal to 1 if the corporate employer mentions the use of a NCA either in an executive/board contract or mentions the reliance on NCAs in the annual statement. I do this similar to Acikalin et al. (2022) and screen for instances of "non-compete agreement", "covenant not to compete", etc. I compute a panel on a firm-year level and construct a dummy variable equal to one if a firm relies on NCAs. This panel is comprehensive from the year 1996 onwards. I compare the frequency of NCA use with the literature. In my sample, 54% of firms rely on NCAs.⁸ This is close to previous survey and empirical evidence. To compare, Starr et al. (2021) find that almost one fifth of all employees in the US are bound by NCAs. The share of NCAs for technical workers is around 50% (Marx 2011), 62.5% for CEOs with employment contracts (Kini et al. 2021), and 70% for corporate executives (Garmaise 2011).

2.3. Sample Construction and Descriptive Statistics

The sample construction starts with all corporate innovation from the two sources mentioned previously. This gives a mapping with a unique identifier for each corporation and the patent number assigned by the USPTO. In principle, data on corporate patents is available from 1926, however the USPTO provides digitized patent information with disambiguated inventor data from 1976 onwards, which marks the start of the sample. In a next step, I merge the inventors of all corporate-owned patents with the disambiguated inventor data. The resulting dataset is a panel at the inventor-year level.

I identify industry employment changes as follows: The inventor files two subsequent patent applications for a different employer with a different industry affiliation. I follow the previous literature (Song et al. 2003; Marx et al. 2015) and use the yearly midpoint

⁸This data is available to download on the authors website.

between two subsequent patents to proxy for the year of employment change.⁹ The application year rather than the grant year is used, in order to have a more timely measure of innovation creation¹⁰ and employment changes. I remove inventors from the sample who only patent once in the sample period. All regressions include inventor fixed-effects, so these inventors would not provide any meaningful variation on labor market employment.

Innovation is an ideal laboratory for several reasons: First, the universe of corporate patenting in the last 40 years provides tractable employment histories of inventors based on granted patents.¹¹ In the context of this paper, it also seems plausible that highly skilled human capital such as inventors, are likely to be affected by NCAs.

Second, patent documents also capture the location (on a city level) of each inventor listed on a patent. This greatly improves measurement for empirical research that uses location-based variation in treatment. Previous studies often proxy for location using the headquarter location of the employer.

Third, corporate innovation data allows to look at two distinct but related dimensions: measures of product and technology similarity. Product markets for employers are readily available as SIC and NAICS industry codes, as well as text-based industry classifications following Hoberg and Phillips (2010) and Hoberg and Phillips (2016). The latter is a measure with desirable econometric properties which can be used to measure the similarity between the old and the new employers of inventors. Patent data provides technology classifications of every patent (e.g. CPC, WIPO, IPC). This is useful as it allows re-

⁹Patent-based measures of employment histories thus include measurement error. On average, there is a gap of 0.9 years between two subsequent patents filed by the same inventor. The median number of years between two filings is zero. When alternatively limiting the sample to patent filings with at most one year between two subsequent patents, the results become stronger.

¹⁰This avoids a lag between applying for and being granted a patent, which is 4 years at the median.

¹¹The caveat here is that non-patented innovation is unobserved and thus overall labor mobility is likely underestimated

searchers to compute technology similarities between the patents of inventors and their employers.

Fourth, and lastly, patent data provides a useful metric on a patent basis to measure the productivity of an inventor over time. A researcher can thus observe the number of patents, the number of citations received¹² (Lerner and Seru 2021), and the economic value of patents (Kogan et al. 2017). The latter measure is available for all patents granted until 2020 and is comprised of a USD value on a patent basis. The measure is calculated using stock market reactions of listed patent assignees on the grant day of a patent. This measure is available before and after an employment change.

Table 2 shows descriptive statistics. The timeframe is from 1976-2018. In total, the matched sample includes 436,382 inventor-year observations. This includes data of around 1.8 million patents of roughly 600,000 inventors. The sample includes 6,345 listed firms as employers. An industry move, defined on a SIC 4-digit industry, appears in 4% of observations. I compare this to the previous numbers in the literature such as Melero et al. (2017) who show based on patent application data, that inventors move employers (without considering industries) at a rate of 10% per year. The mean number of patents granted is 5.5 and the number of truncation adjusted citation-weighted patents is 9.8.

3. Staggered State-Level Changes in Non-Compete Enforcement

3.1. Event Study and Dynamic Effects

I estimate the following event study regression:

¹²Newer patents mechanically have less time to accumulate citations than older patents. In order to mitigate this problem I follow Hall et al. (2005), Dass et al. (2017), and Lerner and Seru (2021). When using citations as a measure of innovation output, I adjust all cumulative citations received until June 2022 and perform a truncation adjustment by adjusting with respect to year and technology class.

$$IndustryChange_{i,t+1} = \sum_{k=-5}^{k=+10} \delta_k \times D_k + \sum_{k=-5}^{k=+10} \beta_k \times D_k \times NCAIncrease_{s,t} + \theta_i + \phi_t + \epsilon_{i,t} \quad (1)$$

where D_k are time dummies relative to the NCA enforcement increase, where i represent inventor i , located in state s , in year t . The dependent variable *IndustryChange* is equal to one if an inventor moves between two firms with different 4-digit SIC industry codes. The variables θ and ϕ are inventor and year fixed-effects, respectively. Year fixed-effects account for year-specific shocks to mobility. Inventor fixed-effects control for time-invariant unobserved factors on the inventor level.

The coefficients of interest are β_k which capture the treatment indicator interacted with 4 pre-treatment dummies and 10 post-treatment dummies. All coefficients, if feasible, are estimated relative to one year before treatment.

I use nearest neighbor matching to compare treated and control inventors. I match inventors based on year of activity (whether they are currently employed at a firm), lagged number of patents, and lagged total citations. I use these two variables to match inventors of a similar quality. I also include patent technology to guarantee that treatment and control inventors are exposed to similar technological shocks. I match the three nearest neighbors with replacement using the Mahalanobis distance. The analysis includes inventor as well as year fixed effects. I cluster standard errors on the inventor and year level. A two-way fixed effect estimation of a staggered difference-in-differences design are weighted averages of all possible two-group difference-in-differences estimators (Goodman-Bacon 2021). A potential problem are dynamic treatment effects when we compare early-treated to late-treated inventors (Baker et al. 2022). I follow recent econometric theory to set up the panel of inventors when using state-level variation in treatment of Table 1. I compare treated with never-treated inventors. Thus, I compare inventors based in states

that experienced increased enforcement of NCAs with clean controls: those inventors that did not experience any changes during the sample period. I use a number of recently proposed estimators such as Borusyak et al. (2021), de Chaisemartin and d’Haultfoeuille (2021), Callaway and Sant’Anna (2021), and Sun and Abraham (2021).

Figure 1 visualizes the results from Equation 1. The probability that an inventor changes industries increases in the first treatment year and we subsequently see a steady increase over time. On average, 1.5 inventors out of 100 move across industries per year, which is a 35% increase in the probability (mean value of SIC 3-digit mobility = 0.043). The alternative estimators are close to the OLS estimates. Figure A4 shows that there is no effect when looking at decreased NCA enforcement.

3.2. Non-Compete Agreements and Product Market Similarity

The previous analyses rely on standard, fixed industry classifications such as SIC codes. In the following, I analyze whether the results generalize to a continuous version of industry similarity between two firms. I will rely on the textual based industry scores of Hoberg and Phillips (2016). This provides several improvements, such as 1) the industry definitions are not fixed over time and a continuous measure can vary between two identical firms across years, 2) the measure captures product market proximity regardless of whether two firms are in the same industry or not. Standard classifications can only provide a 0 or 1, which means either two firms are in the same industry or they are not. The regression analyzes the question: Are inventors moving to employers which are further away from their old employers after an increase in NCA enforcement? Formally, I run the following regression:

$$y_{i,t} = \beta \times NCAIncrease_{i,t} + \phi_t + \epsilon_{i,t} \quad (2)$$

where $y_{i,t}$ is the product market similarity between the previous and the new employer obtained from Hoberg and Phillips (2016). *NCAIncrease* is a dummy variable equal to one if the inventor is exposed to an increase in NCA enforcement. The sample is thus composed of all inventor mobility events. An inventor's move is included in this regression as long as the inventor is based in the US and moves between two publicly listed firms with available data.

The results are shown in Table 3. Indeed, inventors exposed to increased NCA enforcement move to firms that are on average around -1.4% less similar in product market similarity. To put this into context, within the universe of all inventor mobility events, the average product market similarity is equal to 6.8%. An increase in NCA enforcement thus leads to inventors moving to a firm that is 21% less similar in the product market compared to other inventor mobility events.

3.3. Is the Effect Stronger in the Presence of Non-Compete Agreements?

If NCA enforcement increases indeed lead to increased inter-industry mobility of inventors, then we would expect this effect to be stronger for inventors that are in fact bound to a NCA. Unfortunately individual level NCAs of inventors are unobserved. However, employers might differ on how much they rely on NCAs. I therefore compute a proxy on a firm level as follows: First, I obtain all annual and quarterly (10-K and 10-Q) reports of the employers in the sample from 1996-2018. These filings often include contract information and NCAs of senior employees. I compute a dummy equal to one if a firm relies on NCAs. The assumption is that to some extent, this firm-level dummy is a proxy for the presence of NCAs on an inventor level.

I formally test whether increased enforcement of NCAs leads to more industry mobility especially for those inventors employed at firms that use NCAs. For this purpose, I run

a triple difference-in-differences regression as follows:

$$\begin{aligned}
 \text{IndustryChange}_{i,s,j,t+1} = & \beta \times \text{NCAIncrease}_{s,t} \times \text{Post}_{s,t} + \\
 & \delta \times \text{NCAIncrease}_{s,t} \times \text{Post}_{s,t} \times \text{EmployerNCA}_{j,t} + \theta_i + \phi_t + \epsilon_{i,s,j,t}
 \end{aligned} \tag{3}$$

where *EmployerNCA* is an indicator variable equal to one if the employer heavily relies on NCAs. The parameter of interest is the triple interaction term *NCAIncrease* × *Post* × *EmployerNCA*. The variable is equal to one only for inventors in years after an increase in NCA enforcement, and additionally employed at firms who rely on NCAs.

Table 4 shows the results. The triple difference-in-differences term is positive and significant throughout. In economic terms, inventors in years following treatment and employed by NCA-relying firms experience an increase in industry mobility of 1.6%. The observed effect seems to be confined to inventors that are likely bound by NCAs. Subject to the constraint that the proxy for NCA on an employer level is imperfect, this is aligned with a causal interpretation of the results.

The regression includes *State* × *Year* fixed effects, as well as Inventor fixed effects, which absorb many of the included interaction terms. The standard errors in this regression are clustered on an inventor level, however different levels of clustering, such as state or state-year do not change the results.

3.4. Does Increased Non-Compete Enforcement Cause Industry Mobility?

In order to interpret the results as causal, the critical assumption is that treatment and control inventors are equally likely to change industries in the absence of treatment. As a necessary but not sufficient condition, I visually assess whether treated and control

inventors experience parallel pre-trends before the treatment. Reassuringly, the event study in Figure 1 shows that this is the case.

There is little evidence that the treatment effect is immediate in the very first year. There are several reasons why we should not necessarily expect this: For example, the Florida law change in 1996 was explicitly only applicable to contracts signed after July 1, 1996.¹³ This would mean that only employees that start working after this date are exposed to increased NCA enforcement. To increase the chances of legal protection, Ewens and Marx (2018) note that employers commonly require their employees to sign updated employment contracts, which might not lead to immediate responses. This is supported (for the Georgia 2010 case) by Ewens and Marx (2018) who interviewed an employment attorney, who stated: “when the new law went into effect (including our firm), many employers revised their employment and restrictive covenant agreements to take advantage of the law”.

Setting the legal point of view aside, there are additional considerations for a delayed response from the point of view of employees. Inventors willing to move might not be well aware of the details of their NCA. They might learn about the increased enforcement of NCAs years after. There is no reason we should expect sudden effects, but rather an increase over time which leads to a new equilibrium in the labor market.

Bishara (2011) extensively analyzes the legal background on the enforceability on non-compete agreements. He notes that it can be difficult to predict the consequences for a departing employee when she joins an out-of-state competitor. It is thus often an open question to what extent individual non-compete agreements are in fact enforceable and there is uncertainty involved in the variation I use. The observed effects are thus best seen as the effects of subjective employee behavior rather than clear-cut labor regulatory

¹³However Ewens and Marx (2018) note that continued employment suffices as consideration.

constraints.

A potential problem for a causal interpretation is whether state legislative changes are correlated with other factors that determine industry mobility. State legislative changes might be problematic if the desired policy change is anticipated. There are two reasons why this is unlikely to be a threat to identification in my setting. First, Jeffers (2017) shows that the state-level shocks are unrelated to macroeconomic conditions and cannot be easily predicted. Given the focus on inter-industry mobility, the positive effect on industry changes of inventors is a plausible unintended consequence of regulatory changes. Overall, the findings are consistent with interview evidence of Marx (2011), where employees admit to taking career detours given that their NCA prohibited them from working in similar industries for the next 1-2 years. Marx (2011) interviewed one speech recognition professional who left the industry after being fired by his co-founder. "Well, if I'm ever gonna leave, what would I do for 2 years if I couldn't do speech recognition?"

3.5. Heterogeneity: Outside Opportunities

In the following, I perform an economically motivated heterogeneity exercise. The results of industry mobility should be stronger if inventors have more outside options to choose from. I empirically test this hypothesis and split the sample at the median into employees which have relatively many industry competitors and those who have relatively few. To do so, I count the number of firms which exceed a certain threshold (0.1) based on industry similarity scores of Hoberg and Phillips (2016).

The results are shown in table 5. As expected, inventors in industries with relatively more outside opportunities are much more likely to move. There is a positive coefficient, however statistically insignificant, for inventors employed in industries with relatively few outside opportunities.

3.6. *Inventors move to Employers who rely less on NCAs*

If inventors indeed experience NCA-constrained industry mobility, are they more likely to move to firms that do not rely on NCAs? To answer this question, I again estimate equation 2. $y_{i,t}$ is equal to one if inventor i in year t moves to a firm which heavily relies on NCAs. As before, this is a dummy variable equal to one if a firm references such contracts either in firm balance sheet statements (10-Ks) or employment contracts obtained from 10-Q filings. The variable *NCAIncrease* is equal to one if the inventor is located in a state which experiences an increase in NCA enforceability. The sample is composed of all inventors who move across firms, so this specification allows to compare differences in the type of employer inventors move to using the shock as a treatment indicator.

The results are shown in Panel A of Table 6. An inventor exposed to increased NCA enforcement moves to a firm that is around 5% less likely to be NCA intensive. Across all inventor mobility events, the mean value is equal to 47%. The effect thus indicates a 10% decrease in firm-level NCA intensity. Inventors seem to move to firms that are less likely to rely on NCAs. This result is consistent with the interpretation that to some extent, the mobility events might be NCA-constrained.

4. **NCA-Constrained Industry Moves Lead to Lower Productivity**

What are the effects on productivity if inventors move across industries in response to NCA enforcement increases? On one hand, it might be beneficial to society if increased inter-industry mobility leads to more idea recombination, and thus higher or more high quality innovation output. On the other hand, inventors might perform worse after a NCA-constrained industry move. For this purpose, I visually compare innovation output of inventors.

In a difference-in-differences style visualization, I compare those inventors who move to

more distant product markets (leave) to those who do not (stay). All inventors in this specification are treated, e.g. affected by an increase in NCA enforcement. I compare those inventors who move to those who do not, which means that the difference-in-differences compared two groups of inventors based on a revealed choice. Thus the following analysis is unable to make causal inferences, and should therefore rather be seen as purely descriptive.

I plot annual research productivity of inventors in Figure 2. We see a significant divergence in the quality of patents produced by affected inventors. The raw data is visualized in an event time framework, relative to an increase in NCA enforcement. Panel A shows the yearly economic value of patents of the inventor. Panel B shows citation-weighted patents.

Those inventors who move to more distant product markets subsequently perform worse. Inventors who stay are unaffected and patent with similar quality before and after.

Importantly, there does not seem to be a negative selection into moving to a more distant product market: inventors who move and those who stay are virtually identical and patent with similar quality before an NCA enforcement increase. Only afterwards a performance gap emerges.

I add to this evidence a regression using an intent-to-treat framework. I show in table A1 that in a two stage least squared regression, the negative productivity effects hold. NCA enforcement increases serve as an instrument which is highly predictive of whether an inventor moves across industries. Affected inventors are subsequently less productive looking at whether an inventor 1) patents, 2) the raw number of patents, 3) the natural logarithm of patents, as well as the natural logarithm of the 4) economic value, and 5) forward citations received.

5. Channels

In the following section, I analyze potential drivers of productivity effects.

5.1. NCA Enforcement leads to Worse Inventor-Firm Matching Quality

The following section differs from the previous in that it draws on a different comparison. I keep the product market dimension constant, e.g. I compare inventors who move across industries to other inventors who also move across industries. The important distinction now is how NCA-constrained industry mobility differs from unconstrained (absent any NCA enforceability changes) industry mobility. I define NCA-constrained as those inventors who move after an increase in NCA enforcement. Unconstrained industry mobility are industry mobility events of inventors in states that did not see increases in NCA enforcement.

For this purpose I analyze new employer-inventor matching characteristics. I analyze whether inventors move to firms that are less similar to them not in a product market dimension, but in a technology dimension. Specifically, I calculate the following measure on technological similarity using patent data between inventor and her new employer:

$$techsimilarity(i, f) = \frac{if^T}{\|i\|\|f\|} \quad (4)$$

I define two vectors that include the distribution of previous patents across 130 technology subsections. I use the subsection of the Cooperative Patent Classification (CPC) scheme for this purpose, which includes 130 different technology subsections. I use all patents of the inventor up until the year before the industry move and all patents in the previous 5 years of the new employer. The technological similarity is equal to a cosine similarity of the two technology distribution vectors. The measure is bound between zero

and one, so it takes a value of zero if no patent section aligns between the employer and the inventor. It is equal to one if the distribution of the two vectors across technology subsections is identical. Technological similarity here is used as a proxy for matching quality between inventor and the firm. If the patent technology subsections of the firm and the patents of the inventors are similar, I assume it is a good match. I then estimate equation 2, where y is defined as the technological similarity between inventor i and firm f .

Results are shown in Panel B of Table 6. The patent technology cosine similarity is reduced by 0.08 for after an increase in NCA enforceability. Given the mean value of 0.4 of technology similarity, this is a reduction of around 20%. This highlights that the matching quality between inventors and employers seems to be much lower in the presence of increased NCA enforcement.

5.2. Non-compete Agreement Enforcement leads to Longer Employment Gaps

NCA usually have a period of 1-2 years after the end of the employment contract during which employees are not allowed to move to a close competitor. An inventor who wishes to work for another firm faces the following trade-off: Wait until the NCA expires or move to a firm that is further away in the product market. I try to model this trade-off in a regression and hypothesize the following: When NCAs become more enforceable, inventors wait some additional time until they can more easily join a close competitor. This effect should especially be present for within industry moves as they are most likely to be affected by NCAs. I use the following specification:

$$\begin{aligned}
 EmploymentGap_{i,t} = & \beta \times NCAIncrease_{i,t} + \delta \times Within_{i,t} + \\
 & \gamma \times NCAIncrease_{i,t} \times Within_{i,t} + \theta_i + \epsilon_{i,t}
 \end{aligned}
 \tag{5}$$

where *NCAIncrease* is a dummy variable equal to one if the industry move is after an increase in NCA enforcement. *Within* is a dummy variable equal to one if the inventor moves to a firm that is in the same SIC 4-digit industry. *EmploymentGap* is the distance in years when an inventor moved between two firms. This is observed in the data by looking at two subsequent patent filing years to different firms by an inventor.

The results are presented in Table 7. Being constrained by increased NCA enforcement seems to have a general positive impact on employment gaps. This is consistent with the general purpose of NCAs. Moving within the same industry seems to be associated with a reduction of the gap by a little less than one year on average. Most importantly, and consistent with the hypothesis, the interaction of NCA enforcement increase and within industry move is positive and significant. An increase in NCA enforceability especially leads to longer employment gaps for those inventors who move to close industry peers.

6. Industry Mobility and Productivity Across Product and Technology Markets

In the following section, I generalize results on inventor productivity and product as well as technology similarity. I analyze to what extent inventors are more productive depending on how close the new firm is along product and technology dimensions. I introduce a new regression, designed to capture productivity changes after employment changes on the level of individual inventors:

$$Productivity_{i,t} = \beta_i \times Post_{i,t} + \theta_i + \epsilon_{i,t} \quad (6)$$

where *Productivity_{i,t}* measures the yearly productivity of inventors based on the

economic value of patents or citation-weighted patents. The innovation output is firm specific, which means that all patents of the old employer and all patents of the new employer are included in the regression. The dummy variable *Post* is equal to one for years after the inventor has moved to another employer. I estimate the regression for each inventor mobility event, i.e. I run all regressions separately. The coefficient β_i thus captures the extent to which the inventor is more or less productive after moving to another employer. This specification has several desirable properties. First, the inclusion of inventor fixed effects removes the non time-varying quality of the inventor. The specification thus uses patent output of the inventor before and after the move to better tease out productivity differences. Second, the specification is not prone to outliers as each inventor mobility event receives equal weight. Third, the coefficient can be interpreted in an intuitive fashion: How much more/less productive is the inventor after the employment change?

I then use the beta coefficients from these regressions in the following regression:

$$ProductivityCoefficient_{i,f} = \beta_k \times Product_{i,f} + \delta_k \times Technology_{i,f} + \theta_i + \epsilon_{i,f} \quad (7)$$

where *ProductivityCoefficient*_{*i,f*} is defined as the beta coefficient from the inventor productivity regression. It captures to what extent the inventor performs better or worse after moving to another employer. The two variables of interest are product market similarity obtained from Hoberg and Phillips (2016) and the technology similarity calculated from patenting data. I use the last 5 years of patents of the new and the old employer and calculate a cosine similarity based on technology subsections.

The results are shown in Table 8. Both product market as well as technology similarity are positively correlated with future productivity. This is well aligned with the previous evidence. NCA enforcement can be seen as a constraint primarily on the product market dimension. NCA contract limit employees to freely move to close industry peers. The previous evidence also showed that NCA-constrained employment changes are also associated with lower matching quality. Both of these effects are likely to have negative consequences for future productivity.

7. Firm-Level Productivity Regressions

Does the reallocation of inventors have effects on firms? I answer this question using firm-level productivity growth regressions. I analyze whether the outflow and the inflow of inventors has any effect on future firm growth as measured by productivity growth, output growth, capital growth, and employment growth. I construct these growth regressions following Kogan et al. (2017) and look at whether the in- and outflow of skilled human capital affects growth in the subsequent year. For this I aggregate the yearly out and inflow of inventors on a firm-year level.

The result are shown in table 9. Across four different measures of firm productivity, the inflow of inventors is associated with future higher productivity growth. Outflow of inventors is associated with future lower productivity growth.

8. Conclusion

Inventors evade their NCAs by moving to new employers in more distant product markets. NCA enforcement increases have a positive causal effect on the probability that an inventor moves across industries. Stronger NCA enforcement leads to some reallocation of human capital in our economy. NCA-constrained industry changes have detrimental effects on future productivity of inventors. This paper highlights negative consequences of human capital reallocation in response to more labor market regulation.

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Table 1 – Overview of State-Level Changes in Non-Compete Enforceability

This table provides an overview of changes of enforceability of NCAs. The changes are based on Ewens and Marx (2018) as well as Kini et al. (2021). Ewens and Marx (2018) gather data from Malsberger et al. (2016) and consult lawyers. Kini et al. (2021) extend a score of NCA enforceability across states originally developed by Garmaise (2011) to the years 1992-2014. To do so, they use data provided by the law firm Beck Reed Riden LLP. Those two sources together are a comprehensive list of changes during the years 1985-2016. Panel A includes states that increased the enforceability of NCAs. Panel B includes decreases. Panel C includes states that had several changes in the enforceability of NCAs. Brackets in Panel C indicate the direction of the change, (+) equal to an increase in enforceability.

State	Case	Year
Panel A: Increase of Non-Compete Agreement Enforcement		
AL	Alabama legislature	2016
AR	Arkansas legislature	2016
FL	Florida legislature	1996
GA	Georgia legislature	2011
ID	Idaho legislature	2008
MI	Michigan legislature	1985
OH	Lake Land v. Columber	2004
VT	Summits 7 v. Kelly	2005
VA	Assurance Data Inc. v. Malyevac	2013
Panel B: Decrease of Non-Compete Agreement Enforcement		
MT	Wrigg v. Junkermier	2009
NH	New Hampshire legislature	2011
NV	Golden Rd. Motor Imm. v. Islam	2016
OR	Oregon legislature	2008
SC	Poynter Investments v. Century Builders of Piedmont	2010
UT	Utah legislature	2016
Panel C: Repeated In-/Decreases of Non-Compete Agreement Enforcement		
CO	Luncht's Concrete Pumping v. Horner (+)	2011
CO	see Kini et al. (2021) (-)	2013
IL	Fire Equipment v. Arredondo (+)	2011
IL	Fifield v. Premier Dealership Servs. (-)	2013
KY	Gardner Denver Drum v. Peter Goodier and Tuthill Vacuum and Blower Systems (+)	2006
KY	Creech v. Brown (-)	2014
LA	Shreveport Bossier v. Bond (-)	2001
LA	Louisiana legislature (+)	2003
TX	Light v. Centel Cellular (-)	1994
TX	Baker Petrolite v. Spicer (+)	2006
TX	Mann Frankfort Stein & Lipp Advisors v. Fielding (+)	2009
TX	Marsh v. Cook (+)	2012
WI	Star Direct v. Dal Pra. (+)	2009
WI	Runzheimer International v. Friedlen (-)	2015

Table 2 – Summary Statistics

The unit of observation is on an inventor-year level. Variable definitions are provided in the Appendix.

Variable	N	Mean	SD	Min	25%	50%	75%	Max
SIC-4 Industry Change	436,382	0.048	0.20	0	0	0	0	1
SIC-3 Industry Change	436,382	0.042	0.19	0	0	0	0	1
NAICS-6 Industry Change	436,382	0.044	0.19	0	0	0	0	1
NAICS-5 Industry Change	436,382	0.042	0.19	0	0	0	0	1
Employer NCA	322,896	0.49	0.50	0	0	0	1	1
ln(1 + Economic Value of Patents)	436,382	0.99	1.46	0	0	0	1.98	9.84
ln(1 + Citation-Weighted Patents)	436,382	0.36	0.69	0	0	0	0.37	9.78
Inventor Number Patents	436,382	5.55	13.06	0	1	2	5	1,805
Inventor Total Citations	436,382	9.78	94.23	0	0.25	1.80	6.86	94,890.93

Figure 1 – Staggered State-Level Increases in Non-Compete Agreement Enforcement: Event Study and Dynamic Effects

This figure reports the result of the difference-in-differences event study of equation 1. The sample is on an inventor-year level. The figure plots the coefficients of pre and post time dummies, interacted with a treatment indicator equal to one if the state increases NCA enforcement. The y-axis shows the coefficient on a regression on the variable *IndustryChange*, which is a dummy variable equal to one if the inventor moves to a firm in a different SIC 4-digit industry in that year. The sample compares treated to never-treated inventors. Inventors are matched based on employment year, number of patents, number of citations and patent technology class. I match the three nearest neighbors with replacement using the Mahalanobis distance. Variable definitions are provided in the Appendix. All regressions include Inventor and Year fixed effects. Standard errors are clustered by Inventor and Year. Confidence intervals are at the 5% level.

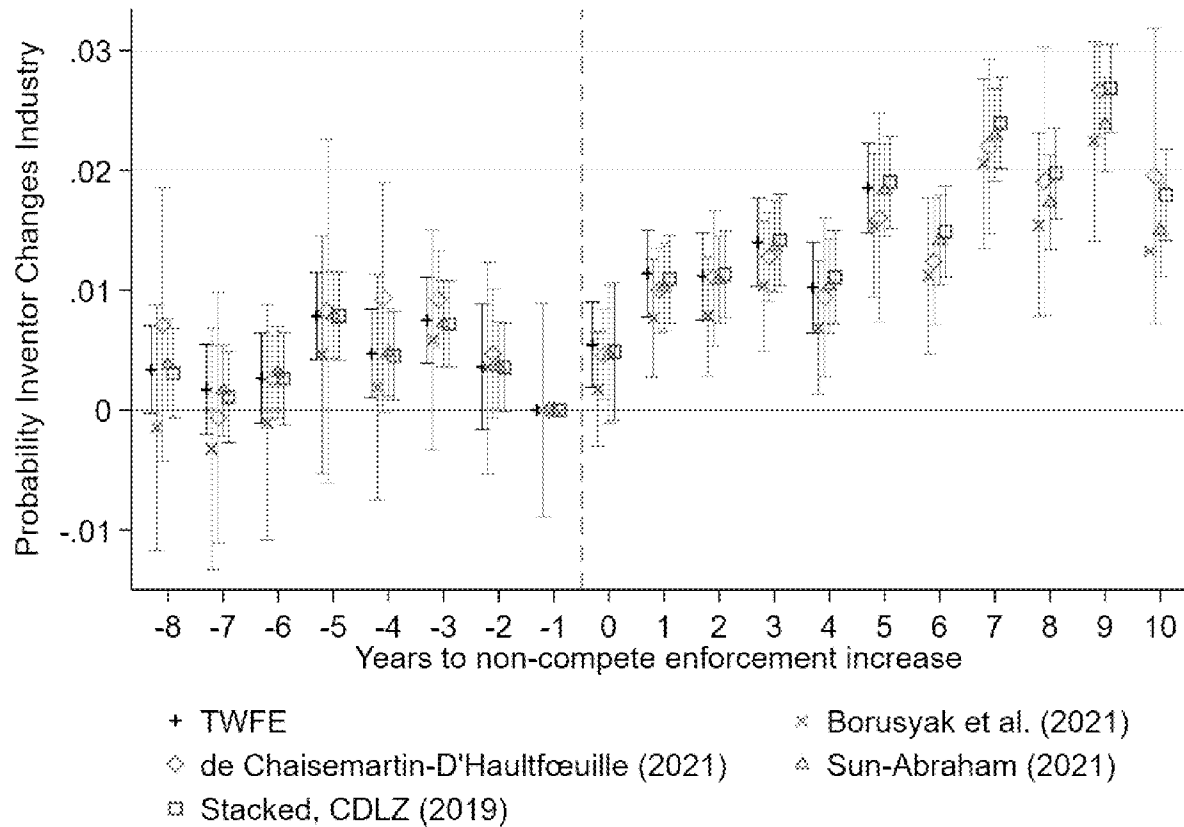


Table 3 – Increased NCA Enforceability and Product Market Similarity

This table reports the result of equation 2. The dependent variable is the textual similarity measure of Hoberg and Phillips (2016). The measure captures the similarity between the former and the new employer of each inventor mobility event. *NCAIncrease* is a dummy variable equal to one if the inventor experienced an increase in NCA enforcement. Variable definitions are provided in the Appendix. The regression includes Year fixed effects. Standard errors are clustered by Year. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable: Product Market Similarity	
<i>NCAIncrease</i>	-0.014*** (-6.52)
Observations	126,124
R-squared	0.04
Year FE	YES

Table 4 – Triple difference-in-differences: Inventors Employed at NCA Firms

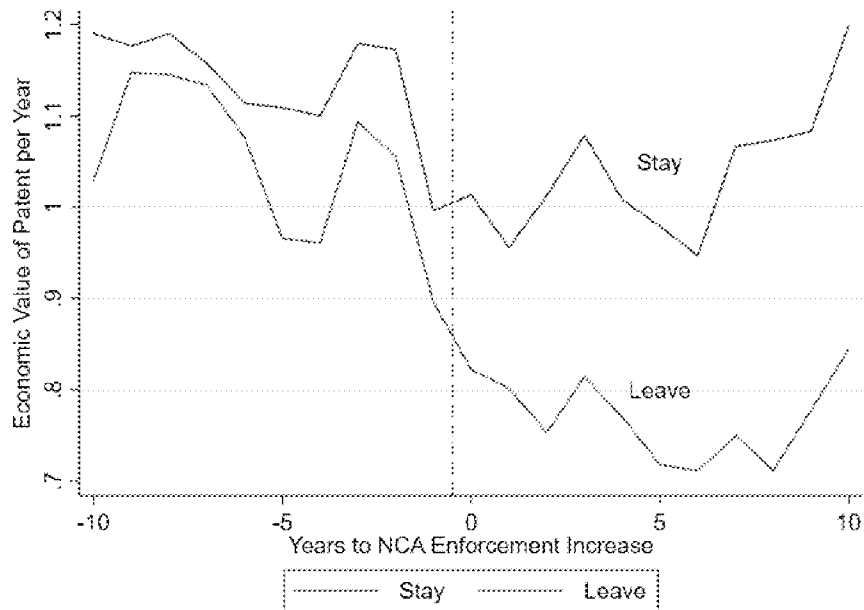
This table reports the triple-difference-in-differences fixed effect panel regression of equation 3. The sample is on an inventor-year level. $IndustryChange_{t+1}$ is a dummy variable equal to one if the inventor moves to a firm in a different industry. $NCAIncrease$ is a dummy variable equal to 1 if the state increased the enforceability of NCAs. $EmployerNCA$ is a dummy variable equal to one if the firm relies on NCA. This variable is obtained from 10-K and 10-Q filings where firms mention the use of NCA or senior level employee contracts are filed on EDGAR. In column (1) industry is defined on a SIC 4-digit level, in column (2) on a SIC 3-digit level, in column (3) on a NAICS 6-digit level and in (4) on a NAICS 5-digit level. Variable definitions are provided in the Appendix. All regressions include Inventor, as well as $State \times Year$ fixed effects. Standard errors are clustered by $State \times Year$. t -statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	$IndustryChange_{t+1}$			
	(1)	(2)	(3)	(4)
$NCAIncrease \times Post \times EmployerNCA$	0.016*** (3.64)	0.016*** (3.82)	0.013*** (2.70)	0.012*** (2.61)
Observations	308,517	308,517	308,517	308,517
R-squared	0.13	0.13	0.13	0.13
Industry Definition	SIC 4-digit	SIC 3-digit	NAICS 6-digit	NAICS 5-digit
Inventor FE	YES	YES	YES	YES
$State \times Year$ FE	YES	YES	YES	YES

Figure 2 – Productivity of Inventors: Stay vs. Leave

This figure visualized innovation output on an inventor-year level. Innovation output is measured by the economic value of patents (stock market reaction to patent grants) in Panel A, and citation-weighted patents in Panel B. Time is relative to *NCAIncrease*, which is the year when the state increased NCA enforcement. The graphs are visualizing raw data. Inventors are assigned into two groups: those who move to another more distant product market (leave) and those who do not (stay). A line is drawn at $x = -0.5$, between -1, the last untreated year and 0, the first treatment year. Variable definitions are provided in the Appendix.

Panel A: Economic Value of Patents



Panel B: Citation-Weighted Patents

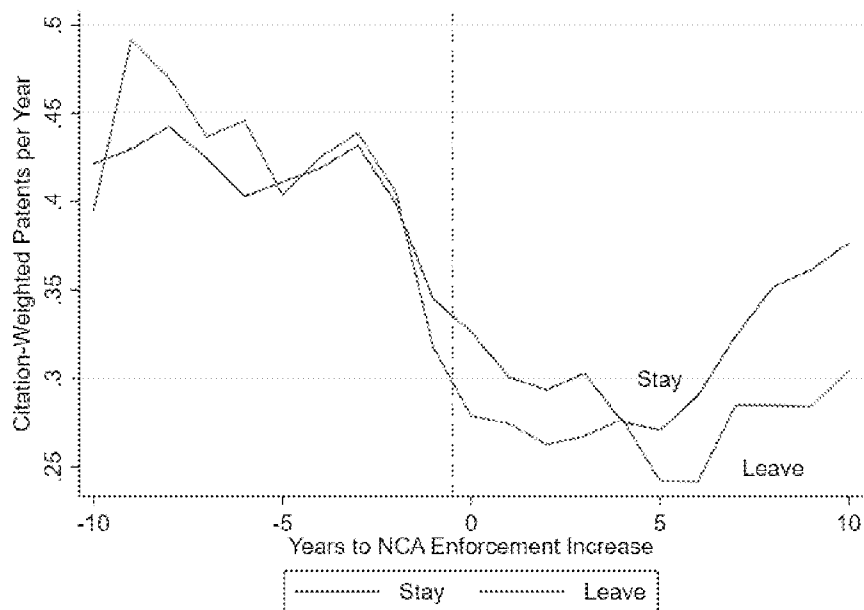


Figure 3 – Employer NCA Intensity: Stay vs. Leave

This figure visualizes employer NCA intensity on an inventor-year level. Employer NCA intensity is a dummy variable equal to one if the employer explicitly mentions the use of NCAs in 10-Ks or 10-Qs. Time is relative to *NCAIncrease*, which is the year when the state increased NCA enforcement. The graphs are visualizing raw data. Inventors are assigned into two groups: those who move to another more distant product market (leave) and those who do not (stay). A line is drawn at $x = -0.5$, between -1, the last untreated year and 0, the first treatment year. Variable definitions are provided in the Appendix.

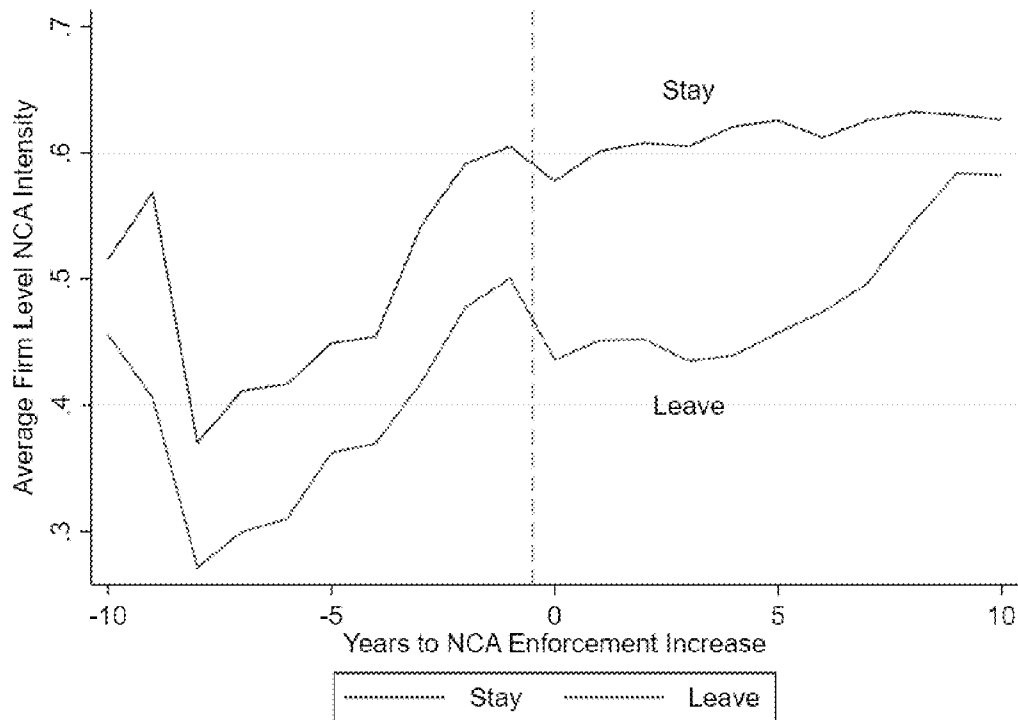


Table 5 – Heterogeneity: Within Firm Opportunities

This table reports the results of equation 2. The sample is on an inventor-year level. $IndustryChange_{t+1}$ is a dummy variable equal to one if the inventor moves to a firm in a different industry. $NCAIncrease$ is a dummy variable equal to 1 if the state increased the enforceability of NCAs. The sample is split at the median of a proxy for outside opportunities for employees. I compute how many competitors surpass a fixed similarity threshold, which measures the possibilities for inventors to move to other employers. Column (1) includes employers who many many closely related firms. Column (2) includes employers who have few closely related firms. Variable definitions are provided in the Appendix. t -statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	$IndustryChange_{t+1}$	
	(1)	(2)
Sample:	Many Outside Opportunities	Few Outside Opportunities
$NCAIncrease \times Post$	0.015*** (5.62)	0.004 (1.26)
Observations	124,050	141,491
R-squared	0.13	0.13
Inventor FE	YES	YES
Year FE	YES	YES

Table 6 – Inventor-Employer Matching Quality

This table reports the results of equation 2. For Panel A, *EmployerNCA*, a proxy for firm-level use of NCAs, based on information from form 10-Ks and 10-Qs. The variable is equal to one if the firm states that it relies on NCA or whether senior employees sign NCAs. For Panel B, *TechnologyCosineSimilarity* is the cosine similarity between the distribution of patent technology subsections of the inventor and the new employer. I use all previous patents of the inventor up until one year before the move and the last 5 years of patents for the new employer. Variable definitions are provided in the Appendix. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Technological Similarity	
Dependent variable:	Technology Cosine Similarity
<i>NCAIncrease</i>	-0.08*** (-6.67)
Observations	53,179
R-squared	0.03
Year FE	YES

Table 7 – NCA Enforceability and Employment Gap

This table reports the result of equation 5. The dependent variable of interest is employment gap, which is the number of years between two patent filings for each employment move event in the sample. *NCAIncrease* is a dummy variable equal to one if the inventor moves from a state after an increase in NCA enforcement. *WithinIndustry* is a dummy variable equal to one if the industry move is within SIC 4-digit industries. Variable definitions are provided in the Appendix. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	Employment Gap
<i>NCAIncrease</i>	0.89*** (9.70)
<i>WithinIndustry</i>	-0.95*** (-34.34)
<i>NCAIncrease</i> × <i>WithinIndustry</i>	0.48** (2.09)
Observations	263,838
R-squared	0.01
Year FE	YES
State FE	YES

Table 8 – Inventor Productivity, Technology, and Product Market Similarity

This table reports the result of equation 2. The dependent variable of interest is productivity, which captures to what extent the inventor is more productive after changing employers. This variable is measured by economic value of patents and citation-weighted patents following equation 6. *TechDistance* is a variable which captures the patent technology cosine similarity of the inventor and her new employer. *ProductDistance* captures the extent to which the old employer and the new employer are similar to each other following Hoberg and Phillips (2016). Variable definitions are provided in the Appendix. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	Future Productivity (KPSS)	Future Productivity (Citations)
<i>TechDistance</i>	0.35* (1.80)	0.34*** (2.78)
<i>ProductDistance</i>	0.06* (1.72)	0.32*** (14.01)
Observations	18,429	18,429
R-squared	0.00	0.01
Year FE	YES	YES

Table 9 – Firm Level Productivity

This table reports firm level productivity regressions following Kogan et al. (2017). The sample is on a firm-year level. The two dependent variables of interest are yearly inventor inflow and outflow which is the natural logarithm of one plus the total number of inflows and outflows respectively. Column (1) is profitability growth, All regressions include the lag of the dependent variable as an additional control. All regressions include Year and SIC 3-digit industry fixed effects. Standard errors are clustered on a Firm as well as on a Year level. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
Dependent Variable:	<i>ProfitGrowth</i> _{<i>t</i>+1}	<i>OutputGrowth</i> _{<i>t</i>+1}	<i>CapitalGrowth</i> _{<i>t</i>+1}	<i>EmployGrowth</i> _{<i>t</i>+1}
Inventor Inflow	0.04*** (8.37)	0.04*** (6.38)	0.04*** (10.28)	0.04*** (9.39)
Inventor Outflow	-0.03*** (-7.18)	-0.03*** (-4.99)	-0.03*** (-8.59)	-0.02*** (-6.99)
Observations	31,765	29,279	33,648	33,419
R-squared	0.58	0.56	0.44	0.46
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

APPENDIX

A. Variable Definitions

This section provides the variable definitions and the sources of the data.

1. *IndustryChange* – Equal to one if an inventor moves from one firm to another with a different industry classification. Obtained from employment histories of inventors from patentsview.org, patents assigned to corporations from Kogan et al. (2017) and Arora et al. (2021). SIC and NAICS industry codes are obtained from Compustat.
2. *NCA Increase* – Equal to one if the state increased the enforceability of NCAs. Obtained from Ewens and Marx (2018) and Kini et al. (2021).
3. *EmployerNCA* – Equal to one if the firm has mentioned the use of NCAs either in their annual statement or in employment contracts of senior executives. Obtained from 10-K and 10-Q filings downloaded from EDGAR.
4. *Product Market Similarity* – The cosine similarity of the textual product market descriptions between two listed corporations. Obtained from Hoberg and Phillips (2016) on the Hoberg and Phillips Data Library website:
<https://hobergphillips.tuck.dartmouth.edu/>
5. *Employment Gap* – The difference in years between two subsequent filing years of two patents. The variable is defined when an inventor moves between two firms.
6. *Patent technology* – The Cooperative Patent Classification (CPC) section was used, which groups patents into 9 different patent sections. Obtained from patentsview.org.
7. *Patent technology subsection* – The Cooperative Patent Classification (CPC) subsection was used, which groups patents into 130 different patent subsections. Obtained from patentsview.org.
8. *Number of patents* – The number of patents of each inventor one year before treatment. Lagged by one year. Obtained from patentsview.org.
9. *Economic Value of Patents, or KPSS* – The economic value of patents, based on

stock market reactions to patent grants. Obtained from Kogan et al. (2017), available here:

<https://github.com/KPSS2017/Technological-Innovation-Resource-Allocation-and-Growth-Extended-Data>

10. *Patent Citations* – The number of received (forward) citations of all patents of an inventor one year before treatment. Citations were truncation adjusted using year and technology fixed effects on a patent basis. See Hall et al. (2005) and Lerner and Seru (2021) for details. Obtained from patentsview.org.
11. *Technology Cosine Similarity* – The cosine similarity of the patent technology subsection distributions. The measure includes all previous patents of an inventor and the patents in the last 5 years of the new employer. Obtained from patentsview.org.
12. *Employment Gap* – The difference in years between two subsequent filing years of two patents. The variable is defined when an inventor moves between two firms.
13. *Technology Distance* – The cosine similarity of the patent technology subsection distributions. The measure includes all patents in the last 5 years of the old employer and the new employer. Obtained from patentsview.org.
14. *Profitability Growth* – The yearly growth of sales (sale) minus costs of goods sold (cogs). Obtained from Compustat.
15. *Output Growth* – The yearly growth of sales (sale) plus the change in inventories (invt). Obtained from Compustat.
16. *Capital Growth* – The yearly growth of property owned by the firm (ppegst). Obtained from Compustat.
17. *Employment Growth* – The yearly growth of the total number of employees at a firm (emp). Obtained from Compustat.
18. *Future Productivity* – Obtained from inventor level regressions. The specification runs separate regressions on each inventor mobility event. The regression includes

an inventor fixed-effect as well as a post dummy, which captures the extent to which the inventor is more/less productive after moving to a new employer. Productivity is either measured by the economic value of patents or citation-weighted patents.

Figure A4 – Staggered Difference-in-Differences: NCA Enforcement Decreases

This table reports the result of the staggered difference-in-differences event study of equation 1. The sample is on an inventor-year level. The figure plots the coefficient of *NCADecrease*, which is a treatment indicator equal to one for a state that decreases non-compete enforcement. The y-axis shows the effect on the likelihood that an inventor moves across SIC 4-digit industries. The point estimates are normalized to time = -1, the year before treatment. Never-treated inventors are propensity matched based on year, age, number of patents, number of citations and patent technology class. Variable definitions are provided in the Appendix. All regressions include Inventor and Year fixed effects. Standard errors are clustered by Inventor and Year. Confidence intervals are at the top/bottom 5%.

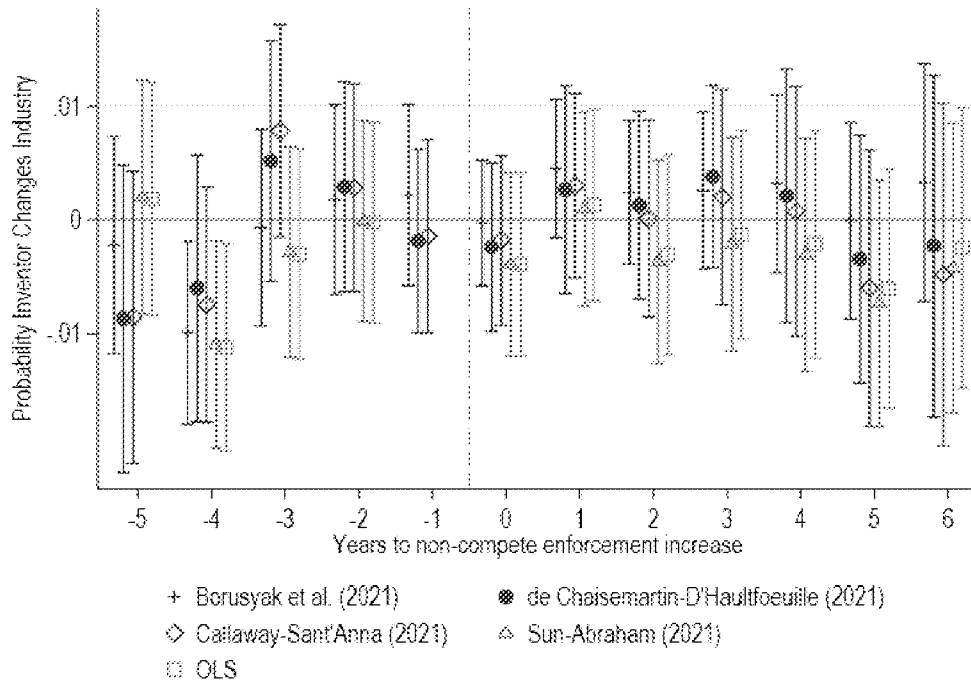


Table A1 – Intent to Treat- Productivity Effects on Inventors

This table reports an intent to treat (ITT) regression using the triple-difference-in-differences fixed effect panel regression of equation 3. The sample is on an inventor-year level. *IndustryChange_{t+1}* is a dummy variable equal to one if the inventor moves to a firm in a different industry. The instrument is *NCAIncrease*, a dummy variable equal to 1 if the state increased the enforceability of NCAs interacted with post and the variable *EmployerNCA*. This is a dummy variable equal to one if the firm relies on NCA. This variable is obtained from 10-K and 10-Q filings where firms mention the use of NCA or senior level employee contracts are filed on EDGAR. In column (1) the dependent variable is whether the inventor patents in a given year. In column (2) the dependent variable is the number of patents and in column (3) the log plus one of the number of patents. Columns (4) and (5) are the log plus one of the economic value of patents and forward citations received, respectively. Variable definitions are provided in the Appendix. All regressions include Inventor, as well as *State×Year* fixed effects. Standard errors are clustered by *State×Year*. *t*-statistics are displayed in parenthesis. ***, ** and * represents significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	Patent (1)	#Patents (2)	Log Patents (3)	EconValue (4)	Citations (5)
Industry Switch (SIC4)	-3.47*** (-4.02)	-9.68*** (-2.64)	-4.15*** (-3.92)	-2.90* (-1.65)	-6.03*** (-4.06)
<i>1st Stage F-Stat</i>	28.8	28.8	28.8	28.8	28.8
Observations	300,411	300,411	300,411	300,411	300,411
Inventor FE	YES	YES	YES	YES	YES
<i>State×Year</i> FE	YES	YES	YES	YES	YES

Table A2 – Most Frequent Industry Mobility

This table shows the 5 most common industries ranked according to industry mobility. The table lists the departure industry and the joining industry, a brief description of the industry and the fraction of mobility events compared to the total number of mobility events. Variable definitions are provided in the Appendix.

Rank	Leaving Industry (SIC 3)	Joining Industry (SIC 3)	Fraction
1	Office, Computing, Accounting Mach.	Comp. Programming, Data Process.	4.4%
2	Office, Computing, Accounting Mach.	Electronic Components and Accessor.	3.8%
3	Comp. Programming, Data Process.	Office, Computing, Accounting Mach.	2.4%
4	Electronic Components and Accessor.	Comp. Programming, Data Process.	2.3%
5	Communications Equipment	Electronic Components and Accessor.	2.1%

Appendix B: Examples of non-compete agreements

The following are three samples drawn from the sample of innovating firms (those that are assigned patents), of which 54% have references on the use of non-compete agreements. The universe of 10-K and 10-Q filings were obtained from EDGAR and parsed to make them readable using textual analysis.

NUANCE COMMUNICATIONS INC

”In exchange for the severance pay and other consideration under the Severance Agreement to which Executive would not otherwise be entitled, Executive agrees that for a period of one (1) year after the Termination Date, Executive will not, without the express written consent of the Company, in its sole discretion, enter, engage in, participate in, or assist, either as an individual on your own or as a partner, joint venturer, employee, agent, consultant, officer, trustee, director, owner, part-owner, shareholder, or in any other capacity, in the United States of America, directly or indirectly, any other business organization whose activities or products are competitive with the activities or products of the Company then existing or under development. Nothing in this Agreement shall prohibit Executive from working for an employer who is engaged in activities or offers products that are competitive with the activities and products of the Company so

long as Executive does not work for or with the department, division, or group in that employer's organization that is engaging in such activities or developing such products. Executive recognizes that these restrictions on competition are reasonable because of the Company's investment in goodwill, its customer lists, and other proprietary information and Executive's knowledge of the Company's business and business plans."

10-Q filing available here:

<https://www.sec.gov/Archives/edgar/data/1002517/000100251714000013/nuan12-31x2013ex104.htm>

MICROVISION INC

"We also rely on unpatented proprietary technology. To protect our rights in these areas, we require all employees and, where appropriate, contractors, consultants, advisors and collaborators, to enter into confidentiality and non-compete agreements. There can be no assurance, however, that these agreements will provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of such trade secrets, know-how or other proprietary information."

10-K filing available here:

<https://www.sec.gov/Archives/edgar/data/65770/000113626115000080/body10k.htm>

LOCKHEED MARTIN CORPORATION

"This Post Employment Conduct Agreement dated [...] (this "PECA"), together with the Release of Claims being entered into contemporaneous with this PECA, is entered into in consideration of the payment ("Severance Payment") to be made to me under the Lockheed Martin Corporation Severance Benefit Plan for Certain Management Employees ("Severance Plan"). By signing below, I agree as follows:

Covenant Not To Compete - Without the express written consent of the [Chief Executive Officer/Senior Vice President, Human Resources] of the Company, during the [two/one]-year period following the date of my termination of employment with the Company (“Termination Date”), I will not, directly or indirectly, be employed by, provide services to, or advise a “Restricted Company” (as defined in Section 6 below), whether as an employee, advisor, director, officer, partner or consultant, or in any other position, function or role that, in any such case, oversees, controls or affects the design, operation, research, manufacture, marketing, sale or distribution of “Competitive Products or Services” (as defined in Section 6 below) of or by the Restricted Company [...]

Exhibit of 10-Q filing available here:

<https://www.sec.gov/Archives/edgar/data/936468/000119312508156357/dex107.htm>

Percentiles of usual weekly earnings of nonhourly full-time workers by selected characteristics, annual average 2023

Characteristic	Number of workers (in thousands)	Upper limit (in dollars) of:											
		5th percentile	10th percentile	15th percentile	20th percentile	25th percentile	30th percentile	35th percentile	40th percentile	45th percentile	50th percentile (median)	55th percentile	60th percentile
Total, 16 years and over	59,688	\$559	\$715	\$827	\$931	\$1,018	\$1,132	\$1,220	\$1,326	\$1,414	\$1,518	\$1,631	\$1,766
Men	33,148	593	751	881	991	1,125	1,218	1,338	1,432	1,538	1,661	1,833	1,915
Women	26,539	509	664	766	871	947	1,024	1,126	1,190	1,271	1,366	1,463	1,560
White	45,940	572	726	839	940	1,030	1,138	1,230	1,333	1,422	1,524	1,636	1,769
Black or African American	6,442	496	628	725	803	894	963	1,035	1,134	1,195	1,283	1,373	1,484
Asian	5,625	615	792	952	1,127	1,238	1,365	1,470	1,572	1,737	1,884	1,992	2,185
Hispanic or Latino ethnicity	7,898	427	562	641	728	789	874	946	1,021	1,131	1,201	1,299	1,399
Northeast ¹	11,245	609	758	891	991	1,123	1,225	1,333	1,425	1,532	1,647	1,769	1,900
Midwest ²	11,612	593	744	860	954	1,038	1,136	1,225	1,329	1,407	1,510	1,605	1,740
South ³	23,699	507	651	758	859	943	1,019	1,128	1,196	1,290	1,391	1,491	1,612
West ⁴	13,132	576	750	893	1,010	1,140	1,238	1,347	1,443	1,542	1,654	1,830	1,916

¹ The Northeast region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Data refer to place of residence.
² The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Data refer to place of residence.
³ The South region includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee.
⁴ The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Data refer to place of residence.

NOTE: The percentiles shown divide nonhourly full-time workers into 20 groups of approximately equal size. The dollar values from left to right represent the upper earnings limit of the lowest earning Nonhourly full-time workers are employed people who usually work 35 hours or more per week at their sole or principal job and who are not paid by the hour. Data exclude all self-employed workers. Estimates for the above race groups (White, Black or African American, and Asian) do not sum to totals because data are not presented for all races. Persons whose ethnicity is identified as Hispan

Percentiles of usual weekly earnings

Characteristic	65th percentile	70th percentile	75th percentile	80th percentile	85th percentile	90th percentile	95th percentile
Total, 16 years and over	\$1,902	\$2,086	\$2,304	\$2,551	\$2,907	\$3,461	\$4,595
Men	2,099	2,303	2,509	2,881	3,151	3,862	4,954
Women	1,682	1,848	1,986	2,275	2,520	2,950	3,889
White	1,903	2,088	2,304	2,561	2,906	3,457	4,592
Black or African American	1,603	1,757	1,897	2,089	2,338	2,750	3,615
Asian	2,379	2,613	2,891	3,115	3,526	4,091	5,344
Hispanic or Latino ethnicity	1,509	1,637	1,829	1,987	2,305	2,718	3,458
Northeast ¹	2,072	2,286	2,482	2,762	3,103	3,837	4,808
Midwest ²	1,878	1,986	2,185	2,409	2,759	3,168	4,392
South ³	1,764	1,906	2,114	2,387	2,723	3,138	4,242
West ⁴	2,103	2,308	2,579	2,898	3,264	3,877	4,802

¹ The Northeast region includes Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

² The Midwest region includes Illinois, Indiana, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

³ The South region includes Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Data refer to place of residence.

⁴ The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Washington.

NOTE: The percentiles shown divide into 5 percent of workers, the lowest earning 10 percent of workers, the lowest earning 15 percent of workers, and so forth. For example, about 5 percent of workers are nonhourly full-time workers are employed, whether or not their businesses are incorporated, and all unpaid family workers. Estimates for the above race groups (White or Latino may be of any race).

Percentiles of usual weekly earnings

Characteristic
Total, 16 years and over
Men
Women
White
Black or African American
Asian
Hispanic or Latino ethnicity
Northeast ¹
Midwest ²
South ³
West ⁴

¹ The Northeast region includes Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

² The Midwest region includes Illinois, Indiana, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

³ The South region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

⁴ The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The percentiles shown divide workers into groups that earn less than the upper limit of the 5th percentile, while about 95 percent of workers earn more than that value. The 50th percentile is the median, or the midpoint. Nonhourly full-time workers are employed full-time. Estimates for the above race groups (V)

Percentiles of usual weekly earnings

Characteristic
Total, 16 years and over
Men
Women
White
Black or African American
Asian
Hispanic or Latino ethnicity
Northeast ¹
Midwest ²
South ³
West ⁴

¹ The Northeast region includes Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

² The Midwest region includes Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

³ The South region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

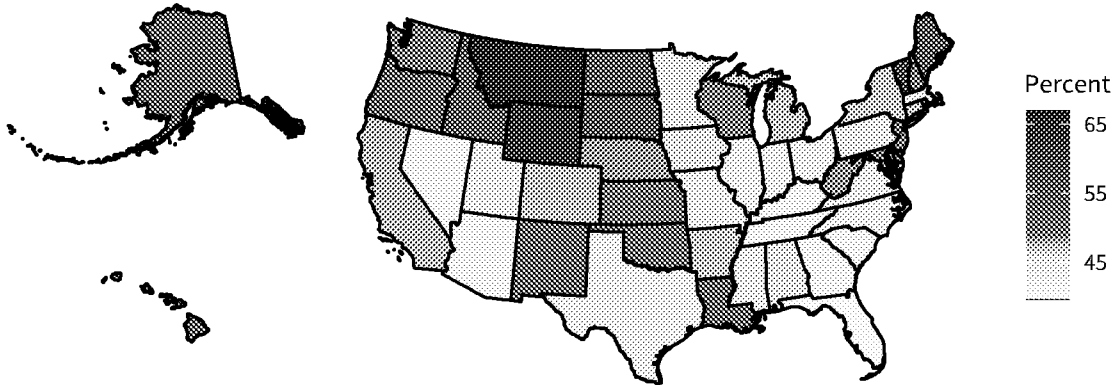
⁴ The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The percentiles shown divide the midpoint in the earnings distribution, with half of workers having earnings above the median and the other half having earnings below the median. Nonhourly full-time workers are employed. Estimates for the above race groups (V

United States

33.3 million small businesses
99.9 percent of US businesses

61.6 million small business employees
45.9 percent of US employees



Share of employees working at small businesses by state

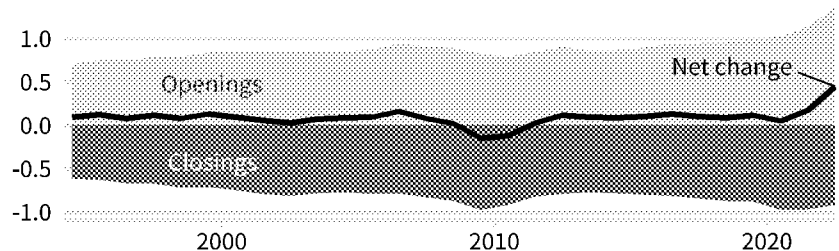
Source of original data: [Statistics of US Businesses](#) (Census)

Business dynamics

Establishments

Between March 2021 and March 2022, 1.4 million US establishments opened and 917,825 closed, for a net increase of 447,519. Employment expanded at 2.4 million establishments and contracted at 1.7 million. Small businesses accounted for 1.2 million openings and 833,979 closings.

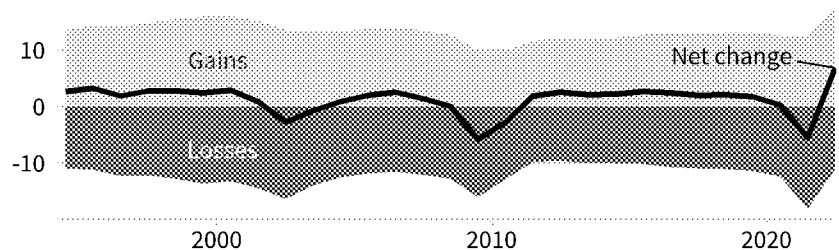
Millions of establishments



Employment

Opening and expanding US establishments added 17.9 million jobs, while closing and contracting establishments lost 11.0 million, for a net increase of 7.0 million jobs. Small businesses contributed a net increase of 4.9 million jobs, or 70.0 percent of that total.

Millions of jobs



Counts include temporary closures and reopenings

Source: [Business Employment Dynamics](#) (BLS)

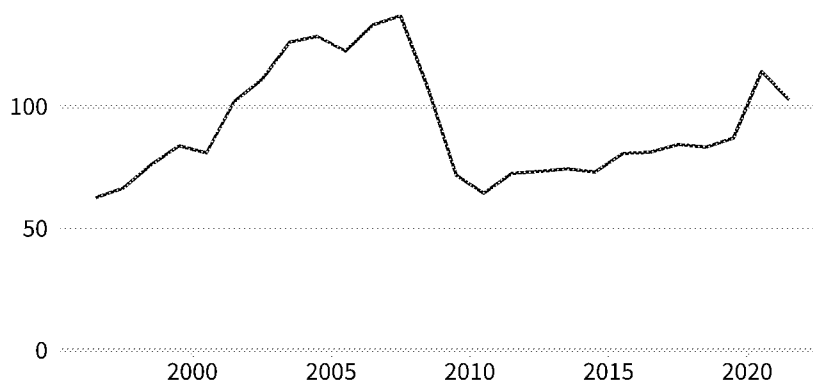
Small business loans

The Community Reinvestment Act requires large banks to report new small business loans. In 2021, reporting banks issued \$102.7 billion in loans to US businesses with revenues of \$1 million or less. Total reported new lending to businesses through loans of \$100,000 or less was \$125.7 billion. Total reported new lending to businesses through loans of \$1 million or less was \$354.5 billion.

Source: CRA Aggregate Data (FFIEC)

New lending to businesses with revenues under \$1 million

\$Billion

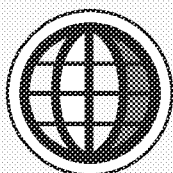


Small business count by size and industry

Industry	Without employees	1–19 employees	20–499 employees	All small businesses
Professional, Scientific, and Technical Services	3,689,878	784,970	52,089	4,526,937
Construction	2,879,156	675,352	61,687	3,616,195
Other Services (except Public Administration)	2,811,836	658,721	45,604	3,516,161
Transportation and Warehousing	3,189,090	180,919	21,462	3,391,471
Real Estate and Rental and Leasing	2,988,448	325,375	13,133	3,326,956
Administrative, Support, and Waste Management	2,554,511	313,759	39,298	2,907,568
Retail Trade	2,256,913	575,378	55,089	2,887,380
Health Care and Social Assistance	2,008,189	574,291	92,290	2,674,770
Arts, Entertainment, and Recreation	1,339,293	120,291	17,072	1,476,656
Accommodation and Food Services	491,813	418,167	124,706	1,034,686
Finance and Insurance	758,239	223,670	15,562	997,471
Educational Services	760,552	77,641	19,632	857,825
Wholesale Trade	393,682	239,122	39,339	672,143
Manufacturing	356,971	178,210	57,373	592,554
Information	334,717	72,997	10,121	417,835
Agriculture, Forestry, Fishing and Hunting	255,956	20,573	1,385	277,914
Mining, Quarrying, and Oil and Gas Extraction	67,754	14,372	2,978	85,104
Utilities	14,989	4,740	1,236	20,965
Management of Companies and Enterprises	*	5,226	13,068	18,294
Industries not classified	*	13,939	42	13,981
Total	27,151,987	5,471,736	647,921	33,271,644

* Not reported by the Census Bureau

Sources: [Nonemployer Statistics](#), 2020 (Census); [Statistics of US Businesses](#), 2020 (Census)



Small business exports

A total of 278,362 identified firms exported goods worth \$1.6 trillion from the United States in 2021. Of those exporters, 271,241—or 97.4 percent—were small. Exports by small firms reached \$541.6 billion, making up 34.9 percent of exports by identified firms.

Source: [A profile of US importing and exporting companies, 2020-2021](#) (Census)

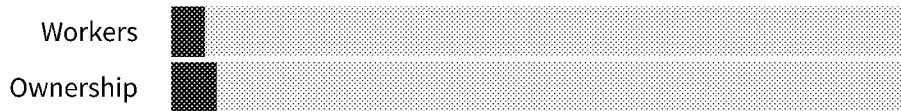
Business ownership share by demographic group

Women



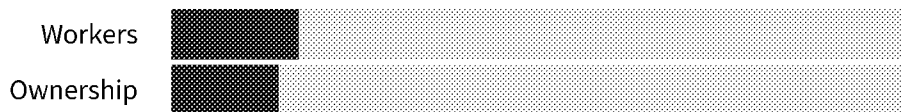
Women made up 47.2 percent of workers and owned 43.4 percent of businesses.

Veterans



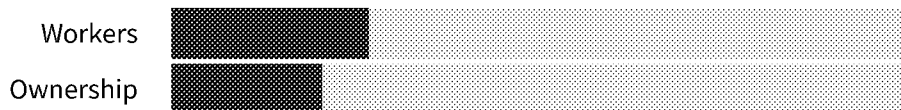
Veterans made up 4.6 percent of workers and owned 6.1 percent of businesses.

Hispanics



Hispanics made up 17.2 percent of workers and owned 14.5 percent of businesses.

Racial minorities



Racial minorities made up 26.6 percent of workers and owned 20.4 percent of businesses.

Ownership shares include equal and majority ownership

Sources of original data: [American Community Survey, 2019 5-Year Data \(Census\)](#); [Annual Business Survey, 2019 \(Census\)](#); [Nonemployer Statistics by Demographics, 2019 \(Census\)](#)

Business count by owner demographic group

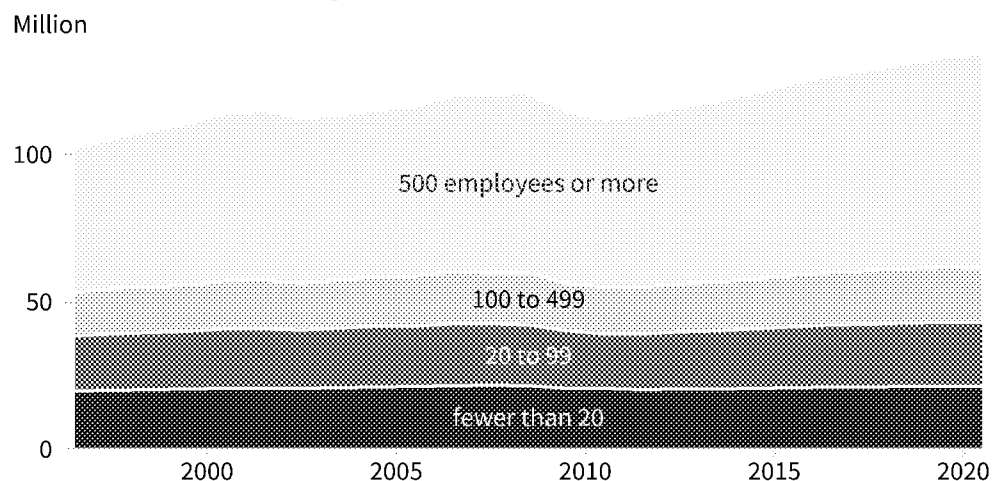
	Without employees	With employees	Total businesses
Ownership			
Female	11,130,000	1,208,407	12,338,407
Male	14,570,000	3,508,265	18,078,265
Owned equally by both groups	664,000	846,433	1,510,433
Veteran	1,382,000	331,151	1,713,151
Not Veteran	24,880,000	5,090,916	29,970,916
Owned equally by both groups	101,000	141,040	242,040
Hispanic	4,191,000	346,836	4,537,836
Not Hispanic	22,130,000	5,165,352	27,295,352
Owned equally by both groups	51,000	50,920	101,920
American Indian and Alaska Native	315,000	26,064	341,064
Asian	2,334,000	581,200	2,915,200
Black or African American	3,455,000	134,567	3,589,567
Native Hawaiian and Other Pacific Islander	82,000	7,331	89,331
White	20,610,000	4,819,100	25,429,100
Hispanic or Racial Minority	9,553,000	1,077,319	10,630,319
White and Not Hispanic	16,720,000	4,394,007	21,114,007
Owned equally by both groups	94,500	91,781	186,281

Counts include only businesses classifiable by owner demographic group

Sources: [Annual Business Survey, 2019 \(Census\)](#); [Nonemployer Statistics by Demographics, 2019 \(Census\)](#)

Total US employment by business size

Source of original data: [Statistics of US Businesses](#) (Census)



Between 1996 and 2020, US small business employment grew by 15.9 percent, reaching 61.6 million employees in 2020.

Small business employment and payroll by industry

Industry	Employers		Employees		Payroll (\$1,000s)	
	Small	%	Small	%	Small	%
Professional, Scientific, and Technical Services	837,059	99.6	5,419,235	56.7	436,800,293	48.9
Construction	737,039	99.8	5,804,811	80.8	350,649,475	76.4
Other Services (except Public Administration)	704,325	99.8	4,722,015	84.3	152,035,494	79.7
Health Care and Social Assistance	666,581	99.3	9,220,370	43.5	396,096,221	35.5
Retail Trade	630,467	99.6	5,384,888	34.1	195,936,709	40.4
Accommodation and Food Services	542,873	99.6	8,626,069	60.0	145,043,297	58.1
Administrative, Support, and Waste Management	353,057	98.9	3,812,491	30.0	157,634,465	27.6
Real Estate and Rental and Leasing	338,508	99.6	1,510,739	66.2	82,431,822	62.6
Wholesale Trade	278,461	98.9	3,304,404	53.8	212,378,373	45.7
Finance and Insurance	239,232	99.3	1,888,303	28.3	181,140,847	24.0
Manufacturing	235,583	98.3	4,993,376	41.6	256,923,545	34.8
Transportation and Warehousing	202,381	98.8	1,834,423	32.1	82,941,269	28.4
Arts, Entertainment, and Recreation	137,363	99.4	1,485,876	59.3	48,767,258	62.0
Educational Services	97,273	98.6	1,728,879	45.1	60,251,466	37.8
Information	83,118	98.5	974,236	27.2	81,549,521	18.5
Agriculture, Forestry, Fishing and Hunting	21,958	99.5	137,511	82.2	6,567,435	82.1
Management of Companies and Enterprises	18,294	70.2	371,998	10.4	31,803,320	7.8
Mining, Quarrying, and Oil and Gas Extraction	17,350	98.0	258,462	44.7	18,827,301	38.2
Industries not classified	13,981	100.0	17,170	100.0	566,668	100.0
Utilities	5,976	96.8	113,729	17.9	9,891,921	13.4
Total	6,119,657	99.7	61,608,985	45.9	2,908,236,700	38.4

Source: [Statistics of US Businesses](#), 2020 (Census)

About this profile

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The Employment Effects of Non-compete Contracts: Job Retention versus Job Creation

Felicien Goudou^{*†‡}
University of Montreal
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Abstract

This paper studies the labor market effects of Non-Compete Agreements (NCAs) that constrain employee mobility, in a search model featuring random hiring and endogenous separation. Non-compete clauses limit workers' job opportunities; thus, an unemployed worker who is bound by NCAs has a lower job finding rate relative to the unconstrained worker. Moreover, since NCAs encourage firm investment through the lengthening of job tenure, firms prefer to include them and are incentivized to create vacancies for jobs that have a higher probability of including NCAs in their contracts. Hence, the average job finding rate increases with the incidence of NCAs through increased labor market tightness. Conversely, a higher incidence of NCAs also increases the proportion of job seekers that are constrained by NCAs, making job vacancies more difficult to fill. Therefore, the average job finding rate drops through decreasing labor market tightness. Estimated to the US, the model implies a decreasing job finding rate with the incidence of NCAs, consistent with the evidence found in US data. This fact appears as a trade-off for a lower job separation rate and higher firm investment in worker human capital implied by a higher incidence of NCAs. In equilibrium, the model predicts a higher unemployment rate associated with a higher incidence of enforceable NCAs in the economy. In addition, the paper shows that a restriction on the duration of NCAs is welfare improving.

JEL Classification: J41, J24, J64

Keywords: Non-compete agreements, training, labor-market

*University of Montreal and CIREQ. Email: felicien.goudou@umontreal.ca

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1 Introduction

Interest in a general reduction in competition among firms is pronounced, and this interest has shifted the balance of bargaining power toward employers (Furman and Orszag (2018)). Barriers to competition tend to reduce efficiency and lead to lower output, employment, and wage growth. Among impediments to competition, non-compete agreements (hereafter, NCAs) in employment contracts and their labor market implications have become the focus of a heated controversy in the US media and political arena (Krueger and Ashenfelter (2018)). These contracts, which prevent an employee from joining rival firms for a defined duration, have spread throughout the US labor market. Indeed, a survey conducted by Prescott et al. (2016) shows that about 20% of US workers were bound by NCAs in 2014. Moreover, data from the National Longitudinal Survey of Youth reveal that about 17% of the active young population ages 33-34 were constrained by NCAs in 2017. Often justifiable for protecting firm investments (Shi (2022); Garmaise (2011); Meccheri (2009); Long (2004)), NCAs are now surprisingly used even for lower-paying jobs¹. Evidence of the disagreement

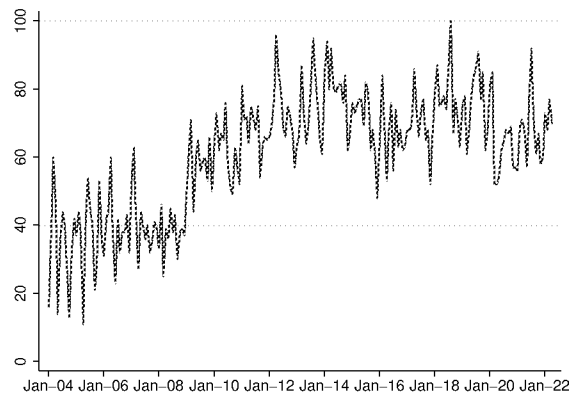


Figure 1: Google Trends results for the keyword search 'Non compete agreement' in the US.

over the benefit of such contracts is reflected through a call for the reform of NCAs by the Obama administration in 2016 and ongoing support for this reform by the Biden administration ². Similar debates exist in Austria and Canada, with Ontario becoming

¹Dave Jamieson, "Jimmy John's makes Low-Wage Workers Sign 'Oppressive' Non-compete Agreements", Huffington Post, October 13, 2014, https://www.huffingtonpost.ca/entry/jimmy-johns-non-compete_n_5978180?ri18n=true

²For details, see "State Call to Action on Non-Compete Agreements," <https://obamawhitehouse.archives.gov/sites/default/files/competition/noncompetes-calltoaction-final.pdf>. See

the second jurisdiction in North America, after California, to prohibit NCAs.³

Despite these ongoing and important debates, research on the equilibrium and welfare effects of NCAs is still at an early stage. One reason is that detailed data on these labor contracts have only recently become available. The rare attempts at taking a structural approach toward understanding the equilibrium effects of NCAs for informed policy design have focused particularly on the managerial labor market (Shi (2022)) or the low-wage labor market (Potter et al. (2022)). This paper seeks to understand the pros and cons of NCAs based on a frictional labor-market model. It takes into account two important (different but complementary) dimensions of the provision of NCAs: their incidence and enforceability. My research is motivated by the significant correlations between the incidence of NCAs and aggregate labor market outcomes. Using data from the Longitudinal Employer-Household Dynamics (LEHD) and the Current Population Survey (CPS), I document that the transition rate from employment to unemployment is particularly low in US states that are experiencing a high incidence of NCAs. This relationship still holds at the national level across industries, suggesting that, on average, an employed worker experiences longer job tenure when she is more prone to signing non-compete agreements. More interestingly, the same pattern is observed for the transition rate from unemployment to employment, implying that, on average, job seekers are less likely to find jobs in an environment in which most employment contracts that are signed include non-compete clauses. Formally, I estimate that a 10 percentage point (p.p.) increase in the incidence of NCAs significantly lowers the job-finding rate and the transition rate of job separation to unemployment by 1.6 p.p. and 0.25 p.p., respectively, *ceteris paribus*.

As a robustness check, I take advantage of the enforcement reform of NCAs across the US during the period 1992-2010, as reflected in various state NCAs enforcement indexes (See Garmaise (2011)). Indeed, non-compete agreements are more likely to be popular among companies whose employees work in states that allow the inclusion of NCAs. I mainly focus on Florida, with its change in NCAs enforcement in 1996 as a case study. Indeed, Florida's 1996 strengthening of NCAs enforcement offers an attractive case study compared with legal changes in other states. The reasons for

also "Fact Sheet: Executive Order on Promoting Competition in the American Economy," The White House, July 9, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/09/fact-sheet-executive-order-on-promoting-competition-in-the-american-economy/>

³See Ontario's Bill 27, October 25, 2021

choosing this case study, and highlighted in Kang and Fleming (2020), are twofold: (i) the legislation in Florida focused purely on restrictive covenants, notably NCAs, (ii) Florida has had a four-decade history with the laws governing non-competes, such that employers and employees were probably accustomed to them. The outcome variables considered in this paper are the job destruction and job creation rates from the Business Statistics Dynamics provided by the US Census Bureau. The analysis relies on the synthetic control method developed by Abadie et al. (2015) using the other states as a control group. As expected, the job flow rates drop after the NCAs reform. This finding suggests that more highly enforceable NCAs contribute toward reducing the labor market dynamism brought about by a fall in both job creation and job destruction rates.

To understand the underlying mechanism, I develop a job search model encompassing the signing of non-compete contracts at the hiring stage and in which firms optimally invest in worker human capital. In the model economy, the ex-ante homogeneous job seeker population becomes heterogeneous with respect to NCAs constraints after a transition from employment to unemployment. In this model, there is no on-the-job search⁴. I describe the model mechanism as follows. Since NCAs restrain workers' job opportunities, an unemployed worker who is bound by NCAs has a lower job-finding rate relative to the unconstrained worker. Moreover, since NCAs encourage firm investment by lengthening job tenure, they are attractive to firms and induce them to open vacancies in the economy that have a higher probability of including non-competition clauses in their contracts. Hence, the average job-finding rate increases with the incidence of NCAs and their enforceability through greater labor market tightness. Conversely, a higher incidence of enforceable NCAs increases the proportion of job seekers who are constrained by NCAs, which makes filling vacancies more difficult. Therefore, the average job-finding rate drops through decreasing labor market tightness. The model calibrated to the US economy implies a decreasing job-finding rate with the incidence of NCAs, consistent with the evidence found in the data. This fact appears as a trade-off for a lower job separation rate and higher firm investment in worker human capital implied by a higher incidence of NCAs. In equilibrium, the model predicts a

⁴Since our focus here is to explain the role of NCAs in the flow of workers into and out of unemployment but not to explain their effects on wage dynamics, the abstraction of on-the-job search is meaningful in this context.

higher unemployment rate associated with a higher incidence of enforceable NCAs in the economy.

Moreover, the NCAs employment trade-off translates to the one between the enhancement of aggregate productivity and an efficient level for the unemployment rate, making it theoretically ambiguous to predict the efficiency of NCAs. Our analysis suggests that a low level of the incidence of NCAs is desirable. The inefficiency arises in our model economy mainly because too few jobs are created in an environment with a high incidence of enforceable NCAs. To reduce this inefficiency, this paper proposes a cap on the duration of NCAs post-employment. One advantage of this policy is its simplicity and transparency (i.e., it is easily verifiable without cost for both workers and firms).⁵ Results show that an average duration of NCAs capped at 6 months leads to steady state welfare gains of about 6.8%. The gain is greater in a regime with a high level of NCAs enforcement.

This paper is complementary to the literature on the implications of NCAs in employment contracts on both the worker and firm side. On the firm side, non-compete contracts encourage firms to invest in employees' human capital or training and hence facilitate innovation (Garmaise (2011); Meccheri (2009); Long (2004); Callahan (1985)). This paper contributes theoretically to this literature by showing that NCAs partially help to lessen the hold-up problem. However, unlike in Shi (2022)), which considers Bertrand competition between three parties (incumbent employer, employee, and new potential employer) à la Cahuc et al. (2006), this paper relies on the higher job tenure incentive that NCAs generate. However, NCAs may also affect a firm's activities. In this sense, Starr et al. (2017), relying on the variation in the intensity of NCAs enforcement across the US, found that NCAs have an ambiguous effect of on start-up activity. Two mechanisms are underlined here. The first one is referred to as a «*screening effect*»: A greater degree of enforcement lowers the expected returns to spin-off activity by raising the probability of losing a lawsuit over violating the terms of a non-competition agreement. The second mechanism refers to the potential «*investment protection effect*» of NCAs, which potentially stimulates start-up activity and employment growth. This paper embraces the same idea in the search and matching framework, showing that job creation relies on the training motive effect of NCAs (leading to higher job

⁵See Shi (2022) for the same consideration

creation) and the proportion of job seekers constrained by NCAs (leading to lower job creation). First, as an empirical contribution, I show that the second effect dominates because the job-finding rate decreases in an environment with a higher incidence of enforceable NCAs. Second, the DMP model calibrated to the US economy and relying on the mechanism above delivers qualitatively the same result. *On the worker side*, Starr et al. (2019), using worker-level data, argues that NCAs, through their chilling effect on worker mobility, slow wage dynamics in the labor market. This paper finds that the incidence of enforceable NCAs has an ambiguous effect on wages because of the opposing effects on outside options and training in our DMP setup.

Since NCAs lead to a low separation rate and low probability of finding a job, they generate two opposite effects on unemployment. To the best of my knowledge, this paper is the first to study the equilibrium effect of NCAs on the unemployment rate in the context of a search and matching model.

Finally, in terms of an efficiency analysis of the provisions of NCAs, my work is closely related to Shi (2022) and Potter et al. (2022). My results align with the former, suggesting that a cap at NCAs duration is welfare enhancing, whereas they are in opposition with Potter et al. (2022)'s finding in term of job creation effect of NCAs. I show that the trade-off associated with NCAs and employment leans toward the negative side. Nevertheless, comparatively speaking, my findings have broader relevance.

The rest of the paper is organized as follows. Section 2 documents the relationship between the incidence of highly enforceable NCAs on aggregate job flow rates. Section 3 introduces the model. Section 4 provides a theoretical analysis of the effect of the incidence of enforceable NCAs on aggregate labor market outcomes. Section 5 presents a quantitative evaluation of the impact of a higher incidence of NCAs on job flow rates, investment, and the equilibrium unemployment rate. Section 6 highlights an efficiency analysis, followed by a policy evaluation, of NCAs. Sections 7 and 8 discuss and conclude.

2 Empirical evidence

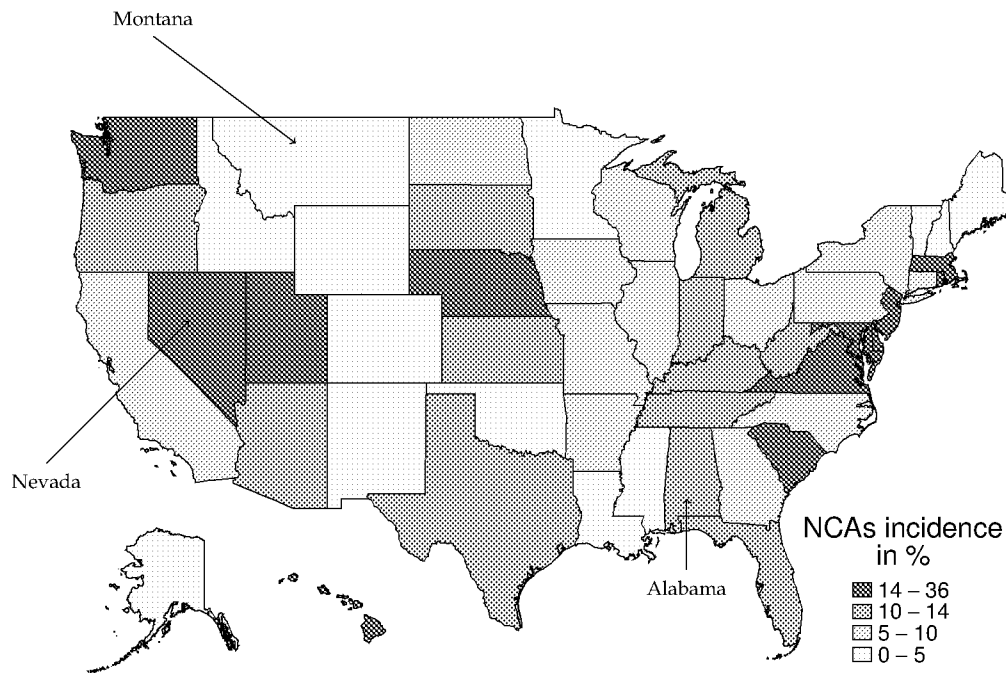
This section presents empirical evidence on the NCAs and their impact on the labor market. More precisely, we study the intertwined relationship between NCAs incidence

and transition rates into and from employment.

Data on NCAs incidence come from the Non-compete survey in the US (Starr et al. (2021)). The survey was designed in 2014 to shed light on the use of NCAs in the US labor market. The data are representative of the US workforce and cover people aged between 18 to 75 who are either unemployed or employed in the private sector or a public healthcare system. It is, at this date, the only representative survey informing on the use of NCAs in the US. The final sample contains 11,505 respondents from all states, industries, occupations, and other demographic categories. I focus on the incidence of NCAs, defined as the proportion of workers bound by an NCAs contract and measured at the state or industry level. The data report heterogeneity in the use of NCAs across States, industries, and education levels in the US. Figure 2 maps State level NCAs incidence in the US for the survey's year (2014). Darker shades encode higher NCAs incidence. It highlights that States with NCAs incidence above 15% or below 5% can be found throughout the country. The cross-sectional standard deviation is 2.3 percentage points.

In addition to Non-compete survey data, I collect the NCAs enforceability index across

Figure 2: NCAs incidence across US States



States. The index scores the enforceability of the NCAs contracts based on legislation and case law. In other words, It measures, across states, the degree to which the Non-compete clauses effectively constrain workers who signed them, with a higher score indicating a strong NCAs enforcement. The NCAs enforceability index widely used in the literature comes from Bishara (2011)⁶. Nevertheless, I borrow the state-level weighted index constructed by Starr (2019) and built on Bishara (2011) index for year 2009⁷.

Data on the job flow rates come from the Longitudinal Employer-Household Dynamics (LEHD) program. I supplement those data with the Current Population Survey data to obtain the micro-level transition rates between unemployment and employment monthly over time. I truncate the CPS data to the same period covered by the Non-compete survey. I depict the empirical evidence into two facts:

FACT 1: *On average, the job separation rate decreases with NCAs incidence*

The panel (a) in Figure 3 shows a scatter plot of the proportion of workers bound by NCAs, named NCAs incidence (x-axis) and transition rate from employment to non-employment (y-axis) across states and industries in 2014. The plots show a decreasing pattern between the incidence of NCAs and job separation rates. The correlation coefficient is -0.51 with a standard error (s.e.) of 0.12 across States. This negative correlation is stronger across industries at the aggregate level (See panel (b)) with a correlation coefficient equal to -0.65 and an associated standard error of 0.20.

To formally test the relationship, I embed data on the State-industry combination of NCAs incidence into the CPS data and exploit its panel dimension. The panel version of the CPS data is constructed following Shimer (2012). More precisely, I match individuals over two consecutive months in the CPS basic monthly files following Albert (2021) to compute job flow rates. As stressed before, NCAs incidence in State-industry combination data come from the Non-compete survey (Prescott et al. (2016))⁸. The

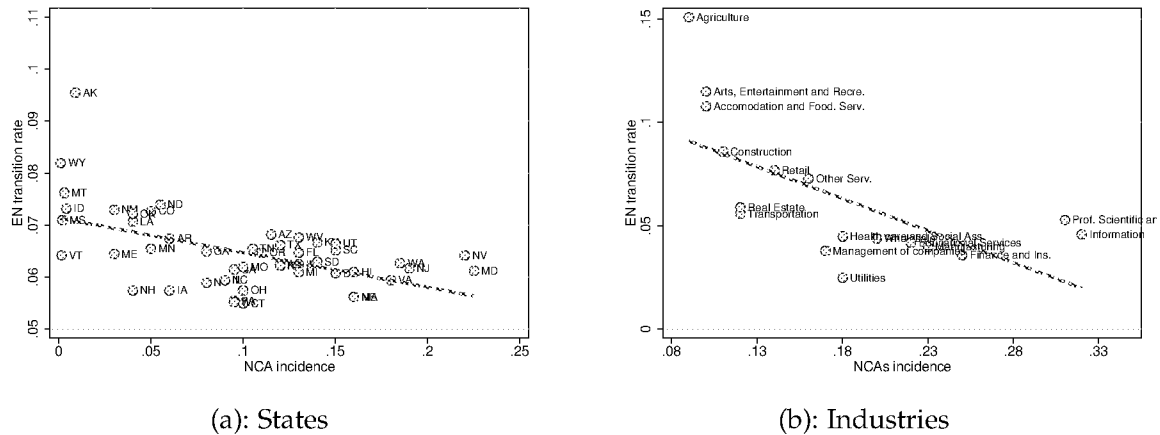
⁶Bishara (2011) looks at the following dimensions across jurisdictions: whether a State statute of general enforceability exists, the scope of employer's protectable interest, plaintiff's burden of proof, consideration provisions, modification of overly broad contracts, and enforceability upon firing.

⁷2009 is the most recent year for which the index is constructed. Despite some recent changes in 2015 and 2016, which I view as non-significant, 2009 measures are a good proxy for the level of enforceability in 2014 (See Starr et al. (2019) for the same consideration)

⁸I thank Evan Starr for making these data available to me

exercise here is to understand how likely employed workers are to lose their job or transition to unemployment in a State-industry combination with a high incidence of NCAs.

Figure 3: NCAs incidence and job Separation rate in US, 2014



Notes: Panel (a) shows the relationships across States. Panel (b) highlights it across industries at 2-digit code using NAICS 2017. Across States, the correlation coefficient is -0.51 (s.e. 0.12) and -0.65 (s.e. 0.20) across industries. EN data come from LEHD, 2014 and NCAs incidence from Non-competes survey, 2014 (Starr et al. (2021)).

I run the following linear probability specification:

$$y_{isjot} = \alpha(\text{NCA incidence})_{sj} + X_i\beta + \eta_s + \varepsilon_{isjot} \quad (1)$$

where y_{isjot} is a dummy variable that equals one if EU transition occurs for worker i and 0 otherwise, in State s , industry j and occupation o happened in period t . It could also be a dummy variable that equals one if UE transition occurs and 0 otherwise. X includes worker demographics controls such as gender, race, education level, age, age squared, and immigrant status. The specification also controls for state, industry, and state by occupation fixed effects to ensure that any of those heterogeneities between workers explaining the transitions is a driving force. A period is a month, but I restrict the sample period years to 2012-2014 since the NCAs incidence measure comes from a survey realized in 2014⁹. Table 1 reports the regression results for the job separation rate. It shows that a ten percentage point increase in NCAs incidence (about one standard deviation in the State-industry NCAs incidence in our sample) lowers the job separation rate by 0.25 p.p, after controlling for state fixed effects and covariates.

⁹the results are robust to change of this period (only 2014 or 2013-2014)

The result is statistically significant at 1% level. Columns 4 and 5 of the table 1 report that the negative and significant effects hold even after controlling for industry and State-occupation fixed effects.

However, what matters is not the incidence of NCAs per se but the incidence of enforceable NCAs. Hence, I interact the NCAs incidence with the index of NCAs enforcement across States. I normalized the index to California at 0 (lowest NCAs enforcement regime) and Florida at 1 (highest enforcement regime). Results are reported in table A1 in appendix A. It shows that the magnitude of the negative effect between NCAs incidence and the job separation rate is larger in higher-enforcement states. Particularly, in a high-enforcement state like Florida, job separation decline amounts to 0.29 percentage points monthly compared to a low-enforcement State like California. In sum, on average, an employed worker experiences longer job tenure when performing in an environment with a higher probability of signing an enforceable non-compete contract. This fact is in line with previous studies (Shi (2022), Starr et al. (2019)) and consistent

Table 1: NCAs incidence and job separation rate

	(1)	(2)	(3)	(4)	(5)
NCAs incidence	-0.026*** (0.0043)	-0.019*** (0.0038)	-0.025*** (0.0054)	-0.012*** (0.0021)	-0.006** (0.0028)
Demographics	No	Yes	Yes	Yes	Yes
Year/state FE	No	No	Yes	Yes	Yes
State by occupation FE	No	No	No	Yes	Yes
Industry FE	No	No	No	No	Yes
N. Obs.	250876	250876	250876	250402	250402

Note.- Dependent variable is the probability of a EU transition. Data come from the CPS monthly basic files 2012-2014. Demographic controls include *gender, race, age and age squared, education level and immigrant status*. Standard errors in parenthesis, clustered at state level.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

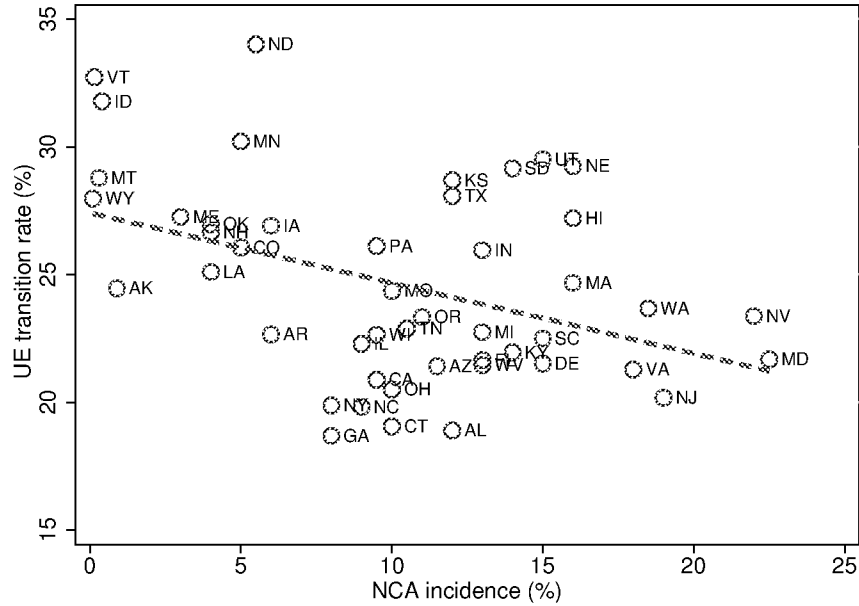
with the nature and patterns of Non-compete agreements which are to impede worker mobility.

FACT 2: *On average, the job-finding rate declines with NCAs incidence*

I next examine the relationship between job finding rate and NCAs incidence. Figure 4 shows a scatter plot of the job-finding rate against NCAs incidence across US states

in 2014 using the panel dimension of CPS data as explained above. As we can see, NCAs incidence seems not only to affect the job separation rate but also the rate at which job seekers find a job. The correlation coefficient is -0.48 with a standard error (s.e.) of 0.13 in raw data. The result suggests that job seekers in states with a high NCAs incidence have, on average, a low probability of finding a job. I formally test

Figure 4: NCAs incidence and job finding rate across States, 2014



Note.-. Across States, the correlation coefficient is -0.48 (s.e. 0.13). UE data come from CPS, 2014 and NCAs incidence from Non-competes survey, 2014 (Starr et al. (2021)).

the correlation as in fact 1, using the same specification as in equation 1 and controls. Table 2 reports the regression results. It shows that a ten percentage point increase in NCAs incidence (about one standard deviation in the State-industry NCAs incidence in our sample) lowers the job-finding rate by 1.6 p.p, after controlling for State fixed effects and covariates. The result is statistically significant at 1% level. The interaction with the strength of NCAs enforcement reveals in table A1 in appendix A that the magnitude of the NCAs incidence is larger in higher-enforcement states. Particularly, in a high-enforcement state like Florida, the job-finding rate decline amounts to 1.55 percentage points monthly compared to a low-enforcement State like California, after one standard deviation increase in NCAs incidence (about 10%). In sum, on average, job seekers are less likely to find a job in an environment where most employment contracts signed include Non-compete clauses. This fact is consistent with the theory

that the incidence of NCAs contracts might inhibit the entry of new firms (See House (2016), Nunn (2016)).

Table 2: NCAs incidence and job finding rate

	(1)	(2)	(3)	(4)	(5)
NCAs incidence	-0.136*** (0.0376)	-0.122*** (0.0349)	-0.160*** (0.0321)	-0.093* (0.0533)	-0.142* (0.0845)
Demographics	No	Yes	Yes	Yes	Yes
Year/state FE	No	No	Yes	Yes	Yes
State by occupation FE	No	No	No	Yes	Yes
Industry FE	No	No	No	No	Yes
Observations	19141	19141	19141	18500	18500

Note.- Dependent variable is the probability of a EU transition. Data come from the CPS monthly basic files 2012-2014. Demographic controls include *gender, race, age and age squared, education level and immigrant status*. Standard errors in parenthesis, clustered at state level.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

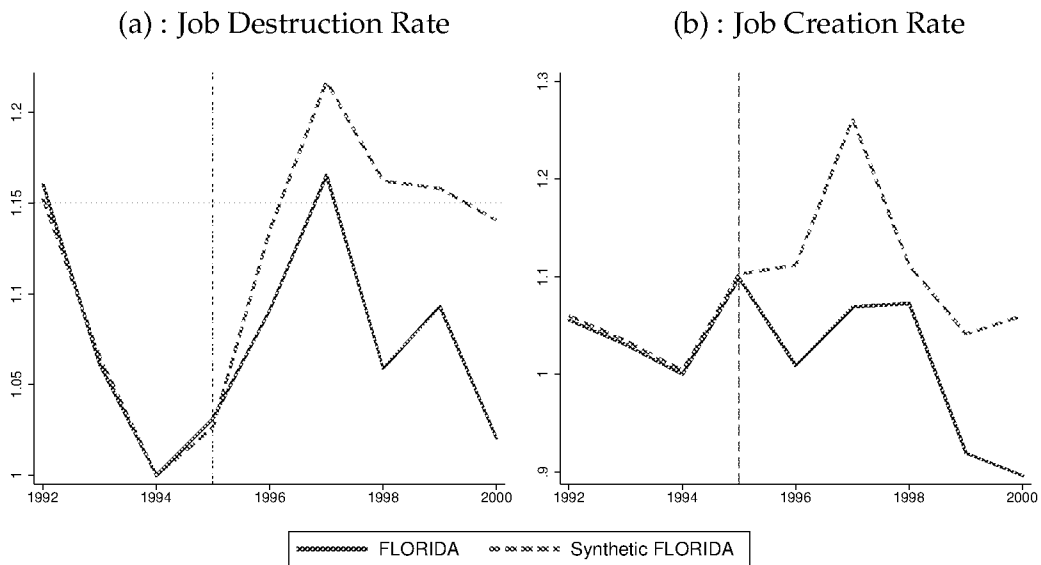
2.1 Robustness

Given that the NCAs incidence data is cross-sectional, one key concern from the previous results is the persistence over time of the findings presented above. To mitigate that issue, I study the change in job creation and destruction rates following an NCAs enforcement reform. To do so, I take advantage of the NCAs enforcement reform across States during the period 1992-2010 materialized in variation in State NCAs enforcement index (See Garmaise (2011)). Indeed, it is more likely that NCAs are popular among companies with employees working in States where they are allowed. I mainly focus on Florida State's change in NCAs enforcement in 1996 as a case study. A fundamental change in Florida's NCAs law was the introduction of a presumption of injury to a firm when a non-compete agreement is violated. Florida's 1996 strengthening of NCAs enforcement offers an attractive case study compared to law changes in other states. Indeed, Florida provides a close to the ideal site because (i) the legislation focused purely on restrictive covenants, notably NCAs, (ii) it was intended to strengthen enforcement in the state, and (iii) Florida has had a four-decade history with the laws governing non-competes, such that employers and employees were probably familiar with and

accustomed to NCAs.

By assumption, the facts found above imply that conditional on the unemployment rate, the job creation (JCR) and job destruction (JDR) rates would fall after 1996 Florida’s NCAs reform, making them more enforceable. I focus on the job creation rate from establishment births over the last 12 months or, clearly, the job creation from establishments with firm age equal to zero. The reason is that for those firms, it is more

Figure 5: Effect of NCAs enforcement strengthening on job flow rates in Florida



likely that they are in a growing stage and would like to hire, an incentive that the strengthening of NCAs might chill. For a more robustness check, I do the same exercise on high-growth firms, predominantly young firms with 65% less than 10 years old according to Haltiwanger (2015). I consider firms aged 10 years or less, and the results here still hold (See figure A1 in appendix A). The analysis uses data from the Business Statistics Dynamics provided by the U.S. Census Bureau. It relies on the synthetic control method developed by Abadie et al. (2015) using the others States as a control group. The synthetic control method is well known and requires little description. The idea is to find a combination of comparison units (here, the other States except for Florida) named synthetic unit that better reproduces the characteristics of the interested unit (here, Florida) in terms of the outcomes (here, job flows rates) predictors before the reform. Synthetic controls are more suitable when the units of analysis are aggregate entities such as counties, States, regions, and countries. They are attractive because of

their simple interpretability and transparency. Here, the States' characteristics that I matched are the unemployment rate, the GDP growth rate, the logarithm of the population aged 16 years or more, and the black population ratio. Figure 5 shows the results obtained after normalizing values relative to the 1994 value. An essential advantage of normalizing the values is that I can account for the time-invariant difference between Florida and other states (See Kang and Fleming (2020)). As expected, we can see that the job flow rates decreased following the reform, and the effect lasted some years after. I carried out placebo tests asking whether the results could be driven entirely by some randomness. In other words, How often would we obtain results of this magnitude if we had chosen a state randomly for the study instead of Florida? Hence, placebo tests repeat the analysis using States alternately in the control group and ask whether the conjectured effect on the job flow rates is present or not and whether the magnitude is as large as the one found with Florida.

Figure A2 in appendix A shows the distribution of estimated job flows rate gaps for states in the control group that comes from the iterative procedure. The result shows that the estimated gap for Florida during the 1996-2000 period is unusually large relative to the distribution of the gaps for the states in the control group.

3 Model

In this section, I develop a theoretical framework to account for the aforementioned facts. The model helps to understand the possible mechanism underlining the declining labor market dynamism generated by using NCAs contracts. It also offers a framework to analyze the implication of NCAs regarding unemployment rate, productivity, and welfare.

3.1 Environment

I employ a modified version of the search and matching model in the spirit of Mortensen and Pissarides (1994). Time is discrete and the horizon infinite. There is a continuum of ex-ante identical workers of measure one, infinitely lived and risk-neutral. They derive utility from consumption and maximize the present discounted value of their utility. On the other side of the market, there is a larger continuum of risk-neutral firms with the

same discount rate β as workers. The labor market is frictional. There exists a constant return to scale matching technology $M = m(u, v)$, with the unemployment rate u and the vacancy rate v as inputs. The labor market tightness $\theta = v/u$ is a sufficient statistic for the job finding and vacancy filing rates. A vacancy is matched to a worker during a period with probability $q = m(\frac{1}{\theta}, 1)$. A worker finds a job with probability $f = \theta q(\theta)$. Once matched, a pair firm-worker (a job) operates under an NCAs contract with probability ϕ . Non compete agreements contract status $b = 0, 1$ determine the set of feasible contracts. Working with an NCAs contract sets $b = 1$ and restricts the worker's post-employment mobility. In this environment, firms offer training to the employed worker, enhancing the match productivity at $C(i)$ cost. Training is match-specific, and the match productivity is $p + i$ where $p > 0$ denotes the common productivity, assumed exogenous. Furthermore, an employed worker is subject to an i.i.d idiosyncratic preference shock ε that alters her decision to continue the match leading to endogenous job separation. In addition, the match could be dissolved at an exogenous rate δ . The preference shock is only observable by the employee. There is no on-the-job search, and the job-to-job transition is through an unemployment spell.

3.2 Employment and unemployment values

Workers are either employed or unemployed and searching for a job. The ex-ante homogeneous job seeker population becomes heterogeneous with respect to NCAs constraints after transitioning from employment to unemployment. Thus, due to match separation, workers are of four types: employed bound by NCAs, employed unbound by NCAs, unemployed bound by NCAs, and unemployed unconstrained by NCAs. The timing of events and decisions is as follows: First, a firm with a vacant job matches with a worker and then randomly decides to assign or not an NCAs contract to the worker. Once the contract is assigned, the firm decides how much to invest in workers' firm-specific skills, conditional on the type of contact. The firm and worker then bargain the wage. Subsequently, production takes place, and profit is shared. Second, the employed worker observes the preference level ε and decides whether to quit or continue the match, which implies an endogenous separation rate. If she quits but was under NCAs contract before job separation, she becomes unemployed, and the NCAs are binding one period ahead with probability χ . If the match continues, the worker is

subject to the same NCAs status, and there is no contract renegotiation. Furthermore, all matches are exogenously destroyed with per-period probability δ . The problem of employed workers is defined by a continuation decision :

$$W^c(b, i, \varepsilon) = \max \left\{ \underbrace{W(b, i) + \varepsilon}_{\text{stay}}, \underbrace{U(b)}_{\text{quit}} \right\} \quad (2)$$

Where $U(b)$ is the value of quit, equivalently the value of being unemployed with NCAs status b (with the associated optimal quit policy $x(b, i, \varepsilon) \in \{0, 1\}$)

The value of being employed is, then, given by :

$$W(b, i) = w(b, i) + \beta \left\{ \delta U(b) + (1 - \delta) \mathbb{E}_\varepsilon W^c(b, i, \varepsilon) \right\} \quad (3)$$

As shown later, a threshold exists for preference shock $\bar{\varepsilon}(b, i)$ under which the employee decides to quit. The expectation in equation (3) is only taken over preference shock because, as long as the match continues, an employed worker in state (b, i) remains in this state.

An unemployed worker receives unemployment benefit z while searching for a job. Let us assume that in expectation, the worker bound by NCAs starts with \bar{i}_1 and the unbound one with \bar{i}_0 . The value of the unemployed worker unconstrained by NCAs is given by :

$$U(0) = z + \beta \left\{ f(\theta) [\phi W(1, \bar{i}_1) + (1 - \phi) W(0, \bar{i}_0)] + [1 - f(\theta)] U(0) \right\} \quad (4)$$

Conditional on finding a job, the unbound unemployed worker is employed with NCAs with probability ϕ and is free of NCAs with counter probability. The path of unemployed worker constrained by NCAs is however slightly different and separates into two cases depending on whether the non-compete clause turns out to be enforceable or not. Unemployed value of worker bound by NCAs $U(1)$ satisfies:

$$U(1) = z + \beta(1 - \chi) \left\{ f(\theta) [\phi W(1, \bar{i}_1) + (1 - \phi) W(0, \bar{i}_0)] + [1 - f(\theta)] U(0) \right\} + \beta \chi \mathbb{E}[U(b')] \quad (5)$$

Where b' stands for next period NCAs status. Since the NCAs constraint lasts a finite period, there is a law of motion for the status of NCAs in the post-employment period

(unemployed spell). I assume that the unemployed worker bound by NCAs becomes unconstrained next period with probability μ . Hence, NCAs unemployment status b' remains 1 with probability $1 - \mu$ and becomes 0 with counter probability. This probability is assumed exogenous and will be recovered later from the average duration of NCAs. χ stands for the NCAs enforcement probability and accounts for the tightness of NCAs constraint. The higher is χ , the more stringent are the NCAs. We could allow the enforcement probability χ to be endogenously linked to the probability of relaxing NCAs constraint μ . The reason is that the probability parameter μ is related to the duration of NCAs restriction, and the lower the duration, the easier it is to enforce NCAs clauses. However, I choose to exogenous χ and link μ to the average NCAs duration across States. Hence, I can account for factors related to NCAs enforcement other than their duration.

Note that the training level of a typical firm has no impact on the worker's fallback position $U(0)$ or $U(1)$, which depends on the equilibrium level of training. In other words, the training level corresponds to the best response to the symmetric equilibrium profile of strategies where all firms choose either \bar{i}_0 and \bar{i}_1 . The equilibrium is indeed defined by $i(b) = \bar{i}_b$, but \bar{i}_b thereby $U(b)$ are taken as given when the firm chooses its optimal training level.

3.3 Job creation

Let V denote the value of expected profit from a vacant job. In the present framework, firms are assumed to post vacancies that might be filled by NCAs job with probability ϕ and by No NCAs job with probability $1 - \phi$. Moreover, each type of implicit vacancy involves training the employee by the amount i at cost $C(i)$.

The value of expected profit of a vacant job V in the economy is given by:

$$V = -\kappa + \beta \max_{i(0), i(1)} \left\{ q(\theta) \left[\tilde{\eta} \left\{ \phi [J(1, i(1)) - C(i(1))] + (1 - \phi) [J(0, i(0)) - C(i(0))] + (1 - \tilde{\eta})V \right\} \right] + [1 - q(\theta)]V \right\} \quad (6)$$

Where

$$\tilde{\eta} = \eta + (1 - \chi)(1 - \eta)$$

stands for the probability that the match is allowed, in the sense that once randomly met, the NCAs constraint does not distort the match to be successful. η represents the endogenous probability of meeting unemployed workers unconstrained by NCAs. $J(b, i)$ is the value of filled job with NCAs status $b = 0, 1$ and training i . The explanation of the vacant job bellman equation 6 is standard. The vacancy posting requires a cost of recruiting κ , and with probability, $q(\theta)$, the vacancy encounters an unemployed worker either bound by NCAs or free of NCAs. Once the match is successful, which happens with probability $\tilde{\eta}$, the vacancy is filled with NCAs contract at rate ϕ and without NCAs at counter rate $(1 - \tilde{\eta})$ or remains vacant otherwise.

The free entry condition of supplying a vacant job is $V = 0$ and implies job creation condition:

$$\frac{\kappa}{\beta q(\theta)} = \max_{i(0), i(1)} \tilde{\eta} \left\{ \phi [J(1, i(1)) - C(i(1))] + (1 - \phi) [J(0, i(0)) - C(i(0))] \right\} \quad (7)$$

This optimization problem from the job creation condition directly implies that the optimal training investment is described by:

$$i(b) = \operatorname{argmax} \left\{ J(b, i) - C(i) \right\}$$

Let $w(b, i)$ be the wage from an occupied job with worker of NCAs status b and training intensity i . The value of filled job with NCAs status $b = 0, 1$ and training i , $J(b, i)$ satisfies:

$$J(b, i) = p + i - w(b, i) + \beta \left\{ \delta V + (1 - \delta) [(1 - G(\bar{\varepsilon}(b, i))) J(b, i) + G(\bar{\varepsilon}(b, i)) V] \right\} \quad (8)$$

Firm's instantaneous payoff consists of production after training minus wage paid. A match is exogenously severed with probability δ and with counter probability endogenously blown up with quit probability $G(\bar{\varepsilon}(b, i))$. In that case, the job becomes vacant next period and firm receives V . From now and later on, denote $\tilde{G}(\bar{\varepsilon}(b, i)) = (1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta$, the job separation rate.

NCAs and firm's investment choice. As training is firm-sponsoring and incurs a cost $C(i)$, a firm will choose a training level that maximizes the net value of filled job

$J(b, i) - C(i)$, given the unemployment rate, labor market tightness, and unemployment value. Hence, training is set so that the marginal benefit of filling a vacancy with a pair (b, i) equals the marginal cost of training. That is :

$$\frac{\partial J(b, i)}{\partial i} = C'(i) \quad (9)$$

Using equation 8, optimal investment condition can be rewritten as

$$C'(i) = \underbrace{\frac{1}{1 - \beta(1 - \tilde{G}(\bar{\varepsilon}(b, i)))}}_{\text{Average match duration}} \left[\underbrace{1 - \frac{\partial w(b, i)}{\partial i}}_{\text{Direct marginal profit}} \quad \underbrace{-\beta \frac{\partial \tilde{G}(\bar{\varepsilon}(b, i))}{\partial i} J(b, i)}_{\text{Expected marginal benefit from } \Delta \text{ in quit proba.}} \right] \quad (10)$$

An increase of one unit of training intensity incurs a marginal cost of $C'(i)$ and generates a marginal benefit which corresponds to the RHS of Eq.(10). The return to training can be decomposed in two terms: (i) training raises productivity and wages through rent sharing, which gives rise to a direct return to training ; (ii) training also makes the employment relationships more stable. The more productive the match, the less easily it is destroyed; thus, the second effect corresponds to a return to job stability.

Notice that the separation rate $\tilde{G}(\bar{\varepsilon}(b, i))$ only depends on training intensity i through wage $w(b, i)$. Hence, if wages were independent of training, then the marginal benefit of training would only depend on the average match duration. Thus, higher training intensity will be associated with job type with high match duration. As shown later, this result holds after wage adjustment, which makes the role played by the wage meaningful in determining optimal training level.

3.4 Wage bargaining

I follow the search and matching literature and assume that wages are determined by Nash Bargaining. Consider a firm-worker match currently associated with the pair (b, i) such that it generates a positive surplus. Nash Bargaining implies that the wage, $w(b, i)$, solves :

$$(1 - \rho) (W(b, i) - U(b)) = \rho (J(b, i) - V) \quad (11)$$

where $\rho \in [0, 1]$ denotes the worker's exogenous bargaining power. Bargaining outcomes then yields a share ρ of the total surplus of the job $S(b, i)$ to the worker and a

share $1 - \rho$ to firm. The surplus sharing rule reads :

$$W(b, i) - U(b) = \rho S(b, i) = -\bar{\varepsilon}(b, i) \quad ; \quad J(b, i) - V = (1 - \rho)S(b, i) \quad (12)$$

Using employed worker value function, filled job value together with optimal condition (11), it is straightforward to show that wage curve is given by :

$$w(b, i) = \rho(p + i) + (1 - \rho) \left[(1 - \beta)U(b) - \beta(1 - \delta) \underbrace{\int_{-\rho S(b, i)} \varepsilon dG(\varepsilon)}_{\gamma(b, i)} \right] \quad (13)$$

As standard, the wage is a weighted average of the match productivity and reservation wage. However, here, the standard reservation wage $(1 - \beta)U(b)$ as in Mortensen and Pissarides (1994) is distorted by the nuisance quantity $\gamma(b, i)$. This quantity is the average value of preference shock received by the worker. On average, a positive preference shock implies an increase in the utility of working and a decrease in its opportunity cost. Therefore, the reservation wage decreases. Given training level i and assuming that worker bound or unbound by NCAs has the same outside option value U , a worker with a high probability of retention or stay will receive a higher wage. In short, the bargained wage of each worker type depends on the level of training received, the associated separation rate, and how much NCAs impact the worker's outside option.

Using the value functions and surplus sharing rule, it is straightforward to show (See appendix B) that the total surplus of job (b, i) satisfies:

$$S(b, i) = p + i + \beta [1 - \tilde{G}(-\rho S(b, i))] S(b, i) - (1 - \beta)U(b) + \beta(1 - \delta) \int_{-\rho S(b, i)} \varepsilon dG(\varepsilon) \quad (14)$$

where:

$$(1 - \beta)U(0) = z + \beta f \left[\phi \rho S(1, i(1)) + (1 - \phi) \rho S(0, i(0)) + \phi \Delta U \right] \quad (15)$$

$$(1 - \beta)U(1) = z + \beta \left[f\rho(1 - \chi)\mathbb{E}[S(b, i(b))] + [f(1 - \chi)\phi - (1 - \mu)(1 - \chi) - \mu]\Delta U \right] \quad (16)$$

$$(1 - \beta)\Delta U = \beta \left[-f\chi\rho\mathbb{E}[S(b, i(b))] - [f\phi\chi + (1 - \chi)(1 - \mu) + \mu]\Delta U \right] \quad (17)$$

and where $\Delta U = U(1) - U(0)$. I set $\bar{i}_b = i(b)$ as unique symmetric equilibrium, since all firm solve the same investment problem (See also Acemoglu and Pischke (1999)). From equation (17), employed workers constrained by NCAs have lower outside options than their peers unbound by NCAs. This result is stressed in lemma 1.

Lemma 1 *Assuming that both types of jobs exist in equilibrium (positive match surpluses), then employed workers constrained by NCAs have lower outside options than their peers unbound by NCAs, that is $U(1) < U(0)$.*

Proof: See Appendix B.1

The result in lemma 1 is quite intuitive. Since NCAs limit the opportunities of NCAs workers outside her match, the probability of finding a job upon separation is lower than for workers unbound by NCAs.

Equilibrium. A stationary equilibrium consists of policy functions $i(b)$, $\bar{e}(b, i(b))$, value functions $W(b, i(b))$, $U(b)$, $J(b, i(b))$, $S(b, i(b))$ and wage function $w(b, i(b))$, labor market tightness θ and unemployment rate such that :

- (i) The value functions solve (3) to (8)
- (ii) Wage is given by (13)
- (iii) Training policy function satisfies (10)
- (iv) Free entry (7) pins down labor tightness
- (v) Quit decision policy function satisfies $\bar{e}(b, i(b)) = -\rho S(b, i(b))$ and
- (vi) Unemployment rate u is derived from law of motion of each type of unemploy-

ment $u(0)$ and $u(1)$ which read :

$$\left[\mu + (1 - \chi)f(\theta) \right] u(1) = \phi (1 - u) \tilde{G}(\bar{\varepsilon}(1, i(1))) \quad (18)$$

$$u(0) f(\theta) = \mu u(1) + (1 - \phi) (1 - u) \tilde{G}(\bar{\varepsilon}(0, i(0))) \quad (19)$$

Since $u = u(0) + u(1)$, we get:

$$u = \frac{\lambda \left[\mu + (1 - \chi)f \right] + f \phi \chi \tilde{G}(\bar{\varepsilon}(1, i(1)))}{f \phi \chi \tilde{G}(\bar{\varepsilon}(1, i(1))) + \left[\mu + (1 - \chi)f \right] (f + \lambda)} \quad (20)$$

where $\lambda = (1 - \phi) \tilde{G}(\bar{\varepsilon}(0, i(0))) + \phi \tilde{G}(\bar{\varepsilon}(1, i(1)))$; $f = f(\theta)$

From this expression, we see that unemployment rate is increasing in the job destruction rates for the various types of jobs contract and a decreasing function of the exit rate from unemployment $f(\theta)$. Finally, when $\phi = 0$ (economy without NCAs), we get the familiar expression $u = \frac{\lambda}{\lambda + f}$.

The endogenous fraction of unemployed workers constrained by NCAs ($1 - \eta$) is given by:

$$1 - \eta = \frac{u(1)}{u} = \frac{\phi \tilde{G}(\bar{\varepsilon}(1, i(1)))}{\mu + (1 - \chi)f} \frac{1 - u}{u} \quad (21)$$

which closes the model.

4 Qualitative insights

Before turning to quantitative analysis, I provide qualitative insights into the model. I abstract from unemployment to focus on how NCAs interact with training, separation rate, and labor tightness.

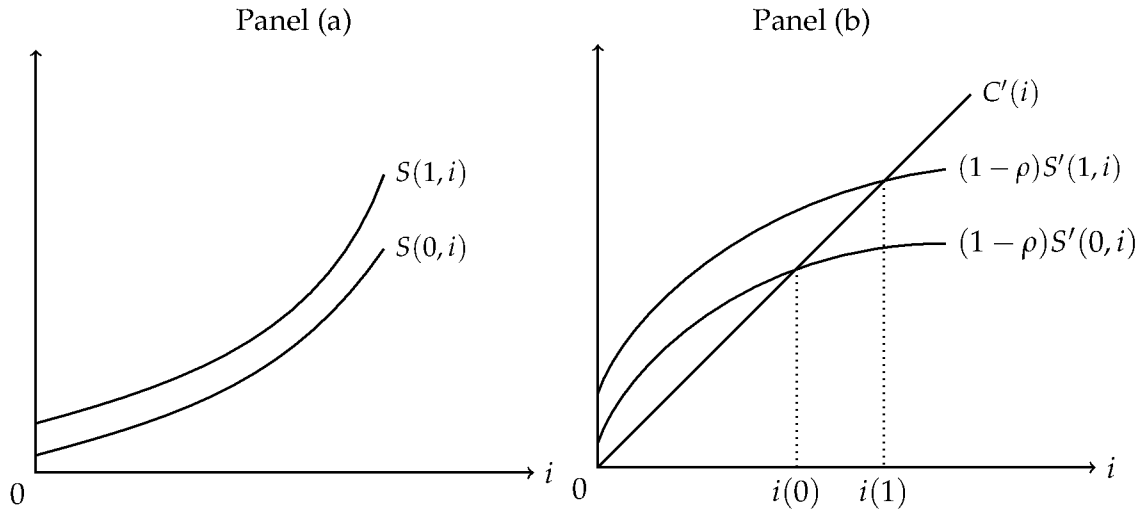
Proposition 1 *Conditional on training i , NCAs match surplus is higher than No NCAs match surplus. That is :*

$$S(i, 1) - S(i, 0) |_i > 0$$

The proof is in appendix B.2. Proposition 1 states that if both types of workers (NCAs and No NCAs) received the same level of training, the match surplus would be higher

in NCAs' jobs than in No NCAs' jobs for any level of training. The reason is that holding training constant across job types, the only difference between their surpluses comes from the outside options values. Hence, as surplus decreases in the outside

Figure 6



value, from lemma 1, NCAs surplus is higher. Panel (a) in figure 6 illustrates this result. Consequently, NCAs worker receives higher training and experiences a lower separation rate, a result highlighted in proposition 2 above.

Proposition 2 *NCAs worker receives higher training and experiences a lower separation rate*

The proof of proposition 2 is straightforward (See appendix B.3) and the result is intuitive. The analysis of proposition 1 suggests that conditional on training, NCAs worker experiences lower separation than No NCAs worker. Hence, conditional on training level i , NCAs match duration is higher. Therefore the marginal benefit of investment is higher for NCAs job¹⁰. This result is illustrated in panel (b) of figure 6. The result implies, among others, that the optimal training policy is decreasing in outside value of workers. This is consistent with Acemoglu and Pischke (1998) finding that a lower probability that the worker meets a new employer increases the value of human capital to the incumbent firm¹¹.

¹⁰I show that the marginal benefit is increasing in the match surplus and only depends on the latter (sufficient statistic in the model) (See appendix B).

¹¹Although there is no on-the-job search in this model, the new employer contact rate stands here for the probability to find a job.

NCAs and equilibrium labor tightness. Let us analyze the effect, given a level of the probability of entering NCAs contract ϕ , of an increase in the policy instrument χ , which is the NCAs enforcement probability, on job creation decision. Since the effects of ϕ and χ are complementary, the results presented here are isomorphic to an increase in ϕ , given a certain level of χ . From the free entry condition (equation 7), we can see that the impact of tightening in NCAs enforcement on job creation depends on its net effect on the expected profit of filling a vacancy. Since a firm's investment is higher with NCAs, the incidence of higher NCAs enforcement increases the expected profit of filling a vacancy. Therefore firms will be keener to open more vacancies, increasing the labor tightness.

$$\begin{aligned} \frac{\kappa}{q(\theta)} &= \beta \left\langle \underbrace{\tilde{\eta} \left\{ \phi [J(1, i(1)) - C(i(1))] + (1 - \phi) [J(0, i(0)) - C(i(0))] \right\}}_{\text{Expected Marginal Benefit of filling vacancy (MB)}} \right\rangle \\ &= \beta \tilde{\eta} \overline{MB} \end{aligned}$$

$$\begin{aligned} \frac{d \ln(MB)}{d\chi} &= \frac{d \ln(\tilde{\eta})}{d\chi} + \frac{d \ln(\overline{MB})}{d\chi} \\ &= \underbrace{\frac{1}{\tilde{\eta}} \left[-\eta + (2 - \chi) \frac{\partial \eta}{\partial \chi} \right]}_{\text{Composition of job seekers w.r to NCAs constraint effect (-)}} + \underbrace{\frac{1}{\overline{MB}} \frac{\partial \overline{MB}}{\partial i} \frac{\partial i}{\partial \chi}}_{\text{Training effect (+)}} \end{aligned}$$

However, the incidence of higher enforcement NCAs influences negatively the marginal benefit of filling a vacancy in two ways: (i) directly through $\tilde{\eta}$ and (ii) indirectly (a general equilibrium effect) through η , the probability to meet unemployed worker unconstrained by NCAs. These adverse effects, which I called composition of job seekers with respect to NCAs constraint effect, counteract the positive training motive effect, lowering labor tightness and may dominate. Intuitively, a tightening in NCAs enforcement will spread highly enforceable NCAs among unemployed workers. Hence, it becomes difficult for firms to fill a vacancy, lessening the expected profit.

5 Quantitative analysis

In this section, I calibrate the model and analyze the equilibrium effect of Non-compete agreements in a steady state. The parameters are set to match a set of moments describing the dynamics of the US labor market prior to the 2009 recession.

5.1 Calibration

5.1.1 Parameters set externally

The model period is a month. Thus, I set the discount rate $\beta = 0.9967$ so that the model implies a steady-state annualized real interest rate of about 4%. The matching function is assumed to be Cobb-Douglas: $m(u, v) = A u^\alpha v^{1-\alpha}$. As standard in search literature, I choose a conservative value for the elasticity $\alpha = 0.5$. The bargaining power ρ is equal to α to ensure that the Hosios condition is fulfilled in the benchmark economy (with NCAs). In the benchmark economy, the exogenous probability for a worker to be bound by NCAs is set to $\phi = 0.20$ in line with evidence from 2014's Non-compete survey in the US (Starr et al. (2019)). Also, like in Shi (2022), I use an average duration of NCAs restriction of 1.6 years, consistent with the data. Hence, I calibrate the probability of being unconstrained by NCAs after separation to $\mu = 0.052$. The instantaneous return of unemployment, z , is equal to 40% of the productivity p , which value is normalized to one, consistently with Shimer (2005). The benchmark calibrated value of enforcement probability χ is set to 0.7. This value corresponds to the mean of the NCAs enforceability index developed by Bishara (2011) and improved by Prescott et al. (2016). The index is normalized with values between 0 and 1. The calibrated value is also consistent with Shi (2022), who finds an enforcement probability of 0.4 in a low-enforcement regime like California. With a value of a full-enforcement regime like Florida equals 1, the calibrated value appears to be the average-enforcement regime's value. Finally, I assume a normal distribution for the preference shock with mean m and standard deviation σ . I normalize the mean to zero and internally estimate the standard deviation σ . The resulting calibrated parameters are presented in panel A of the table 3.

5.1.2 Internal calibrated parameters

I assume $C(i) = ci^2$ as the functional form for the training cost function that is increasing and convex in training intensity i . I jointly estimate the parameters $\kappa, c, \sigma, A, \delta$, respectively, the per-unit cost of vacancy, the training cost parameter, the preference shock distribution standard deviation, the match efficiency parameter, and the exogenous separation rate.

I target a monthly job-finding rate of 0.34 as in Carlsson and Westermarck (2022) and Fujita and Ramey (2012). Using Federal Reserve Bank data, I find an average value of labor market tightness, θ of 0.52 over the period targeted. This value of θ yields an estimated efficiency parameter A equals 0.66 together with the targeted monthly job finding rate. The vacancy cost κ is recovered from the free entry condition given the targeted labor tightness value of 0.52. Furthermore, the standard deviation for the preference shock distribution is estimated to match the average job separation rate. The value targeted is 0.02 as in Carlsson and Westermarck (2022) and consistent with Bils et al. (2011) who estimated the job separation rate from the Survey and Income Participation Program (SIPP) data over the targeted period. The 2 percent of the average job separation rate and the estimated job finding rate imply a steady-state value of the unemployment rate of 5.81 percent, which closely maps to the value in data over the period.

Table 3: Baseline Calibration of the Model

<i>Panel A: calibrated parameters</i>		
β	Discount rate	0.9967
ρ	Bargaining power	0.5
ϕ	fraction of bound worker	0.2
μ	Proba. of being unconstrained	0.052
χ	NCA's enforcement Probability	0.7
z	Unemployment benefit	0.40
p	Common productivity	1
m	Preference shock mean	0
<i>Panel B: Moment-matched parameters</i>		
A	Matching efficiency	0.660
κ	vacancy cost	0.725
c	Training cost parameter	258.00
δ	Exogenous job separation rate	0.0196
σ	Preference shock std.	0.513

Finally, the exogenous separation rate δ , and the training cost parameter c are estimated by targeting respectively the ratio of the average job tenure in NCAs job versus No NCAs jobs and the corresponding hourly wage ratio. Using data from the 1997's National Longitudinal Youth Survey (NLSY97), I compute that, on average, NCAs worker has 73.42 weeks of job tenure with an employer while No NCAs worker spend 62.42 weeks in employment relation. It implies a ratio of 1.17 of job tenure. Furthermore, Rothstein and Starr (2022), using NLSY97 estimated that worker bound by NCAs earns 5 percent more everything else equal. This estimate implies a targeted wage ratio of 1.05 for the baseline calibration.

Panel B of Table 3 summarizes the resulting internally estimated parameters. Table A2 in appendix A reports the targeted moments and shows that the calibrated model fits the data moments well.

5.2 Accounting for the stylized facts

I now assess the model's ability to account for the facts 1 and 2 outlined in Section 2. To do so, I simulate the model to generate artificial data comparable with the data used in the empirical analysis of Section 2.

Fact 1. I examine whether the model can account for the negative cross-sectional association between the incidence of NCAs and the job separation rate on average. Specifically, I replicate the cross-section relationships between both variables across States and Industries according to figure 3. To do so, I vary the parameter ϕ to get the same sequence of NCAs incidence across States and Industries as observed in the data¹². Figure 7 shows that this exercise makes the model predict a statistically significant negative correlation between the incidence of NCAs and job separation rates. As we can see, the model's ability to account for the overall magnitude of the cross-sectional correlation is quite remarkable, especially across industries with a data-model correlation of about 0.80.

Fact 2. Second, I argue that the model is also consistent with the negative cross-

¹²Job separation rate data presented in figure 3 are quarterly, whereas the model is estimated monthly. Hence I estimated the monthly counterpart of the data before comparison. Since one quarter is equivalent to three months, we can infer the quarterly job separation rate s_q from the monthly rate s_m by using the relation $s_q = s_m + s_m(1 - s_m) + s_m(1 - s_m)^2 = 1 - (1 - s_m)^3$

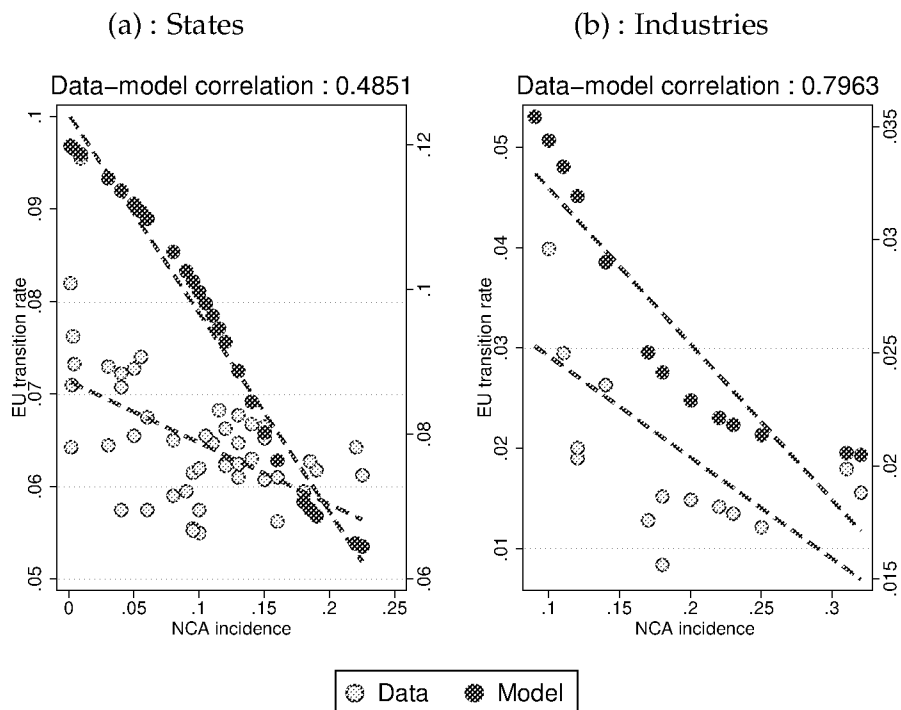


Figure 7: NCAs incidence and job separation rate : Data vs. Model

sectional association between the incidence of NCAs and the job-finding rate observed in the data. To examine this fact through the lens of our model, I proceed in a way analogous to the way I proceed for fact 1. Figure 8 shows a scatter plot in which each dot represents a state, with the x-axis and y-axis, respectively measuring the proportion of workers constrained by NCAs and the probability of transitioning to employment from non-employment. The figure shows that State displaying significant increases in the NCAs incidence also displays a large drop in the job-finding rate, consistent with fact 2. Of course, job-finding rates in the data are also driven by factors other than the prevalence or the use of NCAs studied in the paper. Hence, the correlation observed in the data in Figure 4 is not as tight as the model counterpart in Figure 8.

5.3 The Effects of Non-Compete Agreements incidence

With the estimated model, I start by describing the decentralized equilibrium in figure 9. Hence, I simulate the model with various levels of the NCAs incidence ϕ .

The results indicate that NCAs worker receives higher training intensity and experiences a lower job separation rate in line with Proposition 2. The low separation rate for

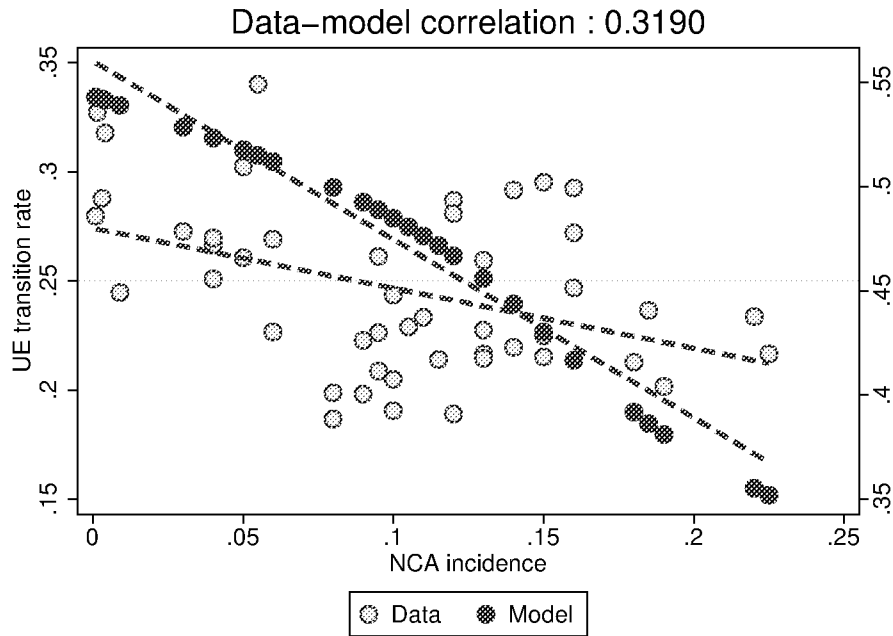
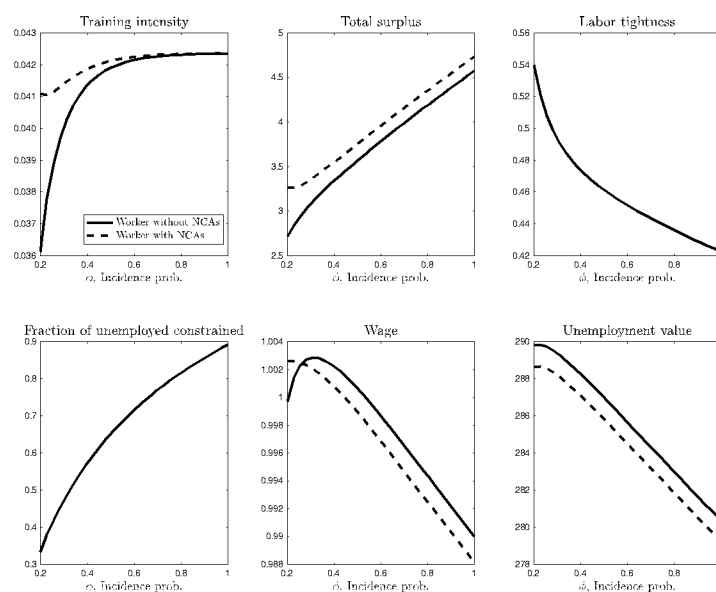


Figure 8: NCAs incidence and job finding rate : Data vs. Model

a worker with NCAs results from a combination of two effects going in the same direction: the drop in the separation initiated by the worker (a quit) and the one initiated by the employer (nil here because not explicitly modeled). Intuitively, as workers' outside options decline due to the NCAs signed, the latter is less willing to quit. The decline in the quit rate encourages the employer to invest in the worker's human capital. As a result, the employer is less likely to lay off the worker. Thus, the employer could extract the maximum possible of its investment.

Results also suggest that not only does the outside option value of NCAs workers decline as the NCAs incidence increases, but the outside option value of the unconstrained worker also drops, a result somewhat surprising. Nevertheless, this finding suggests that NCAs incidence exerts a negative externality on the unconstrained worker. The rationale behind this effect can be analyzed through two channels simultaneously at play. The first channel comes from the potential decline of labor market tightness, decreasing the probability of finding a job. The second channel derives from the fact that there is a positive probability that the NCAs unbound worker will become constrained in the future. This situation contributes to lessening the present value of the unconstrained unemployed worker. This pattern is consistent with the empirical finding in Starr et al.

Figure 9: Comparative Statics with respect to NCAs incidence proportion - ϕ



Note. All parameters except ϕ are fixed at their baseline values. Simulation starts from baseline value of ϕ

(2019) who examine the mobility constraint externalities of NCAs. Starr et al. (2019) find that in the US States with a higher incidence of enforceable NCAs, workers, including those unbound by NCAs, receive fewer job offers.

Speaking of earnings, NCAs worker receives lower wage than a worker without NCAs when the NCAs incidence is high. In our setting, training intensity and the unemployment value are the key determinants of the wage profile through Nash bargaining. Since the outside option value decreases when NCAs incidence is high, the pass-through wage effect is negative. The positive training effect of higher NCAs on wages helps reduce the negative effect of the outside options. However, the adjustment is not enough to increase the wage for the NCAs worker when NCAs incidence is sufficiently high. Indeed, as the results make apparent, when the probability of signing NCAs is high, there is no significant difference between NCAs workers and No NCAs workers regarding human capital investment.

Finally, training motive and the composition of job seekers relative to NCAs constraint are two opposing forces determining the NCAs' effect on job creation. Results show a decreasing pattern of labor tightness. The declining pattern observed for labor market tightness results from the general equilibrium effect of job seekers composition relative

to NCAs constraint that appears to be dominant here. Indeed, the proportion of job seekers constrained by NCAs increases as NCAs incidence rises, and thus it becomes hard for firms to fill a vacancy. As a result, firms post fewer vacancies pushing downward the tightness of the labor market.

On average, the model implies a declining job finding rate and separation rate with NCAs incidence as shown in Figure 10. It suggests that the incidence of NCAs lowers labor turnover. Additionally, and in line with empirical evidence, an increase in the enforceability of NCAs decreases job flow rates, given a level of incidence of NCAs. As a result, it is not the NCAs incidence or their enforceability degree per se that harms labor market dynamics, but the combination of both. Subsequently, the effect of a higher incidence of enforceable NCAs on the unemployment rate is ambiguous. The unemployment rate rises if job flows into unemployment fall proportionally less than job flows out of unemployment. The model predicts a U-shaped curve for the unemployment rate, which suggests that higher NCAs incidence (with a threshold of about 20%) increases the unemployment rate (See figure 10).

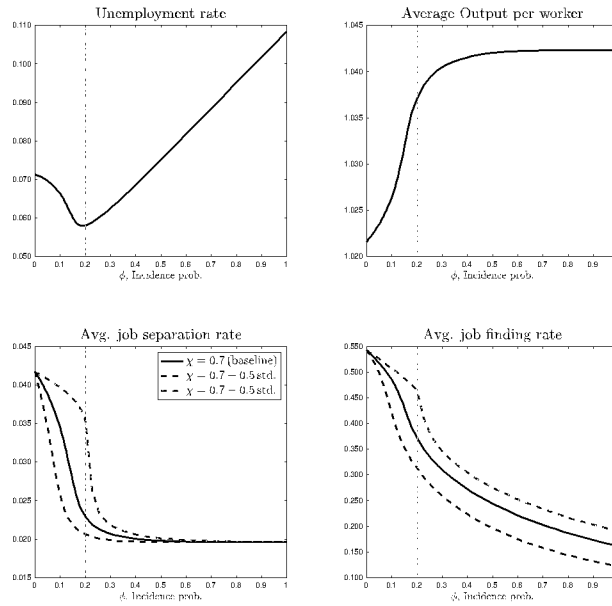
Furthermore, figure 10 shows a positive effect of the NCAs incidence on productivity through the associated higher firm investment. Hence the use of the NCAs generates a trade-off between the enhancement of aggregate productivity and an efficient level for the unemployment rate, making it theoretically ambiguous to predict the efficiency of NCAs. I now turn to the welfare effects induced by NCAs.

6 Welfare analysis

In this section, I quantitatively investigate the welfare effects of NCAs. In line with Charlot and Malherbet (2013), I consider that the planner chooses the job separation threshold, the labor market tightness θ , and training intensity with respect to each type of employment contract. Formally, the planner maximizes social welfare, defined as the sum of the discounted stream of aggregate output net of search and training costs,

$$\max_{\theta, \varepsilon(b), i(0), i(1)} \int_0^{\infty} e^{-rt} \left\{ Y + uz - \theta u \kappa - \tilde{\eta} \theta q(\theta) u \left[\phi C(i(1)) + (1 - \phi) C(i(0)) \right] \right\} dt$$

Figure 10: Effects of NCAs incidence on productivity, unemployment, and job flows rates



Note. In each plot, the solid black curve shows the effect of the increase in the NCAs incidence when the enforcement probability is equal to baseline value, $\chi = 0.7$. The black and blue dashed curves show the same effect when enforcement probability increases by \pm a half of a standard deviation value as in data (≈ 0.23). All other parameters are set as in Table 3. Dashed vertical lines indicate the calibrated value of ϕ .

Aggregate output Y is the sum of outputs for each type of job (With and without NCAs), i.e. $Y = Y^0 + Y^1$ which, at any moment in time t evolve according to:

$$\dot{Y}^1 = \tilde{\eta}\theta q(\theta)u\phi[p + i(1)] - \tilde{G}(\varepsilon(1, i(1)))Y^1 \quad (22)$$

$$\dot{Y}^0 = \tilde{\eta}\theta q(\theta)u(1 - \phi)[p + i(0)] - \tilde{G}(\varepsilon(1, i(0)))Y^0 \quad (23)$$

At any moment in time, the unemployed, conditional to encounter an allowed match with probability $\tilde{\eta}$ can be hired on either NCAs contract at rate $\phi\theta q(\theta)$ or a job without NCAs contract with probability $(1 - \phi)\theta q(\theta)$ and produce respectively $p + i(1)$ and $p + i(0)$. In the same time, a proportion $\tilde{G}(\varepsilon(b, i(b)))$, $b = 0, 1$ of job of type b is destroyed.

The welfare properties of the decentralized economy are studied in two steps. As a first step, I study the welfare properties of a laissez-faire economy, i.e., an economy where a probability ϕ of signing NCAs is one ($\phi = 1$) and the NCAs duration is suffi-

ciently large ($\mu=0$), but there is a probability $\chi \in (0, 1)$ that NCAs are enforced. Such an economy is isomorphic to a one with a strong bargaining power of employers. I show that an economy of this type is inefficient even if the hold-up problem is meaningless (higher firm investment). In the second step, I show that a cap on the NCAs duration is welfare-improving. The focus here on the capping non-compete duration as policy evaluation is for comparison with the literature (See. Shi (2022)).

6.1 The inefficiency of the laissez-faire economy

I first study the welfare properties of the laissez-faire equilibrium where $(\phi, \mu) = (1, 0)$. The result presented here also holds in a general case where $(\phi, \mu) \in (0, 1) \times (0, 1)$. Thus, the case $(\phi, \mu) = (1, 0)$ is reported for ease of presentation. Furthermore, I restrict myself to the case where $\beta \rightarrow 1$. Hence, the objective of the planner becomes static and writes:

$$\max_{\theta, \varepsilon(1), i(1)} \tilde{\eta} \theta q(\theta) u \left\{ \frac{p + i(1)}{\tilde{G}(\varepsilon(1), i(1))} - C(i(1)) \right\} + uz - \theta u \kappa \quad (24)$$

the maximization problem is subject to the same constraint on labor market flows as the decentralized economy (20 and 21). Let ε^s , θ^s , and i^s denote the values of the endogenous variables chosen by the social planner.

Proposition 3 (Efficient job creation.) *The values ε^s , θ^s and i^s solve:*

$$\frac{\kappa}{q(\theta^s)} + \frac{\tilde{\eta} \kappa \psi \theta^s}{\tilde{G}(\varepsilon^s)} + \tilde{\eta}(1 - \psi)C(i^s) = \tilde{\eta}(1 - \psi) \frac{p + i^s - z}{\tilde{G}(\varepsilon^s)} \quad (25)$$

where $\psi = -\theta^s \frac{q'(\theta^s)}{q(\theta^s)}$ denotes the opposite of the elasticity of the matching function with respect to unemployment. These values can be directly compared to those obtained in the laissez-faire equilibrium.

Let ε^* , θ^* and i^* denote the equilibrium values of the key endogenous variables.

Proposition 4 (Job creation in the laissez-faire economy.) *The values ε^* , θ^* and i^* solve:*

$$\frac{\kappa}{q(\theta^*)} + \frac{\tilde{\eta} \kappa \rho \theta^*}{\tilde{G}(\varepsilon^*)} \frac{1}{1 - \chi(1 - \theta^* q(\theta^*))} + B \tilde{\eta} C(i^*) = \tilde{\eta}(1 - \rho) \frac{p + i^* - z}{\tilde{G}(\varepsilon^*)} \quad (26)$$

where, $B = 1 + \frac{\rho(1 - \chi)\theta^* q(\theta^*)}{\{1 - \chi[1 - \theta^* q(\theta^*)]\} \tilde{G}(\varepsilon^*)}$

The comparison of job creation condition in the equilibrium and centralized outcomes yields a necessary condition. For a given training intensity and job destruction rate, a necessary condition for the equilibrium to be constrained efficient is that the well-known Hosios-Diamond-Pissarides (HDP) condition $\rho = \psi$ holds. However, this condition is not sufficient here. It is easy to verify that $\theta^* < \theta^s$ under HDP and given a training intensity and a job destruction rate. To achieve efficiency, a second-order condition is that the worker's bargaining power ρ must be set to zero ($\rho = 0$). This result is similar to the one obtained by Acemoglu and Shimer (1999), who studied the efficiency of the search and matching model under the presence of match-specific investments. While the result appears in their paper for the hold-up problem, here it holds in the presence of incidence of NCAs, which help lessen the hold-up problem, but too few jobs are created.

Note that the inefficient job creation cannot be solved by giving all the bargaining power to the employer ($\rho = 0$); otherwise, workers do not get any return to the training that increases the productivity. Hence, doing so depresses wages and creates an excessive entry of firms.

This being said, I turn to the welfare effects of capping NCAs' duration. The exercise is to understand to which degree this policy helps improve welfare.

6.2 Policy evaluation: Capping NCAs duration

Given that there can be little job creation, there may be room for improving welfare by capping the NCAs' duration. One advantage of this policy is its simplicity and transparency (i.e., it is easily verifiable without cost for workers and firms). We are interested here in quantifying the effects of this policy.

Using the calibrated model, I compute the welfare gains pertain to the equilibrium allocation. Figure 11 depicts the result in the panel (a). As we can see, a low level of NCAs incidence is desirable as it would help the economy benefit from higher productivity and low job destruction without being too harmful to job creation. The desirable level of NCAs incidence is lower than the equilibrium benchmark value of 20%. The model predicts a desirable level of 11.79%.

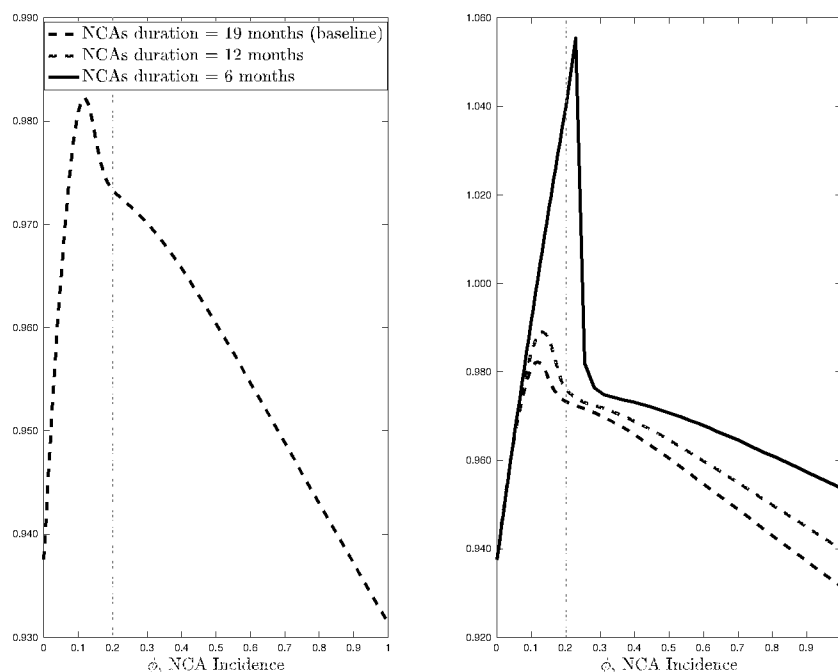
Next, I investigate how the optimum changes when there is a cap on NCAs duration, i.e., when the probability of loosening the NCAs constraint in the future μ rises. Results

in panel (b) of figure 11 show that a cap on NCAs duration improves the welfare. when considering the optimum decentralized equilibrium, the welfare gains range from about 0.7 percent to 7.5 percent when the NCAs duration is capped at a range between 6 months and 12 months. Nevertheless, NCAs duration capped at 6 months helps to increase welfare by 6.8% from the baseline equilibrium level of NCAs incidence set to 20% with an average enforcement regime ($\chi = 0.7$). These results are consistent with Shi (2022). The paper found that in a full-enforcement regime $\chi = 1$, the optimal cap estimated at 0.6 years, – about 6 months – results in welfare gains of 4.8%, relative to the laissez-faire equilibrium outcome. In a low-enforcement regime $\chi = 0.4$ that resembles California, the optimal cap results in welfare gains of 0.5%. The key difference is that, while her paper studies the effects of NCAs in the managerial labor market (high-skill labor), my results have broader relevance here.

Figure 11: Welfare effects of NCAs

(a) : Decentralized optimum

(b) : Effect of Capping NCAs duration



Note. Dashed vertical lines indicate the calibrated value of ϕ .

7 Discussion

Multi-sector analysis. A potential limitation of the analysis presented throughout the paper concerns the one-sector model used in the paper. Since NCAs constrain a firm-to-firm labor reallocation within an industry, a multi-sector model would be appropriate. It would help reduce the negative effect of NCAs on the job-finding rate since unemployed workers bound by NCAs could direct their job search to an industry other than the previous one where they were working. Marx (2011) documents this potential involuntary career detour for the duration of the contract, in the case of technical professionals. Hence, the adverse effect of the NCAs on the job-finding rate depends on the number of sectors, the distribution of firms, and the incidence of NCAs across sectors. Therefore, the negative effect of NCAs on the job-finding rate could vanish as the number of sectors becomes sufficiently large. In my framework, a sensitivity test relying on the NCAs enforcement probability χ can capture, to a certain extent, the magnitude of this issue. However, notice that the more a worker received or has invested in industry or occupation-specific human capital, the more costly it is for him to switch occupation or industry. Therefore the higher is his incentive to wait in unemployment. In other words, A displaced worker might rationally prefer to wait through a long spell of unemployment instead of seeking employment at a lower wage in a job he is not trained for. Herz (2019) documents this theory and found that between 9% and 17% of total unemployment in the United States can be attributed to wait unemployment. This idea rationalizes the use of one sector framework since NCAs displaced workers received a higher intensity of industry-specific human capital. Furthermore, a multi-sector model would lead to an unnecessarily complicated model, along with the need to have data on worker transition rates across sectors conditional on NCAs contract status to estimate the model. Future work could extend the framework to a multi-sector model once comprehensive data on NCAs become available.

8 Conclusion

Non-compete contracts influence labor market outcomes by increasing job search frictions. This paper studies the equilibrium employment effects of the incidence of NCAs contracts. It documents that an increased incidence of enforceable NCAs is associated with a decline in labor market dynamism. Both job creation and destruction rates fall, generating an ambiguous effect on the unemployment rate in equilibrium. The model calibrated to US data predicts a higher unemployment rate, suggesting that the negative job creation effect dominates. The result can also be interpreted as unemployment mismatch implications of NCAs, in that workers with a sector-specific human capital endowment but constrained by NCAs are waiting for unemployment during their non-compete restriction period. This situation may generate a dispersion in the probability of finding a job across sectors leading to inefficiency.

Finally, I show that a restriction on the non-compete duration is welfare improving. This restriction helps the economy benefit from higher productivity and low job destruction without being too harmful to job creation.

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A Tables and Figures

Figure A1: Effect of NCAs enforcement strengthening on job creation rate in Florida - firms aged 10 years or less.

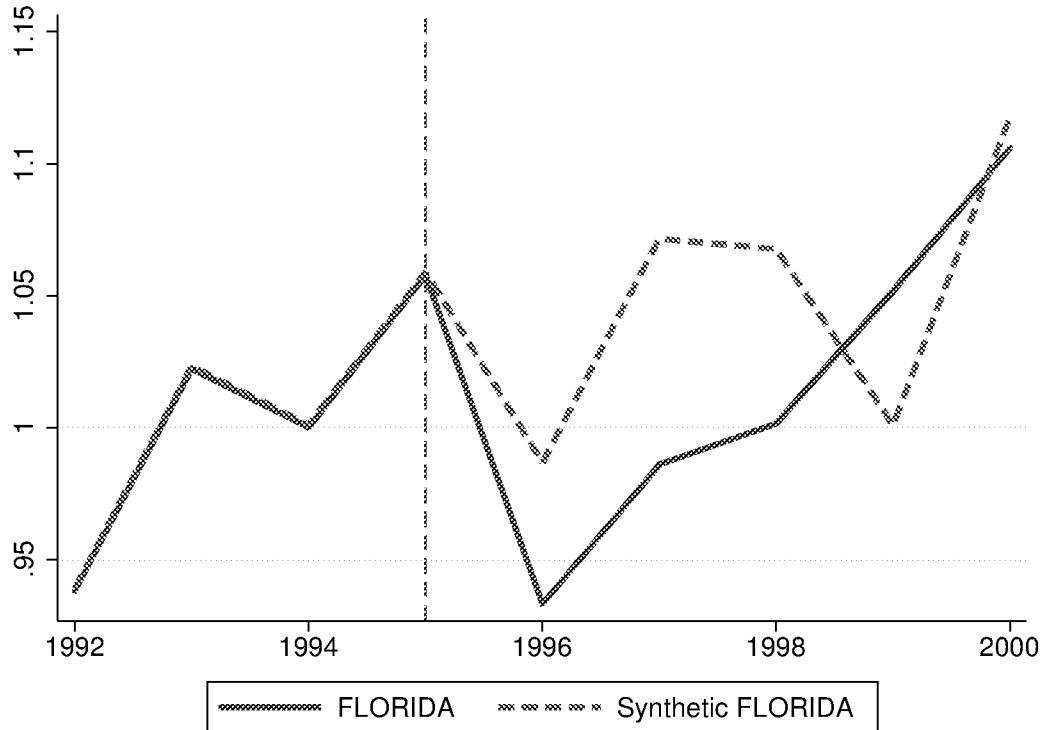
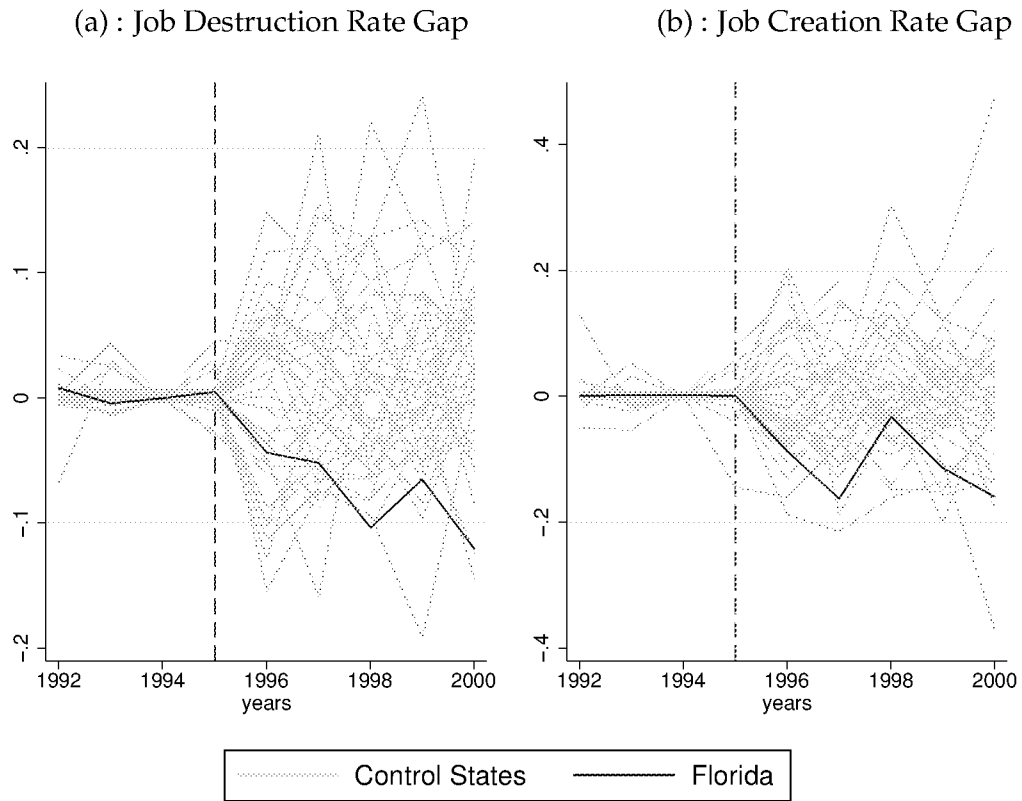


Table A1: NCAs incidence and employment transition rates

Dependent var.	Job losing (Y/N)		Job finding (Y/N)	
	(1)	(2)	(3)	(4)
NCAs inc. × Enforceability		-0.029*** (0.0000)		-0.155*** (0.0005)
Controls.	Yes	Yes	Yes	Yes
Year/state FE	Yes	Yes	Yes	Yes
N. Obs	250,876	250,876	19,141	19,141

Note.- Standard errors in parenthesis, clustered at state level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figure A2: Placebo test



-Notes: The gray lines represent the gap associated with each of the 46 runs (states included in the control group) of the placebo test. the blue line denotes the estimated gap for Florida

Table A2: Targeted moments

Moments	Data	Model
Average job finding rate	0.34	0.36
labor tightness	0.52	0.54
Average job separation rate	0.020	0.023
Wage ratio	1.05	1.003
job tenure ratio	1.17	1.16

B Proofs

B.1 Proof of Lemma 1

Recall that from equations (4) and (5) we have:

$$U(0) = z + \beta \left\{ f(\theta) [\phi W(1, \bar{i}_1) + (1 - \phi) W(0, \bar{i}_0)] + [1 - f(\theta)] U(0) \right\} \quad (27)$$

$$U(1) = z + \beta(1 - \chi) \left\{ f(\theta) [\phi W(1, \bar{i}_1) + (1 - \phi) W(0, \bar{i}_0)] + [1 - f(\theta)] U(0) \right\} + \beta \chi \mathbb{E}[U(b')]$$

Replacing $U(0)$ in $U(1)$ expression yields:

$$U(1) = z + (1 - \chi)[U(0) - z] + \beta \chi [\mu U(0) + (1 - \mu) U(1)] \quad (28)$$

Rearranging equation (28) to obtain:

$$(1 - \beta)U(0) = z + \left[\beta(1 - \mu) - \frac{1}{\chi} \right] \Delta U \quad (29)$$

Where $\Delta U = U(1) - U(0)$.

Now, using equation (27) we obtain:

$$(1 - \beta)U(0) = z + \beta f(\theta) \left[\phi W(1, \bar{i}_1) + (1 - \phi) W(0, \bar{i}_0) - U(0) \right] \quad (30)$$

Hence, by using Nash bargaining conditions: $W(1, \bar{i}_1) - U(1) = \rho S(1, \bar{i}_1)$ and $W(0, \bar{i}_0) - U(0) = \rho S(0, \bar{i}_0)$, we can rewrite (30) as:

$$(1 - \beta)U(0) = z + \beta f(\theta) \left\{ \rho \left[\phi S(1, \bar{i}_1) + (1 - \phi) S(0, \bar{i}_0) \right] + \phi \Delta U \right\} \quad (31)$$

Subtracting terms at each side of equations 29 and 31 yields:

$$\left[-1 + \chi \beta [1 - \mu - \phi f(\theta)] \right] \Delta U = \chi \beta f(\theta) \rho \left[\phi S(1, \bar{i}_1) + (1 - \phi) S(0, \bar{i}_0) \right] \quad (32)$$

There are two cases:

- Case 1: $1 - \mu - \phi f(\theta) \leq 0$

In this case we have $\left[-1 + \chi \beta [1 - \mu - \phi f(\theta)] \right] < 0$ and assuming that both types of jobs exist in equilibrium $S(1, \bar{i}_1) > 0$ and $S(0, \bar{i}_0) > 0$ meaning positive surpluses, then (32) yields $\Delta U < 0$, that is $U(1) < U(0)$

- Case 2: $1 - \mu - \phi f(\theta) > 0$

In this case we have $0 < 1 - \mu - \phi f(\theta) < 1$, since $\mu + \phi f(\theta) > 0$. Hence $0 < \chi \beta [1 - \mu - \phi f(\theta)] < \chi \beta < 1$. Finally $-1 < \left[-1 + \chi \beta [1 - \mu - \phi f(\theta)] \right] < 0$. Again, assuming that

both types of jobs exist in equilibrium $S(1, \bar{i}_1) > 0$ and $S(0, \bar{i}_0) > 0$ meaning positive surpluses, then (32) yields $\Delta U < 0$, that is $U(1) < U(0)$. Notice that if NCAs contract are unenforceable ($\chi = 0$) then $U(0) = U(1)$, that is workers constrained or not by NCAs have the same outside option value.

In all cases, we have $U(1) < U(0)$, so long as $\chi > 0$.

B.2 Proof of Proposition 1

From equation (3), we have:

$$W(b, i) = w(b, i) + \beta \left\{ \delta U(b) + (1 - \delta) \mathbb{E}_\varepsilon \max \{ W(b, i) + \varepsilon, U(b) \} \right\} \quad (33)$$

But,

$$\max \{ W(b, i) + \varepsilon, U(b) \} = \begin{cases} W(b, i) + \varepsilon & \text{if } \varepsilon \geq \bar{\varepsilon}(b, i) \\ U(b) & \text{otherwise} \end{cases}$$

where $\bar{\varepsilon}(b, i) = U(b) - W(b, i)$. Hence, rewriting equation (32) reads:

$$W(b, i) = w(b, i) + \beta \left\{ \delta U(b) + (1 - \delta) (1 - G(\bar{\varepsilon}(b, i))) \mathbb{E}_\varepsilon [W(b, i) + \varepsilon | \varepsilon > \bar{\varepsilon}(b, i)] + (1 - \delta) U(b) G(\bar{\varepsilon}(b, i)) \right\}$$

That is:

$$W(b, i) = w(b, i) + \beta \left\{ U(b) \tilde{G}(\bar{\varepsilon}(b, i)) + (1 - \delta) (1 - G(\bar{\varepsilon}(b, i))) W(b, i) + (1 - \delta) \int_{\bar{\varepsilon}(b, i)} \varepsilon dG(\varepsilon) \right\} \quad (34)$$

where $\tilde{G}(\bar{\varepsilon}(b, i)) = (1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta$. Now reorganizing and using $\bar{\varepsilon}(b, i) = U(b) - W(b, i)$ yields:

$$(1 - \beta) W(b, i) = w(b, i) + \beta [(1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta] \bar{\varepsilon}(b, i) + \beta (1 - \delta) \int_{\bar{\varepsilon}(b, i)} \varepsilon dG(\varepsilon) \quad (35)$$

Furthermore, from equation (8), we have:

$$J(b, i) = p + i - w(b, i) + \beta \left\{ \delta V + (1 - \delta) [(1 - G(\bar{\varepsilon}(b, i))) J(b, i) + G(\bar{\varepsilon}(b, i)) V] \right\} \quad (36)$$

With free-entry condition ($V=0$) and rearrangement, we obtain:

$$(1 - \beta) J(b, i) = p + i - w(b, i) - \beta [(1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta] J(b, i) \quad (37)$$

Total surplus: $S(b, i) = W(b, i) + J(b, i) - U(b)$ and $\bar{\varepsilon}(b, i) = U(b) - W(b, i)$. Hence, by summing up equations (35) and (37) and subtracting $(1 - \beta)U(b)$ reads:

$$(1 - \beta)S(b, i) = p + i + \beta [(1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta] \bar{\varepsilon}(b, i) + \beta(1 - \delta) \int_{\bar{\varepsilon}(b, i)} \varepsilon dG(\varepsilon) \quad (38)$$

$$- \beta [(1 - \delta) G(\bar{\varepsilon}(b, i)) + \delta] J(b, i) - (1 - \beta)U(b) \quad (39)$$

Using Nash bargaining: $W(b, i) - U(b) = \rho S(b, i)$ and $J(b, i) = (1 - \rho)S(b, i)$. Therefore :

$$(1 - \beta)S(b, i) = p + i - \beta [(1 - \delta) G(-\rho S(b, i)) + \delta] S(b, i) - (1 - \beta)U(b) \quad (40)$$

$$+ \beta(1 - \delta) \int_{-\rho S(b, i)} \varepsilon dG(\varepsilon) \quad (41)$$

Hence Total surplus $S(b, i)$ for $b = 0, 1$ satisfies equation 41 and depends on training intensity i and NCAs job status b . From equation 41, conditional on training intensity i , the only difference between the NCAs total match surplus and the one without NCAs comes from difference in the outside option value U of both types of job. Since $U(1) < U(0)$ as shown in Lemma 1, the proposition 1 holds.

B.3 Proof of Proposition 2

Given Aggregate variables, η , u and θ , Firm's optimal investment $(i^*(0), i^*(1))$ for NCAs job and job without NCAs respectively solve:

$$(1 - \rho)S'(0, i^*(0)) = C'(i^*(0)) \quad (42)$$

$$(1 - \rho)S'(1, i^*(1)) = C'(i^*(1)) \quad (43)$$

Differentiate (41) for $b = 0, 1$ give:

$$(1 - \beta)S'(b, i) = 1 - \beta [(1 - \delta) G(-\rho S(b, i)) + \delta] S'(b, i) + \quad (44)$$

$$\beta(1 - \delta)\rho(1 - \rho)S'(b, i)S(b, i) \frac{\partial G}{\partial \varepsilon}(-\rho S(b, i)) \quad (45)$$

I guess and verify that $\frac{\partial G}{\partial \varepsilon}(-\rho S(b, i)) = 0$ and therefore we obtain:

$$S'(b, i) = \frac{1}{1 - \beta[1 - \tilde{G}(-\rho S(b, i))]} \quad (46)$$

where $\tilde{G}(-\rho S(b, i)) = (1 - \delta) G(-\rho S(b, i)) + \delta$. Optimal investment condition becomes for $b = 0, 1$:

$$\underbrace{\frac{1 - \rho}{1 - \beta[1 - \tilde{G}(-\rho S(b, i))]}_{\text{Marginal benefit}} = \underbrace{C'(i)}_{\text{Marginal cost}} \quad (47)$$

Using proposition 1, conditional on training, the marginal benefit of investing in NCAs job is higher relative to the job without NCAs. Hence NCAs worker receives higher training. Finally, total match surplus is higher with NCAs job. Since separation rate is decreasing function of match surplus, therefore NCAs worker experiences lower separation rate.

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Lex Machina Releases its 2023 Trade Secret Litigation Report

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Lex Machina is proud to release its 2023 Trade Secret Litigation Report, which provides insights into trade secret litigation trends in federal district court and appellate court over the five-year period from 2018 to 2022. This report surveys emerging trends in case filings (including federal appellate cases), most active venues, judges, law firms, parties, timing metrics, case resolutions, findings, and damages. The report often focuses on different sets of data, e.g., filtering cases in order to provide analytics on general trade secret cases, Defend Trade Secret Act (“DTSA”) cases, and federal appellate trade secret cases.

Key Trends and Highlights from the report include:

- In 2022, 1,156 trade secret cases were litigated in federal district courts, a 7% decrease from the number of trade secret cases the year before and a 17% decrease from the highest number of trade secret cases filed in any year over the past decade (1,394 cases filed in 2017).
- The proportion of trade secret cases filed in 2022 that involved DTSA claims was 80%, representing a 10% increase from 2018 when the proportion was 70%.

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- In the five-year period from 2018 to 2022, the highest number of trade secret cases was filed in the Central District of California, while Judge Pitman from the Western District of Texas was the most active judge for trade secret cases.
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- Gordon Rees Scully Mansukhani was the most active counsel representing plaintiffs in trade secret cases in the five-year period from 2018 to 2022, while Littler Mendelson represented defendants in the highest number of trade secret cases over the same period of time.
- For trade secret cases that were appealed to a federal appellate court and terminated from 2018 to 2022 with a decision on the merits of the appeal, 39% were ultimately reversed.
- \$542 million in total damages were awarded as Punitive / Willfulness Damages from 2018 to 2022.

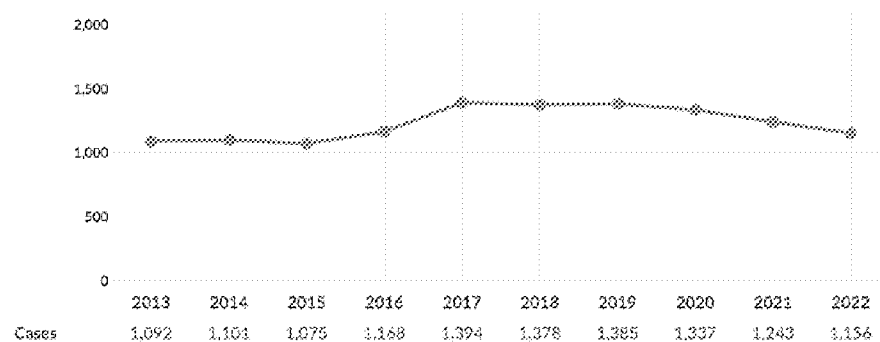
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Figure 1: Trade Secret Cases Filed from 2013 to 2022



Legal Analytics is used for planning, budgeting, and litigation strategy. The metrics in this report can help readers decide who to pursue as clients, whether to file a particular motion, or when to settle (and for how much). This research supplements traditional legal research and anecdotal data in order to gain a competitive edge in litigation.

Lex Machina hosted a webcast to discuss the report on July 13, 2023 with Dawn Mertineit (Partner at Seyfarth Shaw), Jeremy Elman (Partner at Duane Morris), Kim Cauthorn (Intellectual Property Leader at Willis Towers Watson), Elaine Chow (Lex Machina's Legal Data Expert in Trade Secret Litigation), and Aria Nejad (Lex Machina's in-house counsel). [View a recording of the webcast.](#)

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08.09.2023

Bipartisan Senators Probe Potential Abuse Of Tax-Exempt Status By Nonprofit Hospitals

BUTLER COUNTY, IOWA – Following reports that some nonprofit hospitals are using their tax status to restrict care and increase patient costs, U.S. Sens. Chuck Grassley (R-Iowa) and Elizabeth Warren (D-Mass.) [asked](#) the Treasury Inspector General for Tax Administration (TIGTA) and the Internal Revenue Service (IRS) to evaluate the hospitals' compliance with tax-exempt requirements and provide information on oversight efforts. Grassley and Warren are joined by Sens. Raphael Warnock (D-Ga.) and Bill Cassidy (R-La.).

"We are alarmed by reports that despite their tax exempt status, certain nonprofit hospitals may be taking advantage of this overly broad definition of 'community benefit' and engaging in practices that are not in the best interest of the patient," **the lawmakers wrote**. "These practices – along with lax federal oversight – have allowed some nonprofit hospitals to avoid providing essential care in the community for those who need it most."

Most community hospitals in the United States operate as private, nonprofit organizations. They can qualify for tax exemptions if they provide care to benefit their communities, consistent with [IRS rules](#). 2020 exemptions [total](#) roughly \$28 billion.

However, some nonprofit hospitals may be operating at the expense of the patients they're accredited for serving -- through wage garnishment, forcing payments by low-income patients and denying medical care. A 2023 study of over 1,700 nonprofit hospitals [found](#) "77 percent spent less on charity care and community investment than the estimated value of their tax breaks."

Read the lawmakers' full letter [here](#).

Background:

Grassley has long worked to hold nonprofit hospitals – namely the [UVA Medical Center](#) and [Methodist La. Behavioral Healthcare](#) – accountable for noncompliance with tax-exemption requirements. Grassley [helped secure \\$18.8 million](#) in debt forgiveness for over 3,000 patients after news outlets [reported](#) a Missouri nonprofit medical center sued low-income patients who should have qualified for charity care.

Grassley has pressed federal agencies about related oversight, too. In 2018, he and then-chairman of the Finance Committee Orrin Hatch (R-Utah) [asked](#) the IRS about its enforcement of tax-exempt criteria. Grassley [continued](#) to [advance](#) such efforts throughout his chairmanship.

Most recently, Grassley [requested](#) the Government Accountability Office (GAO) provide an update on IRS implementation of recommendations to improve processes for reviewing and auditing nonprofit hospitals' community benefit activities. Read GAO's response [here](#).

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OPINI

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Definitions

401(k) Plan is a defined contribution plan where an employee can make contributions from his or her paycheck either before or after-tax, depending on the options offered in the plan. The contributions go into a 401(k) account, with the employee often choosing the investments based on options provided under the plan. In some plans, the employer also makes contributions such as matching the employee's contributions up to a certain percentage. SIMPLE and safe harbor 401(k) plans have mandatory employer contributions.

403(b) Tax-Sheltered Annuity (TSA) Plan is a retirement plan offered by public schools and certain tax-exempt organizations. An individual's 403(b) annuity can be obtained only under an employer's TSA plan. Generally, these annuities are funded by elective deferrals made under salary reduction agreements and nonelective employer contributions.

ADP or Actual Deferral Percentage is an annual test in a 401(k) plan that compares the average salary deferrals of highly compensated employees to that of nonhighly compensated employees. Each employee's deferral percentage is the percentage of compensation that has been deferred to the 401(k) plan. The deferral percentages of the HCEs and NHCEs are then averaged to determine the ADP of each group. To pass the test, the ADP of the HCE group may not exceed the ADP for the NHCE group by 1.25 percent or the lesser of 2 percentage points and two times the NHCE ADP.

Annual additions are the total of all employer contributions, employee contributions (not including rollovers), and forfeitures allocated to a participant's account in a year.

Annuity – A series of payments under a contract that are made at regular intervals and over a period of more than one year.

Cash Balance Plan – A type of defined benefit plan that includes some elements that are similar to a defined contribution plan because the benefit amount is computed based on a formula using contribution and earning credits, and each participant has a hypothetical account. Cash balance plans are more likely than traditional defined benefit plans to make lump sum distributions.

Defined Benefit Plan, also known as a traditional pension plan, promises the participant a specified monthly benefit at retirement. Often, the benefit is based on factors such as the participant's salary, age and the number of years he or she worked for the employer. The plan may state this promised benefit as an exact dollar amount,

such as \$100 per month at retirement. Or, more commonly, it may calculate a benefit through a plan formula that considers such factors as salary and service.

Defined Contribution Plan is a retirement plan in which the employee and/or the employer contribute to the employee's individual account under the plan. The amount in the account at distribution includes the contributions and investment gains or losses, minus any investment and administrative fees. Generally, the contributions and earnings are not taxed until distribution. The value of the account will change based on contributions and the value and performance of the investments. Examples of defined contribution plans include 401(k) plans, 403(b) plans, employee stock ownership plans and profit-sharing plans.

Elective Deferrals are amounts contributed to a plan by the employer at the employee's election and which, except to the extent they are designated Roth contributions, are excludable from the employee's gross income. Elective deferrals include deferrals under a 401(k), 403(b), SARSEP and SIMPLE IRA plan.

Employee Retirement Income Security Act of 1974 (ERISA) is a federal law that sets standards of protection for individuals in most voluntarily established, private-sector retirement plans. ERISA requires plans to provide participants with plan information, including important facts about plan features and funding; sets minimum standards for participation, vesting, benefit accrual and funding; provides fiduciary responsibilities for those who manage and control plan assets; requires plans to establish a claims and appeals process for participants to get benefits from their plans; gives participants the right to sue for benefits and breaches of fiduciary duty; and, if a defined benefit plan is terminated, guarantees payment of certain benefits through a federally chartered corporation, known as the Pension Benefit Guaranty Corporation.

Employee Stock Ownership Plan (ESOP) is a type of defined contribution plan that is invested primarily in employer stock.

Employer is generally any person for whom an individual performs or did perform any service, of whatever nature, as an employee. A sole proprietor is treated as his or her own employer for retirement plan purposes. However, a partner is not an employer for retirement plan purposes. Instead, the partnership is treated as the employer of each partner.

Highly Compensated Employee - An individual who:

- Owned more than 5% of the interest in the business at any time during the year or the preceding year, regardless of how much compensation that person earned or received, or
- For the preceding year, received compensation from the business of more than \$125,000 (if the preceding year is 2019, 130,000 if the preceding year is 2020 or 2021, \$135,000 if the preceding year is 2022), and \$150,000 (if the preceding year is 2023) and, if the employer so chooses, was in the top 20% of employees when ranked by compensation.

Individual Retirement Account (IRA) – An individual account or annuity set up with a financial institution, such as a bank or a mutual fund company. Under federal law, individuals may set aside personal savings up to a certain amount, and the investments grow, tax deferred. In addition, participants can transfer money from an employer retirement plan to an IRA when leaving an employer. IRAs also can be part of an employer plan.

Forfeiture - The part of an employee's account balance (employer contributions) that is lost because it is not vested when the employee terminates employment.

Money Purchase Plan – A money purchase plan requires set annual contributions from the employer to individual accounts and is subject to certain funding and other rules.

Participant - An eligible employee who is covered by a retirement plan. See the discussions of the different types of plans for the definition of an employee eligible to participate in each type of plan.

Plan Administrator – The person who is identified in the plan document as having responsibility for running the plan. It could be the employer, a committee of employees, a company executive or someone hired for that purpose.

Plan Document – A written instrument under which the plan is established and operated.

Plan Fiduciary – Anyone who exercises discretionary authority or discretionary control over management or administration of the plan, exercises any authority or control over management or disposition of plan assets, or gives investment advice for a fee or other compensation with respect to assets of the plan.

Plan Trustee – Someone who has the exclusive authority and discretion to manage and control the plan assets. The trustee can be subject to the direction of a named fiduciary and the named fiduciary can appoint one or more investment managers for the plan's assets.

Plan Year – A 12-month period designated by a retirement plan for calculating vesting and eligibility, among other things. The plan year can be the calendar year or an alternative period, for example, July 1 to June 30.

Profit-Sharing Plan is a defined contribution plan under which the plan may provide, or the employer may determine, annually, how much will be contributed to the plan (out of profits or otherwise). The plan contains a formula for allocating to each participant a portion of each annual contribution. A profit-sharing plan may include a 401(k) feature.

Rollover – A rollover occurs when a participant directs the transfer of the money in his or her retirement account or IRA to a new plan or IRA.

Safe Harbor 401(k) – A safe harbor 401(k) is similar to a traditional 401(k) plan, but the employer is required to make contributions for each employee. The safe harbor 401(k) eases administrative burdens on employers by eliminating some of the rules ordinarily applied to traditional 401(k) plans.

A **Salary Reduction Simplified Employee Pension plan (SARSEP)** is a SEP plan set up before 1997 that permits contributions to be made through employee salary reductions. Under a SARSEP, employees and employers make contributions to traditional IRAs set up for the employees, subject to certain percentage-of-pay and dollar limits.

No new SARSEPs can be established after December 31, 1996. However, employers who established SARSEPs prior to January 1, 1997, can continue to maintain them and new employees can participate in the existing SARSEP.

Savings Incentive Match Plan for Employees of Small Employers (SIMPLE) – A plan in which a business with 100 or fewer employees can offer retirement benefits through employee salary reductions and employer non-elective or matching contributions (similar to those found in a 401(k) plan). It can be either a SIMPLE IRA or a SIMPLE 401(k). SIMPLE IRA plans impose few administrative burdens on employers because IRAs are owned by the employees, and the bank or financial institution receiving the funds does most of the paperwork. While each has some different features, including contribution limits and the availability of loans, required employer contributions are immediately 100 percent vested in both.

Self-Employed Individual - An individual in business for himself or herself, and whose business is not incorporated, is self-employed. Sole proprietors and partners are self-employed. Self-employment can include part-time work.

Simplified Employee Pension Plan (SEP) – A plan in which an employer contributes on a tax-favored basis to IRAs owned by its employees. If the employer meets certain conditions, it isn't subject to the reporting and disclosure requirements of most retirement plans.

Summary Plan Description – A document provided by the plan administrator that includes a plain language description of important features of the plan, for example, when employees begin to participate in the plan, how service and benefits are calculated, when benefits become vested, when payment is received and in what form, and how to file a claim for benefits. Participants must be informed of material changes either through a revised Summary Plan Description or in a separate document called a Summary of Material Modifications.

Years of Service – The time an individual has worked in a job covered by the plan. It is used to determine when an individual can participate and vest and how they can accrue benefits in the plan. Generally, a Year of Service requires that an employee accrues at least 1,000 hours of service over a 12-consecutive-month period.

Page Last Reviewed or Updated: 29-Aug-2023



Occupational Employment and Wage Statistics

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Occupational Employment and Wages, May 2022

13-1071 Human Resources Specialists

Recruit, screen, interview, or place individuals within an organization. May perform other activities in multiple human resources areas. Excludes "Compensation, Benefits, and Job Analysis Specialists" (13-1141) and "Training and Development Specialists" (13-1151).

- [National estimates for Human Resources Specialists](#)
- [Industry profile for Human Resources Specialists](#)
- [Geographic profile for Human Resources Specialists](#)

National estimates for Human Resources Specialists:

Employment estimate and mean wage estimates for Human Resources Specialists:

Employment (1)	Employment RSE (3)	Mean hourly wage	Mean annual wage (2)	Wage RSE (3)
835,360	1.2 %	\$ 35.13	\$ 73,080	0.4 %

Percentile wage estimates for Human Resources Specialists:

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 18.92	\$ 23.64	\$ 30.88	\$ 41.48	\$ 55.80
Annual Wage (2)	\$ 39,340	\$ 49,160	\$ 64,240	\$ 86,280	\$ 116,060

Industry profile for Human Resources Specialists:

Industries with the highest published employment and wages for Human Resources Specialists are provided. For a list of all industries with employment in Human Resources Specialists, see the [Create Customized Tables](#) function.

Industries with the highest levels of employment in Human Resources Specialists:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Employment Services	158,150	4.03	\$ 29.78	\$ 61,940
Management of Companies and Enterprises	61,410	2.29	\$ 37.54	\$ 78,080
Management, Scientific, and Technical Consulting Services	34,650	1.97	\$ 38.79	\$ 80,680
Federal Executive Branch (OEWS Designation)	32,660	1.57	\$ 45.55	\$ 94,750
Computer Systems Design and Related Services	31,780	1.29	\$ 43.17	\$ 89,800

Industries with the highest concentration of employment in Human Resources Specialists:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Employment Services	158,150	4.03	\$ 29.78	\$ 61,940
Office Administrative Services	15,430	2.90	\$ 33.13	\$ 68,910
Management of Companies and Enterprises	61,410	2.29	\$ 37.54	\$ 78,080

Management, Scientific, and Technical Consulting Services	34,650	1.97	\$ 38.79	\$ 80,680
Federal Executive Branch (OEWS Designation)	32,660	1.57	\$ 45.55	\$ 94,750

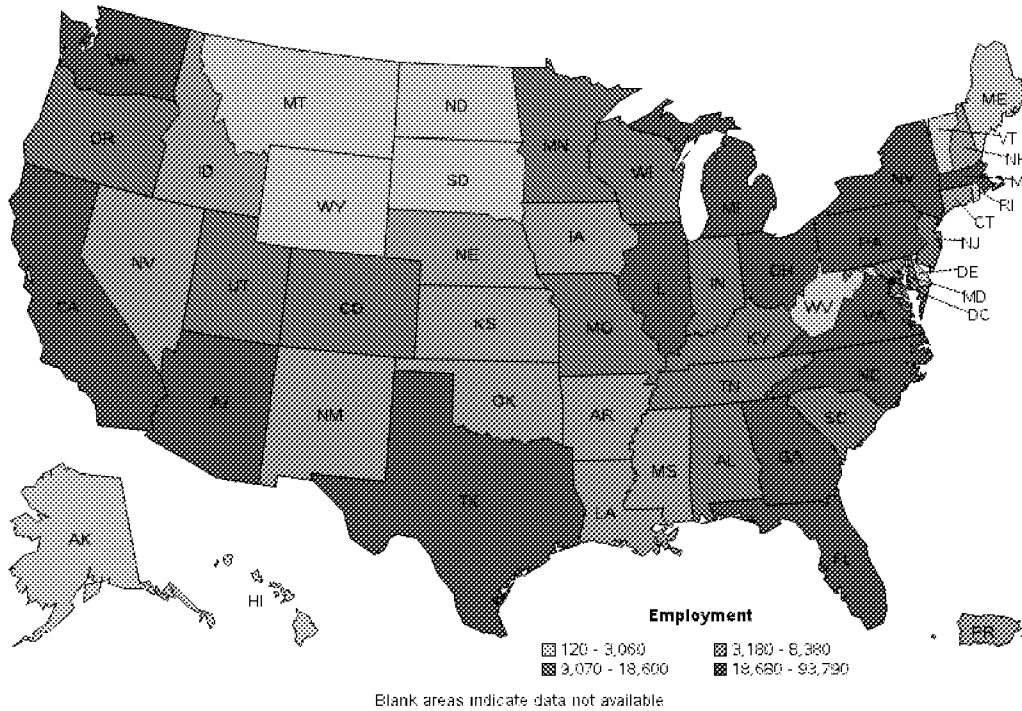
Top paying industries for Human Resources Specialists:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Web Search Portals, Libraries, Archives, and Other Information Services	2,410	1.37	\$ 67.53	\$ 140,460
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	2,740	1.18	\$ 55.30	\$ 115,030
Computer and Peripheral Equipment Manufacturing	880	0.56	\$ 50.43	\$ 104,890
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	6,930	0.68	\$ 50.03	\$ 104,060
Petroleum and Coal Products Manufacturing	470	0.45	\$ 49.01	\$ 101,940

Geographic profile for Human Resources Specialists:

States and areas with the highest published employment, location quotients, and wages for Human Resources Specialists are provided. For a list of all areas with employment in Human Resources Specialists, see the [Create Customized Tables](#) function.

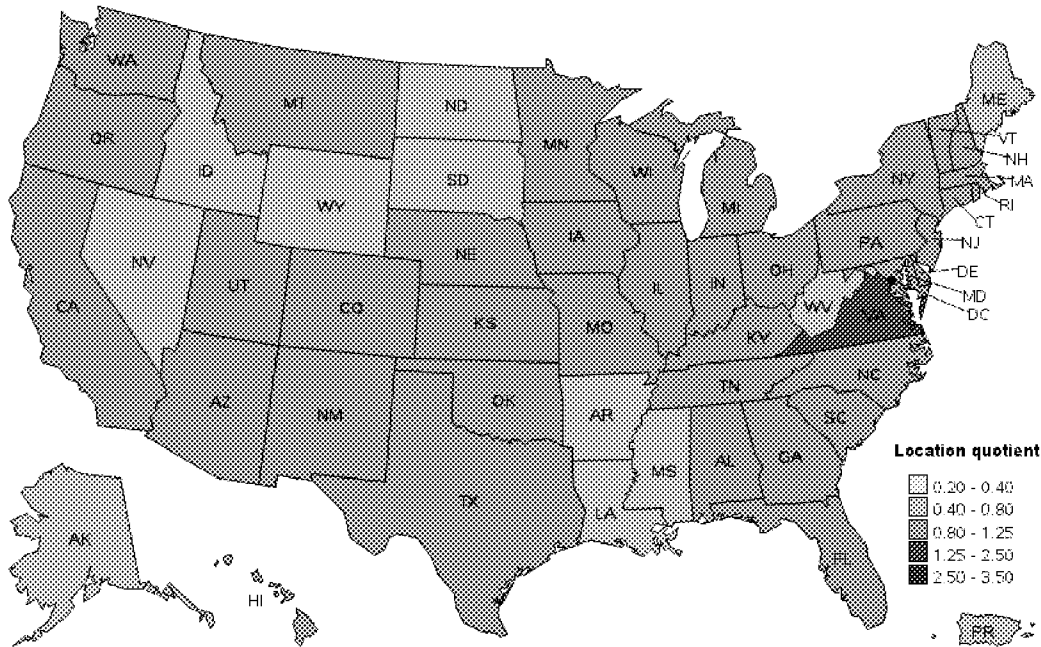
Employment of human resources specialists, by state, May 2022



States with the highest employment level in Human Resources Specialists:

State	Employment (1)	Employment per thousand jobs	Location quotient (2)	Hourly mean wage	Annual mean wage (2)
California	93,790	5.32	0.94	\$ 41.47	\$ 86,260
Texas	75,660	5.82	1.03	\$ 32.62	\$ 67,840
New York	53,940	5.92	1.05	\$ 40.95	\$ 85,170
Florida	53,100	5.77	1.02	\$ 33.06	\$ 68,760
Pennsylvania	35,620	6.13	1.09	\$ 33.02	\$ 68,680

Location quotient of human resources specialists, by state, May 2022

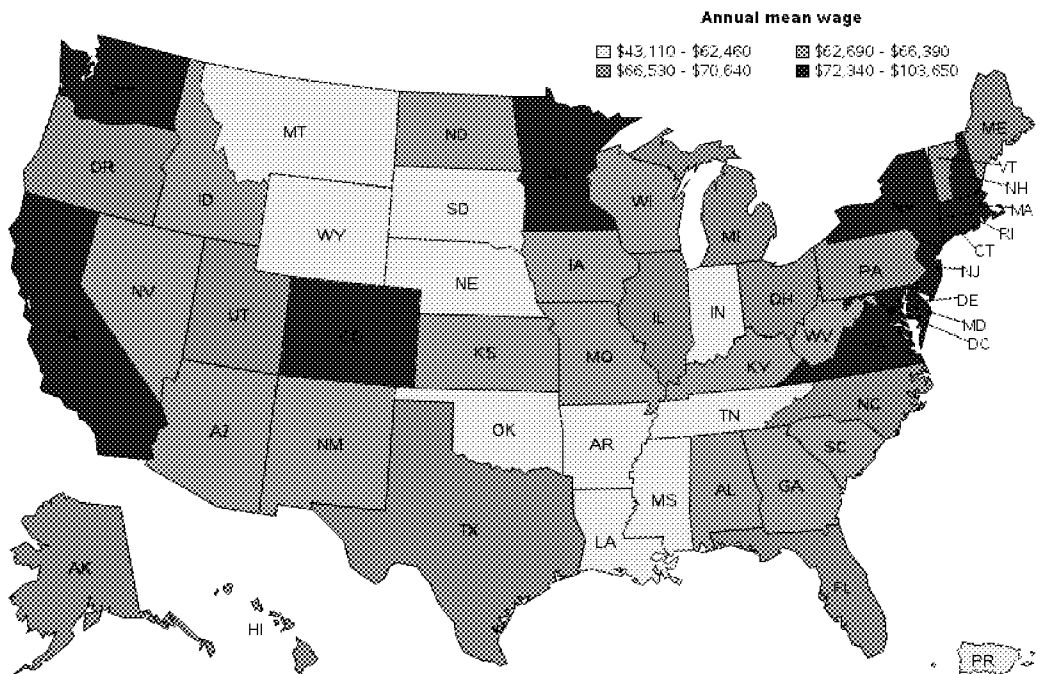


Blank areas indicate data not available.

States with the highest concentration of jobs and location quotients in Human Resources Specialists:

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
District of Columbia	7,710	11.17	1.98	\$ 49.83	\$ 103,650
Virginia	30,050	7.76	1.37	\$ 37.53	\$ 78,060
Washington	23,780	6.98	1.24	\$ 41.98	\$ 87,330
New Hampshire	4,430	6.72	1.19	\$ 34.78	\$ 72,340
Colorado	18,020	6.51	1.15	\$ 39.18	\$ 81,500

Annual mean wage of human resources specialists, by state, May 2022



Blank areas indicate data not available.

Top paying states for Human Resources Specialists:

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
District of Columbia	7,710	11.17	1.98	\$ 49.83	\$ 103,650
Washington	23,780	6.98	1.24	\$ 41.98	\$ 87,330
California	93,790	5.32	0.94	\$ 41.47	\$ 86,260
New Jersey	18,600	4.53	0.80	\$ 41.23	\$ 85,750
New York	53,940	5.92	1.05	\$ 40.95	\$ 85,170

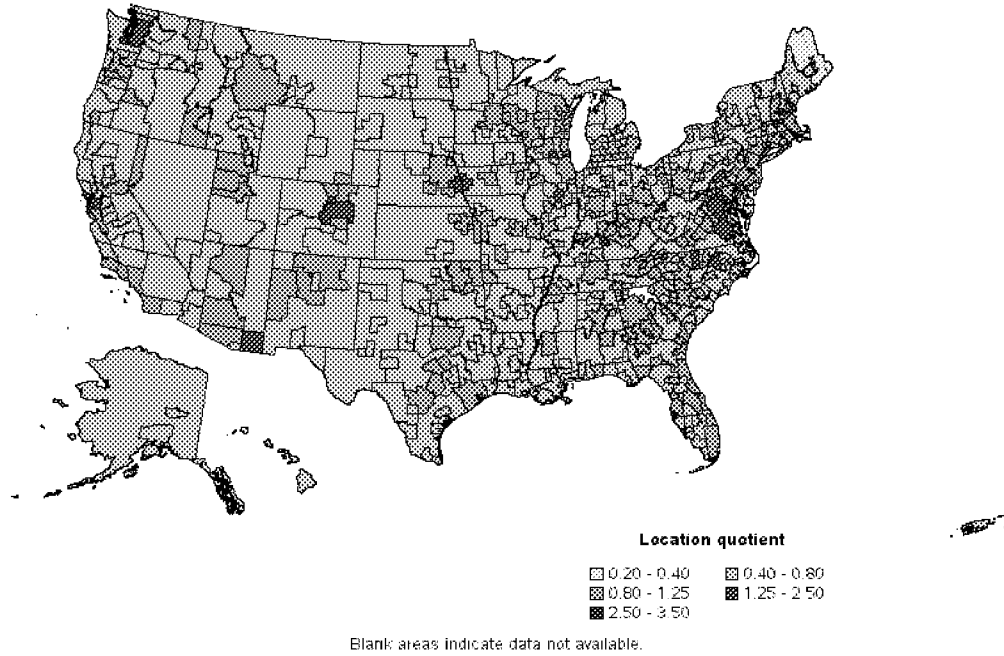
Employment of human resources specialists, by area, May 2022



Metropolitan areas with the highest employment level in Human Resources Specialists:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
New York-Newark-Jersey City, NY-NJ-PA	52,240	5.69	1.01	\$ 43.12	\$ 89,690
Los Angeles-Long Beach-Anaheim, CA	31,430	5.15	0.91	\$ 38.66	\$ 80,420
Washington-Arlington-Alexandria, DC-VA-MD-WV	27,050	8.93	1.58	\$ 44.78	\$ 93,140
Dallas-Fort Worth-Arlington, TX	26,280	6.91	1.22	\$ 33.35	\$ 69,370
Chicago-Naperville-Elgin, IL-IN-WI	25,600	5.80	1.03	\$ 34.12	\$ 70,980
Atlanta-Sandy Springs-Roswell, GA	18,850	6.91	1.22	\$ 33.80	\$ 70,300
Boston-Cambridge-Nashua, MA-NH	18,570	6.87	1.22	\$ 39.56	\$ 82,280
San Francisco-Oakland-Hayward, CA	16,970	7.09	1.26	\$ 50.02	\$ 104,050
Seattle-Tacoma-Bellevue, WA	16,680	8.19	1.45	\$ 44.45	\$ 92,460
Houston-The Woodlands-Sugar Land, TX	16,100	5.27	0.93	\$ 33.96	\$ 70,640

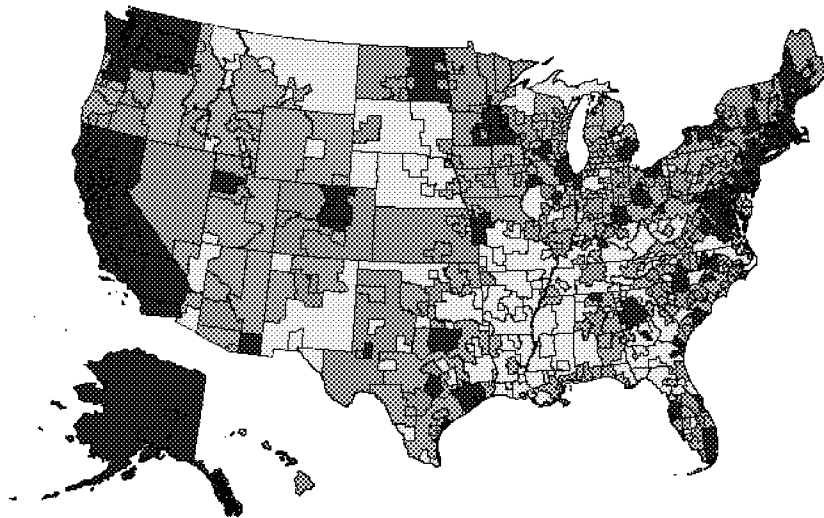
Location quotient of human resources specialists, by area, May 2022



Metropolitan areas with the highest concentration of jobs and location quotients in Human Resources Specialists:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Elizabethtown-Fort Knox, KY	1,000	19.26	3.41	\$ 36.22	\$ 75,330
Parkersburg-Vienna, WV	440	12.48	2.21	\$ 36.88	\$ 76,710
Olympia-Tumwater, WA	1,160	9.56	1.69	\$ 35.02	\$ 72,830
Washington-Arlington-Alexandria, DC-VA-MD-WV	27,050	8.93	1.58	\$ 44.78	\$ 93,140
Seattle-Tacoma-Bellevue, WA	16,680	8.19	1.45	\$ 44.45	\$ 92,460
Richmond, VA	5,090	8.08	1.43	\$ 34.62	\$ 72,010
Boulder, CO	1,520	7.92	1.40	\$ 50.46	\$ 104,960
Manchester, NH	820	7.69	1.36	\$ 34.27	\$ 71,280
Raleigh, NC	5,040	7.50	1.33	\$ 33.63	\$ 69,950
Denver-Aurora-Lakewood, CO	11,590	7.47	1.32	\$ 39.60	\$ 82,370

Annual mean wage of human resources specialists, by area, May 2022



Annual mean wage

\$37,920 - \$59,240
 \$59,320 - \$63,370
 \$63,420 - \$68,850
 \$68,880 - \$109,470

Blank areas indicate data not available.

Top paying metropolitan areas for Human Resources Specialists:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
San Jose-Sunnyvale-Santa Clara, CA	7,730	6.89	1.22	\$ 52.63	\$ 109,470
Boulder, CO	1,520	7.92	1.40	\$ 50.46	\$ 104,960
San Francisco-Oakland-Hayward, CA	16,970	7.09	1.26	\$ 50.02	\$ 104,050
Washington-Arlington-Alexandria, DC-VA-MD-WV	27,050	8.93	1.58	\$ 44.78	\$ 93,140
Seattle-Tacoma-Bellevue, WA	16,680	8.19	1.45	\$ 44.45	\$ 92,460
New York-Newark-Jersey City, NY-NJ-PA	52,240	5.69	1.01	\$ 43.12	\$ 89,690
California-Lexington Park, MD	250	5.26	0.93	\$ 41.24	\$ 85,780
Santa Rosa, CA	850	4.18	0.74	\$ 40.55	\$ 84,340
Bremerton-Silverdale, WA	540	6.01	1.06	\$ 40.39	\$ 84,020
Santa Maria-Santa Barbara, CA	1,050	5.10	0.90	\$ 39.76	\$ 82,700

Nonmetropolitan areas with the highest employment in Human Resources Specialists:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Kansas nonmetropolitan area	1,540	4.02	0.71	\$ 30.61	\$ 63,670
North Northeastern Ohio nonmetropolitan area (noncontiguous)	1,320	4.11	0.73	\$ 30.91	\$ 64,300
Piedmont North Carolina nonmetropolitan area	1,090	4.37	0.77	\$ 27.19	\$ 56,550
West Northwestern Ohio nonmetropolitan area	1,060	4.30	0.76	\$ 30.81	\$ 64,080
Balance of Lower Peninsula of Michigan nonmetropolitan area	1,040	3.96	0.70	\$ 30.29	\$ 62,990

Nonmetropolitan areas with the highest concentration of jobs and location quotients in Human Resources Specialists:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Northeast Nebraska nonmetropolitan area	500	5.40	0.96	\$ 26.52	\$ 55,170

Northern New Mexico nonmetropolitan area	420	5.29	0.94	\$ 29.62	\$ 61,610
Central Kentucky nonmetropolitan area	910	5.10	0.90	\$ 27.39	\$ 56,970
Southwest Montana nonmetropolitan area	720	4.96	0.88	\$ 30.15	\$ 62,710
Western Wisconsin nonmetropolitan area	660	4.87	0.86	\$ 31.38	\$ 65,260

Top paying nonmetropolitan areas for Human Resources Specialists:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Northeast Virginia nonmetropolitan area	200	4.01	0.71	\$ 38.49	\$ 80,060
Eastern Sierra-Mother Lode Region of California nonmetropolitan area	160	2.57	0.46	\$ 35.44	\$ 73,710
Eastern Washington nonmetropolitan area	320	3.22	0.57	\$ 35.31	\$ 73,440
North Valley-Northern Mountains Region of California nonmetropolitan area	290	2.91	0.52	\$ 34.93	\$ 72,640
Alaska nonmetropolitan area	390	3.81	0.67	\$ 34.61	\$ 71,980

About May 2022 National, State, Metropolitan, and Nonmetropolitan Area Occupational Employment and Wage Estimates

These estimates are calculated with data collected from employers in all industry sectors, all metropolitan and nonmetropolitan areas, and all states and the District of Columbia. The top employment and wage figures are provided above. The complete list is available in the [downloadable XLS files](#).

The percentile wage estimate is the value of a wage below which a certain percent of workers fall. The median wage is the 50th percentile wage estimate—50 percent of workers earn less than the median and 50 percent of workers earn more than the median. [More about percentile wages.](#)

(1) Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.

(2) Annual wages have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours; for those occupations where there is not an hourly wage published, the annual wage has been directly calculated from the reported survey data.

(3) The relative standard error (RSE) is a measure of the reliability of a survey statistic. The smaller the relative standard error, the more precise the estimate.

(9) The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.

Other OEWS estimates and related information:

[May 2022 National Occupational Employment and Wage Estimates](#)

[May 2022 State Occupational Employment and Wage Estimates](#)

[May 2022 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates](#)

[May 2022 National Industry-Specific Occupational Employment and Wage Estimates](#)

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Occupational Employment and Wages, May 2022

23-1011 Lawyers

Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.

[National estimates for Lawyers](#)

[Industry profile for Lawyers](#)

[Geographic profile for Lawyers](#)

National estimates for Lawyers:

Employment estimate and mean wage estimates for Lawyers:

Employment (1)	Employment RSE (3)	Mean hourly wage	Mean annual wage (2)	Wage RSE (3)
707,160	1.0 %	\$ 78.74	\$ 163,770	1.8 %

Percentile wage estimates for Lawyers:

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 31.96	\$ 45.40	\$ 65.26	\$ 100.47	(5)
Annual Wage (2)	\$ 66,470	\$ 94,440	\$ 135,740	\$ 208,980	(5)

Industry profile for Lawyers:

Industries with the highest published employment and wages for Lawyers are provided. For a list of all industries with employment in Lawyers, see the [Create Customized Tables](#) function.

Industries with the highest levels of employment in Lawyers:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Legal Services	434,360	36.80	\$ 80.11	\$ 166,640
Local Government, excluding schools and hospitals (OEWS Designation)	60,260	1.12	\$ 59.62	\$ 124,010
State Government, excluding schools and hospitals (OEWS Designation)	45,540	2.15	\$ 49.71	\$ 103,390
Federal Executive Branch (OEWS Designation)	39,650	1.90	\$ 73.41	\$ 152,700
Management of Companies and Enterprises	21,040	0.78	\$ 109.16	\$ 227,050

Industries with the highest concentration of employment in Lawyers:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Legal Services	434,360	36.80	\$ 80.11	\$ 166,640
Other Investment Pools and Funds	420	2.40	\$ 86.57	\$ 180,070

State Government, excluding schools and hospitals (OEWS Designation)	45,540	2.15	\$ 49.71	\$ 103,390
Federal Executive Branch (OEWS Designation)	39,650	1.90	\$ 73.41	\$ 152,700
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	320	1.49	\$ 82.39	\$ 171,370

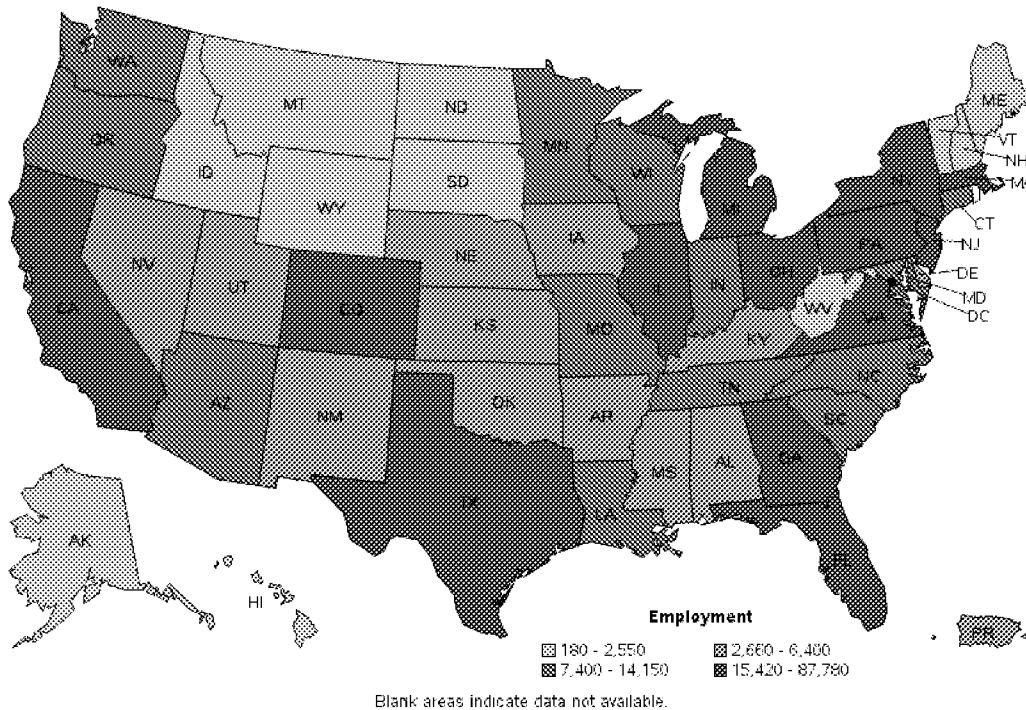
Top paying industries for Lawyers:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Nonscheduled Air Transportation	40	0.08	\$ 149.16	\$ 310,250
Computer and Peripheral Equipment Manufacturing	600	0.38	\$ 132.77	\$ 276,160
Office Administrative Services	1,960	0.37	\$ 125.84	\$ 261,740
Spectator Sports	220	0.17	\$ 120.80	\$ 251,260
Sound Recording Industries	70	0.36	\$ 119.86	\$ 249,320

Geographic profile for Lawyers:

States and areas with the highest published employment, location quotients, and wages for Lawyers are provided. For a list of all areas with employment in Lawyers, see the [Create Customized Tables](#) function.

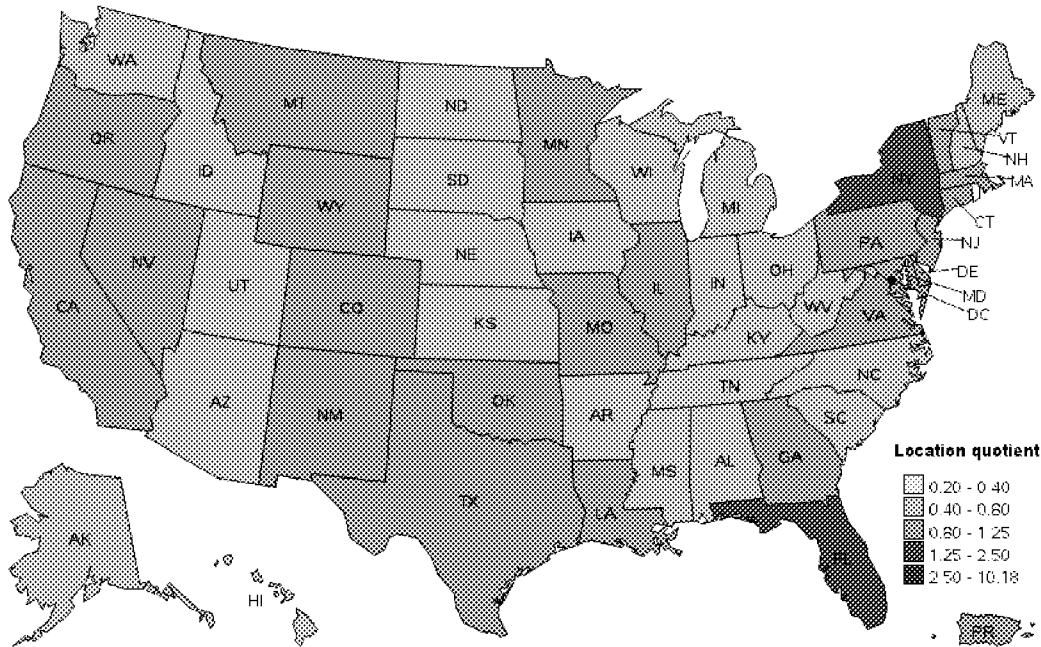
Employment of lawyers, by state, May 2022



States with the highest employment level in Lawyers:

State	Employment (1)	Employment per thousand jobs	Location quotient (2)	Hourly mean wage	Annual mean wage (2)
California	87,780	4.98	1.04	\$ 96.89	\$ 201,530
New York	86,230	9.47	1.98	\$ 90.82	\$ 188,900
Florida	57,080	6.20	1.30	\$ 65.31	\$ 135,840
Texas	50,070	3.85	0.81	\$ 80.10	\$ 166,620
District of Columbia	33,610	48.70	10.18	\$ 108.90	\$ 226,510

Location quotient of lawyers, by state, May 2022

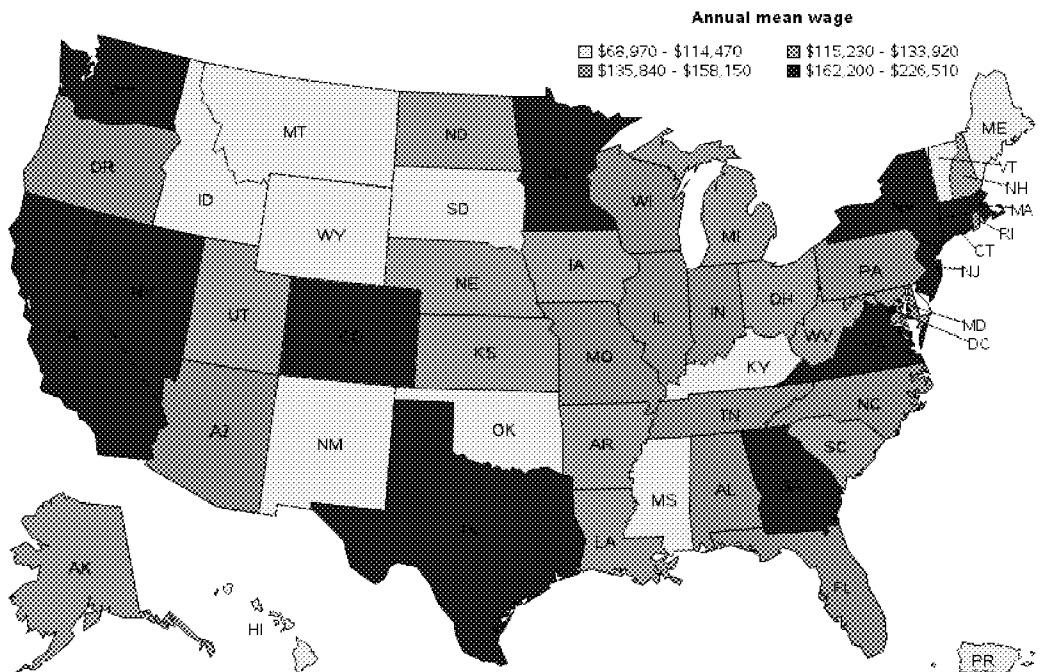


Blank areas indicate data not available.

States with the highest concentration of jobs and location quotients in Lawyers:

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
<u>District of Columbia</u>	33,610	48.70	10.18	\$ 108.90	\$ 226,510
<u>New York</u>	86,230	9.47	1.98	\$ 90.82	\$ 188,900
<u>Florida</u>	57,080	6.20	1.30	\$ 65.31	\$ 135,840
<u>Delaware</u>	2,660	5.83	1.22	(8)	(8)
<u>Massachusetts</u>	20,380	5.71	1.20	\$ 94.34	\$ 196,230

Annual mean wage of lawyers, by state, May 2022

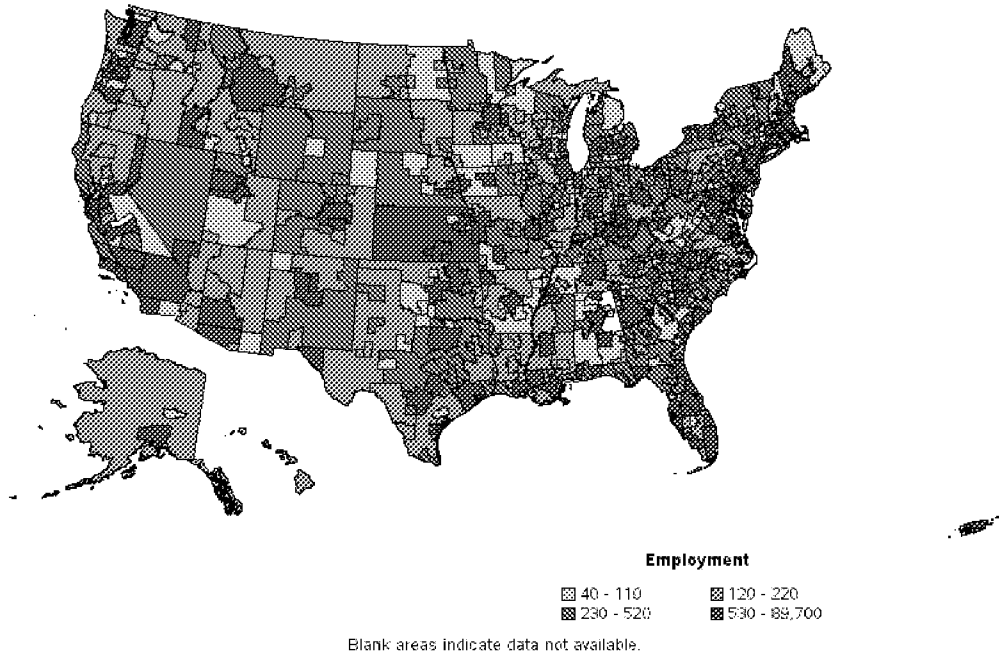


Blank areas indicate data not available.

Top paying states for Lawyers:

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
District of Columbia	33,610	48.70	10.18	\$ 108.90	\$ 226,510
California	87,780	4.98	1.04	\$ 96.89	\$ 201,530
Massachusetts	20,380	5.71	1.20	\$ 94.34	\$ 196,230
New York	86,230	9.47	1.98	\$ 90.82	\$ 188,900
Connecticut	8,380	5.13	1.07	\$ 83.91	\$ 174,520

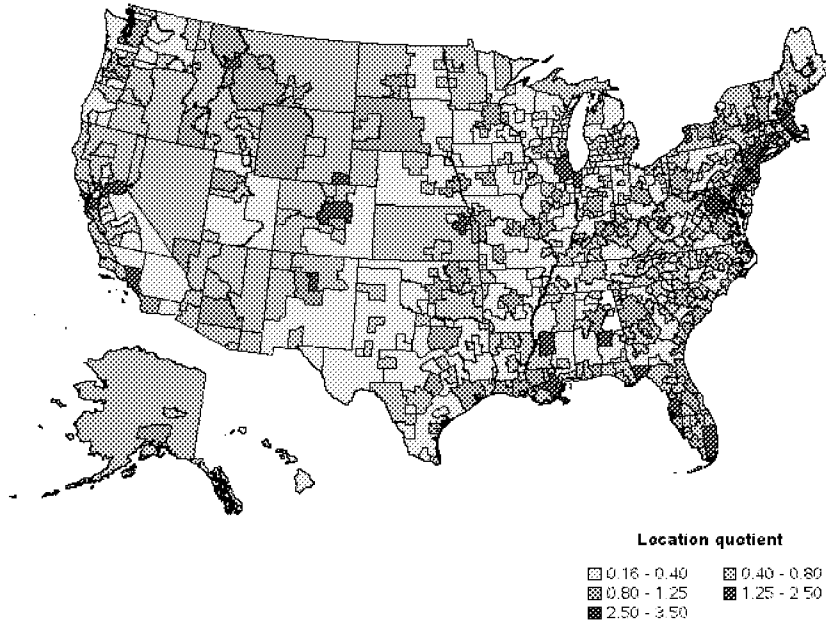
Employment of lawyers, by area, May 2022



Metropolitan areas with the highest employment level in Lawyers:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
New York-Newark-Jersey City, NY-NJ-PA	89,700	9.77	2.04	\$ 92.92	\$ 193,280
Washington-Arlington-Alexandria, DC-VA-MD-WV	46,710	15.43	3.23	\$ 101.85	\$ 211,850
Los Angeles-Long Beach-Anaheim, CA	38,510	6.31	1.32	\$ 93.69	\$ 194,870
Chicago-Naperville-Elgin, IL-IN-WI	27,200	6.16	1.29	\$ 78.47	\$ 163,220
Miami-Fort Lauderdale-West Palm Beach, FL	26,680	10.17	2.13	\$ 69.69	\$ 144,960
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	18,450	6.66	1.39	\$ 76.88	\$ 159,900
Boston-Cambridge-Nashua, MA-NH	17,980	6.65	1.39	\$ 97.55	\$ 202,900
Dallas-Fort Worth-Arlington, TX	17,570	4.62	0.97	\$ 87.42	\$ 181,840
San Francisco-Oakland-Hayward, CA	17,110	7.15	1.50	\$ 115.06	\$ 239,330
Atlanta-Sandy Springs-Roswell, GA	15,740	5.77	1.21	\$ 84.73	\$ 176,230

Location quotient of lawyers, by area, May 2022

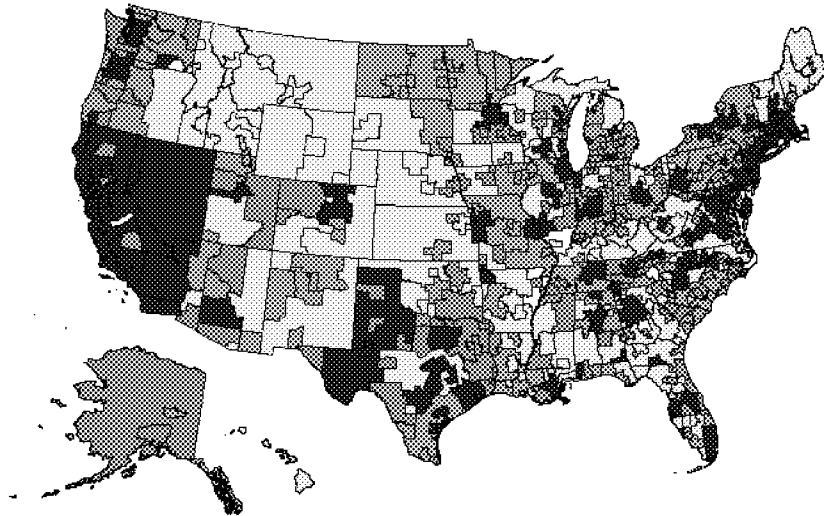


Blank areas indicate data not available.

Metropolitan areas with the highest concentration of jobs and location quotients in Lawyers:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
<u>Washington-Arlington-Alexandria, DC-VA-MD-WV</u>	46,710	15.43	3.23	\$ 101.85	\$ 211,850
<u>Tallahassee, FL</u>	1,950	11.04	2.31	\$ 46.94	\$ 97,620
<u>Miami-Fort Lauderdale-West Palm Beach, FL</u>	26,680	10.17	2.13	\$ 69.69	\$ 144,960
<u>New York-Newark-Jersey City, NY-NJ-PA</u>	89,700	9.77	2.04	\$ 92.92	\$ 193,280
<u>Santa Fe, NM</u>	570	9.53	1.99	\$ 53.91	\$ 112,140
<u>Trenton, NJ</u>	2,140	9.04	1.89	\$ 72.43	\$ 150,660
<u>New Orleans-Metairie, LA</u>	4,350	8.39	1.75	\$ 68.27	\$ 142,000
<u>Charleston, WV</u>	800	7.98	1.67	\$ 72.12	\$ 150,000
<u>Carson City, NV</u>	220	7.50	1.57	\$ 59.68	\$ 124,140
<u>Denver-Aurora-Lakewood, CO</u>	11,550	7.44	1.56	\$ 84.07	\$ 174,870

Annual mean wage of lawyers, by area, May 2022



Annual mean wage

\$53,850 - \$106,400
 \$106,480 - \$119,790
 \$119,800 - \$135,720
 \$135,740 - \$267,840

Blank areas indicate data not available.

Top paying metropolitan areas for Lawyers:

Metropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
<u>San Jose-Sunnyvale-Santa Clara, CA</u>	5,420	4.83	1.01	\$ 128.77	\$ 267,840
<u>San Francisco-Oakland-Hayward, CA</u>	17,110	7.15	1.50	\$ 115.06	\$ 239,330
<u>Washington-Arlington-Alexandria, DC-VA-MD-WV</u>	46,710	15.43	3.23	\$ 101.85	\$ 211,850
<u>Bridgeport-Stamford-Norwalk, CT</u>	2,410	6.12	1.28	\$ 100.85	\$ 209,770
<u>Oxnard-Thousand Oaks-Ventura, CA</u>	1,040	3.33	0.70	\$ 99.99	\$ 207,970
<u>Boston-Cambridge-Nashua, MA-NH</u>	17,980	6.65	1.39	\$ 97.55	\$ 202,900
<u>Los Angeles-Long Beach-Anaheim, CA</u>	38,510	6.31	1.32	\$ 93.69	\$ 194,870
<u>New York-Newark-Jersey City, NY-NJ-PA</u>	89,700	9.77	2.04	\$ 92.92	\$ 193,280
<u>San Diego-Carlsbad, CA</u>	7,900	5.30	1.11	\$ 89.63	\$ 186,440
<u>Santa Rosa, CA</u>	500	2.48	0.52	\$ 88.92	\$ 184,950

Nonmetropolitan areas with the highest employment in Lawyers:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
<u>Kansas nonmetropolitan area</u>	740	1.94	0.41	\$ 39.75	\$ 82,670
<u>Southwest Montana nonmetropolitan area</u>	730	5.04	1.05	\$ 48.34	\$ 100,560
<u>Central Kentucky nonmetropolitan area</u>	620	3.45	0.72	\$ 38.24	\$ 79,530
<u>Southwest Maine nonmetropolitan area</u>	580	3.12	0.65	\$ 42.20	\$ 87,770
<u>Southeast Oklahoma nonmetropolitan area</u>	490	2.95	0.62	\$ 58.37	\$ 121,410

Nonmetropolitan areas with the highest concentration of jobs and location quotients in Lawyers:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
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Central New Hampshire nonmetropolitan area	460	5.06	1.06	\$ 48.19	\$ 100,240
Southwest Montana nonmetropolitan area	730	5.04	1.05	\$ 48.34	\$ 100,560
West South Dakota nonmetropolitan area	260	4.15	0.87	\$ 41.23	\$ 85,760
Southern Vermont nonmetropolitan area	410	4.12	0.86	\$ 42.12	\$ 87,610
Western Wyoming nonmetropolitan area	370	3.84	0.80	\$ 40.39	\$ 84,000

Top paying nonmetropolitan areas for Lawyers:

Nonmetropolitan area	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
West Texas Region of Texas nonmetropolitan area	170	0.86	0.18	\$ 74.20	\$ 154,330
North Valley-Northern Mountains Region of California nonmetropolitan area	200	1.96	0.41	\$ 71.21	\$ 148,110
West Central-Southwest New Hampshire nonmetropolitan area	170	1.68	0.35	\$ 70.89	\$ 147,440
Nevada nonmetropolitan area	230	2.35	0.49	\$ 69.61	\$ 144,780
Eastern Sierra-Mother Lode Region of California nonmetropolitan area	80	1.36	0.28	\$ 68.44	\$ 142,350

[About May 2022 National, State, Metropolitan, and Nonmetropolitan Area Occupational Employment and Wage Estimates](#)

These estimates are calculated with data collected from employers in all industry sectors, all metropolitan and nonmetropolitan areas, and all states and the District of Columbia. The top employment and wage figures are provided above. The complete list is available in the [downloadable XLS files](#).

The percentile wage estimate is the value of a wage below which a certain percent of workers fall. The median wage is the 50th percentile wage estimate—50 percent of workers earn less than the median and 50 percent of workers earn more than the median. [More about percentile wages.](#)

(1) Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.

(2) Annual wages have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours; for those occupations where there is not an hourly wage published, the annual wage has been directly calculated from the reported survey data.

(3) The relative standard error (RSE) is a measure of the reliability of a survey statistic. The smaller the relative standard error, the more precise the estimate.

(5) This wage is equal to or greater than \$115.00 per hour or \$239,200 per year.

(8) Estimate not released.

(9) The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.

Other OEWS estimates and related information:

[May 2022 National Occupational Employment and Wage Estimates](#)

[May 2022 State Occupational Employment and Wage Estimates](#)

[May 2022 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates](#)

[May 2022 National Industry-Specific Occupational Employment and Wage Estimates](#)

[May 2022 Occupation Profiles](#)

[Technical Notes](#)

Last Modified Date: April 25, 2023

DEPARTMENT OF LABOR

Wage and Hour Division

29 CFR Part 541

RIN 1235-AA39

Defining and Delimiting the Exemptions for Executive, Administrative, Professional, Outside Sales, and Computer Employees

AGENCY: Wage and Hour Division, Department of Labor.

ACTION: Notice of proposed rulemaking.

SUMMARY: In this proposal, the Department of Labor (Department) is updating and revising the regulations issued under the Fair Labor Standards Act implementing the exemptions from minimum wage and overtime pay requirements for executive, administrative, professional, outside sales, and computer employees. Significant proposed revisions include increasing the standard salary level to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (currently the South)—\$1,059 per week (\$55,068 annually for a full-year worker)—and increasing the highly compensated employee total annual compensation threshold to the annualized weekly earnings of the 85th percentile of full-time salaried workers nationally (\$143,988). The Department is also proposing to add to the regulations an automatic updating mechanism that would allow for the timely and efficient updating of all the earnings thresholds.

DATES: Interested persons are invited to submit written comments on this notice of proposed rulemaking (NPRM) on or before November 7, 2023.

ADDRESSES: You may submit comments, identified by Regulatory Information Number (RIN) 1235-AA39, by either of the following methods:

- **Electronic Comments:** Submit comments through the Federal eRulemaking Portal at <https://www.regulations.gov>. Follow the instructions for submitting comments.
- **Mail:** Address written submissions to: Division of Regulations, Legislation, and Interpretation, Wage and Hour Division, U.S. Department of Labor, Room S-3502, 200 Constitution Avenue NW, Washington, DC 20210.

Instructions: Response to this NPRM is voluntary. The Department requests that no business proprietary information, copyrighted information, or personally identifiable information be submitted in response to this NPRM. Commenters submitting file attachments

on <https://www.regulations.gov> are advised that uploading text-recognized documents—*i.e.*, documents in a native file format or documents which have undergone optical character recognition (OCR)—enable staff at the Department to more easily search and retrieve specific content included in your comment for consideration.

Anyone who submits a comment (including duplicate comments) should understand and expect that the comment, including any personal information provided, will become a matter of public record and will be posted without change to <https://www.regulations.gov>. The Department posts comments gathered and submitted by a third-party organization as a group under a single document ID number on <https://www.regulations.gov>. All comments must be received by 11:59 p.m. ET on November 7, 2023, for consideration in this rulemaking; comments received after the comment period closes will not be considered.

The Department strongly recommends that commenters submit their comments electronically via <https://www.regulations.gov> to ensure timely receipt prior to the close of the comment period, as the Department continues to experience delays in the receipt of mail. Please submit only one copy of your comments by only one method.

Docket: For access to the docket to read background documents or comments, go to the Federal eRulemaking Portal at <https://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Amy DeBisschop, Director, Division of Regulations, Legislation, and Interpretation, Wage and Hour Division, U.S. Department of Labor, Room S-3502, 200 Constitution Avenue NW, Washington, DC 20210; telephone: (202) 693-0406 (this is not a toll-free number). Alternative formats are available upon request by calling 1-866-487-9243. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Questions of interpretation or enforcement of the agency's existing regulations may be directed to the nearest Wage and Hour Division (WHD) district office. Locate the nearest office by calling the WHD's toll-free help line at (866) 4US-WAGE ((866) 487-9243) between 8 a.m. and 5 p.m. in your local time zone, or log onto WHD's website at <https://www.dol.gov/agencies/whd/contact/local-offices> for a nationwide listing of WHD district and area offices.

SUPPLEMENTARY INFORMATION:

I. Executive Summary

The Fair Labor Standards Act (FLSA or Act) requires covered employers to pay employees a minimum wage and, for employees who work more than 40 hours in a week, overtime premium pay of at least 1.5 times the employee's regular rate of pay. Section 13(a)(1) of the FLSA, which was included in the original Act in 1938, exempts from the minimum wage and overtime pay requirements "any employee employed in a bona fide executive, administrative, or professional capacity."¹ The exemption is commonly referred to as the "white-collar" or executive, administrative, or professional (EAP) exemption. The statute delegates to the Secretary of Labor (Secretary) the authority to define and delimit the terms of the exemption. Since 1940, the regulations implementing the EAP exemption have generally required that each of the following three tests must be met: (1) the employee must be paid a predetermined and fixed salary that is not subject to reduction because of variations in the quality or quantity of work performed (the salary basis test); (2) the amount of salary paid must meet a minimum specified amount (the salary level test); and (3) the employee's job duties must primarily involve executive, administrative, or professional duties as defined by the regulations (the duties test). The employer bears the burden of establishing the applicability of the exemption.² Job titles and job descriptions do not determine EAP exemption status, nor does merely paying an employee a salary.

Consistent with its broad authority under the statute, the Department is proposing compensation thresholds that will work effectively with the standard duties test and the highly compensated employee duties test to better identify who is employed in a bona fide EAP capacity. Specifically, the Department is proposing to set the standard salary level at the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (\$1,059 per week or \$55,068 annually for a full-year worker)³ and the highly

¹ 29 U.S.C. 213(a)(1).

² See, e.g., *Idaho Sheet Metal Works, Inc. v. Wirtz*, 383 U.S. 190, 209 (1966); *Walling v. Gen. Indus. Co.*, 330 U.S. 545, 547-48 (1947).

³ In determining earnings percentiles in its part 541 rulemakings since 2004, the Department has consistently looked at nonhourly earnings for full-time workers from the Current Population Survey (CPS) Merged Outgoing Rotation Group (MORG) data collected by the Bureau of Labor Statistics (BLS). As explained in section VII.B.5, the Department considers data representing compensation paid to nonhourly workers to be an appropriate proxy for compensation paid to salaried workers, although for simplicity the Department

compensated employee total annual compensation threshold at the annualized weekly earnings of the 85th percentile of full-time salaried workers nationally (\$143,988). These proposed compensation thresholds are firmly grounded in the authority that the FLSA grants to the Secretary to define and delimit the EAP exemption, a power the Secretary has exercised for over 80 years.

The proposed increase in the standard salary level to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region better fulfills the Department's obligation under the statute to define and delimit who is employed in a bona fide EAP capacity. Upon reflection, the Department has determined that its rulemakings over the past 20 years, since the Department simplified the test for the EAP exemption in 2004 by replacing the historic two-test system for determining exemption status with the single standard test, have vacillated between two distinct approaches: One used in rules in 2004⁴ and 2019,⁵ that exempted lower-paid workers who historically had been entitled to overtime because they did not meet the more detailed duties requirements of the test that was in place from 1949 to 2004; and one used in a rule in 2016,⁶ that restored overtime protection to lower-paid white-collar workers who performed significant amounts of nonexempt work but also removed from the exemption other lower-paid workers who historically were exempt under the prior test, an approach that received

uses the terms salaried and nonhourly interchangeably in this proposal. The Department relied on CPS MORG data for calendar year 2022 to develop this NPRM, including to determine the proposed salary level. In the final rule, the Department will use the most recent data available, which will change the dollar figures. For example, if after consideration of comments received, the final rule were to adopt the proposed salary level of the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census region (currently the South), in the fourth quarter of 2023 the Department projects that the salary threshold could be \$1,140 per week or \$59,285 for a full-year worker. To calculate this, the Department applied the Congressional Budget Office projections of the employment cost index for wages and salaries of workers in private industry growing by 4.5 percent in 2023 to the 35th percentile of weekly earnings of full-time salaried workers in the South from the fourth quarter of 2022, which was \$1,091 per week or \$56,732 for a full-year worker. As an additional example, in the first quarter of 2024, the Department projects that the salary threshold could be \$1,158 per week or \$60,209 for a full-year worker; the Department applied the 4.5 percent growth rate to the 35th percentile of weekly earnings of full-time salaried workers in the South from the first quarter of 2023, which was \$1,108 per week or \$57,616 for a full-year worker.

⁴ 69 FR 22121 (April 23, 2004).

⁵ 84 FR 51230 (Sept. 27, 2019).

⁶ 81 FR 32391 (May 23, 2016).

unfavorable treatment in litigation.⁷ Having grappled with these different approaches to setting the standard salary level, this proposal retains the simplified standard test, the benefits of which were recognized in the Department's 2004, 2016 and 2019 rulemakings,⁸ while updating the standard salary level to account for earnings growth since the 2019 rule and adjusting the salary level methodology based on the lessons learned in recent rulemakings.

The Department's proposed standard salary level will, in combination with the standard duties test, better define and delimit which employees are employed in a bona fide EAP capacity. By setting a salary level above what the methodology used in 2004 and 2019 would produce using current data, the proposal would ensure that, consistent with the Department's historical approach to the exemption, fewer lower-paid white-collar employees who perform significant amounts of nonexempt work are included in the exemption. At the same time, by setting the salary level below the methodology used in 2016, the proposal would allow employers to continue to use the exemption for many lower-paid white-collar employees who were made exempt under the 2004 standard duties test. The combined effect would be a more effective test for determining who is employed in a bona fide EAP capacity.

The Department is also proposing to increase the salary levels in the U.S. territories, which have not been changed since 2004. Traditionally, the Department has set special salary levels only for territories that were not subject to the Federal minimum wage. In the 2004 rule, the Department ended the use of special salary levels for Puerto Rico and the U.S. Virgin Islands, as they had become subject to the Federal minimum wage since the Department last updated the part 541 salary levels, and set a special salary level only for American Samoa, which remained not subject to the Federal minimum wage.⁹ In the 2019 rule, however, the Department elected to preserve the salary level set in 2004 (\$455 per week) for employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands (CNMI) instead of applying the new standard

⁷ The Department never enforced the 2016 rule because it was invalidated by the U.S. District Court for the Eastern District of Texas. *See Nevada v. U.S. Department of Labor*, 275 F.Supp.3d 795 (E.D. Tex. 2017).

⁸ *See* 84 FR 51243–45; 81 FR 32414, 32444–45; 69 FR 22126–28.

⁹ 69 FR 22172.

salary level of \$684 per week that applied to employees in the 50 states and the District of Columbia.¹⁰ In doing so, the Department for the first time set a special salary level for employees in territories that were subject to the Federal minimum wage. In accordance with the Department's traditional practice, and in the interest of applying the FLSA uniformly to areas subject to the Federal minimum wage, the Department is proposing to apply the standard salary level to employees in all territories that are subject to the Federal minimum wage and to maintain a special salary level only for employees in American Samoa, because that territory remains subject to special minimum wage rates. The Department is also proposing to update the special base rate for employees in the motion picture industry.

The Department is also proposing to update the earnings threshold for the highly compensated employee (HCE) exemption, which was added to the regulations in 2004 and applies to certain highly compensated employees and combines a much higher annual compensation requirement with a minimal duties test. The HCE test's primary purpose is to serve as a streamlined alternative for very highly compensated employees because a very high level of compensation is a strong indicator of an employee's exempt status, thus eliminating the need for a detailed duties analysis.¹¹ In this rulemaking, the Department is proposing to increase the HCE total annual compensation threshold to the annualized weekly earnings amount of the 85th percentile of full-time salaried workers nationally (\$143,988). The proposed HCE threshold is high enough to exclude employees who are not "at the very top of [the] economic ladder"¹² and would guard against the unintended exemption of workers who are not bona fide EAP employees, including those in high-income regions and industries.

In each of its part 541 rulemakings since 2004, the Department recognized the need to regularly update the earnings thresholds to ensure that they remain effective in helping differentiate between exempt and nonexempt employees. As the Department observed in these rulemakings, even a well-calibrated salary level that is not kept up to date becomes obsolete as wages for nonexempt workers increase over

¹⁰ 84 FR 51246.

¹¹ *See* 69 FR 22173–74.

¹² *Id.* at 22174.

time.¹³ Long intervals between rulemakings have resulted in eroded earnings thresholds based on outdated earnings data that were ill-equipped to help identify bona fide EAP employees.

To address this problem, in the 2004 and 2019 rules the Department expressed its commitment to regularly updating the salary levels.¹⁴ In the 2016 rule, it included a regulatory provision to automatically update the salary levels.¹⁵ Based on its long experience with updating the salary levels, the Department has determined that adopting a regulatory provision for automatically updating the salary levels, with an exception for pausing future updates under certain conditions, is the most viable and efficient way to ensure the EAP exemption earnings thresholds keep pace with changes in employee pay and thus remain effective in helping determine exemption status. The proposed automatic updating mechanism would allow for the timely, predictable, and efficient updating of the earnings thresholds.

The Department estimates that in Year 1, 3.4 million currently exempt employees who earn at least the current salary level of \$684 per week but less than the proposed standard salary level of \$1,059 per week would, absent the employer paying them at or above the new salary level, gain overtime protection. For more than half of these employees, this proposal would restore overtime protections that the employees would have been entitled to under every rule prior to the 2019 rule. The Department also estimates that 248,900 employees who are currently exempt under the HCE test would be affected by the proposed increase in the HCE total annual compensation level. Absent the employer paying these employees at or above the new HCE level, the exemption status of these employees would turn on the standard duties test (which these employees do not meet) rather than the minimal duties test that applies to employees earning at or above the HCE threshold. The economic analysis of the proposed rule quantifies the direct costs resulting from the rule: (1) regulatory familiarization costs; (2) adjustment costs; and (3) managerial costs. The Department estimates that total annualized direct employer costs over the first 10 years would be \$664 million with a 7 percent discount rate. This rulemaking will also give employees higher earnings in the form of transfers of income from employers to employees.

¹³ 84 FR 51250–51; 81 FR 32430; *see also* 69 FR 22212, 22164.

¹⁴ 69 FR 22171; 84 FR 51251–52.

¹⁵ 81 FR 32430.

The Department estimates annualized transfers would be \$1.3 billion, with a 7 percent discount rate.

II. Background

A. The FLSA

The FLSA generally requires covered employers to pay employees at least the Federal minimum wage (currently \$7.25 an hour) for all hours worked, and overtime premium pay of one and one-half times the regular rate of pay for all hours worked over 40 in a workweek.¹⁶ However, section 13(a)(1) of the FLSA, codified at 29 U.S.C. 213(a)(1), provides an exemption from both minimum wage and overtime pay for “any employee employed in a bona fide executive, administrative, or professional capacity . . . or in the capacity of [an] outside salesman (as such terms are defined and delimited from time to time by regulations of the Secretary [of Labor], subject to the provisions of [the Administrative Procedures Act] . . .).” The FLSA does not define the terms “executive,” “administrative,” “professional,” or “outside salesman,” but rather delegates that task to the Secretary. Pursuant to Congress’s grant of rulemaking authority, since 1938 the Department has issued regulations at 29 CFR part 541 to define and delimit the scope of the section 13(a)(1) exemption.¹⁷ Because Congress explicitly delegated to the Secretary the authority to define and delimit the specific terms of the exemption, the regulations so issued have the binding effect of law.¹⁸

The exemption for executive, administrative, or professional employees (EAP exemption) was included in the original FLSA legislation passed in 1938.¹⁹ It was modeled after similar provisions contained in the earlier National Industrial Recovery Act of 1933 (NIRA) and state law precedents.²⁰ As the Department has explained in prior rules, the EAP exemption is premised on two policy considerations. First, the type of work exempt employees perform is difficult to standardize to any time frame and cannot be easily spread to other workers after 40 hours in a week,

¹⁶ *See* 29 U.S.C. 206(a), 207(a).

¹⁷ *See Helix Energy Solutions, Group Inc. v. Hewitt*, 143 S.Ct. 677, 682 (2023) (“Under [section 13(a)(1)], the Secretary sets out a standard for determining when an employee is a bona fide executive.”).

¹⁸ *See Betterton v. Francis*, 432 U.S. 416, 425 n.9 (1977).

¹⁹ *See* Fair Labor Standards Act of 1938, Public Law 75–718, 13(a)(1), 52 Stat. 1060, 1067 (June 25, 1938).

²⁰ *See* National Industrial Recovery Act, Public Law 73–67, ch. 90, title II, 206(2), 48 Stat 195, 204–5 (June 16, 1933).

making enforcement of the overtime provisions difficult and generally precluding the potential job expansion intended by the FLSA’s time-and-a-half overtime premium.²¹ Second, exempted workers typically earn salaries well above the minimum wage and are presumed to enjoy other privileges to compensate them for their long hours of work. These include, for example, above-average fringe benefits and better opportunities for advancement, setting them apart from nonexempt workers entitled to overtime pay.²²

Although section 13(a)(1) exempts covered employees from both the FLSA’s minimum wage and overtime requirements, its most significant impact is its removal of these employees from the Act’s overtime protections. An employer may employ such employees for any number of hours in the workweek without paying the minimum hourly wage or an overtime premium. Some state laws have stricter exemption standards than those described above. The FLSA does not preempt any such stricter state standards. If a state establishes a higher standard than the provisions of the FLSA, the higher standard applies in that state.²³

B. Regulatory History

The Department’s part 541 regulations have consistently looked to the duties performed by the employee and the salary paid by the employer in determining whether an individual is employed in a bona fide executive, administrative, or professional capacity. Since 1940, the Department’s implementing regulations have generally required each of three tests to be met for the exemption to apply: (1) the employee must be paid a predetermined and fixed salary that is not subject to reduction because of variations in the quality or quantity of work performed (the salary basis test); (2) the amount of salary paid must meet a minimum specified amount (the salary level test); and (3) the employee’s job duties must primarily involve executive, administrative, or professional duties as defined by the regulations (the duties test).

1. The Part 541 Regulations From 1938 to 2004

The Department issued the first version of the part 541 regulations in October 1938.²⁴ The Department’s initial regulations included a \$30 per

²¹ *See* Report of the Minimum Wage Study Commission, Volume IV, pp. 236 and 240 (June 1981).

²² *See id.*

²³ *See* 29 U.S.C. 218(a).

²⁴ 3 FR 2518 (Oct. 20, 1938).

week compensation requirement for executive and administrative employees, as well as a duties test that prohibited employers from using the exemption for executive, administrative, and professional employees who performed “[a] substantial amount of work of the same nature as that performed by nonexempt employees of the employer.”²⁵

The Department issued the first update to its part 541 regulations in October 1940,²⁶ following extensive public hearings.²⁷ Among other changes, the 1940 update added the salary basis requirement to the tests for executive, administrative, and professional employees; newly applied the salary level requirement to professional employees; and introduced a 20 percent cap on nonexempt work for executive and professional employees, replacing language which prohibited the performance of a “substantial amount” of nonexempt work.²⁸

The Department conducted further hearings on the part 541 regulations in 1947,²⁹ and issued revised regulations in December 1949.³⁰ The 1949 rulemaking updated the salary levels set in 1940 and introduced a second, less stringent duties test for higher paid executive, administrative, and professional employees.³¹ Thus, beginning in 1949, the part 541 regulations contained two tests for the EAP exemption. These tests became known as the “long” test and the “short” test. The long test paired a lower earnings threshold with a more rigorous duties test that generally limited the performance of nonexempt work to no more than 20 percent of an employee’s hours worked in a workweek. The short test paired a higher salary level and a less rigorous duties test, with no specified limit on the performance of nonexempt work. From 1958 until 2004, the regulations in place generally set the long test salary level to exclude from exemption approximately the lowest-paid 10 percent of salaried white-collar employees who performed EAP duties

in lower wage areas and industries and set the short test salary level significantly higher. The salary and duties components of each test complemented each other, and the two tests worked in combination to determine whether an individual was employed in a bona fide EAP capacity. Lower-paid employees who met the long test salary level but did not meet the higher short test salary level were subject to the long duties test which ensured that employees were, in fact, employed in a bona fide EAP capacity by limiting the amount of time they could spend on nonexempt work. Employees who met the higher short test salary level were considered to be more likely to meet the requirements of the long duties test and thus were subject to a short-cut duties test for determining exemption status.

Additional changes to the regulations, including salary level updates, were made in 1954,³² 1958,³³ 1961,³⁴ 1963,³⁵ 1967,³⁶ 1970,³⁷ 1973,³⁸ and 1975.³⁹ The Department revised the part 541 regulations twice in 1992 but did not update the salary threshold at that time.⁴⁰ None of these updates changed the basic structure of the long and short tests.

The Department described the salary levels adopted in the 1975 rule as “interim rates,” intended to “be in effect for an interim period pending the completion of a study [of worker earnings] by the Bureau of Labor Statistics . . . in 1975.”⁴¹ However, those salary levels remained in effect until 2004. The utility of the salary levels in helping to define the EAP exemption decreased as wages rose during this period. In 1991, the Federal minimum wage rose to \$4.25 per hour,⁴² which for a 40-hour week exceeded the lower long test salary level of \$155 per week for executive and administrative employees and equaled the long test salary level of \$170 per week for professional employees. In 1997, the

Federal minimum wage rose to \$5.15 per hour,⁴³ which for a 40-hour week not only exceeded the long test salary levels, but also was close to the higher short test salary level of \$250 per week.

2. Part 541 Regulations From 2004 to 2019

The Department issued a final rule in April 2004 (the 2004 rule)⁴⁴ that updated the part 541 salary levels for the first time since 1975 and made several significant changes to the regulations. Most significantly, the Department eliminated the separate long and short tests and replaced them with a single standard test. The Department set the standard salary level at \$455 per week, which was equivalent to the 20th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South) and in the retail industry nationally. The Department paired the new standard salary level test with a new standard duties test for executive, administrative, and professional employees, respectively, which was substantially equivalent to the short duties test used in the two-test system.⁴⁵

In the 2004 rule, the Department acknowledged that the switch from a two-test system to a one-test system was a significant change in the regulatory structure,⁴⁶ and noted that the shift to setting the salary level based on “the lowest 20 percent of salaried employees in the South, rather than the lowest 10 percent” of EAP employees was made, in part, “because of the proposed change from the ‘short’ and ‘long’ test structure.”⁴⁷ The Department asserted that elimination of the long duties test was warranted because “the relatively small number of employees currently earning from \$155 to \$250 per week, and thus tested for exemption under the ‘long’ duties test, will gain stronger protections under the increased minimum salary level which . . . guarantees overtime protection for all employees earning less than \$455 per week.”⁴⁸ The Department acknowledged, however, that the new standard salary level was comparable to the long test salary level used in the two-test system (*i.e.*, if the Department’s long test salary level methodology had been applied to contemporaneous

²⁵ *Id.*

²⁶ 5 FR 4077 (Oct. 15, 1940).

²⁷ See “Executive, Administrative, Professional . . . Outside Salesman” Redefined, Wage and Hour Division, U.S. Department of Labor, Report and Recommendations of the Presiding Officer [Harold Stein] at Hearings Preliminary to Redefinition (Oct. 10, 1940) (Stein Report).

²⁸ 5 FR 4077.

²⁹ See Report and Recommendations on Proposed Revisions of Regulations, Part 541, by Harry Weiss, Presiding Officer, Wage and Hour and Public Contracts Divisions, U.S. Department of Labor (June 30, 1949) (Weiss Report).

³⁰ See 14 FR 7705 (Dec. 24, 1949).

³¹ *Id.* at 7706.

³² 19 FR 4405 (July 17, 1954).

³³ 23 FR 8962 (Nov. 18, 1958).

³⁴ 26 FR 8635 (Sept. 15, 1961).

³⁵ 28 FR 9505 (Aug. 30, 1963).

³⁶ 32 FR 7823 (May 30, 1967).

³⁷ 35 FR 883 (Jan. 22, 1970).

³⁸ 38 FR 11390 (May 7, 1973).

³⁹ 40 FR 7091 (Feb. 19, 1975).

⁴⁰ The Department first created a limited exception from the salary basis test for public employees. 57 FR 37677 (Aug. 19, 1992). The Department also implemented a 1990 law requiring it to promulgate regulations permitting employees in certain computer-related occupations to qualify as exempt under section 13(a)(1) of the FLSA. 57 FR 46744 (Oct. 9, 1992); see Public Law 101–583, sec. 2, 104 Stat. 2871 (Nov. 15, 1990).

⁴¹ 40 FR 7091.

⁴² See Public Law 101–157, sec. 2, 103 Stat. 938 (Nov. 17, 1989).

⁴³ See Public Law 104–188, sec. 2104(b), 110 Stat. 1755 (Aug. 20, 1996).

⁴⁴ 69 FR 22122.

⁴⁵ See *id.* at 22192–93 (acknowledging “de minimis differences in the standard duties tests compared to the short duties tests”).

⁴⁶ See *id.* at 22126–28.

⁴⁷ *Id.* at 22167.

⁴⁸ *Id.* at 22126.

data).⁴⁹ Thus, employees who would have been subject to the more rigorous long duties test if the two-test system had been updated were subject to the equivalent of the short duties test under the new standard test. For example, under the 2004 rule's standard test, an employee who earned just over the rule's standard salary threshold of \$455 in weekly salary, and who met the standard duties test, was exempt even if they would not have met the previous long duties test because they spent substantial amounts of time performing nonexempt work. If the Department had instead retained the two-test system and updated the long test salary level to \$455, that same employee would have been nonexempt because they would have been subject to the more rigorous duties analysis due to their lower salary.

In the 2004 rule, the Department also created a new test for exemption for certain highly compensated employees.⁵⁰ The HCE test paired a minimal duties requirement—customarily and regularly performing at least one of the exempt duties or responsibilities of an EAP employee—with a high total annual compensation requirement of \$100,000, a threshold that exceeded the annual earnings of approximately 93.7 percent of salaried workers nationwide.⁵¹ The Department also ended the use of special salary levels for Puerto Rico and the U.S. Virgin Islands, as they had become subject to the Federal minimum wage since the Department last updated the part 541 salary levels in 1975, and set a special salary level only for American Samoa, which remained not subject to the Federal minimum wage.⁵² The Department expressed its intent “in the future to update the salary levels on a more regular basis, as it did prior to 1975.”⁵³

In May 2016, the Department issued a final rule (the 2016 rule) that retained the single test system and the standard duties test but increased the standard

salary level and provided for regular updating. The 2016 rule (1) increased the standard salary level from the 2004 salary level of \$455 to \$913 per week, the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South);⁵⁴ (2) increased the HCE test total annual compensation amount from \$100,000 to \$134,004 per year;⁵⁵ (3) increased the special salary level for EAP workers in American Samoa;⁵⁶ (4) allowed employers, for the first time, to credit nondiscretionary bonuses, incentive payments, and commissions paid at least quarterly towards up to 10 percent of the standard salary level;⁵⁷ and (5) added a mechanism to automatically update the part 541 earnings thresholds every 3 years.⁵⁸ The standard salary level was set at the low end of the historical range of short test salary levels used in the pre-2004 two-test system.⁵⁹ The 2016 rule did not change any of the standard duties test criteria.⁶⁰ The 2016 rule was scheduled to take effect on December 1, 2016.

On November 22, 2016, the U.S. District Court for the Eastern District of Texas issued an order preliminarily enjoining the Department from implementing and enforcing the 2016 rule.⁶¹ On August 31, 2017, the district court granted summary judgment to the plaintiff challengers, holding that the 2016 rule's salary level exceeded the Department's authority and invalidating the rule.⁶² On October 30, 2017, the Department of Justice appealed to the U.S. Court of Appeals for the Fifth Circuit, which subsequently granted the Department's motion to hold that appeal in abeyance while the Department of Labor undertook further rulemaking. Following an NPRM published on March 22, 2019,⁶³ the Department published a final rule on September 27, 2019 (the 2019 rule),⁶⁴ which formally rescinded and replaced the 2016 rule.

The 2019 rule (1) raised the standard salary level from the 2004 salary level of \$455 to \$684 per week, the 20th percentile of weekly earnings of full-time salaried workers in the lowest-

wage Census Region (the South) and in the retail industry nationally; (2) increased the HCE total annual compensation threshold from \$100,000 to \$107,432; (3) allowed employers to credit nondiscretionary bonuses and incentive payments (including commissions) paid at least annually to satisfy up to 10 percent of the standard salary level; and (4) established special salary levels for all U.S. territories.⁶⁵ The 2019 rule did not make changes to the standard duties test.⁶⁶ While utilizing the same methodology used in the 2004 rule to set the salary threshold, the Department did not assert that this methodology constituted the outer limit for defining and delimiting the salary threshold. Rather, the Department reasoned the 2004 methodology was well-established, reasonable, would minimize uncertainty and potential legal challenge, and would address the concerns of the district court that the 2016 rule over-emphasized the salary level.⁶⁷ The Department acknowledged that the new salary level was below the long test salary level used in the pre-2004 two-test system.⁶⁸ As in its 2004 rule, the Department “reaffirm[ed] its intent to update the standard salary level and HCE total annual compensation threshold more regularly in the future using notice-and-comment rulemaking.”⁶⁹ The Department noted that large gaps between rulemakings did not serve employer or employee interests and diminished the usefulness of the salary level test, and that regular increases promoted predictable and incremental change.⁷⁰ The 2019 rule took effect on January 1, 2020.⁷¹

C. Overview of Existing Regulatory Requirements

The part 541 regulations contain specific criteria that define each category of exemption provided for in section 13(a)(1) for bona fide executive, administrative, professional, and outside sales employees, as well as teachers and academic administrative personnel. The regulations also define exempt computer employees under

⁴⁹ *Id.* at 22169. The Department last set the long and short test salary levels in 1975. Throughout this proposal, when the Department refers to the relationship of salary levels set in 2004, 2016, and 2019 to equivalent long or short test salary levels, it is referring to salary levels based on current (at the relevant point in time) data that, in the case of the long test salary level, would exclude the lowest-paid 10 percent of exempt EAP employees in low-wage industries and areas and, in the case of the short test salary level, would be 149 percent of a contemporaneous long test salary level. The short test salary ratio of 149 percent is the simple average of the 15 historical ratios of the short test salary level to the long test salary level. *See* 81 FR 32467 & n.149.

⁵⁰ 69 FR 22169.

⁵¹ *See id.* (Table 3).

⁵² *Id.* at 22172.

⁵³ *Id.* at 22171.

⁵⁴ 81 FR 32550.

⁵⁵ *Id.*

⁵⁶ *Id.* at 32551.

⁵⁷ *See id.*

⁵⁸ *See id.* at 32550–51 (§ 541.602(a)(3)).

⁵⁹ *Id.* at 32405 (noting the historical range of short test salary levels was \$889 to \$1,231 based on an application of the short test methodology to contemporaneous data).

⁶⁰ *Id.* at 32444.

⁶¹ *See Nevada v. U.S. Department of Labor*, 218 F. Supp. 3d 520 (E.D. Tex. 2016).

⁶² *See Nevada*, 275 F.Supp.3d 795 (E.D. Tex. 2017).

⁶³ *See* 84 FR 10900 (Mar. 22, 2019).

⁶⁴ *See* 84 FR 51230.

⁶⁵ The Department established special salary levels of \$455 per week for Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI (effectively continuing the 2004 salary level); it also maintained the 2004 rule's \$380 per week special salary level for employees in American Samoa. 84 FR 51246.

⁶⁶ *See id.* at 51241–43.

⁶⁷ *See id.* at 51242.

⁶⁸ *Id.* at 51244.

⁶⁹ *Id.* at 51251.

⁷⁰ *See id.* at 51251–52.

⁷¹ A lawsuit challenging the 2019 rule was filed in August 2022 and, at the time this proposal was drafted, remains pending in the U.S. District Court for the Western District of Texas. *Mayfield v. U.S. Department of Labor*, Case No. 1:22-cv-00792.

sections 13(a)(1) and 13(a)(17). The employer bears the burden of establishing the applicability of any exemption from the FLSA's pay requirements.⁷² Job titles and job descriptions do not determine exemption status, nor does merely paying an employee a salary rather than an hourly rate.

To satisfy the EAP exemption, employees must meet certain tests regarding their job duties⁷³ and generally must be paid on a salary basis at least the amount specified in the regulations.⁷⁴ Some employees, such as doctors, lawyers, teachers, and outside sales employees, are not subject to salary tests.⁷⁵ Others, such as academic administrative personnel and computer employees, are subject to special, contingent earning thresholds.⁷⁶ The standard salary level for the EAP exemption is currently \$684 per week (equivalent to \$35,568 per year), and the total annual compensation level for highly compensated employees under the HCE test is currently \$107,432.⁷⁷ A special salary level of \$455 per week applies to employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI;⁷⁸ a special salary level of \$380 per week applies to employees in American Samoa;⁷⁹ and employers can pay a special weekly "base rate" of \$1,043 per week to employees in the motion picture producing industry.⁸⁰ Nondiscretionary bonuses and incentive payments (including commissions) paid on an annual or more frequent basis may be used to satisfy up to 10 percent of the standard or special salary levels.⁸¹

Under the HCE test, employees who receive at least \$107,432 in total annual compensation are exempt from the FLSA's overtime requirements if they customarily and regularly perform at

least one of the exempt duties or responsibilities of an executive, administrative, or professional employee identified in the standard tests for exemption.⁸² The HCE test applies only to employees whose primary duty includes performing office or non-manual work.⁸³ Employees qualifying for exemption under the HCE test must receive at least the \$684 per week standard salary portion of their pay on a salary or fee basis without regard to the payment of nondiscretionary bonuses and incentive payments.⁸⁴

III. Need for Rulemaking

The goal of this rulemaking is to set effective earnings thresholds to help define and delimit the FLSA's EAP exemption. To this end, the Department is proposing to make appropriate increases to the standard salary level and the HCE test's total annual compensation requirement, apply the standard salary level to territories subject to the Federal minimum wage, and update the special salary levels for American Samoa and the motion picture industry. The Department is also proposing to maintain the effectiveness of these earnings thresholds by adding a provision to automatically update the standard salary level and the HCE annual compensation threshold every 3 years with current wage data (which would also have the effect of updating the levels in American Samoa and for the motion picture industry). The updating mechanism would also temporarily delay a scheduled automatic update if, and while, the Department engages in notice-and-comment rulemaking to change the salary level methodology and/or the updating mechanism.

The part 541 regulations have always included salary requirements. From the beginning, there has been "wide agreement" that the amount paid to an employee is "a valuable and easily applied index to the 'bona fide' character of the employment for which [the] exemption is claimed."⁸⁵ Because EAP employees "are denied the protection of the Act," they are "assumed [to] enjoy compensatory privileges" which distinguish them from nonexempt employees, including substantially higher pay.⁸⁶ The

Department has long recognized that the salary level test is a useful criterion for identifying bona fide EAP employees and providing a practical guide for employers and employees, thus tending to reduce litigation and ensuring nonexempt employees receive the overtime protection to which they are entitled.⁸⁷ The salary level test also facilitates application of the exemption by saving employees and employers from having to apply the more time-consuming duties analysis to a large group of employees who do not meet the duties test.⁸⁸ For these reasons, the salary level test has been a key part of how the Department defines and delimits the EAP exemption since the beginning of its rulemaking on the EAP exemption.⁸⁹ However, the Department has always recognized that any salary level will result in some employees who meet the duties test but do not earn enough to meet the salary level test, and thus are nonexempt and therefore eligible for overtime by virtue of their pay.⁹⁰ This is simply a feature of a salary level test; it does not undermine the efficacy of the salary level test but instead is taken into account in determining where the salary level is set.

The Department continues to believe that the amount paid to an employee is important evidence that they are employed in a bona fide EAP capacity, and that the salary level test "is a vital element in the regulations."⁹¹ The salary level test benefits employees and employers alike, which is why—despite disagreement over the appropriate magnitude of the part 541 earnings thresholds—an "overwhelming majority" of stakeholders have supported the retention of such thresholds in prior part 541 rulemakings.⁹²

The Department's authority to set a salary level is not without limits, and the salary test's role in defining and delimiting the scope of the EAP exemption must allow for additional examination of employee duties for employees whose salary exceeds the

compensatory benefits received by EAP employees, which set them apart from non-EAP employees.").

⁷² See 84 FR 51237; Weiss Report at 8.

⁷³ Report and Recommendations on Proposed Revision of Regulations, Part 541, Under the Fair Labor Standards Act, by Harry S. Kantor, Assistant Administrator, Office of Regulations and Research, Wage and Hour and Public Contracts Divisions, U.S. Department of Labor (Mar. 3, 1958) (Kantor Report) at 2–3; 69 FR 22165; 84 FR 51280.

⁷⁴ See 84 FR 51237.

⁷⁵ See, e.g., Kantor Report at 5.

⁷⁶ Weiss Report at 9.

⁷⁷ 84 FR 51235; see also Stein Report at 5, 19; Weiss Report at 9.

⁷² See, e.g., *Idaho Sheet Metal*, 383 U.S. at 209; *Wallington*, 330 U.S. at 547–48.

⁷³ For a description of the duties that are required to be performed under the EAP exemption, see §§ 541.100 (executive employees); 541.200 (administrative employees); 541.300, 541.303–304 (teachers and professional employees); 541.400 (computer employees); 541.500 (outside sales employees).

⁷⁴ Alternatively, administrative and professional employees may be paid on a fee basis for a single job regardless of the time required for its completion as long as the hourly rate for work performed (*i.e.*, the fee payment divided by the number of hours worked) would total at least the weekly amount specified in the regulation if the employee worked 40 hours. See § 541.605.

⁷⁵ See §§ 541.303(d); 541.304(d); 541.500(c); 541.600(e). Such employees are also not subject to a fee basis test.

⁷⁶ See § 541.600(c) and (d).

⁷⁷ See §§ 541.600(a); 541.601(a)(1).

⁷⁸ See §§ 541.100; 541.200; 541.300.

⁷⁹ See *id.*

⁸⁰ See § 541.709.

⁸¹ § 541.602(a)(3).

⁸² § 541.601.

⁸³ § 541.601(d).

⁸⁴ See § 541.601(b)(1); see also 84 FR 51249.

⁸⁵ Stein Report at 19.

⁸⁶ *Id.*; see also Report of the Minimum Wage Study Commission, Volume IV, p. 236 ("Higher base pay, greater fringe benefits, improved promotion potential and greater job security have traditionally been considered as normal

salary level.⁹³ Examination of duties for such employees is necessary in part because the salaries earned by employees who do and do not perform exempt job duties overlap. As explained in greater detail below, the proposed standard salary level set at the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (\$1,059 per week, \$55,068 annually) would, in combination with the standard duties test, better identify which employees are employed in a bona fide EAP capacity in a one-test system. By setting a salary level above what would currently be the equivalent of the long test salary level (\$925 per week), the proposal would restore the right to overtime pay for salaried white-collar employees who prior to the 2019 rule were always considered nonexempt if they earned below the long test (or long test-equivalent) salary level and ensure that fewer white-collar employees who perform significant amounts of nonexempt work and earn between the long and short test salary levels are included in the exemption. At the same time, by setting the standard salary level well below what would currently be the equivalent of the short test salary level (\$1,378 per week),⁹⁴ the proposal would address the concerns that have been raised about excluding from the EAP exemption too many white-collar employees solely based on their salary level. As discussed in section IV.A.4 below, the duties test would continue to determine exemption status for almost three-quarters of all salaried white-collar employees subject to the part 541 regulations, allowing employers to continue to use the exemption for 24.5 million salaried white-collar workers who earn at least the proposed salary level and meet the standard duties test.⁹⁵ The proposed salary level would also reasonably distribute between employees and their employers what the Department now understands to be the impact of the shift from a two-test to a one-test system on employees earning

⁹³ 84 FR 51238 (noting salary's "useful, but limited, role").

⁹⁴ During the period from 1949 to 2004, the ratio of the short test salary level to the long test salary levels ranged from approximately 130 percent to 180 percent. See 81 FR 32403. The simple average of the 15 historical ratios of the short test salary level to the long test salary level is 149 and the Department calculates the short test salary level as 149 percent of the long test salary level. See *id.* at 32467 & n.149.

⁹⁵ This number does not include the additional 8.1 million workers employed in occupations that are not subject to the salary level test, such as doctors, lawyers, and teachers. Such employees are unaffected by this rulemaking because their exemption status is always determined by the duties test.

between the long and short test salary levels.

Since switching from a two-test to a one-test system for defining and delimiting the EAP exemption in 2004, the Department has followed different approaches to set the single standard salary level. In 2004, the Department set the new standard salary level roughly equivalent to the 20th percentile of weekly earnings of full-time salaried workers in the South and in the retail industry nationwide (\$455 per week).⁹⁶ This approach produced a salary level amount that was equivalent to the lower long test salary level under the two-test system.⁹⁷ Because it was equivalent to the long test salary level, employees who historically earned less than the long test salary level continued to be entitled to overtime compensation because they earned below the new standard salary level. However, because the new standard duties test was substantially equivalent to the less rigorous short duties test,⁹⁸ employees who were paid the equivalent of the lower long test salary level and who met the less rigorous short duties test also now met the standard duties test and were not entitled to overtime compensation. This approach broadened the EAP exemption because all employees between the long and short test salary levels who historically had not been considered bona fide EAP employees because they did not meet the long duties test became exempt. The Department followed this same methodology to set the standard salary level in 2019, although applying the 2004 rule's methodology resulted in a salary level that was a lower amount than what would have been the equivalent of the long test salary level.⁹⁹ This broadened the EAP exemption even further by, for the first time, setting a salary level that exempted a group of white-collar employees earning below the equivalent of the long test salary level (based on contemporaneous data). Both the 2004 and 2019 rules thus effectively placed the impact of the shift from a two-test to a one-test system on lower-salaried white-collar employees—both those who earned below the short test salary level and were traditionally protected by the more rigorous long duties test (*i.e.*, because they performed substantial amounts of nonexempt work), and, in the case of the 2019 rule, those who had previously been

⁹⁶ See 69 FR 22168.

⁹⁷ See *id.* at 22168–69.

⁹⁸ *Id.* at 22214.

⁹⁹ See 84 FR 51260 (Table 4) (showing that the salary level derived from the Department's long test methodology would have been \$724 per week rather than the finalized \$684 per week amount).

protected by a salary level set at or equivalent to the long test salary.

To address the concern that the 2004 rule did not provide overtime compensation for lower-salaried white-collar employees performing large amounts of nonexempt work who historically were not considered bona fide EAP employees, in 2016 the Department set the standard salary level at the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South), which produced a salary level that was at the low end of the historical range of short test salary levels.¹⁰⁰ This approach restored overtime protection to white-collar employees who perform substantial amounts of nonexempt work and earned between the equivalent of the long test salary level and the short test salary level. However, this approach also made nonexempt some employees who had previously met the long duties test—employees who earned between the long test salary level and the low end of the short test salary range and performed only a limited amount of nonexempt work. Until 2004 employers could use the long test to exempt these employees, and under the 2004 rule these employees remained exempt under the one-test system. Thus, the impact of the 2016 rule was that employers could not use the exemption for certain white-collar employees who earned between the long and short test salary levels and would have met the more rigorous long duties test.¹⁰¹ In the challenge to the 2016 rule, the district court expressed concern that the 2016 rule conferred overtime eligibility based on salary level alone to a substantial number of employees who would otherwise be exempt.¹⁰²

Having grappled with the different approaches that it has used to set the standard salary level since switching to a one-test system in 2004, the Department's goal in this rulemaking is not only to update the single standard salary level to account for earnings growth since the 2019 rule, but also to build on the lessons learned in its most recent rulemakings to more effectively define and delimit employees employed in a bona fide EAP capacity. Consistent with its broad authority under the statute, the Department is proposing a standard salary level test that would work effectively with the standard duties test to help achieve these objectives and would also reasonably distribute the impact of the switch to a one-test system across white-collar

¹⁰⁰ 81 FR 32405.

¹⁰¹ See 84 FR 10908; 84 FR 51242.

¹⁰² See *Nevada*, 275 F.Supp.3d. at 806.

employees earning between the long and short test salary levels and their employers. In 2004 and 2019, setting the salary level equivalent to or below the lower long test salary level resulted in the exemption of lower-salaried employees who perform large amounts of nonexempt work, in effect significantly broadening the exemption compared to under the two-test system. This approach included in the exemption lower-salaried employees whom the Department had long considered not to be employed in a bona fide EAP capacity because they performed substantial amounts of nonexempt work. Under the 2016 approach, setting the salary level equivalent to the low end of the higher short test salary range would have restored overtime protections to those employees who perform substantial amounts of nonexempt work and earned between the long test salary level and the low end of the short test salary levels. However, it also would have resulted in denying employers the use of the exemption for many lower-salaried employees who traditionally were exempt under the long test, which raised concerns that the Department was in effect narrowing the exemption compared to the two-test system.¹⁰³ In this rulemaking, the Department proposes setting a standard salary level that would better define and delimit the EAP exemption by more effectively accounting for the switch from a two-test to a one-test system, and reasonably distribute the impact of the shift by ensuring overtime protection for some lower-salaried employees without excluding from exemption too many white-collar employees solely based on their salary level.¹⁰⁴

In addition, consistent with its previously stated intent, the Department is undertaking this rulemaking to keep the earnings thresholds up to date. Four years have passed since the 2019 rule, during which time salaried workers in the U.S. economy have experienced a rapid growth in their nominal wages, which lessens the effectiveness of the current salary level threshold. Reapplying the same methodology that was used to set the standard salary level in 2019 to recent earnings data would result in a new threshold of \$822 per week—a 20.2 percent increase over the current \$684 per week standard salary level.¹⁰⁵ Applying the long test salary methodology to current data would result in a salary threshold of \$925 per

week—a 35.2 percent increase over the current salary level.

The Department is also proposing to increase the HCE total annual compensation threshold to the annualized weekly earnings amount of the 85th percentile of full-time salaried workers nationally (\$143,988). Reapplying the 2019 methodology (annualized weekly earnings of the 80th percentile of full-time salaried workers nationally) to current earnings data results in a threshold of \$125,268 per year—a 16.6 percent increase over the current threshold of \$107,432. Other data further supports that the HCE test's current total annual compensation requirement has become outdated. When it was created in 2004, the HCE test featured a \$100,000 threshold that exceeded the annual earnings of approximately 93.7 percent of salaried workers nationwide.¹⁰⁶ More recently in the 2019 rule, the Department set the HCE test threshold so it would be equivalent to the annual earnings of the 80th percentile of full-time salaried workers nationwide. Today, however, the \$107,432 HCE threshold is approximately the 72nd percentile of annual earnings of full-time salaried workers nationwide. The Department's proposed increase from the 80th to the 85th percentile is high enough to exclude employees who are not "at the very top of [the] economic ladder"¹⁰⁷ and would ensure that this test for exemption continues to serve its intended function.

The salary levels applicable to the U.S. territories have not increased since 2004. In 2004, the Department ended the use of special salary levels in territories that had become subject to the Federal minimum wage since the salary levels were last set in 1975, and applied a special salary level of \$380 per week only to employees in American Samoa, who were subject to special minimum wage rates below the Federal minimum wage.¹⁰⁸ In 2019, however, the Department established a special salary level of \$455 per week for employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI, for the first time setting a special salary level in territories that were subject to the Federal minimum wage.¹⁰⁹ The Department also maintained the special salary level for American Samoa at \$380 per week, the level set in 2004. There is thus a compelling need to increase the salary levels applicable to employees in U.S. territories,

particularly employees in those territories that are subject to the Federal minimum wage.

Finally, the Department proposes to adopt a mechanism to automatically update the earnings thresholds in the part 541 regulations in future years. In its three most recent part 541 rulemakings, the Department has expressed its commitment to keeping the salary level tests up to date. In its 2004 rule, the Department conveyed its intent "in the future to update the salary levels on a more regular basis."¹¹⁰ In its 2016 rule, the Department adopted a mechanism to automatically update the salary level on a triennial basis. In 2019, after initially proposing to codify its commitment to updating the threshold every 4 years through rulemaking, the Department affirmed in its final rule that it "intends to update these thresholds more regularly in the future."¹¹¹ As noted above, however, the history of the part 541 regulations shows multiple, significant gaps during which the salary levels were not updated and their effectiveness in helping to define the EAP exemption decreased as wages increased. While the Department increased its part 541 earnings thresholds every 5 to 9 years in the 37 years between 1938 and 1975, more recent decades have included long periods without raising the salary level, resulting in significant erosion of the real value of the threshold levels followed by unpredictable increases. As explained in greater detail in section IV.D, employees and employers alike would benefit from the certainty and stability of regularly scheduled updates.

IV. Discussion of Proposed Rule

Consistent with its statutory duty to define and delimit the EAP exemption, the Department is proposing increases to the earnings thresholds provided in the part 541 regulations. As explained in greater detail below, the Department proposes to increase the standard salary level to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (currently the South). The Department also proposes to apply this updated standard salary level to the four U.S. territories that are subject to the Federal minimum wage—Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI—and to update the special salary levels for American Samoa and the motion picture industry in relation to the new standard salary level. The Department additionally proposes raising the HCE test's total annual compensation

¹⁰³ See 84 FR 51242.

¹⁰⁴ See section IV.A.3.

¹⁰⁵ See section VII.C.5 (applying CPS MORG data from calendar year 2022).

¹⁰⁶ See 69 FR 22169 (Table 3).

¹⁰⁷ *Id.* at 22174.

¹⁰⁸ See *id.* at 22172.

¹⁰⁹ See 84 FR 51246.

¹¹⁰ 69 FR 22171.

¹¹¹ 84 FR 51251–52.

requirement to the annual equivalent of the 85th percentile of weekly earnings of full-time salaried workers nationally (\$143,988). Finally, the Department proposes a new mechanism to automatically update the standard salary level and the HCE total annual compensation threshold every 3 years to ensure that they remain effective tests for exemption.

While the primary regulatory changes proposed are in §§ 541.600, 541.601, 541.709, and newly-added § 541.607, additional conforming changes are proposed to update references to the salary level throughout part 541. The Department is not proposing any changes to the salary basis or duties test requirements in this rulemaking. The Department welcomes comments on all aspects of this proposal.

A. Standard Salary Level

The salary level test is grounded in the text of section 13(a)(1). The Secretary's expressly-delegated authority to "define[]" and "delimit[]" the terms of the EAP exemption includes the authority to use a salary level test as one criterion for identifying employees who are employed in a "bona fide executive, administrative, or professional capacity." The Department has used a salary level test since the first part 541 regulations in 1938. From the FLSA's earliest days, stakeholders have generally favored the use of a salary test,¹¹² and the Department's authority to use a salary test has been repeatedly upheld.¹¹³

Despite numerous amendments to the FLSA over the past 85 years, Congress has not restricted the Department's use of the salary level tests. Significant regulatory changes involving the salary requirements since 1938 include adding a separate salary level for professional employees in 1940, adopting a two-test system with separate short and long test salary levels in 1949, and creating a single standard salary level test and establishing a new HCE exemption test in 2004. These changes were all made through regulations issued pursuant to the Secretary's authority to define and delimit the exemption. Despite having amended the FLSA numerous times over the years, Congress has not amended section 13(a)(1) to alter these regulatory salary requirements.

The FLSA delegates to the Secretary the power to "define[]" and "delimit[]" the terms "bona fide executive,

administrative, or professional capacity" through regulation. Congress thus "provided that employees should be exempt who fell within certain general classifications"—those employed in a bona fide executive, administrative, or professional capacity—and authorized the Secretary "to define and delimit those classifications by reasonable and rational specific criteria."¹¹⁴ Therefore, the Department "is responsible not only for determining which employees are entitled to the exemption, but also for drawing the line beyond which the exemption is not applicable."¹¹⁵

As the Department stated in its 2019 rule, an employee's salary level "is a helpful indicator of the capacity in which an employee is employed, especially among lower-paid employees."¹¹⁶ The amount an employee is paid is also a "valuable and easily applied index to the 'bona fide' character of employment for which exemption is claimed," as well as the "principal[]" "delimiting requirement" "prevent[ing] abuse" of the exemption.¹¹⁷ As the Department has explained, if an employee "is of sufficient importance . . . to be classified as a bona fide" executive employee, for example, and "thereby exempt from the protection of the [A]ct, the best single test of the employer's good faith in attributing importance to the employee's services is the amount [it] pays for them."¹¹⁸ Employee compensation is a relevant indicator of exemption status given that the EAP exemption is premised on the understanding that individuals who are employed in a bona fide executive, administrative, or professional capacity typically earn higher salaries and enjoy other privileges to compensate them for their long hours of work, setting them apart from nonexempt employees entitled to overtime pay.¹¹⁹

¹¹⁴ *Walling*, 140 F.2d at 831–32; see *Ellis v. J.R.'s Country Stores, Inc.*, 779 F.3d 1184, 1199 (10th Cir. 2015) (approvingly quoting *Walling*); see also *Auer v. Robins*, 519 U.S. 452, 456 (1997) ("The FLSA grants the Secretary broad authority to 'defin[e] and delimit[t]' the scope of the exemption for executive, administrative, and professional employees.').

¹¹⁵ Stein Report at 2.

¹¹⁶ 84 FR 51239 (internal quotation marks omitted).

¹¹⁷ Stein Report at 19, 24; see also 81 FR 32422.

¹¹⁸ Stein Report at 19, 24; see also *id.* at 26 ("[A] salary criterion constitutes the best and most easily applied test of the employer's good faith in claiming that the person whose exemption is desired is actually of such importance to the firm that he is properly describable as an employee employed in a bona fide administrative capacity.').

¹¹⁹ See Report of the Minimum Wage Study Commission, Vol. IV, at 236, 240; see also, e.g., Stein Report at 19 (explaining that the "term 'executive' implies a certain prestige, status, and

Consistent with the Department's longstanding approach, the proposed rule ensures that the salary level test and duties test continue to complement each other to define and delimit the EAP exemption and that the salary level does not play an outsized role in determining whether an individual is employed in a bona fide EAP capacity.¹²⁰ In part because of the overlap in the salaries earned by employees who do and do not perform exempt job duties, the salary level must allow for appropriate examination of duties. As discussed in section IV.A.4, under the Department's proposed standard salary level, the duties test will determine the exemption status for most white-collar employees.

The Department's proposed standard salary level will, in combination with the standard duties test, better define and delimit which employees are employed in a bona fide EAP capacity in a one-test system. By setting a salary level above the equivalent of the long test salary level, the proposal would (unlike the 2004 and 2019 rules) ensure that not all lower-paid white-collar employees who perform significant amounts of nonexempt work, and were historically considered by the Department not to be employed in a bona fide EAP capacity because they failed the long duties test, are included in the exemption. At the same time, by setting it well below the equivalent of the short test salary level, the proposal would address potential concerns that the salary level test should not be determinative of EAP exemption status for too many white-collar employees. The combined effect would be a more effective test for exemption. The proposed salary level would also reasonably distribute between employees and their employers what the Department now understands to be the impact of the 2004 shift from a two-test to a one-test system on employees earning between the long and short test salary levels.

1. History of the Salary Level

The first version of the part 541 regulations, issued in 1938, set a minimum compensation requirement of \$30 per week for executive and administrative employees.¹²¹ Since then, the Department has increased the

importance" denoted by pay "substantially higher than" the Federal minimum wage).

¹²⁰ The Department has consistently stated that salary alone cannot define who is a bona fide EAP employee. See 84 FR 51239; 81 FR 32429; 69 FR 22173.

¹²¹ 3 FR 2518.

¹¹² See Stein Report at 5, 19.

¹¹³ See, e.g., *Wirtz v. Miss. Publishers Corp.*, 364 F.2d 603, 608 (5th Cir. 1966); *Fanelli v. U.S. Gypsum Co.*, 141 F.2d 216, 218 (2d Cir. 1944); *Walling v. Yeakley*, 140 F.2d 830, 832–33 (10th Cir. 1944).

salary levels eight times—in 1940, 1949, 1958, 1963, 1970, 1975, 2004, and 2019.

In 1940, the Department maintained the \$30 per week salary level for executive employees but established a higher \$200 per month salary level test for administrative and professional employees. In selecting these thresholds, the Department used salary surveys from Federal and State Government agencies, experience gained under NIRA, and Federal Government salaries to determine the salary level that was a reasonable “dividing line” between employees performing exempt and nonexempt work.¹²²

In 1949, recognizing that the “increase in wage rates and salary levels” since 1940 had “gradually weakened the effectiveness of the present salary tests as a dividing line between exempt and nonexempt employees,” the Department calculated the percentage increase in weekly earnings from 1940 to 1949, and then adopted new salary levels “at a figure slightly lower than might be indicated by the data” to protect small businesses.¹²³ In 1949, the Department also established a short test for exemption, which paired a higher salary level with a less rigorous duties test. The justification for this short test was that employees who met the higher salary level were more likely to meet all the requirements of the exemption (including the 20 percent limit on nonexempt work), and thus a “short-cut test of exemption . . . would facilitate the administration of the regulations without defeating the purposes of section 13(a)(1).”¹²⁴ Employees who met only the lower long test salary level, and not the higher short test salary level, were still required to satisfy the long duties test, which included a limit on the amount of nonexempt work that an exempt employee could perform. The two-test system remained part of the Department’s regulations until 2004.

In 1958, the Department reiterated that salary is a “mark of [the] status” of an exempt employee and reinforced the importance of salary as an enforcement tool, adding that the Department had “found no satisfactory substitute for the salary tests.”¹²⁵ To set the salary levels, the Department considered data collected during 1955 WHD investigations on the “actual salaries paid” to employees who “qualified for exemption” (*i.e.*, met the applicable salary and duties tests in place at the

time) and set the salary levels at \$80 per week for executives and \$95 per week for administrative and professional employees.¹²⁶ The Department set the long test salary levels so that only a limited number of employees performing EAP duties (about 10 percent) in the lowest-wage regions and industries would fail to meet the new salary level and therefore become entitled to overtime pay.¹²⁷ In laying out this methodology, often referred to as the “Kantor” methodology and generally referenced in this NPRM as the “long test” methodology, the Department echoed its prior comments stating that the salary tests “simplify enforcement by providing a ready method of screening out the obviously nonexempt employees.”¹²⁸

The Department followed a similar methodology when determining the appropriate long test salary level in 1963, using data regarding salaries paid to exempt workers collected in a 1961 WHD survey.¹²⁹ The salary level for executive and administrative employees was increased to \$100 per week, and the professional exemption salary level was increased to \$115 per week.¹³⁰ The Department noted that these salary levels approximated the methodology used in 1958 to set the long test salary levels.¹³¹

The Department continued to use a similar methodology when it updated the salary levels in 1970. After examining data from 1968 WHD investigations, 1969 BLS wage data, and information provided in a report issued by the Department in 1969 that included salary data for executive, administrative, and professional employees,¹³² the Department increased the long test salary level for executive and administrative employees to \$125 per week and increased the long test salary level for professional employees to \$140 per week.¹³³

In 1975, instead of following the previous long test methodology, the Department set the long test salary levels “slightly below” the amount suggested by adjusting the 1970 salary levels for inflation based on increases in the Consumer Price Index (CPI).¹³⁴ The long test salary level for executive and administrative employees was set at \$155, while the professional level was set at \$170. The salary levels adopted

were intended to be interim levels “pending the completion and analysis of a study by [BLS] covering a six month period in 1975[.]” and were not meant to set a precedent for future salary level increases.¹³⁵ The envisioned process was never completed, however, and the “interim” salary levels remained unchanged for the next 29 years.

The short test salary level increased in tandem with the long test level throughout the various rulemakings between 1949 and 2004. Because the short test was designed to capture only those white-collar employees whose salary was high enough to indicate a stronger likelihood of being employed in a bona fide EAP capacity and thus warrant a less stringent duties requirement, the short test salary level was always set significantly higher than the long test salary level.

When the Department updated the part 541 regulations in 2004, it opted to create a single standard test for exemption instead of retaining the two-test system from prior rulemakings. The Department set the new standard salary level at \$455 per week and paired it with a duties test that was substantially equivalent to the less rigorous short duties test. In setting the new standard salary level, the Department looked at nonhourly earnings from the CPS MORG data collected by BLS.¹³⁶ The Department set a salary level that would exclude from exemption roughly the bottom 20 percent of full-time salaried employees in each of two subpopulations: (1) the South and (2) the retail industry nationally. In setting the salary level the Department looked to earnings data for all white-collar workers—exempt and nonexempt—and looked to a higher percentile than the long test methodology (10th percentile of exempt workers in low-wage industries and areas). The Department acknowledged, however, that the salary arrived at by this method was, at the time, equivalent to the salary derived from the long test method using current data.¹³⁷

In the 2016 rule, the Department again used CPS MORG data but set the standard salary level equal to the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South),

¹²⁶ *Id.* at 6, 9.

¹²⁷ *Id.* at 6–7.

¹²⁸ *Id.* at 2–3; see Weiss Report at 8.

¹²⁹ 28 FR 7002 (July 9, 1963).

¹³⁰ *Id.* at 7004.

¹³¹ *Id.*

¹³² See 34 FR 9934, 9935 (June 24, 1969).

¹³³ 35 FR 885.

¹³⁴ 40 FR 7091.

¹³⁵ *Id.* at 7091–92.

¹³⁶ See 69 FR 22166–67.

¹³⁷ *Id.* at 22168. The 2004 methodology used the 20th percentile of a data set of all full-time salaried workers and the long test methodology looked to the lowest-paid 10 percent of exempt salaried workers. The two methodologies resulted in equivalent salary levels because exempt salaried workers generally have higher earnings than nonexempt salaried workers.

¹²² See Stein Report at 20–21, 31–32.

¹²³ Weiss Report at 8, 14.

¹²⁴ *Id.* at 22–23.

¹²⁵ Kantor Report at 2–3.

resulting in a standard salary level of \$913 per week, which was at the low end of the historic range of short test salary levels. The Department explained that the increase in the standard salary level was needed because the 2004 rule exempted lower-salaried employees performing large amounts of nonexempt work who should be covered by the overtime compensation requirement.¹³⁸ Since the standard duties test was equivalent to the short duties test, the Department asserted that a salary level in the short test salary range was necessary to address this effect of the 2004 rule. As explained earlier, the U.S. District Court for the Eastern District of Texas held the 2016 rule invalid.

In updating the standard salary level in 2019, the Department reapplied the methodology from the 2004 rule, setting the salary level equal to the 20th percentile of weekly earnings of full-time salaried workers in the South and in the retail sector nationwide.¹³⁹ This methodology addressed concerns that had been raised that the 2016 methodology excluded too many employees from the exemption based on their salary alone. Unlike in 2004, however, where the 20th percentile of weekly earnings of full-time salaried workers in the South and retail nationally was essentially the same as the long test, this methodology now produced a salary level amount that was lower than the equivalent of the long test salary level using contemporaneous data. This methodology produced the current standard salary level of \$684 per week (equivalent to \$35,568 per year).¹⁴⁰

2. Salary Level Test Function and Effects

Since 1940, the Department's regulations have consistently looked at both the duties performed by the employee and the salary paid by the employer in defining and delimiting who is a bona fide executive, administrative, or professional employee exempt from the FLSA's minimum wage and overtime protections. From 1949 to 2004, the Department determined EAP exemption status using a two-test system comprised of a long test (a lower salary level paired with a more rigorous duties test that limited performance of nonexempt work to no more than 20 percent for most employees) and a short test (a higher salary level paired with a less rigorous duties test that looked to the employee's primary duties and did

not have a numerical limit on the amount of nonexempt work). The two-test system facilitated the determination of whether white-collar workers across the income spectrum were employed in a bona fide EAP capacity, and employees who met either test could be classified as EAP exempt.

In a two-test system, the long test salary level screens from the exemption the lowest-paid white-collar employees, thereby ensuring their right to overtime compensation. The Department has often referred to many of the employees who are screened from the exemption by virtue of their earning below the lower long test salary level as "obviously nonexempt employees[.]"¹⁴¹ The long test salary level helped distinguish employees who were not employed in a bona fide EAP capacity because the Department found that employees who were screened from exemption by the long test salary level generally did not meet the other requirements for exemption.¹⁴² Since 1958, the long test salary level was generally set to exclude from exemption approximately the lowest-paid 10 percent of salaried white-collar employees who performed EAP duties in the lowest-wage regions and industries.¹⁴³ The long test salary level also served as a line delimiting the population of white-collar employees for whom the duties test determined their exemption status. In the two-test system, this duties analysis included an examination of the amount of nonexempt work performed, which ensured that employees earning lower salary levels were, in fact, employed in a bona fide EAP capacity by limiting the amount of time they could spend on nonexempt work. Thus, the Department long recognized that lower salaried workers should be subject to a test that placed significant limits on the amount of nonexempt work they perform. The duties and salary level tests worked in tandem to properly define and delimit the exemption: lower-paid workers had to satisfy a more rigorous duties test with strict limits on nonexempt work; higher paid employees were subject to a less rigorous duties test because they were more likely to satisfy all the requirements of the exemption (including the limit on nonexempt work).¹⁴⁴

¹⁴¹ See *id.* at 51237 (quoting Kantor Report at 2–3).

¹⁴² See Kantor Report at 2–3; Weiss Report at 8 ("In an overwhelming majority of cases, it has been found by careful inspection that personnel who did not meet the salary requirements would also not qualify under other sections of the regulations[.]").

¹⁴³ See 84 FR 51236.

¹⁴⁴ Weiss Report at 22–23.

Because employees who met the short test salary level were paid well above the long test salary level, the short test salary level did not perform the same function as the long salary level of screening obviously nonexempt employees. Instead, the short test salary level was used to determine whether the full duties test or the short-cut duties test would be applied to determine EAP exemption status. The exemption status of employees paid more than the long and less than the short test salary levels was determined by applying the more rigorous long duties test that ensured overtime protections for employees who performed substantial amounts of nonexempt work. The exemption status of employees paid at or above the higher short test salary level was determined by the less rigorous short duties test that looked to the employee's primary duty and did not cap the amount of nonexempt work an employee could perform. The short test thus provided a faster and more efficient duties test based on the Department's experience that employees paid at the higher short test salary level "almost invariably" met the more rigorous long duties test, including its 20 percent limit on nonexempt work, and therefore a shortened analysis of duties was a more efficient test for exemption status.¹⁴⁵

In 2004, rather than update the two-test system, the Department chose to establish a new single-test system for determining exemption status. The new single standard test for exemption used a duties test that was substantially equivalent to the less rigorous short duties test in the two-test system.¹⁴⁶ Since the creation of the standard test, the Department has taken two different approaches to set the standard salary level that pairs with the standard duties test.

In 2004, as noted above, the Department set the new salary level roughly equivalent to the 20th percentile of weekly earnings of full-time salaried workers in the South and in the retail industry nationwide.¹⁴⁷ The Department acknowledged that the salary level (\$455 per week) was, in fact, equivalent to the lower long test salary level amount under the two-test system using contemporaneous data.¹⁴⁸ Because it was equivalent to the long test salary level, the standard salary test continued to perform the same initial screening function as the long test salary level and employees who historically were entitled to overtime compensation

¹⁴⁵ *Id.*

¹⁴⁶ 69 FR 22214.

¹⁴⁷ See *id.* at 22168–69.

¹⁴⁸ See *id.*

¹³⁸ 81 FR 32405.

¹³⁹ See 84 FR 51260 (Table 4).

¹⁴⁰ *Id.* at 51238.

because they earned below the long test salary level remained nonexempt under the new standard test. Without a higher salary short test, however, all employees who met the standard salary level were subject to the same duties test. The single standard duties test was equivalent to the short duties test, and so some employees who previously did not meet the long duties test met the standard duties test. As a result, the shift from a two-test to a one-test system significantly broadened the EAP exemption because employees who historically had not been considered bona fide EAP employees—in particular, those lower-paid employees who did not meet the long duties test because they performed substantial amounts of nonexempt work—were now defined as falling within the exemption and would not be eligible for overtime compensation.

This broadening specifically impacted lower-paid, salaried white-collar employees who earned between the long and short test salary levels and performed substantial amounts of nonexempt work. Under the two-test system, these employees had been entitled to overtime compensation if their nonexempt duties exceeded the long test's strict limit on such work. Under the 2004 standard test, these employees became exempt because they met both the low standard salary level and the less rigorous standard duties test. The Department's discussion of the elimination of the long duties test in 2004 focused primarily on the minimal role played by the long test at that time due to the erosion of the long salary level, and on the difficulties employers would face if they were again required to track time spent on nonexempt work when the dormancy of the long duties test meant that they had generally not been performing such tracking for many years.¹⁴⁹ While asserting that employees who were then subject to the long test would be better protected under the higher salary level of the new standard test, the Department did not compare the protection lower salaried employees would receive under the standard test with the protection they would have received under an updated long test with a salary level based on contemporary data and the existing long duties test.

To address the concern that lower-salaried employees performing large amounts of nonexempt work historically were not considered bona fide EAP employees and thus should be entitled to overtime compensation, in 2016 the Department set the standard salary level

at the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South). This methodology produced a salary level (\$913 per week) that was at the low end of the historical range of short test salary levels.¹⁵⁰ This approach restored overtime protection for employees performing substantial amounts of nonexempt work who earned between the long and short test salary levels, as they failed the new salary level test. However, this approach generated potential concerns that the salary level test should not be determinative of exemption status for too many individuals.

Due to the 2016 rule's narrowing of the exemption, employers were unable to use the exemption for employees who earned between the long test salary level and the low end of the short test salary range and would have met the more rigorous long duties test. Prior to 2004 employers could use the long test to exempt these employees, and under the 2004 rule these employees remained exempt under the one-test system. Thus, while the 2016 rule accounted for the absence of the long duties test by restoring overtime protections to employees earning between the long test salary level and the low end of the short test salary range who perform significant amounts of nonexempt work, it also made a group of employees who had been exempt under the two-test system newly nonexempt under the one-test system: employees earning between the long test level and the short test salary range who perform only limited nonexempt work.

In its 2019 rule, the Department determined that the 2016 rule had not sufficiently considered the impact of the increased standard salary level on employers' ability to use the exemption for this group of employees.¹⁵¹ The Department emphasized that “[f]or most . . . employees the exemption should turn on an analysis of their actual functions, not their salaries,” and that the 2016 rule's effect of making nonexempt all lower-paid, white-collar employees who traditionally were exempt under the long test “deviated from the Department's longstanding policy of setting a salary level that does not ‘disqualify[] any substantial number of bona fide executive, administrative, and professional employees from exemption.”¹⁵² To address these concerns, the Department simply returned to the 2004 rule's methodology for setting the salary threshold. In

responding to comments that the proposed salary level did not account for the absence of the more rigorous long duties test, the 2019 rule reiterated the statements made in the 2004 rule and asserted that the 2016 rule did not adequately account for the absence of the lower long test salary level.¹⁵³ Applying the 2004 method to the earnings data available in 2019 produced a standard salary level of \$684 per week, which was even below the equivalent of what the long test salary level would have been using contemporaneous data (\$724 per week).¹⁵⁴

The 2019 rule thus had the same impact as the 2004 rule of exempting all employees who earned between the long and short test salary levels and who performed too much nonexempt work to meet the long duties test, but passed the short duties test. The 2019 rule also for the first time permitted the exemption of a group of low-paid white-collar employees (those earning between \$684 and \$724 per week) who had always been protected by the salary level test's initial screening function—either under the long test, or under the 2004 rule salary level that was equivalent to the long test salary level. The Department stated that the standard salary level's “fairly small difference” from the long test level did not justify using the long test methodology to set the salary level, and emphasized that its approach preserved the salary level's principal function as a tool for screening from exemption obviously nonexempt employees.¹⁵⁵ In response to commenter concerns about the rule exempting employees who traditionally earned between the long and short test salary levels and received overtime compensation because they did not meet the long duties test, the Department cited the legal risks posed by the 2016 methodology (as evidenced by the district court's decisions) and explained that such employees were already exempt in the years leading up to 2004 because the Department's outdated salary levels had rendered the long test with its more rigorous duties requirement largely dormant.¹⁵⁶ As in the 2004 rule, the Department did not address the protection lower salaried employees would have received under the long test with an updated salary level based on contemporary data.

The Department's experience with a one-test system shows that it is less nuanced than the two-test system,

¹⁵⁰ 81 FR 32405.

¹⁵¹ 84 FR 10908.

¹⁵² *Id.* (quoting Kantor Report at 5).

¹⁵³ See 84 FR 51243.

¹⁵⁴ *Id.* at 51260.

¹⁵⁵ *Id.* at 51244.

¹⁵⁶ *Id.* at 51243.

¹⁴⁹ See 69 FR 22126–27.

which allowed for finer calibration in defining and delimiting the EAP exemption. In a two-test system, there are four variables (two salary levels and two duties tests) that can be adjusted to define and delimit the exemption. In a one-test system, there are only two variables (one salary level and one duties test) that can be adjusted, necessarily yielding less nuanced results. The loss in precision does not impact the lowest-paid white-collar employees, who were screened from exemption by the long test salary level, because they maintain their right to overtime pay so long as the standard salary level is set at least equivalent to the lower long test salary level—a condition that was met by the 2004 rule's salary level but not by the 2019 rule's salary level. Instead, the Department's experience shows that the shift from a two-test system to a one-test system impacts employees earning between the long and short test salary levels and, in turn, employers' ability to use the exemption for these employees.

In the two-test system, employees who earned between the long and short test salary levels and performed large amounts of nonexempt work were protected by the long duties test, while bona fide EAP employees who performed only limited amounts of nonexempt work in that earnings range were exempt. Meanwhile, the short test provided a time-saving short-cut test for higher-earning employees who would almost invariably pass the more rigorous, and thus more time consuming, long duties test. But the more rigorous long duties test, with its limitation on the amount of nonexempt work that could be performed, was always core to the two-test system, with the higher short test salary level and less rigorous short duties test serving as a time-saving mechanism for employees who would likely have met the more rigorous long duties test.

Upon reflection and based on its rulemakings over the past 20 years, the Department has determined that a one-test system that uses the standard duties test, without its limitations on the amount of nonexempt work, must use a salary level above the long test salary level in order to ensure that it is effectively identifying bona fide EAP employees. A single test system cannot fully replicate both the two-test system's heightened protection for employees performing substantial amounts of nonexempt work and its increased efficiency for determining exemption status for employees who are highly likely to perform EAP duties. One way in a one-test system to protect lower-salaried employees earning between the

long and short test salary levels who were historically entitled to overtime compensation under the long test would be to reinstate the long duties test with its limitation on nonexempt work. A one-test system with a more rigorous duties test would appropriately emphasize the important role of duties in determining exemption status. However, for the reasons discussed in this section, the Department is not proposing in this rulemaking to replace the standard duties test with the long duties test or to return to a two-test system with the long duties test. The Department has not had a one-test system with a limit on nonexempt work other than from 1940 to 1949,¹⁵⁷ when the Department replaced this approach with its two-test system, and returning to it would eliminate the benefits of the current duties test, including having a single test with which employers and employees are familiar.

In light of these considerations, the Department's goal in this rulemaking is not only to update the single standard salary level to account for earnings growth since the 2019 rule, but also to build on the lessons learned in its most recent rulemakings to more effectively define and delimit employees working in a bona fide EAP capacity. Consistent with its broad authority under section 13(a)(1), the Department is proposing a single salary level test that will work effectively with the standard duties test to better define who is employed in a bona fide EAP capacity and will both perform the initial screening function that the salary level has always played and also adjust the salary level to account for the change to a single test system.

3. Salary Level Methodology

The Department's extensive regulatory history shows that the two-test system for defining the EAP exemption is an effective method of determining the exemption status of white-collar employees at both lower and higher salary levels. With this system, the salary and duties components of each test balance each other and the two tests work in combination to efficiently identify exempt employees while protecting employees who should receive overtime compensation. Although the two-test system's effectiveness diminished in its later years, this was a consequence of the Department's failure to update the salary level tests after 1975, not a flaw with the two-test structure itself. Not updating the salary levels in a two-test system is particularly problematic

because the real value of the higher short test salary level will inevitably decrease, expanding the exemption to lower-paid white-collar employees who previously were not considered bona fide EAP employees because they did not meet the long duties test and earned below the short test salary level, and rendering the lower long test salary level, with its more rigorous duties requirements, less effective in differentiating between exempt and nonexempt employees.

The Department has considered returning to the two-test system as a way to define and delimit the EAP exemption without incurring the precision-related challenges inherent in a one-test system. However, the Department believes that a one-test system, with a single duties test, benefits both employers and employees in terms of the increased efficiency and simplicity in application. As the Department explained in 2004, a two-test system, with the more rigorous long duties test determining exemption status for many employees, would make exemption status determinations more complex and less efficient than retaining a single-test system with the existing duties test.¹⁵⁸ The Department also continues to be mindful of the post-1991 regulatory landscape, which remains highly relevant given that the two-test system effectively became a one-test system in 1991 when the Federal minimum wage equaled or surpassed the long test salary levels.¹⁵⁹

The Department has also considered whether to propose changing the standard duties test in this rulemaking. A test requiring closer scrutiny of employee duties would be consistent with the statutory text, and a credible way to define the exemption.¹⁶⁰ Indeed, a more rigorous duties test, which limited the amount of nonexempt work—the long duties test—was traditionally the core of the EAP exemption in the two-test system. Experience under the two-test system shows that a more rigorous duties test helps to ensure that exempt employees are in fact performing EAP duties and

¹⁵⁸ See 69 FR 22126–27; see also 81 FR 32444–45 (discussing widespread employer and employee stakeholder opposition to reinstating a two-test system).

¹⁵⁹ 84 FR 51243.

¹⁶⁰ See 81 FR 32446 (“The Department continues to believe that, at some point, a disproportionate amount of time spent on nonexempt duties may call into question whether an employee is, in fact, a bona fide EAP employee.”); see also Stein Report at 17 (noting that “it would be inconsistent with the purposes of the [FLSA]” to exempt employees like working foremen). In the 2004 rule, the Department explained that eliminating the salary level test entirely would require significant changes to the duties test. See 69 FR 22172.

¹⁵⁷ See 5 FR 4077.

are therefore employed in a bona fide EAP capacity.¹⁶¹ In this respect, the duties test allows for finer calibration than the salary level test when determining who is employed in a bona fide EAP capacity, with a rigorous duties test that limits the amount of nonexempt work that can be performed ensuring that employees are actually performing EAP work and not simply performing nonexempt work without receiving overtime compensation. Were the Department to lessen the salary level test's role by adopting a more rigorous duties test, the number of employees who are nonexempt based on their salary alone would decrease, helping alleviate concerns about the salary level "supplanting an analysis of an employee's job duties" in too many instances.¹⁶² The Department could, for instance, return to a duties test that explicitly limited the amount of nonexempt work that could be performed. As discussed above, a limitation on nonexempt work was an integral part of the long duties test that was, for a long time, a critical component of the test for EAP exemption.

The Department has ultimately decided, however, not to propose any changes to the duties test, consistent with its decisions in the 2016 and 2019 rules. This decision was also informed by the Department's experience when it established the single-test system in 2004. In that rulemaking, the Department initially considered substantive changes to the duties test,¹⁶³ but ultimately declined to go through with most of the proposed changes, stating that the final standard duties test was substantially the same as the short duties test.¹⁶⁴ The Department also considered changing the duties test in both the 2016 and 2019 rulemakings,

¹⁶¹ The importance of a rigorous duties test was illustrated by the Department's *Burger King* litigation in the early 1980s, when the short and long tests were still actively in use. The Department brought two actions arguing that Burger King assistant managers were entitled to overtime protection. *Sec'y of Labor v. Burger King Corp.*, 675 F.2d 516 (2d Cir. 1982); *Sec'y of Labor v. Burger King Corp.*, 672 F.2d 221 (1st Cir. 1982). One group of assistant managers satisfied the higher short test salary level and was therefore subject to the less rigorous short duties test; the other group was paid less and was therefore subject to the long duties test with its limit on nonexempt work. Both appellate courts found that the higher paid employees were not overtime protected—even though they performed substantial amounts of nonexempt work—because they satisfied the short duties test. The lower-paid employees, however, were not exempt and therefore entitled to overtime compensation because they did not meet the more rigorous long duties test.

¹⁶² 275 F. Supp. 3d at 806.

¹⁶³ See 68 FR 15564–68.

¹⁶⁴ 69 FR 22126, 22192–94.

but ultimately chose not to propose any such changes.¹⁶⁵

At this time, the Department favors keeping the current duties test and concludes that, paired with an appropriate salary level requirement, the test can appropriately distinguish bona fide EAP employees from nonexempt workers. While comments received in previous rulemakings and during listening sessions show that the standard duties test is not universally popular, it is well known to employers, employees, and the courts, making it easier and more efficient for employers to implement and for workers to understand. Substantive changes to the duties test are a possible way to revise the regulatory test but they would take more time for employers and employees to adjust to than an increase in the salary level, requiring employers to reassess their current exemption determinations.

i. Fully Restoring the Salary Level's Screening Function

To determine the appropriate salary level, the Department first considers whether the present methodology adequately performs the historical screening function of the long test salary level and next, the extent to which the salary level must be increased above the long test salary level to account for the switch to a one-test system in 2004.

The Department first focused on the salary level's historic function of screening obviously nonexempt employees from the exemption, a "principle [that] has been at the heart of the Department's interpretation of the EAP exemption for over 75 years."¹⁶⁶ Under the two-test system, the lower long test salary level provided "a ready method of screening out the obviously nonexempt employees, making an analysis of duties in such cases unnecessary."¹⁶⁷ When the Department updated the long test in 1958, it reaffirmed the long test salary's function as a screening tool.¹⁶⁸

When the Department moved to a one-test system, the standard salary test had to perform the initial screening function that the long test salary level performed in the two-test system. In the 2004 rule, the Department reaffirmed its historical statements emphasizing the salary level's critical screening function.¹⁶⁹ Most significantly, the Department used the long test

¹⁶⁵ 84 FR 10904; 82 FR 34618 (July 26, 2017); 80 FR 38543 (July 6, 2015).

¹⁶⁶ See 84 FR 51241.

¹⁶⁷ Weiss Report at 8.

¹⁶⁸ Kantor Report at 2–3.

¹⁶⁹ 69 FR 22165.

methodology to validate its new salary level of \$455 per week. Even though the 2004 rule made certain changes from that methodology (most significantly, setting the salary level equivalent to the "lowest 20% of all salaried employees" instead of the "lowest 10% of exempt salaried employees"), the Department stressed that both "approaches are capable of reaching exactly the same endpoint" and demonstrated that the new method and the long test method produced equivalent salary levels at the time.¹⁷⁰ By setting a salary level equivalent to the long test level, the Department ensured that employees earning at levels whereby they were entitled to overtime compensation under the two-test system because they earned below the long test salary level remained screened from the exemption by the new standard salary test, regardless of whether they met the less rigorous standard duties test. In the 2004 rule, the Department rejected requests from commenters who supported a salary level that was \$30 to \$95 lower than the level the Department ultimately adopted,¹⁷¹ thus maintaining the historic screening function by declining to set a salary level lower than the long test level.

In its 2019 rule, the Department reemphasized the salary level's screening function.¹⁷² The Department distinguished the 2016 rule, which the Department explained was invalidated because it "untethered the salary level test from its historical justification" of "[s]etting a dividing line between nonexempt and potentially exempt employees" by screening out only those employees who, based on their compensation level, are unlikely to be bona fide executive, administrative, or professional employees."¹⁷³ In contrast, the Department explained, reapplying the 2004 methodology to current data was likely to pass muster because the district court that invalidated the 2016 rule "endorsed the Department's historical approach to setting the salary level" and "explained that setting 'the minimum salary level as a floor to screen[] out the obviously nonexempt

¹⁷⁰ See *id.* at 22167–71 (showing that for all full-time salaried employees, \$455 in weekly earnings corresponded to just over the 20th percentile in the South and the 20th percentile in retail, and that for employees performing EAP duties, \$455 in weekly earnings corresponded to just over the 8th percentile in the South and the 10th percentile in retail).

¹⁷¹ See *id.* at 22164.

¹⁷² 84 FR 51237 (internal quotation marks omitted).

¹⁷³ *Id.* at 51231 (quoting 84 FR 10901).

employees' is 'consistent with Congress's intent.'"¹⁷⁴

The Department's position remains that a core function of the salary level test is to screen from the EAP exemption employees who, based on their low pay, should receive the FLSA's overtime protections. For decades under the Department's two-test system, the long test salary level performed this screening function. In the 2004 rule, the Department used a different approach—setting a single salary level test that was equivalent to, and thus set the same line of demarcation as, the long test salary level (although it combined that salary level with a duties test that was equivalent to the less rigorous short duties test). The Department deviated from this approach in 2019, setting a salary level that was \$40 per week below the level produced using the long test methodology.¹⁷⁵ In doing so, the Department for the first time expanded the exemption to include employees who were paid below the long test salary level. As an initial step, the proposed salary level methodology must fully restore the salary level's screening function by ensuring that employees who were nonexempt because they earned less than the long test salary are also nonexempt under the standard test. Simply restoring the historic screening function would require a standard salary level amount that is at least equal to the long test level (which is \$925 per week using current data). Such a salary level would not, however, account for the shift to a one-test system in 2004.

Increasing the standard salary level to at least the long test level would ensure that the salary level, at a minimum, performs the historical screening function it would have performed in a two-test system. From 1938 to 2019, all salaried white-collar employees paid below the long test salary level were entitled to the FLSA's protections, regardless of the duties they performed. This was true from 1938 to 1949 under the salary level test that became the long test,¹⁷⁶ from 1949 to 2004 under the long test, and from 2004 to 2019 under the standard salary level test that was set equivalent to the long test level. Setting the salary level below the long test level as was done in the 2019 rule—because the 2004 methodology no longer matched the long test salary level based on contemporaneous data—departed from this history by enlarging the exemption to newly include

employees who earned less than the long test salary level.

In the 2019 rule, the Department expressly declined to use the long test methodology to set the salary level test.¹⁷⁷ Because the Department is not using the long test methodology to set the salary level in this proposal, but is instead using it to inform its selection of a new salary level methodology, the concerns expressed by the Department in 2019 do not apply. The Department was in part worried that the long test method is "complex to model and thus is less accessible and transparent."¹⁷⁸ This concern does not arise here because the Department's proposed methodology uses a publicly available data set of all full-time nonhourly workers in the South to set the salary level, as opposed to the long test methodology data set (which only included exempt workers).¹⁷⁹ In 2019, the Department also expressed concern that the long test methodology presents a "circularity problem" because this approach "would determine the population of exempt salaried employees, while being determined by the make-up of that population."¹⁸⁰ This concern is similarly not implicated here because, consistent with its practice since 2004, the Department is setting the salary level using a data set of all full-time nonhourly workers, not just exempt workers.

ii. Selecting the Proposed Salary Level Methodology

Section 13(a)(1)'s broad grant of statutory authority for the Department to define and delimit the EAP exemption provides the Department a degree of latitude in determining an appropriate salary level for identifying individuals who are employed in a bona fide EAP capacity. The Department believes that the long and short test salary levels provide useful parameters informed by its historical rulemaking for determining how to update the salary level test in this rulemaking. As previously discussed, the long and short test salary levels have served as the foundation for nearly all of the Department's prior

rulemakings, either directly under the two-test system, or indirectly as a means of evaluating the Department's salary level methodology under a one-test system. Based on 2022 data, applying the long test methodology produces a salary level of \$925 per week (\$48,100 per year) and the short test methodology produces a salary level of \$1,378 per week (\$71,656 per year).

The long and short test salary levels reflected longstanding understandings of how an individual's salary level informs the question of whether an individual is employed in a bona fide EAP capacity. As noted above, the long test salary level helped distinguish employees who were not employed in a bona fide EAP capacity and the Department found that employees who were screened from exemption by the long test salary level generally did not meet the other requirements for exemption.¹⁸¹ The justification for the short test, on the other hand, was that employees who met the higher salary level were more likely to meet all the requirements of the exemption (including the long test's 20 percent limit on nonexempt work).¹⁸² Moreover, because the Department's rulemakings since 2004 have, to varying extents, used the long and short tests as guideposts for setting the salary level in a one-test system, maintaining the same orientation in this rulemaking would enable the Department to calibrate its methodology to better define and delimit bona fide EAP employees, and evaluate how it impacts employees who historically have been entitled to overtime compensation and the ability of employers to use the exemption to exclude from overtime protection employees who have historically been exempt.

In its almost 20 years of experience with the one-test system, the Department has never set a standard salary level that falls between the long test salary level and the short test range. As explained more fully above, the Department set the standard salary at (or below) the long test salary level in the 2004 and 2019 rules and set it at the low end of the historic range of short test salary levels in the 2016 rule. Setting the salary level at either the long test salary level or equivalent to a short test salary level in a one-test system with the standard duties test, however, results in either denying overtime protection to lower-paid employees who are performing large amounts of nonexempt work, and thus, were exempt under the Department's historical view of the EAP

¹⁷⁷ 84 FR 51244, 51260.

¹⁷⁸ *Id.* at 51244.

¹⁷⁹ For the same reason, the Department's approach does not implicate concerns that applying the long test method "requires 'uncertain assumptions'" to compile a dataset set that represents exempt EAP employees. *Id.* (quoting 69 FR 22167). Moreover, while it is true that the Department must apply its probability codes to determine the group of salaried employees who pass the duties test, the Department has consistently applied these codes since the 2004 rule. See generally section VII.B.5 (discussing probability codes).

¹⁸⁰ 84 FR 51244 (quoting 69 FR 22167).

¹⁸¹ See Kantor Report at 2–3.

¹⁸² Weiss Report at 22–23.

¹⁷⁴ *Id.* at 51241 (quoting 275 F. Supp.3d at 806).

¹⁷⁵ *Id.* at 51244.

¹⁷⁶ During this period the Department used a one-test system that paired a lower salary level with a more rigorous duties test. See, e.g., 5 FR 4077.

exemption, or in raising concerns that the salary level is determining the status of too many employees. An appropriately calibrated salary level between the long and short test salary levels would better define and delimit which employees are employed in a bona fide EAP capacity, and thus better fulfill the Department's duty to define and delimit the EAP exemption.

Traditionally, the Department considered employees earning between the long and short test salary levels to be employed in a bona fide EAP capacity only if they were not performing substantial amounts of nonexempt work. With the adoption of a duties test based on the less rigorous short duties test, the shift to a single-test system eliminated the inquiry into the amount of nonexempt work employees performed. Following this shift, the Department has taken two approaches to setting the salary level to pair with the standard duties test. The approach taken in the 2004 rule permitted the exemption of all employees earning above the long test salary level who met the standard duties test—including many employees who performed substantial amounts of nonexempt work and were protected by the long duties test. The approach taken in the 2016 rule was challenged and criticized as making nonexempt employees earning between the long test salary level and the low end of the short test salary range—including some employees who may have performed very little nonexempt work and would have been exempt under the long test. Inevitably, any attempt to pair a single salary level with the current duties test will result in some employees who perform substantial amounts of nonexempt work being exempt, and some employees who perform almost exclusively exempt work being nonexempt.¹⁸³ But such a result is inherent in setting any salary level in a one test system—some employees will have EAP status turn on salary level. The proposed salary level would better identify which employees are employed in a bona fide EAP capacity—particularly by restoring overtime eligibility for individuals who perform substantial amounts of nonexempt work and historically would have been protected by the long duties test—while at the same time addressing potential concerns that the salary level test should not be determinative of

¹⁸³ See Stein Report at 6 (“In some instances the rate selected will inevitably deny exemption to a few employees who might not unreasonably be exempted, but, conversely, in other instances it will undoubtedly permit the exemption of some persons who should properly be entitled to benefits of the act.”).

exemption status for too many individuals.¹⁸⁴

In setting the salary level, the Department continues to believe that it is important to use a methodology that is transparent and easily understood. As in its prior rulemakings, the Department proposes to set the salary level using a lower-salary regional data set (as opposed to nationwide data) to accommodate businesses for which salaries generally are lower due to geographic or industry-specific reasons.¹⁸⁵ Specifically, the Department proposes to set the salary level using the data set of full-time nonhourly¹⁸⁶ workers in the lowest-wage Census Region (the South). Like the Department's 2004, 2016, and 2019 rules, this approach would promote transparency because BLS routinely compiles this data. It would also promote regulatory simplification because the data set is not limited to exempt EAP employees and thus does not require the Department to model which employees pass the duties test.¹⁸⁷

For similar reasons, the Department is not proposing to add nationwide earnings data from specific industries (such as retail) to the CPS earnings data from the lowest-wage Census Region. The Department's 2019 rule included such data to faithfully replicate the 2004 methodology which considered earnings of full-time nonhourly workers in the lowest-wage Census Region and the retail industry nationally.¹⁸⁸ The Department's approach nonetheless would yield a salary level that would be appropriate in low-wage industries because using earnings data from the lowest-wage Census Region would capture differences across regional labor markets without attempting to adjust to specific industry conditions.¹⁸⁹

Based on 2022 data, applying the long test methodology produces a salary level of \$925 per week (\$48,100 per year),

¹⁸⁴ The Department has repeatedly recognized that increasing salary level tends to correlate with the performance of bona fide EAP duties. See section IV.A.2 (discussing role of long test and short test salary levels); section IV.C (discussing the role of the HCE total annual compensation threshold). Thus, increasing overtime protection specifically for workers earning at the lower end of the range between the long test salary level and short test salary level—but not those earning at the higher end of that range—is an especially appropriate approach to balancing these concerns.

¹⁸⁵ See 84 FR 51238; 81 FR 32404.

¹⁸⁶ Consistent with recent rulemakings, in determining earnings percentiles the Department looked at nonhourly earnings for full-time workers from the CPS MORG data collected by BLS.

¹⁸⁷ As discussed in the economic analysis, see section VII.B.5, this modeling is done using the Department's probability codes. See 84 FR 51244; 69 FR 22167.

¹⁸⁸ See 84 FR 51244 (citing 69 FR 22167).

¹⁸⁹ See 81 FR 32410.

which equates to between the 26th and 27th percentiles of weekly earnings of full-time, nonhourly workers in the lowest-wage Census Region (the South).¹⁹⁰ This figure provides what the Department believes should be the lowest boundary of a salary level methodology because it would at least restore the historical screening function that had operated under a two-test system.

The Department is not proposing to set the salary level equivalent to the long test level in part because doing so would perpetuate the problem that has become evident under the 2004 and 2019 rules: that setting the single salary level no higher than the long test level enables employers to exempt employees who were traditionally not considered bona fide EAP employees because they performed substantial amounts of nonexempt work and did not meet the long duties test under the two-test system. Like these earlier rules, this approach would impact white-collar employees earning between the long and short test salary levels who perform substantial amounts of nonexempt work—and thus were entitled to overtime protection under the two-test system—but meet the less rigorous standard duties test.

As discussed above, the Department could address this issue by changing the duties test to reinstate the long test's limit on nonexempt work. Doing so would restore the relationship between the salary level and duties tests that existed under the two-test system whereby the Department paired a lower salary level with a more rigorous duties test. Paired with a long test-equivalent salary level, a stronger duties test would ensure that lower-paid employees who perform large amounts of nonexempt work receive overtime protection, while permitting employers to continue using the exemption for lower-paid employees performing EAP duties. However, for the reasons previously discussed, the Department proposes to restore the relationship between the salary level and duties test by keeping the duties test unchanged at this time and instead increasing the salary level moderately above the long test level. This increase in the salary level is necessary for the Department to effectively fulfill its role of defining and delimiting the EAP exemption because, without it, the employees who were not considered bona fide EAPs historically—those earnings between the long and short test

¹⁹⁰ The 26th percentile in this data set corresponds to a salary level of \$918 per week and the 27th percentile corresponds to a salary level of \$933 per week.

salary levels who did not meet the historical long duties test—would remain exempt from overtime. In other words, the Department's proposed salary level methodology will better help limit the exemption of lower-paid employees who historically were not considered bona fide EAP employees because they perform substantial amounts of nonexempt work, but who are not receiving overtime protection under the one-test system.

Although the “regulations cannot have the precision of a mathematical formula[.]”¹⁹¹ with only two variables to adjust in a one-test system, and with the Department deciding to leave one of those variables (the duties test) unchanged in this rulemaking, the Department wanted to look more precisely at methods for updating the salary level test. The Department has therefore looked to employee earnings ventiles rather than only deciles as it has historically done.¹⁹² The earnings ventiles between the long test salary level (approximately the 26th or 27th percentile) and short test salary level (approximately the 53rd percentile) are the 30th, 35th, 40th, 45th, and 50th percentiles of weekly earnings of full-time salaried workers in the lowest-wage Census Region. The Department examined these earnings ventiles with the goal of more effectively defining and delimiting the exemption while maintaining the one-test system.

Setting the salary level at the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region would reduce the impact of a one-test system on lower-paid white-collar employees who perform significant amounts of nonexempt work. This percentile is midway between the 30th and 50th percentiles and would produce a salary level (\$1,145 per week) that is roughly the midpoint between the long and short test salary levels. Of the approximately 10.3 million salaried white-collar employees who earn between the long and short test salary levels, approximately 47 percent earn between the long test salary level and

\$1,145 and would receive overtime protection by virtue of their salary, while approximately 53 percent earn between \$1,145 and the short test salary level and would have their exemption status turn on whether they meet the duties test.

The Department remains concerned, however, that courts could find this approach makes the salary level test determinative of overtime eligibility for too many employees (*i.e.*, 47 percent of those earning between the long and short test levels). Setting the salary level equal to the 45th or 50th percentile of weekly earnings would further amplify this concern. In contrast, setting the salary level based on a lower percentile of earnings will (compared to such higher levels) increase the number of employees for whom duties is determinative of exemption status, and in turn the ability of employers to use the exemption for more lower-paid employees who meet the EAP duties requirements. This outcome is consistent with the important role of the duties test in identifying bona fide EAP employees and recognizes that the 2016 rule (which set the salary level equal to the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region) was held invalid by the U.S. District Court for the Eastern District of Texas for making too many employees eligible for overtime based on salary alone.¹⁹³

The Department is also responding to concerns that setting the salary level equal to the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region would foreclose employers from exempting any white-collar employees who earn less than \$1,145 per week and perform EAP duties, including those who were exempt under the long test and remained exempt when the Department established the one-test system in 2004 and set the salary level equivalent to the long test level.¹⁹⁴ Litigants challenging the 2016 rule also emphasized this consequence of setting a salary level above the long test in a one-test system, and those arguments have contributed to the Department more fully attempting to account for the impact of the shift from a two-test to a one-test system on the scope of the exemption. Although some stakeholders have urged the Department to follow the methodology from the 2016 rule or set an even higher threshold, the Department has chosen a salary level that is appreciably lower than the midpoint between the short and long test salary levels—an approach

that it believes is an appropriate method for identifying bona fide EAP employees. This approach would also reasonably balance the goal of ensuring that employees earning above the long test salary level but performing substantial amounts of nonexempt work are not exempt with the goal of enabling employers to use the exemption for employees who do not perform substantial amounts of nonexempt work.

The Department also examined the 30th and 35th percentiles of weekly earnings of full-time salaried workers in the lowest-wage Census Region. The Department did not consider setting the salary level at the 25th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (\$901 per week or \$46,852 per year) because it is lower than the long test salary level (\$925 per week or \$48,100 per year, which is approximately the 26th or 27th percentile). Setting the standard salary level at the 30th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region would result in a salary level of \$975 per week (\$50,700 per year). This salary level is roughly the midpoint between the 2004 methodology (the 20th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census region and in retail nationally, currently \$822 per week or \$42,744 per year), and the 2016 methodology (the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region, currently \$1,145 per week or \$59,540 per year). While setting the salary level equal to the 30th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region would produce a salary level that is above the long test salary level, it is very close to the long test salary level, and the Department is concerned it would not sufficiently address the problem inherent in the 2004 methodology of including in the exemption employees who perform significant amounts of nonexempt work, including those earning salaries closer to the long test salary level, and historically were not considered bona fide EAP employees under the two-test system. Additionally, only 11 percent of white-collar employees who earn between the long and short test salary levels earn below the 30th percentile. As noted above, the Department believes that the standard salary must fulfill the historical screening function of the long test salary level and account for the shift to a one-test system, and the

¹⁹¹ Weiss Report at 9.

¹⁹² Historically, the Department set the long test salary level to exclude from exemption approximately the lowest-paid 10 percent of exempt salaried employees in the lowest-wage regions and industries. In 2004 and 2019, the Department set the standard salary level test equivalent to the 20th percentile of weekly earnings of full-time salaried workers in the South Census Region and in the retail industry nationally. In the 2016 rule, the Department set the salary level equal to the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (the South). See 84 FR 51236–37 (describing prior methodologies).

¹⁹³ See *Nevada*, 275 F.Supp.3d at 806–07.

¹⁹⁴ See 84 FR 51242.

Department is concerned that this salary level would not fulfill both objectives.

After careful consideration, the Department concludes that setting the salary level equal to the 35th percentile—which produces a salary level of \$1,059 per week—will effectively define and delimit the scope of the EAP exemption. Consistent with the Department’s responsibility to “not only . . . determin[e] which employees are entitled to the exemption, but also [to] draw[] the line beyond which the exemption is not applicable[.]”¹⁹⁵ the Department’s proposed standard salary level will, in combination with the standard duties test, effectively calibrate the scope of the exemption to ensure the exemption of bona fide EAP employees, and do so in a way that distributes across the population of white-collar employees earning between the long and short test salary levels the impact of the shift to a one-test system.

The Department stated in the 2019 rule that the primary and modest purpose of the salary level is to identify potentially exempt employees by screening out obviously nonexempt employees.¹⁹⁶ While this initial screening function is the primary effect of the salary level, as noted above, each update to the salary level has also had a secondary effect: it defines the group of white-collar employees for whom the duties test is determinative of their exemption status. Setting the salary level equal to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region produces a salary level high enough above the long test level to ensure overtime protection for some lower-paid employees who were traditionally entitled to overtime compensation under the two-test system by virtue of their performing large amounts of nonexempt work. The salary level is also low enough, as compared with higher salary levels, to significantly shrink the group of employees performing EAP duties who are excluded from the exemption by virtue of their salary alone. Of the 10.3 million salaried white-collar employees earning between the equivalent of the long and short test salary levels, approximately 31 percent earn between \$925 (the equivalent of the long test salary level) and \$1,059 (the proposed salary level) and would receive overtime protection by virtue of their salary, while approximately 69 percent earn between \$1,059 and \$1,378 (the equivalent of the short test salary level) and would have their exemption status

turn on whether they meet the duties test.

Comparing the impact of the new salary level on white-collar employees earning between the long and short test salary levels and their employers reinforces the reasonableness of the Department’s proposed salary level. Whereas the 2004 and 2019 rules permitted the exemption of such employees even if they performed significant amounts of nonexempt work, and the 2016 rule prevented employers from using the exemption for such employees earnings below the short test salary range even if they performed EAP duties, the proposed methodology falls between these two methodologies and therefore reasonably balances the effect of the switch to a one-test system in a way that better differentiates between those who are and are not employed in a bona fide EAP capacity. Even though the Department’s decision to select a salary level below the midpoint between the long and short tests means that the effect of the salary level on these employees and employers is not equal, a higher salary level could disrupt reliance interests of employers who (due in part to the Department’s failure to update the salary level tests between 1975 and 2004), have been able to use a lower salary level and more lenient duties test to determine exemption status since 1991. However, a significantly lower salary level akin to the long test salary level would avoid disrupting such reliance interests only by continuing to place the burden of the move to a one-test system entirely on employees who historically were entitled to the FLSA’s overtime protections because they perform substantial amounts of nonexempt work. The Department believes that employer reliance interests should inform where the salary level is set between the long and short test levels, and that its approach strikes a workable equilibrium that reasonably balances, between employees’ right to receive overtime compensation and employers’ ability to use the exemption, the impact of a one-test system.

Such reasonable balancing is fully in line with the Department’s authority under the FLSA to “mak[e] certain by specific definition and delimitation” the “general phrases” “bona fide executive, administrative, and professional employee.”¹⁹⁷ This grant of authority confers discretion upon the Department to reasonably determine the boundaries of these general categories; any such line-drawing, as courts have recognized, will “necessarily” leave out some

employees “who might fall within” these categories.¹⁹⁸

The Department recognizes that it stated in its 2016 rule that the current duties test could not be effectively paired with a salary level below the short test salary range, and for this reason expressly rejected setting the salary level at the 35th percentile of weekly earnings of full-time salaried workers in the South.¹⁹⁹ But that rule, which would have prevented employers from using the EAP exemption for some employees who were considered exempt under the prior two-test system, was challenged in court, and a return to it would result in significant legal uncertainty for both workers and the regulated community. In the 2019 rule, the Department expressly rejected setting the salary level equal to the long test or higher.²⁰⁰ However, as noted above, the Department did not fully address in that rule the implications of the switch from a two-test to a single-test system. Having now grappled with those implications, particularly in light of the Department’s experience in the litigation challenging its 2016 rule, the Department has concluded that not only can it pair the current duties test with a salary between the long and short test salary levels, but that doing so appropriately recalibrates the salary level in a one-test system to ensure that it effectively identifies bona fide EAP employees.

The Department is not proposing any changes to how bonuses are counted toward the salary level requirement. Consistent with the current regulations, if the salary level is finalized as proposed, employers could satisfy up to 10 percent of the salary level (\$105.90 per week under this proposed rule) through the payment of nondiscretionary bonuses and incentive pay (including commissions) paid annually or more frequently.²⁰¹

4. Assessing the Impact of the Proposed Salary Level

As stated above, the Department believes that the salary level test should fulfill a “useful, but limited, role” in defining and delimiting the EAP exemption.²⁰² In proposing to update the standard salary level, the Department seeks to: preserve the primary role of an analysis of employee duties in determining EAP exemption status, fully restore the initial screening function of the salary level, and more

¹⁹⁵ Stein Report at 2.

¹⁹⁶ 84 FR 51238.

¹⁹⁷ *Walling*, 140 F.2d at 831.

¹⁹⁸ *Id.*

¹⁹⁹ 81 FR 32410.

²⁰⁰ *See* 84 FR 51244.

²⁰¹ § 541.602(a)(3).

²⁰² 84 FR 51238.

effectively identify in a one-test system who is employed in a bona fide EAP capacity in a manner that reasonably distributes among employees earning between the long and short test salary levels and their employers the impact of the Department’s move from a two-test to a one-test system. A closer look at the expected impact of the proposed salary level shows that it meets these objectives.

The Department intentionally chose a salary level methodology that, if finalized, would ensure that the EAP exemption status of the great majority of white-collar employees would continue to depend on their duties. To evaluate whether the proposed methodology meets this objective, the Department first considered its effect on the population of all salaried white-collar employees—the universe of employees who could potentially be impacted by a change in the standard salary level. This analysis confirmed that the number of white-collar employees who would be

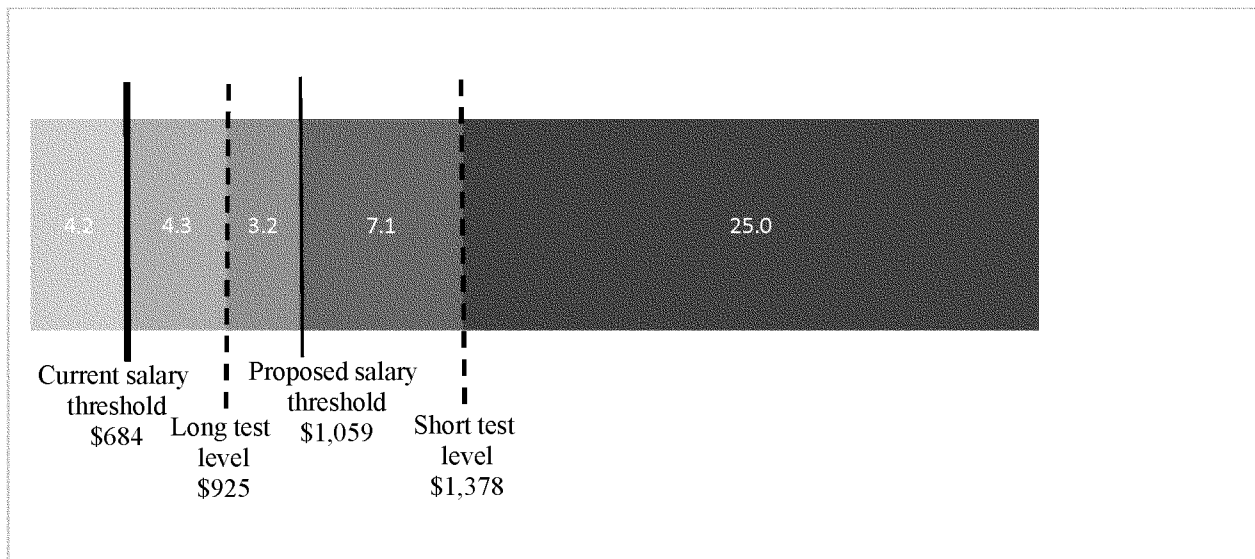
excluded from the EAP exemption as a result of the Department’s proposed standard salary level is greatly exceeded by the far-larger population of white-collar employees for whom duties would continue to determine their exemption status.

As illustrated in Figure A below, of the approximately 43.8 million salaried white-collar employees in the United States subject to the FLSA,²⁰³ about 11.7 million earn below the Department’s proposed standard salary level of \$1,059 per week and about 32.1 million earn above the Department’s proposed salary level.²⁰⁴ Thus, approximately 27 percent of salaried white-collar employees (most of whom, as discussed below, do not perform EAP duties) earn below the proposed salary level, whereas approximately 73 percent of salaried white-collar employees earn above the salary level and would have their exemption status turn on their job duties.²⁰⁵

Scrutinizing these figures more closely reinforces the continued

importance of the duties test under the Department’s proposal. Of the approximately 11.7 million salaried white-collar employees who earn below the Department’s proposed standard salary level of \$1,059 per week, about 8.5 million earn below the long test salary level of \$925 per week. As explained above, with the exception of the 2019 rule, when the Department set the salary level slightly lower, the Department has always set salary levels that screened from exemption employees earning below the long test salary level. The number of salaried white-collar employees for whom salary would be determinative of their nonexempt status and who earn at least the long test salary level—3.2 million—is nearly ten times smaller than the number of salaried white-collar employees for whom job duties would continue to be determinative of their exemption status because they earn at least the proposed standard salary level—32.1 million.²⁰⁶

Figure A: Distribution of Salaried White-Collar Employees by Weekly Earnings



Note: Numbers are in millions of employees.

Note: The long test level is the salary threshold that, based on current data, would exclude the lowest-paid 10 percent of exempt EAP employees in low-wage industries and areas. The short test level is equal to 149 percent of the long test level. The 149 percent ratio is the simple average of the fifteen historical ratios of the short test salary level to the long test salary level.

²⁰³ Excluded from this number are workers in named occupations and those exempt under another non-EAP overtime exemption. The exemption status of these groups will not be impacted by a change in the standard salary level.

²⁰⁴ As discussed further below, *see, e.g.*, section VII.B.5, the Department used data representing compensation paid to nonhourly white-collar

workers to estimate compensation paid to salaried white-collar employees.

²⁰⁵ Even this estimate is conservative, as it excludes 8.1 million white-collar employees employed as teachers, attorneys, and physicians, for whom there is no salary level requirement under the part 541 regulations and whose exemption status is therefore always determined by their duties. If these employees in “named occupations”

are included, the percentage of white-collar employees for whom exemption status would depend on duties, rather than salary, increases to 77 percent. *See* §§ 541.303–304.

²⁰⁶ As noted above, *see supra* note 205, these figures do not include the additional 8.1 million white-collar employees in occupations for which there is no salary level requirement and so duties is always determinative of exemption status.

In analyzing how the Department’s proposed salary level would impact all salaried white-collar employees, the Department also considered the extent to which salaried white-collar employees across the income distribution perform EAP duties. As noted above, the salary level has historically served as “a helpful indicator of the capacity in which an employee is employed, especially among lower-paid employees;”²⁰⁷ however, it should not eclipse the duties test.²⁰⁸ The Department’s proposed standard salary level meets this standard because, according to probability codes the Department has

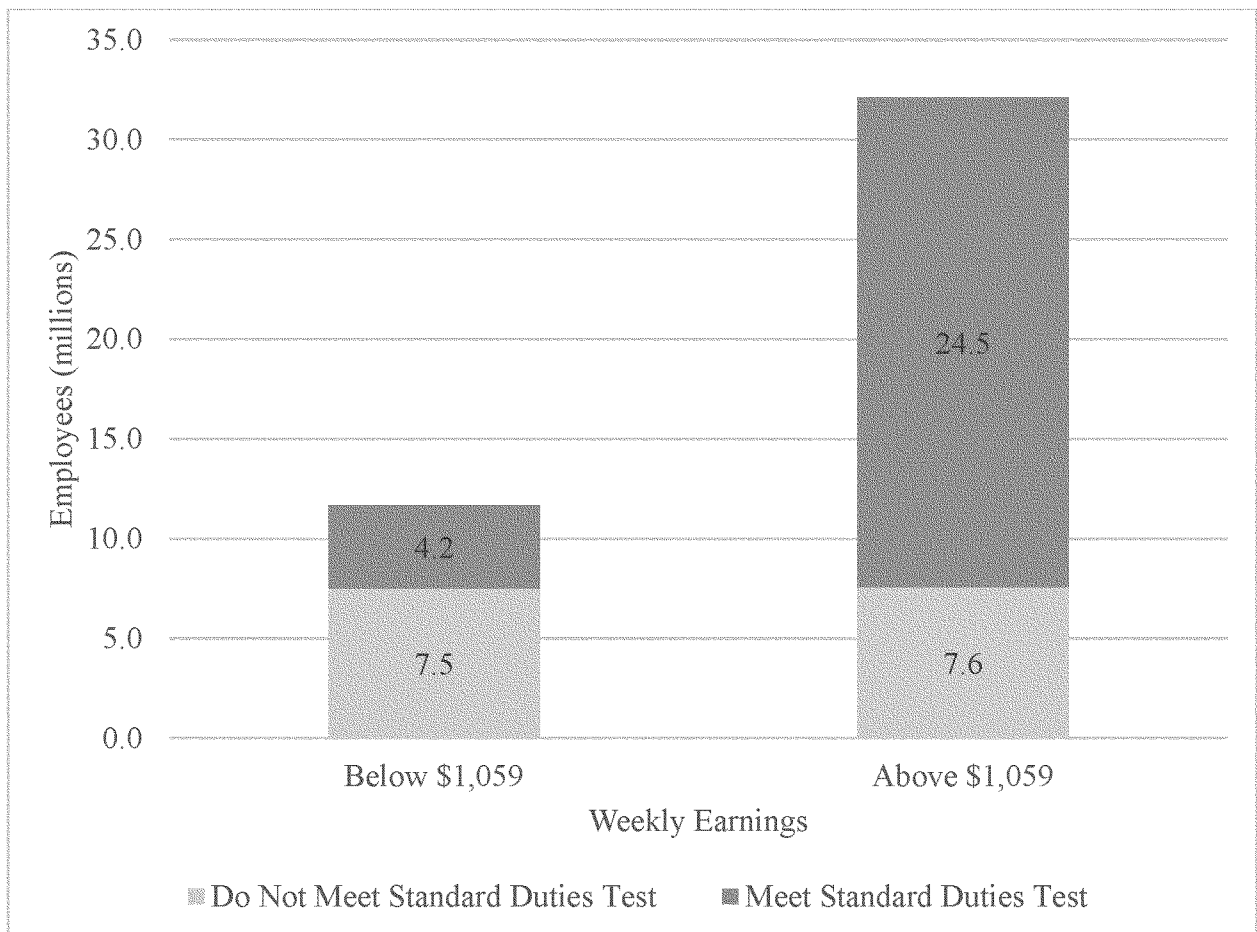
used in all of its recent part 541 rules,²⁰⁹ most salaried white-collar employees paid less than the proposed standard salary level do not meet the duties test, whereas a substantial majority of salaried white-collar employees earning above the proposed standard salary level meet the duties test.

As illustrated in Figure B, of the 11.7 million salaried white-collar employees who earn less than the proposed standard salary level of \$1,059 per week, the Department estimates that only 36 percent—about 4.2 million employees—meet the standard duties test. In contrast, of the 32.1 million salaried white-collar employees who earn at least \$1,059 per week, 76

percent—about 24.5 million employees—meet the standard duties test.²¹⁰ The number of salaried white-collar workers who meet the standard duties test and earn below the proposed standard salary level is thus nearly six times smaller than the number of salaried white-collar workers who meet the standard duties test and earn at least the proposed standard salary amount. And 85 percent of all salaried white-collar workers who meet the standard duties test—24.5 million out of a total of approximately 28.7 million—earn at least the Department’s proposed standard salary level.²¹¹

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Figure B: Salaried White-Collar Employees Earnings Above and Below the Proposed Standard Salary Level Who Meet or Do Not Meet the Standard Duties Test



The Department next evaluated its proposed salary level methodology by

looking at salaried white-collar employees who earn between the long

and short test salary levels. As discussed in section IV.A.3.ii, the long

²⁰⁷ 84 FR 51239 (quoting 84 FR 10907).

²⁰⁸ See *id.* at 51245.

²⁰⁹ See section VII.B.5.

²¹⁰ As noted above, see *supra* note 205, these figures exclude salaried white-collar workers who are not subject to the part 541 salary criteria.

²¹¹ Note that these numbers refer only to salaried white-collar employees at all salary levels who meet

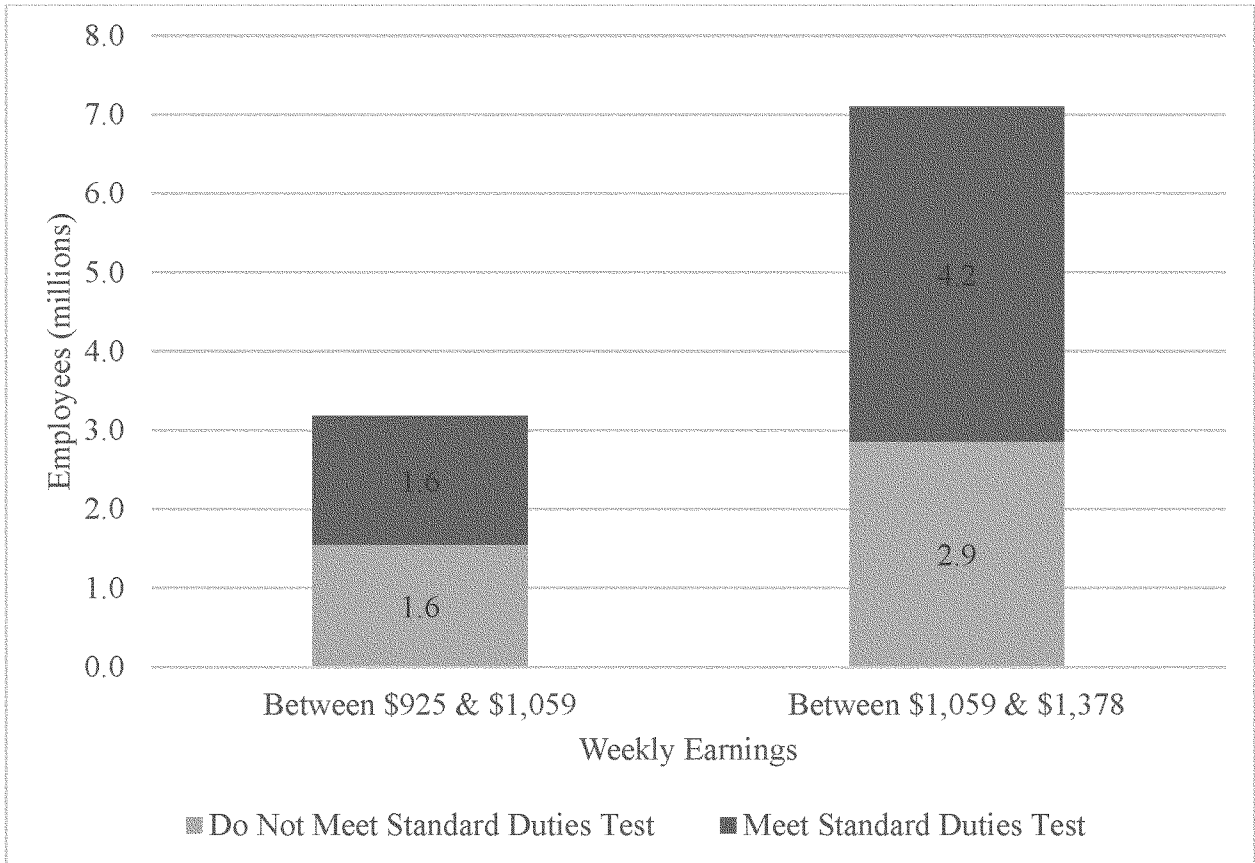
the standard duties test, including employees who are nonexempt because they earn below the current standard salary level.

and short test salary levels provide appropriate parameters for determining how to update the salary level test. Under the Department’s proposal, duties would continue to be determinative of exemption status for a significant majority of white-collar employees earning between these thresholds.

As illustrated in Figure C, of the approximately 10.3 million salaried white-collar employees who earn between the long test salary level of \$925 per week and the short test salary level of \$1,378 per week, about 31 percent (3.2 million) earn below the Department’s proposed standard salary

level, and about 69 percent (7.1 million) earn at or above the Department’s proposed standard salary level. Moreover, of the 3.2 million employees earning between the long test and the proposed standard salary level, approximately half do not meet the standard duties test.²¹²

Figure C: Salaried White-Collar Employees Between Long and Short Test Salary Levels Who Meet or Do Not Meet the Standard Duties Test



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Finally, the Department also looked at the impact of the proposed salary level on currently exempt EAP employees—those salaried white-collar employees who meet the standard duties test and earn at least \$684 per week. As with every prior rulemaking to increase the part 541 salary levels, a relatively small percentage of currently exempt employees would become nonexempt if this proposal were finalized. Of the

approximately 43.8 million salaried white-collar employees in the United States, approximately 27.9 million currently qualify for the EAP exemption.²¹³ Of these 27.9 million presently-exempt employees, just 3.4 million earn at or above the current \$684 per week standard salary level but less than \$1,059 per week and would, without some intervening action by their employers, become entitled to

overtime protection as a result of the Department increasing the standard salary level to \$1,059 per week. A test for exemption that includes a salary level component will necessarily result in a number of employees who earned at or above the prior salary level and pass the duties test becoming nonexempt when the salary level is updated. This is a feature, and not a flaw, of a salary level test, and as the

²¹² As discussed further below, about 1.6 million of the approximately 3.2 million salaried white-collar employees who earn between the long test salary threshold and the Department’s proposed salary level (about 49 percent of these employees) do not meet the standard duties test. Thus, in effect, only 16 percent of salaried white-collar employees who earn between the long and short test salary

levels—1.6 million out of a total of 10.3 million—have their exemption status determined solely by the proposed standard salary level.

²¹³ Note that the 27.9 million employee figure only refers to employees who meet the standard EAP exemption and thus differs from the population of currently exempt EAP workers

identified in the economic analysis (28.4 million), which includes workers who qualify only for the HCE exemption. As noted above, this is a conservative estimate because there are also 8.1 million employees in the “named occupations” who, under the Department’s regulations, are exempt based on their duties alone.

Department has consistently found since 1938, salary is an important indicator of whether an individual is employed in a bona fide EAP capacity and therefore a key element in defining the exemption.

The Department's proposed standard salary level would impact the exemption status of two distinct and important, but relatively small, groups of lower-paid EAP employees. First, the Department's proposal would restore overtime protections to 1.8 million currently exempt employees who meet the standard duties test but earn less than the equivalent of the long test salary level (\$925). As previously explained, such employees were always excluded from the EAP exemption prior to 2019, either by the long test salary level itself, or under the 2004 rule salary level, which was equivalent to the long test salary level. Fully restoring the salary level's initial screening function requires a salary level that would ensure all employees who earn below the long test level would be excluded from the exemption.

Second, the proposed standard salary level would result in overtime protections for an additional 1.6 million currently exempt employees who meet the standard duties test and earn between the long test salary level (\$925 per week) and the Department's proposed standard salary level. As explained earlier, the Department believes it is necessary to set the standard salary level above the long test level to reasonably distribute the impact of the switch from a two-test system to a one-test system. The Department's proposal would limit the number of affected employees by setting a standard salary level towards the lower end of the range between the long and short test salary levels and by using earnings data from the lowest-wage Census region (the South).

Even among the 3.4 million affected employees, the fact that a majority of these employees earn below the long test level underscores the modest role of the Department's proposed standard salary level. Beyond these 1.8 million employees earning less than the long test salary level—to whom this proposal would simply restore overtime protections that they had under every rule prior to 2019—the Department's proposed increase in the standard salary level would only affect the exemption status of 1.6 million employees. This group makes up less than six percent of all currently exempt, salaried white-collar employees and less than four percent of all salaried white-collar

employees.²¹⁴ That this group is so small reinforces the conclusion that the Department's proposed salary level methodology would maintain the “useful, but limited, role” of the salary level in defining and delimiting the EAP exemption.²¹⁵

5. Salary Level Alternatives

In determining which methodology to use to update standard salary level, the Department considered several alternatives to its proposed methodology of the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region. As discussed, the Department believes that the long and short test salary levels provide appropriate boundaries for assessing potential salary levels,²¹⁶ though it also considered the methodology used in the 2019 rule, which set the standard salary level below the long test level.²¹⁷ The Department also looked at earnings ventiles for full-time salaried workers falling between the long and short test salary levels. The Department analyzed four alternative salary levels—two methodologies that would produce a higher salary level than the proposed methodology, and two that would produce a lower salary level.²¹⁸

The Department first considered setting the standard salary level at the historical average short test salary level (\$1,378 per week or \$71,656 per year).²¹⁹ This would ensure that all employees who earn between the long and short test salary levels and perform substantial amounts of nonexempt work would be entitled to overtime compensation. However, by making exemption status for all employees who earn between the long and short test levels depend entirely on the salary paid by the employer, this approach would also prevent employers from being able to use the EAP exemption for employees earning between these salary levels who do not perform substantial amounts of nonexempt work and thus were historically exempt under the long test. For this reason, among others, the Department has chosen not to propose the salary level generated by this methodology.

²¹⁴ The 3.4 million employees affected by the Department's proposed standard salary level represent only 12 percent of the 27.9 million salaried white-collar employees who currently qualify for the standard EAP exemption.

²¹⁵ 84 FR 51238.

²¹⁶ See section IV.A.3.ii.

²¹⁷ See 84 FR 51260.

²¹⁸ The potential impact of these four alternatives is discussed in greater detail below. See section VII.C.8.

²¹⁹ See section IV.A.3.ii.

The Department also considered setting the standard salary level at the 40th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (\$1,145 per week or \$59,540 per year). This salary level is roughly the midpoint between the long and short test salary level alternatives (\$925 per week and \$1,378 per week, respectively). However, as discussed above, the Department is concerned that this approach could be seen by courts as making salary determinative of exemption status for too large a portion of employees, as this salary level would make the salary paid by the employer determinative of exemption status for roughly half (47 percent) of white-collar employees who earn between the long and short test salary levels.²²⁰ The Department is also concerned that this approach would generate the same concerns that led to the district court decision invalidating the 2016 rule (which adopted the same methodology).²²¹

The Department also considered using the 2004 methodology (the 20th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census region and in retail nationally), which is currently \$822 per week (\$42,744 per year). This is also the methodology that the Department used in the 2019 rule.²²² However, the salary level produced by the 2004 methodology is below the equivalent of the long test salary level (\$925 per week). As discussed, the Department considers the long test to be the lower boundary for an appropriate salary level since, except for the 2019 rule, employees who earn below the long test salary level have consistently been excluded from the EAP exemption by the initial screening function of the salary level.²²³ Accordingly, the Department believes that a standard salary level produced using the 2004 methodology would be too low to fully effectuate the salary level's role in defining the EAP exemption.

The Department also considered setting the standard salary level at the long test level (\$925 per week or \$48,100 per year). Doing so would ensure the initial screening function of the salary level by restoring overtime protections to those employees who were consistently excluded from the EAP exemption prior to 2019, either by the long test salary level itself, or under the 2004 rule salary level, which was set equivalent to the long test salary

²²⁰ See *id.*

²²¹ See *id.*

²²² 84 FR 51260.

²²³ See section IV.A.2; section IV.A.4.

level.²²⁴ However, as explained above, setting the standard salary level at the long test level would perpetuate the problem that has become evident under the 2004 and 2019 rules. Specifically, this approach would unduly deny overtime protections to all employees whose entitlement to overtime compensation was protected by the more rigorous long duties test.²²⁵ As noted above, however, the Department believes that in a one-test system with the current duties test it must set the salary level above the long test salary level in order to better define and delimit which employees are employed in a bona fide EAP capacity.

While, for the reasons discussed herein, none of these alternatives were used as a method to establish the proposed salary test level, they confirm that the proposed salary level of the 35th percentile of weekly earnings of all full-time salaried employees in the lowest-wage Census Region (the South) is an appropriate salary level. The Department's proposed salary level appropriately would account for the shift from a two-test to a one-test system for determining exemption status, protecting lower-paid white-collar employees who traditionally have been entitled to overtime protection, while allowing employers to use the exemption for EAP employees earning less than the short test salary level.

The Department welcomes comments on its proposed increase to the standard salary level. The Department also invites comments on alternate salary methodologies and specifically how such alternative methodologies would better define and delimit bona fide EAP employees than the Department's proposed methodology.

B. Special Salary Levels—U.S. Territories and Motion Picture Industry

1. United States Territories

The FLSA's overtime requirements and the EAP exemption apply to employees in U.S. territories.²²⁶ Historically, the Department generally applied special, lower salary levels to employees in U.S. territories that were not subject to the Federal minimum wage in section 6(a)(1) of the FLSA. Consistent with this principle, as the Department explained in the 2004 rule, the Department applied lower salary levels to employees in Puerto Rico, the U.S. Virgin Islands, and American Samoa because, until 1989, the FLSA permitted the establishment of special minimum wage rates below the Federal

minimum wage in these territories.²²⁷ The Department did not set a special salary level for employees in Guam, where the Federal minimum wage has applied since at least 1957,²²⁸ or the CNMI.²²⁹

In 1989, Congress amended the FLSA to apply the Federal minimum wage to the U.S. Virgin Islands beginning that same year and to Puerto Rico beginning in 1996, while maintaining special minimum wage rates for American Samoa.²³⁰ When the Department next updated the salary level tests in 2004, it applied the same salary level to employees in Puerto Rico and the U.S. Virgin Islands that it applied to employees in the 50 states and the District of Columbia (\$455 per week), explaining that because these territories were "now subject to the same minimum wage as the U.S. mainland, there was no longer a basis for a special salary level test[.]"²³¹ The Department maintained a special salary level for employees in American Samoa equal to approximately 84 percent of the standard level (\$380 per week), since American Samoa was not subject to the Federal minimum wage. This was roughly the same ratio to the U.S. mainland salary level that existed prior to 2004.²³² The Department also continued to apply the same salary level to employees in Guam and the CNMI that it applied to employees in the U.S. mainland.

The Department followed the same approach in the 2016 rule. Like the 2004 rule, the 2016 rule would have continued to apply the standard salary level to employees in all the U.S. territories except for American

Samoa.²³³ It also would have maintained a special salary level for employees in American Samoa, keeping it at 84 percent of the standard salary level, since American Samoa was still subject to special minimum wage rates below the Federal minimum wage.

In the 2019 rule, the Department elected to preserve the 2004 standard salary level for employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI (\$455 per week) instead of applying the \$684 per week salary level that applied to employees in the 50 states and the District of Columbia;²³⁴ in effect, establishing a special salary level for employees in territories that were subject to the Federal minimum wage for the first time. In support of this approach, the Department pointed to the economic climate in Puerto Rico; stated that Guam, the U.S. Virgin Islands, and the CNMI, as U.S. territories, also faced their own economic challenges; and expressed a desire to promote salary level consistency across the U.S. territories.²³⁵ The Department also maintained the 2004 special salary level for employees in American Samoa (\$380 per week).²³⁶ The Department determined that a special salary level lower than the other four territories was warranted for American Samoa because, like in 2004 and 2016, the territory was subject to special minimum wage rates below the Federal minimum wage.²³⁷

In § 541.600, the Department proposes to return to its longstanding pre-2019 approach of only setting special salary levels for employees in those U.S. territories that are not subject to the Federal minimum wage. Accordingly, the Department proposes to apply the

²²⁷ 69 FR 22172.

²²⁸ See Sarah A. Donovan, Cong. Rsch. Serv., R42713, *The Fair Labor Standards Act (FLSA): An Overview*, 6 (Mar. 8, 2023). In 1957, Congress amended section 13 of the FLSA to clarify that the Act's minimum wage and overtime requirements apply to Guam. Public Law 85-231, 71 Stat. 514 (Aug. 30, 1957) (codified at 29 U.S.C. 213(f)).

²²⁹ The CNMI was exempted from the FLSA's minimum wage requirements, but not its overtime requirements, under the 1976 Covenant of Association with the United States, which established the CNMI as a Commonwealth. Public Law 94-241, sec. 503(c), 90 Stat. 263, 268 (Mar. 24, 1976). Congress applied the FLSA's minimum wage requirements to the CNMI for the first time in the Fair Minimum Wage Act of 2007, which was subsequently amended in 2015; pursuant to this legislation, the minimum wage in the CNMI gradually increased until it reached the full section 6(a)(1) minimum wage in 2018. See Public Law 110-28, sec. 8103, 121 Stat. 112, 188 (May 25, 2007); Public Law 114-61, sec. 1, 129 Stat. 545 (Oct. 7, 2015); *Minimum Wage in the Northern Mariana Islands*, WHD, available at: <https://www.dol.gov/sites/dolgov/files/WHd/legacy/files/cnmi.pdf>.

²³⁰ See Public Law 101-157, sec. 4, 103 Stat. 938, 939-941 (Nov. 17, 1989).

²³¹ 69 FR 22172.

²³² *Id.*

²³³ See 81 FR 32444. After the Department published the 2016 rule, Congress passed the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA), Public Law 114-187, which prevented the rule from taking effect in Puerto Rico until the Comptroller General of the United States produced a report on the impact of applying the rule to Puerto Rico and the Secretary of Labor determined, based on the report, that applying the rule to Puerto Rico would not have a negative impact on its economy. The Comptroller General published its report in June 2018. See U.S. Gov't Accountability Off., GAO-18-483, *Puerto Rico: Limited Federal Data Hinder Analysis of Economic Condition and DOL's 2016 Overtime Rule* (June 29, 2018). The 2016 rule was invalidated and so the Department did not have occasion to further address this issue.

²³⁴ 84 FR 51246.

²³⁵ *Id.* In the 2019 rule, the Department explained that while PROMESA did not apply to rulemakings other than the 2016 rule, the considerations that motivated PROMESA's adoption supported setting a special salary level in Puerto Rico. See *id.* As in 2019, the Department continues to believe that PROMESA does not constrain the Department's authority to set a salary level for Puerto Rico in this rulemaking.

²³⁶ *Id.*

²³⁷ *Id.*

²²⁴ See section IV.A.1.

²²⁵ See section IV.A.2.

²²⁶ 29 U.S.C. 213(f).

standard salary level (\$1,059 per week) to employees in Puerto Rico, where the Federal minimum wage has applied since 1996; Guam, where the Federal minimum wage has applied since at least 1957; the U.S. Virgin Islands, where the Federal minimum wage has applied since 1989; and the CNMI, where the Federal minimum wage has applied since 2018. The Department proposes to set a special salary level for employees in American Samoa equal to 84 percent of the standard salary level (\$890 per week, based on a proposed standard salary level of \$1,059 per month), since American Samoa remains subject to special minimum wage rates below the Federal minimum wage.²³⁸ This is the same ratio to the standard salary level that the Department used in the 2004 and 2016 rules, as well as the same ratio to the salary level in the other four U.S. territories that the Department used in the 2019 rule.²³⁹

Pursuant to the Fair Minimum Wage Act of 2007, as amended, industry-specific special minimum wage rates in American Samoa are scheduled to be gradually eliminated. Under this legislation, barring further Congressional action, special wage rates in American Samoa will increase by \$0.40 on September 30, 2024 and every 3 years thereafter until they equal the Federal minimum wage.²⁴⁰ As such, the Department also proposes that 90 days after the highest industry minimum wage for American Samoa equals the Federal minimum wage, the full standard salary level will apply for all EAP employees in all industries in American Samoa.

The Department recognizes that the salary levels for the U.S. territories have not changed since 2004, and it understands that U.S. territories face their own economic challenges. However, the FLSA's EAP exemption should apply equally to employees subject to the Federal minimum wage in

section 6(a)(1) of the FLSA—including in the U.S. territories, to which this provision explicitly applies—absent a special minimum wage for the territory, which the Department has interpreted as an indication of Congressional intent to treat employees in the territory differently. As noted above, except for the 2019 rule, the Department has taken the position that a special, lower salary level should only be set for employees in those U.S. territories that are not subject to the Federal minimum wage, a group which is currently limited to employees in American Samoa.²⁴¹ This approach provides a clear and objective standard by which to determine whether to apply the standard salary level or a special, lower salary level. Thus, in accordance with the Department's longstanding practice, and in the interest of applying the FLSA uniformly to all employees subject to the Federal minimum wage, the Department proposes to apply the standard salary level to employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI, and to maintain a special salary level for employees in American Samoa equal to 84 percent of the standard salary level until the highest industry minimum wage rate applicable in the territory equals the Federal minimum wage.²⁴²

The Department seeks comments on the proposed salary levels for the U.S. territories.

²⁴¹ Three U.S. territories have a local minimum wage higher than the Federal minimum wage. The local minimum wage in Puerto Rico is currently \$9.50 per hour; the local minimum wage in Guam is currently \$9.25 per hour; and the local minimum wage in the U.S. Virgin Islands is currently \$10.50 per hour. See State Minimum Wage Laws, WHD, available at: <https://www.dol.gov/agencies/whd/minimum-wage/state>.

²⁴² It is the Department's intent that the proposal to apply the standard salary level to employees in territories that are subject to the Federal minimum wage is severable from the proposal to raise the standard salary level from the current amount (\$684 per week) to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (\$1,059 per week using current data). The Department also intends that the proposal to set the special salary level for employees in American Samoa equal to 84 percent of the standard salary level, and to eliminate the special salary level for American Samoa when the highest industry minimum wage equals the Federal minimum wage, be severable from the proposal to raise the standard salary level. The Department has an interest in the uniform application of the EAP exemption to all employees subject to the Federal minimum wage and in adopting a clear and objective standard by which to determine whether to apply a special salary level to any U.S. territory. Accordingly, the Department's intent is to apply the standard salary level to employees in those territories that are subject to the Federal minimum wage and set a special salary for American Samoa equal to 84 percent of the standard salary level until the highest minimum wage in the territory reaches the Federal minimum wage even if the standard salary level amount proposed in this rule does not take effect.

2. Motion Picture Producing Industry

The Department permits employers to classify as exempt employees in the motion picture producing industry who are paid a specified base rate per week (or a proportionate amount based on the number of days worked), so long as they meet the duties tests for the EAP exemption.²⁴³ This exception from the salary basis requirement was created in 1953 to address the "peculiar employment conditions existing in the [motion picture producing] industry," and applies, for example, when a motion picture producing industry employee works less than a full workweek and is paid a daily base rate that would yield the weekly base rate if 6 days were worked.²⁴⁴ Consistent with its practice since the 2004 rule, the Department proposes in § 541.709 to increase the required base rate in proportion to the Department's proposed increase in the standard salary level test, resulting in a proposed base rate of \$1,617 per week (or a proportionate amount based on the number of days worked).²⁴⁵

The Department seeks comments on the proposed base rate for the motion picture industry.

C. Highly Compensated Employees

In the 2004 rule, the Department created the HCE test for certain highly compensated employees. Combining a much higher compensation requirement with a minimal duties test, the HCE test is based on the rationale that employees who earn at least a certain amount annually—an amount substantially higher than the annual equivalent of the weekly standard salary level—will almost invariably pass the standard duties test.²⁴⁶ The HCE test's primary purpose is thus to serve as a streamlined alternative for very highly compensated employees because a very high level of compensation is a strong indicator of an employee's exempt status, thus eliminating the need for a detailed duties analysis.²⁴⁷

As outlined in § 541.601, to be exempt under the HCE test, an employee must

²⁴³ § 541.709.

²⁴⁴ 18 FR 2881 (May 19, 1953).

²⁴⁵ The Department calculated this figure by dividing the proposed standard salary level (\$1,059 per week) by the current standard salary level (\$684 per week), and then multiplying this result (rounded to the nearest hundredth) by the base rate set in the 2019 rule (\$1,043 per week). This produces a new base rate of \$1,617 (per week), when rounded to the nearest whole dollar.

²⁴⁶ 84 FR 51249; see also § 541.601(c) ("A high level of compensation is a strong indicator of an employee's exempt status, thus eliminating the need for a detailed analysis of the employee's job duties.")

²⁴⁷ See 69 FR 22173–74.

²³⁸ Special wage rates by industry in American Samoa currently range from \$5.38 per hour to \$6.79 per hour. See Federal Minimum Wage in American Samoa, available at: <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/ASminwagePoster.pdf>.

²³⁹ As noted above, the Department set the special salary level for American Samoa in the 2004 rule at \$380 per week, which is approximately 84 percent of the standard salary level of \$455 per week. 69 FR 22172. The 2016 rule would have set the special salary level for American Samoa at \$767 per week, which is 84 percent of the standard salary level of \$913 per week. 81 FR 32444. The 2019 rule preserved the 2004 salary level of \$455 per week for employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI, as well as the 2004 salary level of \$380 per week (approximately 84 percent of \$455) for employees in American Samoa. 84 FR 51246.

²⁴⁰ See Public Law 114–61, sec. 1, 129 Stat. 545 (Oct. 7, 2015).

earn at least the amount specified in the regulations in total annual compensation, of which at least the standard salary amount per week must be paid on a salary or fee basis,²⁴⁸ and must customarily and regularly perform any one or more of the exempt duties or responsibilities of an executive, administrative, or professional employee. The HCE test applies only to employees whose primary duty includes performing office or non-manual work. Employees qualifying for exemption under the HCE test must receive at least the standard salary level per week on a salary or fee basis, while the remainder of the employee's total annual compensation may include commissions, nondiscretionary bonuses, and other nondiscretionary compensation.²⁴⁹ Total annual compensation does not include board, lodging, or other facilities, and does not include payments for medical insurance, life insurance, retirement plans, or other fringe benefits. An employer is permitted to make a final "catch-up" payment during the last pay period or within one month after the end of the 52-week period to bring an employee's compensation up to the required level.

The 2004 rule set the HCE total annual compensation amount at \$100,000,²⁵⁰ which exceeded the annual earnings of approximately 93.7 percent of salaried workers.²⁵¹ In the 2016 rule, the Department set the total annual compensation requirement for the HCE test at the annualized weekly earnings of the 90th percentile of full-time salaried workers nationally, which was \$134,004.²⁵² As previously noted, however, the 2016 rule was enjoined before its effective date and was subsequently invalidated in litigation.²⁵³ In 2019, the Department set the HCE total annual compensation

²⁴⁸ Although § 541.602(a)(3) allows employers to use nondiscretionary bonuses to satisfy up to 10 percent of the weekly standard salary level when applying the standard salary and duties tests, the Department's regulation at § 541.601(b)(1) does not permit employers to use nondiscretionary bonuses to satisfy the weekly standard salary level requirement for HCE workers. Employers may use commissions, nondiscretionary bonuses, and other nondiscretionary compensation to satisfy the remaining portion of the HCE total annual compensation amount. See 84 FR 51249.

²⁴⁹ § 541.601(b)(1). The criteria for determining if an employee is paid on a "salary basis" are identical under the standard exemption criteria and the HCE test. See *Helix Energy Solutions*, 143 S.Ct. at 683.

²⁵⁰ 69 FR 22269 (*§ 541.601(a)*).

²⁵¹ See *id.* at 22169 (Table 3).

²⁵² See 81 FR 32429.

²⁵³ See *Nevada*, 275 F. Supp. 3d at 808. The district court's decision did not specifically discuss the HCE test; however, the decision invalidated the entire 2016 rule.

threshold at the 80th percentile of full-time salaried worker earnings nationwide, resulting in a HCE threshold of \$107,432 per year.²⁵⁴

The Department continues to believe that the HCE test is a useful alternative to the standard salary level and duties tests for highly compensated employees. However, as with the standard salary level, the HCE total annual compensation level must be updated to ensure that it remains a meaningful and appropriate standard to pair with the minimal HCE duties test. To maintain the HCE test's role as a streamlined alternative for those employees most likely to qualify as EAPs, the HCE total annual compensation level must be high enough to exclude all but those employees "at the very top of [the] economic ladder."²⁵⁵

Accordingly, the Department proposes to update the HCE test by setting the total compensation amount equal to the annualized weekly earnings of the 85th percentile of full-time salaried workers nationwide. Consistent with its prior rules, the Department is setting the HCE test level using nationwide data, rather than a regional data set. This approach results in a HCE threshold of \$143,988, of which at least \$1,059 per week (the proposed standard salary level) must be paid on a salary or fee basis.²⁵⁶

The Department considered updating the current HCE threshold (the 80th percentile) with current data (which would result in a compensation level of \$125,268), but is concerned that repeating the 2019 rule's methodology now would not produce a threshold high enough to reserve the HCE test for employees at the top of today's economic ladder and could risk the unintended exemption of large numbers of employees in high-wage regions.²⁵⁷ The Department also considered setting the HCE threshold at the 90th percentile, like in its 2016 rule. However, the Department is concerned that the resulting compensation level (\$172,796) could unduly restrict the use of the HCE exemption for employers in

²⁵⁴ See 84 FR 51307 (*§ 541.601(a)(1)*); see also *id.* at 51249–50.

²⁵⁵ 69 FR 22174.

²⁵⁶ It is the Department's intent that the increase in the HCE total annual compensation threshold is independent of, and severable from, the proposed increase in the standard salary level to the 35th percentile of weekly earnings of full-time salaried employees in the lowest-wage Census Region (the South).

²⁵⁷ See 69 FR 22174 (explaining the need to avoid the unintended exemption of employees "such as secretaries in New York City or Los Angeles . . . who clearly are outside the scope of the exemptions and are entitled to the FLSA's minimum wage and overtime pay protections.").

lower-wage regions and industries.²⁵⁸ In contrast, setting the HCE compensation level at the 85th percentile would be a reasonable increase, particularly in comparison to the HCE threshold initially adopted in 2004, which covered 93.7 percent of all full-time salaried workers.²⁵⁹ The Department believes that setting the HCE threshold at the annualized weekly earnings of the 85th percentile of full-time salaried workers nationwide would be sufficient to guard against the unintended exemption of workers who are not bona fide executive, administrative, or professional employees, including those in higher-income regions and industries.

Under the proposed rule, employers that are currently using the HCE test to exempt more highly paid employees would instead need to apply the standard salary and duties test for employees earning between the current HCE threshold (\$107,432) and the annualized weekly earnings of the 85th percentile of full-time salaried workers nationwide. The Department estimates that there are approximately 248,900 salaried white-collar workers earning between \$107,432 and the proposed HCE total annual compensation level (\$143,988) who meet the HCE duties test but do not meet the standard duties test, and who therefore would become nonexempt without some intervening action by their employers.

As with other earning thresholds in the part 541 regulations, the Department is proposing to automatically update the HCE total compensation amount every 3 years to reflect current earnings data, as discussed in greater detail in section IV.D.4. Automatic updates to the HCE threshold would ensure that the threshold remains at an appropriate level in future years.

The Department welcomes comment on its proposed increase to the HCE threshold.

D. Automatic Updates to the Salary and Total Annual Compensation Levels

In each of its part 541 rulemakings since 2004, the Department recognized the need to regularly update the earnings thresholds to ensure that they remain effective in helping differentiate between exempt and nonexempt employees. As the Department observed in these rulemakings, even a well-calibrated salary level that is not kept up to date becomes obsolete as wages for nonexempt workers increase over time.²⁶⁰ Long intervals between

²⁵⁸ See 84 FR 51250.

²⁵⁹ See 69 FR 22169–70 (Tables 3 and 4).

²⁶⁰ 84 FR 51250–51; 81 FR 32430; see also 69 FR 22122, 22164.

rulemakings have resulted in eroded earnings thresholds based on outdated earnings data that were ill-equipped to help identify bona fide executive, administrative, and professional employees. This problem was clearly illustrated by the stagnant salary levels in the regulations from 1975 to 2004, during which period increases in the Federal minimum wage meant that earnings of a worker paid the Federal minimum wage exceeded the long test salary level for a 40-hour week and came close to equaling the short test salary level.²⁶¹

To address this problem, in the 2004 and 2019 rules the Department expressed its commitment to regularly updating the salary levels, and in the 2016 rule it included a regulatory provision to automatically update the salary levels.²⁶² Based on the Department's experience with updating the salary levels, as well as additional considerations discussed below, the Department has concluded that adopting a regulatory provision for automatically updating the standard salary level and the HCE total annual compensation requirement to reflect current wage data, with the ability to pause future updates under certain conditions, would be the most viable and efficient way to ensure the EAP exemption salary levels remain up to date.

1. Background

The Department introduced a regulatory provision for automatically updating the salary level tests in its 2016 rulemaking. Prior to the 2016 rule, the Department addressed the subject of automatic updating twice in response to comments by some stakeholders calling for its adoption. In its 1970 rulemaking, the Department stated that a comment “propos[ing] to institute a provision calling for an annual review and adjustment of the salary tests . . . appears to have some merit, particularly since past practice has indicated that approximately 7 years elapse between amendment of the salary level requirements.”²⁶³ Despite recognizing the potential value of this approach, the Department ultimately determined that

“such a proposal will require further study.”²⁶⁴ Later, in its 2004 rule, the Department declined to adopt commenter requests for automatic increases to the salary level, reasoning in part that “the salary levels should be adjusted when wage survey data and other policy concerns support such a change” and that “the Department finds nothing in the legislative or regulatory history that would support indexing or automatic increases.”²⁶⁵ In remarking on the lack of historical guidance related to the automatic updating of salary levels, the Department did not otherwise discuss its authority to promulgate such an approach through notice-and-comment rulemaking. Instead, the Department expressed its intent “in the future to update the salary levels on a more regular basis, as it did prior to 1975.”²⁶⁶ Despite its best intentions, the Department's next rulemaking to update the salary levels did not occur for over a decade. The difficulty in achieving its goal of regularly updating the salary levels caused the Department to examine in greater detail in its 2016 rulemaking the possibility of automatically updating the salary levels.

In the 2016 rule, the Department introduced a new regulatory provision establishing a mechanism for automatically updating the standard salary test, the total annual compensation requirement for highly compensated employees, and the special salary levels for American Samoa and the motion picture industry.²⁶⁷ Under this provision, future automatic updates would have occurred triennially, using the same methodologies that were used to initially set these earnings thresholds in the 2016 rule. The Department explained that the adopted automatic updating mechanism would “ensure that the salary level test is based on the best available data (and thus would remain a meaningful, bright-line test), produce more predictable and incremental changes in the salary required for the EAP exemption, and therefore provide certainty to employers and promote government efficiency.”²⁶⁸ The district court decision invalidating the 2016 rule did not separately examine the merits of the automatic updating provision or the Department's authority to automatically update the salary levels. Rather, the court stated, “Having determined the [2016] Final

Rule is unlawful . . . , the Court similarly determines the automatic updating mechanism is unlawful.”²⁶⁹

In its 2019 rulemaking, the Department reaffirmed that “the need to update the part 541 earnings thresholds on a regular basis is clear.”²⁷⁰ The Department elaborated that “[a]s employees' earnings rise over time, they begin surpassing the earnings thresholds set in the past” and make the thresholds “a less useful measure of employees' relative earnings, and a less useful method for identifying exempt employees.”²⁷¹ Rather than adopt an automatic updating mechanism, the Department initially proposed to keep the earnings thresholds up to date by publishing an NPRM in the **Federal Register** every 4 years seeking comment on whether to update the earnings thresholds using the existing methodology, with the understanding that the Department could forestall issuing such a proposal due to economic or other factors.²⁷² However, the Department declined to codify this approach in its final rule²⁷³ or implement a mechanism for automatically updating the salary levels as suggested by some commenters, stating that doing so could deprive the Department of flexibility to adapt to unanticipated circumstances.²⁷⁴ Instead, the Department reaffirmed its intention to update the salary levels more regularly through notice-and-comment rulemaking.²⁷⁵

2. The Department's Authority To Automatically Update the Salary Level Tests

The Department's authority to automatically update the salary level tests for the EAP exemption is grounded in section 13(a)(1), which expressly gives the Secretary broad authority to define and delimit the scope of the exemption. During the 2016 and 2019 rulemakings, some stakeholders questioned the Department's authority to automatically update the salary levels, asserting, among other points, that unlike other statutes that expressly provide for indexing, section 13(a)(1)'s silence indicates that Congress did not intend the salary level to be automatically updated, and that an automatic updating mechanism would

²⁶¹ The Federal minimum wage was increased to \$4.25 on April 1, 1991, equaling \$170 for a 40-hour week, the same amount as the higher long test salary level for professional employees. On September 1, 1997, the Federal minimum wage was increased to \$5.15, equaling \$206 for a 40-hour week, which was close to the \$250 short test salary level. See History of Federal Minimum Wage Rates Under the Fair Labor Standards Act, 1938–2009, WHD, available at: <https://www.dol.gov/agencies/whd/minimum-wage/history/chart>; 40 FR 7091–92.

²⁶² 69 FR 22171; 84 FR 51251–52; 81 FR 32430.

²⁶³ 35 FR 884.

²⁶⁴ *Id.*

²⁶⁵ 69 FR 22171.

²⁶⁶ *Id.*

²⁶⁷ 81 FR 32430, 32443.

²⁶⁸ *Id.* at 32430.

²⁶⁹ *Nevada*, 275 F. Supp.3d at 808.

²⁷⁰ 84 FR 10914.

²⁷¹ *Id.*

²⁷² *Id.* at 10914–15.

²⁷³ See *id.* at 10915 n.140 (explaining how the Department could codify its proposed approach).

²⁷⁴ 84 FR 51252.

²⁷⁵ *Id.*

circumvent the Administrative Procedure Act (APA).²⁷⁶

As the Department has previously explained, Congress did not specifically set forth precise criteria for defining the EAP exemption, but instead authorized the Secretary to define and delimit the terms of the exemption.²⁷⁷ Using this broad authority, the Department established the first salary level tests by regulation in 1938. Despite numerous amendments to the FLSA over the past 85 years, Congress has not restricted the Department's use of the salary level tests. Significant changes involving the salary requirements made through regulations issued pursuant to the Secretary's authority to define and delimit the exemption include adding a separate salary level for professional employees in 1940, adopting the two-test system in 1949, and switching to the single standard test and adding the new HCE test in 2004.²⁷⁸ Despite having amended the FLSA numerous times over the years, Congress has not amended section 13(a)(1) to alter these regulatory salary requirements.

Other than directing the Department in 1990 to include in the EAP regulations certain computer employees paid at least six-and-a-half times the Federal minimum wage on an hourly basis,²⁷⁹ Congress has never amended the FLSA in a manner that limits the use of the salary level tests.²⁸⁰ Just as the Department has authority under section 13(a)(1) to establish and update the salary level tests, it likewise has authority to adopt a regulatory mechanism for automatically updating the salary levels to ensure that the tests remain effective. This interpretation is consistent with the well-settled principle that agencies have authority to “fill any gap left, implicitly or

explicitly, by Congress.”²⁸¹ Further, the Department has determined that an automatic updating mechanism would better fulfill its statutory duty to define and delimit the EAP exemption because it will maintain the effectiveness of the salary levels, which have previously become eroded during large gaps between regulatory updates.

The Department's decision not to institute an automatic updating mechanism in its 2004 and 2019 rulemakings in no way suggests that it lacks authority to do so. In its 2004 rule, the Department stated that it found nothing in the legislative or regulatory history that would support indexing or automatic increases.²⁸² As the Department elaborated in its 2016 rulemaking, there was likewise no such authority disfavoring automatic updating.²⁸³ The 2004 rule did not discuss the Department's authority to promulgate an automatic updating mechanism through notice-and-comment rulemaking or explore in detail whether automatic updates to the salary levels posed a viable solution to problems created by lapses between rulemakings. Similarly, the Department declined to adopt automatic updating in the 2019 rule because it “believe[d] that it is important to preserve the Department's flexibility to adapt to different types of circumstances,”²⁸⁴ and not because it lacked authority to do so. While the Department decided not to institute an automatic updating mechanism in its 2019 rule, the Department did not assert that it lacked the legal authority for such a mechanism. And, as noted above, in its 2019 rule the Department reaffirmed its intention to update the salary levels more regularly. Consistent with this stated objective, and upon further consideration, the Department has concluded that the best method to ensure the standard salary level and HCE total compensation threshold remain up to date is an automatic updating mechanism that maintains the Department's flexibility to adapt to different circumstances and change course as necessary.

3. Rationale for Automatically Updating the Salary Level Tests

A regulatory mechanism for automatically updating the part 541 earnings thresholds would ensure that the levels keep pace with changes in employee earnings and thus remain effective in helping determine exemption status. As the Department's long experience has shown, earnings thresholds are only a strong measure of exempt status if they are kept up to date, and if left unchanged, such thresholds become substantially less effective in identifying exempt EAP employees as wages for workers increase over time. The Department's regulatory history, marked in many instances by lengthy gaps between rulemakings, underscores the difficulty with updating the earnings thresholds as quickly and regularly as necessary to keep pace with changing employee earnings and to maintain the full effectiveness of the test. Through the proposed automatic updating mechanism, the Department can timely and efficiently update the standard salary level and the HCE total annual compensation requirement by using the same methodologies as initially proposed and adopted through notice-and-comment rulemaking to set these thresholds, while a change to those methodologies would be effectuated through new notice-and-comment rulemaking. The proposed automatic updating mechanism would allow for regular and more predictable updates to the earnings thresholds, which would benefit both employers and employees and better fulfill the Department's statutory duty to define and delimit the EAP exemption by preventing the erosion of those levels over time.

As the Department explained in the 2016 rule, automatically updating the part 541 earnings thresholds would also prevent the more drastic and unpredictable threshold increases associated with less frequent updates. For example, between 1940 and 2019, the time between salary level updates ranged from 5 to 29 years. In part as a result of these breaks, long test salary level increases between 1940 and 1975 ranged from roughly 5 to 50 percent, the 2004 standard salary level test represented a 180 percent increase from the 1975 long test salary levels, and the 2019 standard salary level test represented an approximately 50 percent increase from the 2004 standard salary level. Automatically updating the part 541 earnings thresholds at a predetermined frequency using the same methodology would ensure that future salary level increases occur at a

²⁷⁶ See 81 FR 32430, 32432; 84 FR 51251.

²⁷⁷ 29 U.S.C. 213(a)(1).

²⁷⁸ See section II.B.1–2.

²⁷⁹ See Public Law 101–583, sec. 2, 104 Stat. 2871 (Nov. 15, 1990) (directing the Secretary to promulgate regulations that permit computer systems analysts, computer programmers, software engineers, and other similarly skilled professional workers as defined in the regulations to qualify as EAP exempt employees under section 13(a)(1), including those paid on an hourly basis if paid at least 6-and-a-half times the Federal minimum wage).

²⁸⁰ Despite what some commenters asserted in the 2016 rulemaking, the Department's automatic updating mechanism does not conflict with section 13(a)(1)'s “time to time” language. See 81 FR 32431. Adopting a mechanism to ensure that the part 541 earnings thresholds continue screening out the same percentage of salaried workers over time would in no way preclude the Department from revisiting this methodology from “time to time” should cumulative changes in job duties, compensation practices, and other relevant working conditions indicate that changes to the proposed earnings thresholds are warranted.

²⁸¹ *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 165 (2007) (quoting *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984)).

²⁸² 69 FR 22171.

²⁸³ See 81 FR 32432–33 (noting that “instituting an automatic updating mechanism . . . is an appropriate modernization and within the Department's authority.”).

²⁸⁴ 84 FR 51252.

known interval and in more gradual increments.

The Department is proposing for automatic updates to occur triennially (*i.e.*, every 3 years). The Department realizes that because employee earnings are constantly changing, annual or biennial automatic updates would keep the salary level more up to date and thereby may better serve the purpose of using earnings thresholds to help identify exempt employees. However, the Department is concerned about the potential burden that possible changes to the tests for exemption on an annual or biennial basis would impose on employers and believes that triennial updates are frequent enough to ensure that the part 541 earnings thresholds fulfill their purpose. This frequency is also consistent with the interval chosen in the 2016 rule following extensive public comment on this issue.²⁸⁵

In proposing to automatically update the earnings thresholds, the Department is mindful of previous statements from stakeholders, and the Department's own prior statements, about the need to preserve flexibility to adapt to unanticipated circumstances and prevailing economic conditions when setting the salary level.²⁸⁶ Events since the Department's 2019 rule, including the COVID pandemic and its widespread impact on workplaces, have served to further validate these concerns. To address these concerns, the Department proposes to include in the regulatory provision the ability for the Department to temporarily delay a scheduled automatic update where unforeseen economic or other conditions warrant. This feature, which is a refinement of the automatic updating mechanism in the 2016 rule, would afford the Department added flexibility to adapt to unforeseen circumstances without sacrificing the benefits provided by automatic updating.

4. Proposal for Automatically Updating the Salary Level Tests

The Department proposes to add a new § 541.607 that would establish a mechanism for automatically updating the standard salary level and the HCE total annual compensation requirement. Specifically, the Department proposes to automatically update the standard salary level and the total annual compensation requirement for highly compensated employees every 3 years to reflect current earnings data.

Under this proposal, the Department would automatically update the

standard salary level by adjusting it to remain at the 35th percentile of weekly earnings of full-time nonhourly workers in the lowest-wage Census Region (currently the South), as set out in section IV.A.3. The HCE test's total annual compensation requirement would be reset triennially at the annualized weekly earnings of the 85th percentile of full-time nonhourly workers nationally, as discussed in section IV.C. This approach, as opposed to other methods such as indexing these thresholds for inflation, would eliminate the risk that future levels will deviate from the underlying salary setting methodology established through rulemaking.²⁸⁷ The Department proposes to update both thresholds using the most recent available four quarters of data, as published by BLS, preceding the publication of the Department's notice to automatically update the thresholds. Although the 2016 rule called for automatic updates based on a quarter of data,²⁸⁸ relying on a full year of data would be consistent with the approach used to set the salary level in this proposal. Furthermore, relying on a year of data, rather than a quarter, would balance the Department's goal of accounting for current economic conditions with avoiding variations based on short-term fluctuations.

Under the proposed regulation, automatic updates would occur every 3 years, computed from the last day of the month in which this rulemaking take effect. Because under proposed §§ 541.600 and 541.709 both the special salary level for American Samoa and the base rate for the motion picture industry are set in relation to the standard salary level, those earnings thresholds would also reset at the time the standard salary level is updated. At least 150 days before the date of the update of the standard salary level and the HCE total

²⁸⁷ During the 2016 rulemaking, the Department extensively considered whether to update the thresholds based on changes in the Consumer Price Index for All Urban Consumers (CPI-U)—a commonly used economic indicator for measuring inflation. See 81 FR 32438–41. The Department chose to update the thresholds using the same methodology used to initially set them in that rulemaking (*i.e.*, a fixed percentile of weekly earnings of full-time salaried workers), observing that the objectives that justify setting the salary level using a fixed percentile methodology also supported updating the thresholds using the same methodology. See *id.* at 32440. For this and other reasons discussed in detail in the 2016 rule, the Department concludes that updating the earnings thresholds by applying the same methodology used to set the initial levels instead of indexing them for inflation best ensures that the earnings thresholds continue to fulfill their objective of effectively differentiating between bona fide EAP employees and those who are entitled to overtime pay, and work appropriately with the duties test.

²⁸⁸ *Id.* at 32551.

annual compensation requirement, the Department would publish in the **Federal Register** and on WHD's website a notice with the new earnings levels described above. Consistent with the 2016 rule, the Department is proposing this interval to provide employers ample notice and sufficient time to make any necessary adjustments. A period substantially longer than 150 days could hinder the Department's ability to ensure that the thresholds that take effect are based on the most up to date data.

Finally, the Department's proposal includes a provision delaying a scheduled automatic update while the Department engages in notice-and-comment rulemaking to change the earnings requirements and/or updating mechanism, where economic or other conditions merit. The delay occurs only if the Department publishes an NPRM proposing to change the salary level methodology (for example, changing the earnings percentile) and/or modify the automatic updating mechanism (for example, changing the updating frequency) before the date on which it publishes the notice of the revised salary and compensation levels under the regulations. The notice must state, in addition to the updated levels, that the automatic update will be paused for 120 days from the day the update was set to occur while the Department engages in rulemaking, and that the pause will be lifted on the 121st day unless by that time the Department finalizes a rule changing the salary level methodology and/or automatic updating mechanism. Accordingly, this proposal provides for 270 days—150 days before, and 120 days after, the effective date for the scheduled automatic update—to complete this process. The Department chose this interval to provide time for a public comment period and to issue a final rule. If the Department does not issue a final rule by the prescribed deadline, the pause on the scheduled automatic update would be lifted and the new salary levels would take effect on the 121st day after they were originally scheduled to take effect. So as not to disrupt the automatic updating schedule and given the relative shortness of the delay, the 120-day pause would not affect the date for the next scheduled automatic update. The next automatic update, therefore, would occur 3 years from the date the delayed automatic update would have been originally effective.

As discussed in section V below, the Department intends for the proposed automatic updating mechanism to be severable from the increases to the earnings thresholds proposed in this

²⁸⁵ See 81 FR 32438.

²⁸⁶ See, *e.g.*, 84 FR 51251–52.

rulemaking. Regardless of the methodology used to set the standard salary level and HCE total compensation requirement, the utility of these thresholds as a means of distinguishing exempt from nonexempt employees necessarily erodes over time unless they are regularly updated. Automatically updating the standard salary level and HCE total compensation requirement based on current earnings data and on a set schedule would ensure that the thresholds remain effective into the future and thus better fulfill the Department's statutory duty to define and delimit the EAP exemption. Therefore, even if the increases to the standard salary level and the HCE total annual compensation threshold in this proposal are determined to be invalid, the Department intends for the automatic updating mechanism to apply to the existing compensation thresholds. For example, it is the Department's intent that if the proposed increase to the standard salary level to the 35th percentile of weekly earnings of salaried white collar workers in the lowest-wage Census region is invalidated, the automatic update to the standard salary level would occur using the same methodology that is in effect on the date the Department publishes the required notice of the revised salary and compensation levels—which, as noted above, must be no less than 150 days before the scheduled update.

The Department welcomes comments on all aspects of the proposed automatic updating mechanism.

E. Effective Date

The Department is proposing that all aspects of this proposed rule would become effective 60 days after publication of a final rule. This proposed effective date is consistent with the 60 days mandated for a “major rule” under the Congressional Review Act and exceeds the 30-day minimum required under the APA.²⁸⁹ The Department recognizes that the 60-day proposed effective date is shorter than the effective dates for the 2004, 2016, and 2019 rules, which were between approximately 90 and 180 days. The Department believes that a 60-day effective date is appropriate, however, in part because employers and employees are familiar with the procedures in the current regulations from the 2019 rulemaking and changed economic circumstances have caused a strong need to update the standard salary level. The Department seeks comments on the proposed effective date. It also seeks comments on whether

to apply different effective dates to different provisions of the proposed rule.

As discussed in detail below in sections VII.B–C, the Department's proposal to increase the HCE total annual compensation threshold to the annualized weekly earnings of the 85th percentile of full-time salaried workers nationwide would result in employers applying the standard duties test to some employees who are currently subject to the streamlined HCE duties test. However, employers are familiar with the standard duties test and only approximately 248,900 employees who earn between the current and proposed HCE compensation thresholds would not meet the standard duties test and be affected by this change. Accordingly, the Department believes the proposed 60-day effective date for the proposed increase to the HCE total compensation threshold would provide sufficient time for stakeholders to adjust. The Department seeks comments on the proposed effective date for the HCE compensation threshold increase.

As discussed below in sections VII.B.C, the Department's proposed standard salary level—the 35th percentile of weekly earnings of full-time nonhourly workers in the lowest-wage Census Region—would affect 3.4 million employees who earn between the current salary threshold of \$684 per week and the proposed threshold of \$1,059 per week. As discussed above, the Department believes it is important to update the standard salary level, both to account for earnings growth since the Department last updated the salary level in the 2019 rule and to build on the lessons learned in the Department's most recent rulemakings to better define and delimit employees working in a bona fide EAP capacity. The Department has also deliberately selected a proposed standard salary level that would ensure that duties remain determinative of exemption status for a significant majority of salaried white-collar employees and that would affect the exemption status of a relatively small group of currently exempt employees, more than half of whom earn below the long test salary level using contemporary data. At the same time, the Department recognizes that it updated the regulations approximately 4 years ago, economic conditions have changed significantly since then, and its proposed standard salary level would be a meaningful increase from the current standard salary level.

The Department seeks comments on whether the effective date for the increase of the standard salary level to the 35th percentile of weekly earnings

of full-time salaried workers in the lowest-wage Census Region should be 60 days after publication as proposed or if the increase should be made effective at some later date, such as 6 months or a year after publication of a final rule. If the effective date were longer than 60 days, the Department seeks comments on whether it should initially adjust the salary level to reflect recent wage growth (for example, making an initial adjustment for wage growth 60 days after publication of a final rule and having the final rule standard salary level be effective 6 months or a year after publication). Additionally, the Department seeks comments on the methodology it could use for such an initial update, were it to follow such an approach. In particular, the Department invites comments on whether to implement an initial update to the standard salary level, effective 60 days after publication of a final rule, that uses the current salary level methodology (the 20th percentile of weekly earnings of full-time nonhourly workers in the lowest-wage Census region and retail nationally) and applies it to the most recent data available (\$822 per week based on current data).

The Department also seeks comments on whether its proposed application of the standard salary level to employees in Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI, its proposed update to the special salary level for employees in American Samoa, and its proposed update to the special salary level for employees in the motion picture production industry, should also go into effect 60 days after a final rule as proposed, or if any of these changes should instead go into effect at a later date, such as 6 months or a year after publication. If the effective date for these provisions were longer than 60 days, the Department seeks comments on whether it should make an initial adjustment to these levels 60 days after publication of a final rule and, if so, what methodology should be used for the initial adjustment.

Finally, the Department is proposing that the first automatic update to the proposed compensation levels be effective 3 years after the proposed 60-day effective date. The Department seeks comments on whether the date for the first automatic update should be adjusted if it were to make an initial adjustment to any of these levels as discussed above.

V. Severability

The Department proposes to include a severability provision in part 541 so that if one or more of the provisions of part 541 is held invalid or stayed pending

²⁸⁹ See 5 U.S.C. 801(a)(3)(A); 5 U.S.C. 553(d).

further agency action, the remaining provisions would remain effective and operative. The Department proposes to add this provision as § 541.5.

It is the Department's intent that any final rule following from this proposal apply to its greatest extent even if one or more provisions of such rule are invalidated or stayed. For example, as noted above, it is the Department's intent that the proposed automatic updating mechanism be effective even if the proposed increase in the standard salary level is invalidated. Similarly, it is the Department's intent that the increase in the HCE total annual compensation requirement be effective even if the increase in the standard salary level is invalidated. It is also the Department's intent that the standard salary level apply in territories subject to the Federal minimum wage even if the increase in the standard salary level in this rulemaking is invalidated. Additionally, it is the Department's intent that the earnings thresholds set in this rulemaking apply even if the mechanism for automatically updating them in the future is determined to be invalid. In all circumstances, whether or not specifically discussed, it is the Department's intent that the provisions of any final rule be construed to give the maximum effect to the provisions permitted by law, and that any invalidated provisions be considered severable from part 541 and not affect the remainder of a final rule.

VI. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA), 44 U.S.C. 3501 *et seq.*, and its attendant regulations, 5 CFR part 1320, require the Department to consider the agency's need for its information collections, their practical utility, the impact of paperwork and other information collection burdens imposed on the public, and how to minimize those burdens. The PRA typically requires an agency to provide notice and seek public comments on any proposed collection of information contained in a proposed rule. *See* 44 U.S.C. 3506(c)(2)(B); 5 CFR 1320.8.

This rulemaking would revise the burdens for the existing information collection previously approved under OMB control number 1235-0018, Records to be kept by Employers—Fair Labor Standards Act and under OMB control number 1235-0021, Employment Information Form. The information collection approved under OMB control number 1235-0021 is currently encumbered by another rulemaking. As a result, the Department has created a duplicate information collection under OMB control number

1235-0NEW to allow the public to comment on the burden estimates associated with this collection. The Department anticipates that at the time of publication of any potential final rule associated with this NPRM, no encumbrance will exist. Should a final rule be published, the Department will revert to the collection currently approved under OMB control number 1235-0021. As required by the PRA, the Department has submitted information collections as revisions to existing collections to OMB for review to reflect changes to existing burdens that will result from the implementation of this rulemaking. The Department has incorporated the increased universe of employers and employees (from Figure 1 and Table 32 of this NPRM) since the last PRA submission as well as the number of affected workers from Table 4 into the PRA burden analysis found in the supporting statements referenced below.

Summary: FLSA section 11(c) requires all employers covered by the FLSA to make, keep, and preserve records of employees and of wages, hours, and conditions of employment. An FLSA-covered employer must maintain the records for such period of time as prescribed by regulations issued by the Secretary. The Department has promulgated regulations at 29 CFR part 516 establishing the basic FLSA recordkeeping requirements. This NPRM, if finalized, would not impose any new information collection requirements; rather burdens under existing requirements would change as more employees become entitled to minimum wage and overtime protections.

Purpose and use: This proposed rule, which would revise 29 CFR part 541, affects the following provisions that could be considered to entail collections of information: (1) disclosure and recordkeeping requirements for covered employers; and (2) the complaint process under which employees may file a complaint with the Department to investigate potential violations of the FLSA. The proposed rule could potentially affect the number of employees for whom employers may need to maintain records and could potentially affect the number of complaints the Department receives from employees.

WHD obtains PRA clearance under OMB control number 1235-0018 for an information collection with respect to recordkeeping. An Information Collection Request (ICR) has been submitted to revise the approval and adjust the burdens for this collection. WHD obtains PRA clearance under

control number 1235-0021 for an information collection covering complaints alleging violations of various labor standards that the agency already administers and enforces. As noted, for the purpose of this NPRM, the Department has created a duplicate ICR (1235-0NEW) to allow the public to comment. An ICR has been submitted to revise the approval to revise the burdens applicable to complaints in this proposed rule.

Information and technology: There is no particular order or form of records prescribed in the current regulations or in the proposed rule. An employer may meet the requirements of this proposed rule using paper or electronic means. WHD, to reduce the burden caused by the filing of complaints that are not actionable by the agency, uses a complaint filing process in which complainants discuss their concerns with WHD professional staff. This process allows agency staff to refer complainants raising concerns that are not actionable under Federal wage and hour laws and regulations to an agency that may be able to offer assistance. WHD uses employer records to determine compliance with various FLSA requirements. Employers use the records to document compliance with the FLSA, including demonstrating qualification for various exemptions. WHD uses the Employment Information Form (1235-0021) to document allegations of non-compliance with labor standards the agency administers. To allow the public to comment, the Department has created duplicate ICR 1235-0NEW.

Minimizing Small Entity Burden: Although the FLSA recordkeeping requirements involve small entities, including small state and local government agencies, the Department minimizes respondent burden by requiring no specific order or form of records in responding to this information collection. Burden is reduced on complainants by providing a template to guide answers.

Public comments: As part of its continuing effort to reduce paperwork and respondent burden, the Department conducts a preclearance consultation program to provide the general public and Federal agencies with an opportunity to comment on proposed and continuing collections of information in accordance with the PRA. This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be

properly assessed. The Department seeks comments on its analysis (contained in the supporting statements referenced below) that this NPRM creates a slight increase in paperwork burden associated with ICR 1235–0021, Employment Information Form (reflected in duplicate ICR 1235–0NEW), and affects the recordkeeping requirements and burdens on the regulated community in ICR 1235–0018, Records to be kept by Employers—Fair Labor Standards Act. Commenters may send their views on the Department’s PRA analysis in the same way they send comments in response to the NPRM as a whole (e.g., through the www.regulations.gov website), including as part of a comment responding to the broader NPRM. Alternatively, commenters may submit a comment specific to this PRA analysis by sending an email to WHDPRAComments@dol.gov. While much of the information provided to OMB in support of the information collection request appears in the preamble, interested parties may obtain a copy of the supporting statements for the affected ICRs by sending a written request to the mail address shown in the **ADDRESSES** section at the beginning of this preamble. Alternatively, a copy of the ICR applicable supporting documentation, including a description of the likely respondents, proposed frequency of response, and estimated total burden, may be obtained free of charge from the RegInfo.gov website. Similarly, the complaint process ICR is available by visiting <http://www.reginfo.gov/public/do/PRAMain>.

OMB and the Department are particularly interested in comments that:

- Evaluate whether the proposed collections of information are necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency’s estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

- Total burden for the recordkeeping and complaint process information collections, including the burdens that will be affected by this proposed rule and any changes, are summarized below. For the complaint ICR, the Department used actual data from FY22 and added additional burden related to this rulemaking using the number of affected workers from Table 4 of the RIA and multiplying by .05%. This is an approximate estimate of potential new complaints should the rule become final (please see the draft supporting statements referenced above for an explanation of how these estimates were derived). With respect to the FLSA recordkeeping ICR, the Department first revised the overall burden for the collection as the baseline number of employers and employees within the U.S. economy has changed since the collection was last submitted to OMB. The Department then added the newly affected workers described in the NPRM (see Table 4 of the RIA) to account for additional burden employers could potentially be subject to when a final rule is published.

Type of review: New collection (duplicate ICR to allow for public comment revising a currently approved information collection).

Agency: Wage and Hour Division, Department of Labor.

Title: Employment Information Form.

OMB Control Number: 1235–0NEW.

Affected public: Private sector, businesses or other for-profits and Individuals or Households.

Estimated number of respondents: 28,824 (1,824 from this rulemaking).

Estimated number of responses: 28,824 (1,824 from this rulemaking).

Frequency of response: On occasion.
Estimated annual burden hours: 9,608 (608 burden hours due to this NPRM).

Estimated annual burden costs (capital/startup): \$0 (\$0 from this rulemaking).

Estimated annual burden costs (operations/maintenance): \$0 (\$0 from this rulemaking).

Estimated annual burden costs: \$0 (\$0 from this rulemaking).

Type of Review: Revision to a currently approved information collection.

Title: Records to be kept by Employers—Fair Labor Standards Act.

OMB Control Number: 1235–0018.

Affected public: Private sector, businesses or other for-profits and Individuals or Households.

Estimated number of respondents: 4,068,419.

Estimated number of responses: 41,160,407 (8,971,488 from this NPRM).

Frequency of response: Various.

Estimated annual burden hours: 1,105,833 (299,050 from this NPRM).

Estimated annual burden costs: \$51,277,476.

VII. Analysis Conducted in Accordance With Executive Order 12866, Regulatory Planning and Review, and Executive Order 13563, Improving Regulation and Regulatory Review

Under Executive Order 12866, OMB’s Office of Information and Regulatory Affairs (OIRA) determines whether a regulatory action is significant and, therefore, subject to the requirements of the Executive Order and OMB review. As amended by Executive Order 14094, section 3(f) of Executive Order 12866 defines a “significant regulatory action” as a regulatory action that is likely to result in a rule that may: (1) have an annual effect on the economy of \$200 million or more; or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, territorial, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees or loan programs or the rights and obligations of recipients thereof; or (4) raise legal or policy issues for which centralized review would meaningfully further the President’s priorities or the principles set forth in the Executive Order. OIRA has determined that this proposed rule is a “significant regulatory action” within the scope of section 3(f)(1) of Executive Order 12866.

Executive Order 13563 directs agencies to, among other things, propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs; that it is tailored to impose the least burden on society, consistent with obtaining the regulatory objectives; and that, in choosing among alternative regulatory approaches, the agency has selected those approaches that maximize net benefits. Executive Order 13563 recognizes that some costs and benefits are difficult to quantify and provides that, when appropriate and permitted by law, agencies may consider and discuss qualitatively values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts. The analysis below outlines the impacts that the Department of Labor (Department) anticipates may result from this proposed rule, if finalized, and was prepared pursuant to the above-mentioned executive orders.

A. Introduction

1. Background

The Fair Labor Standards Act (FLSA or Act) requires covered employers to: (1) pay employees who are covered and not exempt from the Act’s requirements not less than the Federal minimum wage for all hours worked and overtime premium pay at a rate of not less than one and one-half times the employee’s regular rate of pay for all hours worked over 40 in a workweek, and (2) make, keep, and preserve records of their employees and of the wages, hours, and other conditions and practices of employment.

The FLSA provides a number of exemptions from the Act’s minimum wage and overtime pay provisions, including one for bona fide executive, administrative, and professional (EAP) employees. The exemption applies to employees employed in a bona fide executive, administrative, or professional capacity, as those terms are “defined and delimited” by the Department.²⁹⁰ The Department’s regulations implementing these “white-collar” exemptions are codified at 29 CFR part 541. Since 1940, the regulations implementing the exemption have generally required each of the following three tests to be met: (1) the employee must be paid a predetermined and fixed salary that is not subject to reduction because of variations in the quality or quantity of work performed (the salary basis test); (2) the amount of salary paid must meet a minimum specified amount (the salary level test); and (3) the employee’s job duties must primarily involve executive, administrative, or professional duties as

defined by the regulations (the duties test).

The Department has updated the salary level test many times since its implementation in 1938. Table 1 presents the weekly salary levels associated with the EAP exemptions since 1938, organized by exemption and long/short/standard duties tests. From 1949 to 2004, the Department determined exemption status using a two-test system comprised of a long test (a lower salary level paired with a more rigorous duties test that limited performance of nonexempt work to no more than 20 percent for most employees) and a short test (a higher salary level paired with a less rigorous primary duties requirement that did not have a numerical limit on the amount of nonexempt work). In 2004, rather than update the two-test system, the Department chose to establish a new single-test system for determining exemption status, setting the standard salary level test at \$455 a week, which was equivalent to the long test salary level, and pairing it with a standard duties test that was substantially equivalent to the more lenient short duties test. Because the single standard duties test was equivalent to the short duties test, employees who met the long test salary level and previously passed either the more rigorous long, or less rigorous short, duties test passed the standard duties test. The Department also added a new highly compensated employee (HCE) test, which used a very minimal duties test and a very high total compensation test set at \$100,000 per year (see section II.B.2. for further discussion). In 2016, to address the

concern that the standard test exempted lower-paid salaried employees performing large amounts of nonexempt work who had previously been protected by the more rigorous long duties test, the Department published a final rule setting the standard salary level at \$913 per week, which was equivalent to the low end of the historic range of short test salary levels, and the HCE annual compensation level at \$134,004. This approach restored overtime protection for employees performing substantial amounts of nonexempt work who earned between the long test salary level and the low end of the short test salary range, as they failed the new standard salary level test. As previously discussed, the U.S. District Court for Eastern District of Texas held the 2016 rule invalid. In 2019, in part to address the concern raised in the litigation that the approach taken in the 2016 rulemaking would have prevented employers from using the exemption for employees who earned between the long test salary level and the low end of the short test salary range and met the more rigorous long duties test, the Department returned to the methodology used in the 2004 rule and set the salary level at the 20th percentile of weekly earnings of full-time salaried workers in the South and in the retail industry nationally. Applying this method to the earnings data available in 2019 produced a standard salary level that was below the long test salary level. The current earnings thresholds, as published in 2019, are \$684 a week for the standard salary test and \$107,432 per year for the HCE test.

TABLE 1—HISTORICAL SALARY LEVELS FOR THE EAP EXEMPTIONS

Date enacted	Long duties test			Short duties test
	Executive	Administrative	Professional	
1938	*\$30	\$30
1940	30	\$200 (per month) ...	\$200 (per month)
1949	55	\$75	\$75	\$100
1958	80	\$95	\$95	125
1963	100	\$100	\$115	150
1970	125	\$125	\$140	200
1975	155	\$155	\$170	250
	Standard duties test			
2004		\$455		
2019		\$684		

* Unless otherwise specified, all figures are dollars per week.

²⁹⁰ 29 U.S.C. 213(a)(1).

2. Need for Rulemaking

The goal of this rulemaking is not only to update the single standard salary level to account for earnings growth since the 2019 rule, but also to build on the lessons learned in the Department's most recent rulemakings to more effectively define and delimit employees working in a bona fide EAP capacity. Specifically, the Department is proposing to update the standard salary level by setting it equal to the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (currently the South), based on the most recent Current Population Survey (CPS) data.²⁹¹ Using 2022 CPS Merged Outgoing Rotation Group (MORG)²⁹² data, the salary level would be set at \$1,059 per week.

The Department's proposed standard salary level will, in combination with the standard duties test, better define and delimit which employees are employed in a bona fide EAP capacity in a one-test system. As explained in greater detail in sections III and IV.A., above, setting the standard salary level at or below the long test salary level, as the 2004 and 2019 rules did, results in the exemption of lower-salaried employees who traditionally were entitled to overtime protection under the long test either because of their low salary or because they perform large amounts of nonexempt work, in effect significantly broadening the exemption compared to the two-test system. Setting the salary level at the low end of the historic range of short test salary levels, as the 2016 rule did, would have restored overtime protections to those employees who perform substantial amounts of nonexempt work and earned between the long test salary level and the low end of the short test salary range. However, it also would have resulted in denying employers the use of the exemption for lower-salaried employees who traditionally were not entitled to overtime compensation under the long test, which raised

²⁹¹ The Department uses the terms *salaried* and *nonhourly* interchangeably in this rule because, consistent with its 2004, 2016, and 2019 rules, the Department considered data representing compensation paid to nonhourly workers to be an appropriate proxy for compensation paid to salaried workers. The Department also notes that the terms *employee* and *worker* are used interchangeably throughout this analysis.

²⁹² MORG is a supplement to the CPS and is conducted on approximately one-fourth of the CPS sample monthly to obtain information on weekly hours worked and earnings. The Department relied on CPS MORG data for calendar year 2022 to develop this NPRM. The Department will update the data used in any final rule resulting from this proposal.

concerns that the Department was in effect narrowing the exemption. By setting a salary level above what would currently be the equivalent of the long test salary level, the proposal would restore the right to overtime pay for salaried white-collar employees who prior to the 2019 rule were always considered nonexempt if they earned below the long test (or long test-equivalent) salary level. And it would ensure that fewer lower paid white-collar employees who perform significant amounts of nonexempt work are included in the exemption. At the same time, by setting it well below what would currently be the equivalent of the short test salary level, the proposal would allow employers to continue to use the exemption for many lower paid white-collar employees who were made exempt under the 2004 standard duties test. The proposed salary level would also more reasonably distribute between employees and their employers what the Department now understands to be the impact of the shift from a two-test to a one-test system on employees earning between the long and short test salary levels.

As the Department has previously noted, the amount paid to an employee is "a valuable and easily applied index to the 'bona fide' character of the employment for which exemption is claimed, as well as the "principal[]" "delimiting requirement" "prevent[ing] abuse" of the exemption."²⁹³ Additionally, the salary level test facilitates application of the exemption by saving employees and employers from having to apply the more time-consuming duties analysis to a large group of employees who will not pass it. For these reasons, the salary level test has been a key part of how the Department defines and delimits the EAP exemption since the beginning of its rulemaking on the EAP exemption.²⁹⁴ At the same time, the salary test's role in defining and delimiting the scope of the EAP exemption must allow for appropriate examination of employee duties.²⁹⁵ Under the Department's proposal, duties would continue to determine the exemption status for most salaried white-collar employees, addressing the legal concerns that have been raised about excluding from the EAP exemption too many white-collar employees solely based on their salary level.

The Department also proposes to update the HCE total annual

compensation requirement to the annualized weekly earnings of the 85th percentile of full-time salaried workers nationally (\$143,988 in 2022). Though not as high a percentile as the HCE threshold initially adopted in 2004, which covered 93.7 percent of all full-time salaried workers,²⁹⁶ the Department's proposed increase to the HCE threshold would ensure it continues to serve its intended function, because the HCE total annual compensation level would be high enough to exclude all but those employees at the very top of the economic ladder.

In accordance with the Department's traditional practice, and in the interest of applying the FLSA uniformly to areas subject to the Federal minimum wage, the Department is also proposing to apply the standard salary level to all territories that are subject to the Federal minimum wage and to update the special salary levels for American Samoa and the motion picture industry in relation to the new standard salary level. Having not increased these levels since 2004, there is a need to increase the salary levels in U.S. territories, particularly for employees in those territories that are subject to the Federal minimum wage.

In its three most recent part 541 rulemakings, the Department has expressed its commitment to keeping the earnings thresholds up to date to ensure that they remain effective in helping differentiate between exempt and nonexempt employees. Long intervals between rulemakings have resulted in eroded earnings thresholds based on outdated earnings data that were ill-equipped to help identify bona fide EAP employees. This rulemaking is motivated in part by the need to keep the part 541 earnings thresholds up to date. Based on its long experience with updating the salary levels, the Department has determined that adopting a regulatory provision for automatically updating the salary levels, with an exception for pausing future updates under certain conditions, is the most viable and efficient way to ensure the EAP exemption earnings thresholds keep pace with changes in employee pay and thus remain effective in helping determine exemption status. Accordingly, the Department is including in this proposed rule a mechanism for automatically updating the salary and compensation levels every 3 years. As explained in greater detail in section IV.D., employees and employers alike would benefit from the

²⁹³ Stein Report at 19, 24; see also 81 FR 32422.

²⁹⁴ See 84 FR 51237.

²⁹⁵ See 84 FR 51238.

²⁹⁶ See 69 FR 22169 (Table 3).

certainty and stability of regularly scheduled updates.

3. Summary of Affected Workers, Costs, Benefits, and Transfers

The Department estimated the number of affected workers and quantified costs and transfer payments associated with this proposed rule using pooled CPS MORG data. See section VII.B.2. The Department estimates in the first year after implementation, there would be 3.6 million affected workers.²⁹⁷ This includes 3.4 million workers who meet the standard duties test and earn at least \$684 per week but less than \$1,059 per week and would either become eligible for overtime or have their salary increased to at least \$1,059 per week (Table 2).²⁹⁸ An estimated 248,900 workers would be

affected by the proposed increase in the HCE compensation test from \$107,432 per year to \$143,988 per year. In Year 10, with automatic updating, the Department estimates that 4.3 million workers would be affected by the proposed change in the standard salary level test and 768,700 workers would be affected by the proposed change in the HCE total annual compensation test.²⁹⁹

This analysis quantifies three direct costs to employers: (1) regulatory familiarization costs; (2) adjustment costs; and (3) managerial costs (see section VII.C.3). Total annualized direct employer costs over the first 10 years were estimated to be \$663.6 million, assuming a 7 percent discount rate.³⁰⁰ This proposed rule would also transfer income from employers to employees in the form of increased wages. The

Department estimated annualized transfers would be \$1.3 billion. Most of these transfers would be attributable to wages paid under the FLSA's overtime provision; a smaller share would be attributable to the FLSA's minimum wage requirement. These transfers also account for employers who may choose to increase the salary of some affected workers to at least the new threshold so that they can continue to use the EAP exemption.

The Department also provides a qualitative discussion of the potential benefits of this proposed rule, including strengthened overtime protections for some workers, increased worker productivity, increased personal time for workers, and reduced reliance on social assistance programs. See section VII.C.5.

TABLE 2—SUMMARY OF REGULATORY COSTS AND TRANSFERS, STANDARD AND HCE SALARY LEVELS

Impact	Year 1	Future years ^a		Annualized value	
		Year 2	Year 10	3% Real discount rate	7% Real discount rate
Affected Workers (1,000s)					
Standard	3,399	2,999	4,288	(b)	(b)
HCE	249	269	769	(b)	(b)
Total	3,648	3,268	5,057	(b)	(b)
Costs and Transfers (Millions in \$2022) ^c					
Direct employer costs	\$1,202.8	\$508.3	\$748.0	\$656.4	\$663.6
Transfers [d]	1,234.2	949.0	1,981.2	1,318.1	1,294.3

^a These cost and transfer figures represent a range over the nine-year span.

^b Not annualized.

^c Costs and transfers for affected workers passing the standard and HCE tests are combined.

^d This is the net transfer from employers to workers. There may also be transfers of hours and income from some workers to others.

B. Number of Affected EAP Workers

1. Overview

This section explains the methodology used to estimate the number of workers who would be affected by the proposed rule. Workers who are currently EAP exempt are potentially affected by the proposed rule. In this proposed rule, as in

previous rules, the Department estimated the current number of EAP exempt workers because there is no data source that identifies workers as EAP exempt. Employers are not required to report EAP exempt workers to any central agency or as part of any employee or establishment survey. The methodology described here is consistent with the approach the

Department used in the 2004, 2016, and 2019 final rules.³⁰¹ To estimate the number of workers who would be affected by the rule, the proposed standard salary level and proposed HCE total annual compensation threshold are applied to the earnings of current EAP exempt workers.

²⁹⁷ The term "affected workers" refers to the population of potentially affected EAP workers who either pass the standard duties test and earn at least \$684 but less than the new salary level of \$1,059 per week, or pass only the HCE duties test and earn at least \$107,432 but less than the new HCE compensation level of \$143,988 per year.

²⁹⁸ Here and elsewhere in this analysis, numbers are reported at varying levels of aggregation, and are generally rounded to a single decimal point. However, calculations are performed using exact numbers. Therefore, some numbers may not match

the reported totals or the calculations shown due to rounding of components.

²⁹⁹ In later years, earnings growth will cause some initially affected workers to no longer be affected because their earnings will exceed the new salary or compensation threshold. This is possible in both non-update and update years but is much more likely to occur in non-update years. Additionally, some workers will become newly affected because their earnings will reach at least \$684 per week, and in the absence of this proposed rule they would have lost their overtime protections. To estimate the

total number of affected workers over time, the Department accounts for both of these effects.

³⁰⁰ Hereafter, unless otherwise specified, annualized values will be presented using the 7 percent real discount rate.

³⁰¹ See 69 FR 22196–209; 81 FR 32453–60; 84 FR 51255–60. Where the proposal follows the methodology used to determine affected workers in the 2004, 2016, and 2019 final rules, citations to these rules are not always included.

2. Data

All estimates of numbers of workers used in this analysis were based on data from the CPS MORG, which is sponsored jointly by the U.S. Census Bureau and Bureau of Labor Statistics (BLS).³⁰² The CPS is a large, nationally representative sample. Households are surveyed for 4 months, excluded from the survey for 8 months, surveyed for an additional 4 months, then permanently dropped from the sample. During the last month of each rotation in the sample (month 4 and month 16), employed respondents complete a supplementary questionnaire in addition to the regular survey.³⁰³ This supplement contains the detailed information on earnings necessary to estimate a worker's exemption status. Responses are based on the reference week, which is always the week that includes the 12th day of the month.

Although the CPS MORG is a large-scale survey, administered to approximately 15,000 households monthly representing the entire nation, it is still possible to have relatively few observations when looking at subsets of employees, such as workers in a specific occupation employed in a specific industry, or workers in a specific

³⁰² In 2015, RAND released results from a survey conducted to estimate EAP exempt workers. However, this survey does not have the variables or sample size necessary for the Department to base its regulatory impact analysis (RIA) on this analysis. Rohwedder, S. and Wenger, J.B. (2015). *The Fair Labor Standards Act: Worker Misclassification and the Hours and Earnings Effects of Expanded Coverage*. RAND Labor and Population.

³⁰³ This is the outgoing rotation group (ORG); however, this analysis uses the data merged over 12 months and thus it is referred to as MORG.

geographic location. To increase the sample size, the Department pooled 3 years of CPS MORG data (2020–2022). Earnings for each observation from 2020 and 2021 were inflated to 2022 dollars using the Consumer Price Index for All Urban Consumers (CPI-U).³⁰⁴ The weight of each observation was adjusted so that the total number of potentially affected EAP workers in the pooled sample remained the same as the number for the 2022 CPS MORG. Thus, the pooled CPS MORG sample uses roughly three times as many observations to represent the same total number of workers in 2022. The additional observations allow the Department to better characterize certain attributes of the potentially affected labor force. This pooled dataset is used to estimate all impacts of the proposed rulemaking.

Some assumptions and adjustments were necessary to use these data as the basis for the analysis. For example, the Department eliminated workers who reported that their weekly hours vary and who provided no additional information on hours worked. This was done because the Department cannot estimate effects for these workers since it is unknown whether they work overtime and therefore unknown

³⁰⁴ Previous rulemakings also adjusted salaries in the pooled data using the CPI-U, but the Department recognizes that the relationship between wage growth and inflation between 2020 and 2022 may not be consistent. During the pandemic, large employment losses in low-wage industries resulted in stronger wage growth at the aggregate level. In the latter part of the 2020–2022 period, high inflation outpaced wage growth. Given these mixed effects, the Department decided to continue its prior practice of adjusting these observations using CPI-U.

whether there would be any need to pay for overtime if their status changed from exempt to nonexempt. The Department reweighted the rest of the sample to account for this change (*i.e.*, to keep the same total employment estimates).³⁰⁵ This adjustment assumes that the distribution of hours worked by workers whose hours do not vary is representative of hours worked by workers whose hours vary. The Department believes that without more information this is an appropriate assumption.³⁰⁶

3. Number of Workers Subject to the FLSA and the Department's Part 541 Regulations

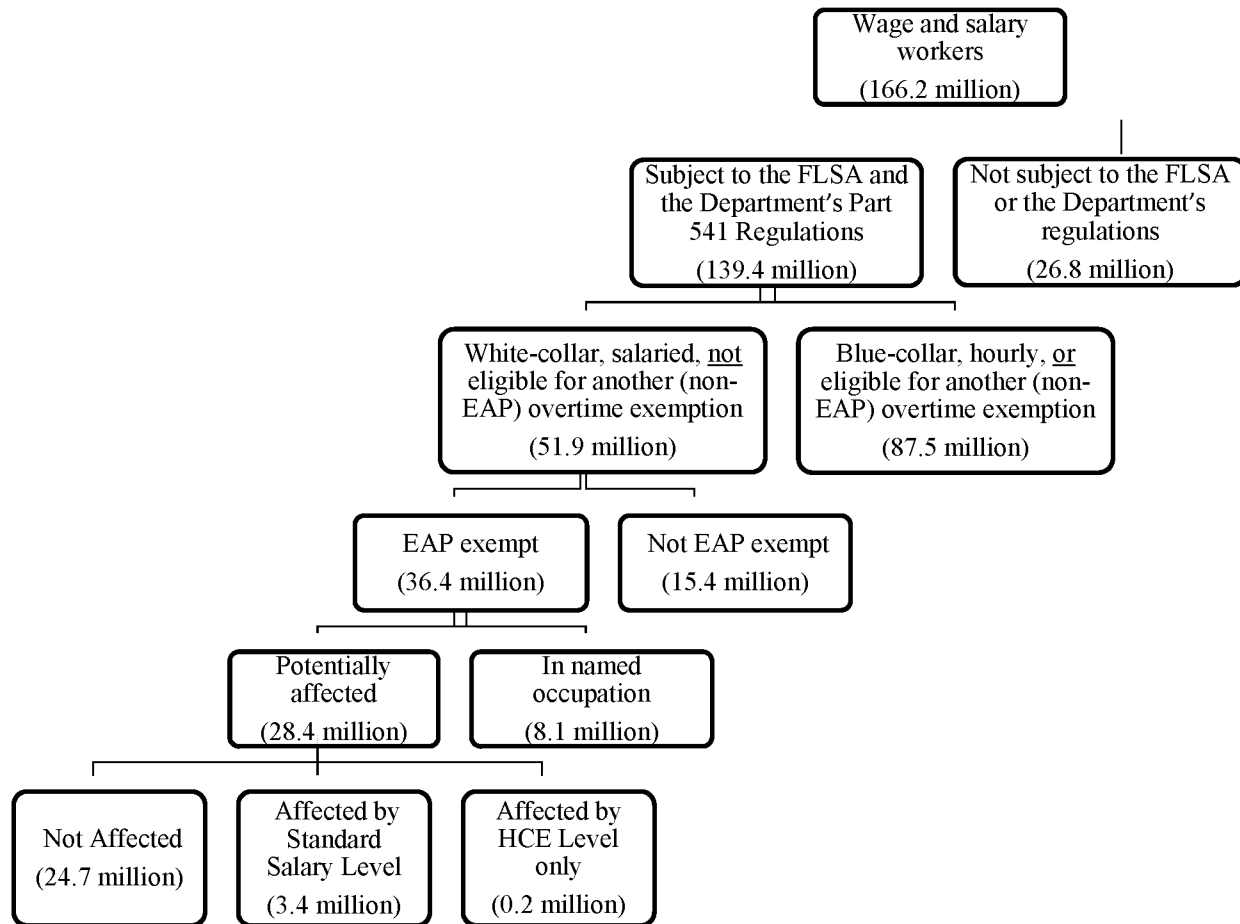
As a starting point for the analysis, based on the CPS MORG data, the Department estimates that there would be 166.2 million wage and salary workers in Year 1. Figure 1 illustrates how the Department analyzed the U.S. civilian workforce through successive stages to estimate the number of affected workers.

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³⁰⁵ The Department also reweighted for workers reporting zero earnings. In addition, the Department eliminated, without reweighting, workers who reported both usually working zero hours and working zero hours in the past week.

³⁰⁶ This is justifiable because demographic and employment characteristics are similar across these two populations (*e.g.*, age, gender, education, distribution across industries, share paid nonhourly). The share of all workers who stated that their hours vary (but provided no additional information) is 4.5 percent. To the extent these excluded workers are exempt, if they tend to work more overtime than other workers, then transfer payments and costs may be underestimated. Conversely, if they work fewer overtime hours, then transfer payments and costs may be overestimated.

Figure 1: Flow Chart of FLSA Exemptions and Estimated Number of Affected Workers

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The Department first excluded workers who are unemployed, not subject to its regulations, or not covered by the FLSA from the overall total number of wage and salary workers. Excluded workers include military personnel, unpaid volunteers, self-employed individuals, clergy and other religious workers, and Federal employees (with a few exceptions described below).

Many of these workers are excluded from the CPS MORG, including members of the military on active duty and unpaid volunteers. Self-employed and unpaid workers are included in the CPS MORG, but have no earnings data reported and thus are excluded from the analysis. The Department identified religious workers by their occupation codes: 'clergy' (Census occupational code 2040), 'directors, religious activities and education' (2050), and 'religious workers, all other' (2060). Most employees of the Federal Government are covered by the FLSA but not the Department's part 541

regulations because the Office of Personnel Management (OPM) regulates their entitlement to minimum wage and overtime pay.³⁰⁷ Exceptions exist for U.S. Postal Service employees, Tennessee Valley Authority employees, and Library of Congress employees.³⁰⁸ The analysis identified and included these covered Federal workers using occupation and/or industry codes and removed other Federal employees.³⁰⁹

The FLSA also does not cover employees of firms that have annual revenue of less than \$500,000 and who

³⁰⁷ See 29 U.S.C. 204(f). Federal workers are identified in the CPS MORG with the class of worker variable PEIO1COW.

³⁰⁸ See *id.*

³⁰⁹ Postal Service employees were identified with the Census industry classification for postal service (6370). Tennessee Valley Authority employees were identified as Federal workers employed in the electric power generation, transmission, and distribution industry (570) and in Kentucky, Tennessee, Mississippi, Alabama, Georgia, North Carolina, or Virginia. Library of Congress employees were identified as Federal workers under Census industry 'libraries and archives' (6770) and residing in Washington DC.

are not engaged in interstate commerce. The Department does not exclude them from the analysis, however, because there is no data set that would adequately inform an estimate of the size of this worker population, although the Department believes it is a small percentage of workers. The 2004, 2016, and 2019 final rules similarly did not adjust for these workers.

Of the 166.2 million wage and salary workers in the United States, the Department estimates that 139.4 million are covered by the FLSA and subject to the Department's regulations (83.9 percent). The remaining 26.8 million workers are excluded from FLSA coverage for the reasons described above.

4. Number of Workers Who Are White-Collar, Salaried, Not Eligible for Another (Non-EAP) Overtime Exemption

After limiting the analysis to workers covered by the FLSA and subject to the Department's part 541 regulations,

several other groups of workers were identified and excluded from further analysis since this proposed rule is unlikely to affect them. These include blue-collar workers,³¹⁰ workers paid on an hourly basis, and workers who are exempt under certain other (non-EAP) exemptions.

The Department excluded a total of 87.5 million workers from the analysis for one or more of these reasons, which often overlapped (e.g., many blue-collar workers are also paid hourly). For example, the Department estimated that there are 47.5 million blue-collar workers. These workers were identified in the CPS MORG data following the methodology from the U.S. Government Accountability Office's (GAO) 1999 white-collar exemptions report³¹¹ and the Department's 2004, 2016, and 2019 regulatory impact analyses.³¹² Supervisors in traditionally blue-collar industries were classified as white-collar workers because their duties are generally managerial or administrative, and therefore they were not excluded as blue-collar workers. Using the CPS variable indicating a respondent's hourly wage status, the Department determined that 77.8 million workers were paid on an hourly basis in 2022.³¹³

Also excluded from further analysis were workers who are exempt under certain other (non-EAP) exemptions. Although some of these workers may also be exempt under the EAP exemptions, they would independently remain exempt from the FLSA's minimum wage and/or overtime pay provisions based on the non-EAP exemptions. The Department excluded an estimated 3.8 million workers, including some agricultural and transportation workers, from further analysis because they are subject to another (non-EAP) overtime exemption. See Appendix A: Methodology for Estimating Exemption Status, contained in the rulemaking docket, for details on how this population was identified.

Agricultural and transportation workers are two of the largest groups of workers excluded from the population of potentially affected EAP workers in the current analysis, and with some exceptions, they were similarly excluded in other recent rulemakings.

³¹⁰ "The section 13(a)(1) exemptions and the regulations in [Part 541] do not apply to manual laborers or other 'blue collar' workers who perform work involving repetitive operations with their hands, physical skill and energy." § 541.3(a).

³¹¹ GAO/HEHS. (1999). Fair Labor Standards Act: White Collar Exemptions in the Modern Work Place. GAO/HEHS-99-164, 40-41, <https://www.gao.gov/assets/230/228036.pdf>.

³¹² See 69 FR 22240-44.

³¹³ CPS MORG variable PEERNHRY.

The 2004 rule excluded all workers in agricultural industries from the analysis,³¹⁴ while more recent analyses only excluded agricultural workers from specified occupational-industry combinations since not all workers in agricultural industries qualify for the agricultural overtime pay exemptions. This proposed rule followed the more recent analyses and only excluded agricultural workers in certain occupation-industry combinations. The exclusion of transportation workers matched the method for the 2004, 2016, and 2019 final rules. Transportation workers are defined as those who are subject to the following FLSA exemptions: section 13(b)(1), section 13(b)(2), section 13(b)(3), section 13(b)(6), or section 13(b)(10). The Department excluded 1.1 million agricultural workers and 2.0 million transportation workers from the analysis.

In addition, the Department excluded another 21,800 workers who qualify for one or more other FLSA minimum wage and overtime exemptions (and are not either blue-collar or hourly). The criteria for determining exemption status for these workers are detailed in Appendix A.

After excluding workers not subject to the Department's FLSA regulations and workers who are unlikely to be affected by this proposed rule (i.e., blue-collar workers, workers paid hourly, workers who are subject to another (non-EAP) overtime exemption), the Department estimated there are 51.9 million salaried white-collar workers for whom employers might claim either the standard EAP exemption or the HCE exemption.

5. Number of Current EAP Exempt Workers

To determine the number of workers for whom employers might currently claim the EAP exemption, the standard EAP test and HCE test were applied. Both tests include earnings thresholds and duties tests. Aside from workers in named occupations (which are not subject to an earnings requirement and are discussed in the next subsection), to be exempt under the standard EAP test, the employee generally must:

- be paid a predetermined and fixed salary that is not subject to reduction because of variations in the quality or quantity of work performed (the salary basis test);³¹⁵

³¹⁴ 69 FR 22197.

³¹⁵ Some computer employees may be exempt even if they are not paid on a salary basis. Hourly computer employees who earn at least \$27.63 per hour and perform certain duties are exempt under section 13(a)(17) of the FLSA. These workers are

- earn at least a designated salary amount (the standard salary level test, currently \$684 per week); and
- primarily perform exempt work, as defined by the regulations (the standard duties test).

The HCE test allows certain highly paid employees to qualify for exemption if they customarily and regularly perform one or more exempt job duties (the HCE duties test). The current HCE annual compensation level is \$107,432, including at least \$684 per week paid on a salary or fee basis.

i. Salary Basis

The Department included only nonhourly workers in the analysis based on CPS data.³¹⁶ For this NPRM, the Department considered data representing compensation paid to nonhourly workers to be an appropriate proxy for compensation paid to salaried workers. The Department notes that it made the same assumption regarding nonhourly workers in the 2004, 2016, and 2019 final rules.³¹⁷

The CPS population of "nonhourly" workers includes salaried workers along with those who are paid on a piece-rate, a day-rate, or largely on bonuses or commissions. Data in the CPS are not available to distinguish between salaried workers and these other nonhourly workers. However, the Panel Study of Income Dynamics (PSID) provides additional information on how nonhourly workers are paid.³¹⁸ In the PSID, respondents are asked how they are paid on their main job and are also asked for more detail if their response is other than salaried or hourly. Possible responses include piecework, commission, self-employed/farmer/profits, and by the job/day/mile. The Department analyzed the PSID data and found that relatively few nonhourly workers were paid by methods other than salaried. The Department is not aware of any statistically robust source

considered part of the EAP exemptions but were excluded from the analysis because they are paid hourly and will not be affected by this proposed rule (these workers were similarly excluded in the 2004, 2016, and 2019 analyses). Salaried computer workers are exempt if they meet the salary and duties tests applicable to the EAP exemptions, and are included in the analysis since they will be impacted by this proposed rule. Additionally, administrative and professional employees may be paid on a fee basis, as opposed to a salary basis. § 541.605(a). Although the CPS MORG does not identify workers paid on a fee basis, they are considered nonhourly workers in the CPS and consequently are correctly classified as "salaried" (as was done in previous rules).

³¹⁶ The CPS variable PEERNHRY identifies workers as either hourly or nonhourly.

³¹⁷ See 69 FR 22197; 81 FR 32414; 84 FR 51258.

³¹⁸ University of Michigan, Institute for Social Research. 2019 PSID. Data available at: <https://simba.isr.umich.edu/data/data.aspx>.

that more closely reflects salary as defined in its regulations.

ii. Salary Level

Weekly earnings are available in the CPS MORG data, which allowed the Department to estimate how many nonhourly workers pass the compensation thresholds.³¹⁹ However, the CPS earnings variable does not perfectly reflect the Department’s definition of earnings. First, the CPS includes all nondiscretionary bonuses and commissions if they are part of usual weekly earnings. However, the regulation allows nondiscretionary bonuses and commissions to satisfy up to 10 percent of the standard salary level. This discrepancy between the earnings variable used and the regulatory definition of salary may cause a slight overestimation or underestimation of the number of workers estimated to meet the standard salary level and HCE compensation tests.³²⁰ Second, CPS earnings data include overtime pay. The Department notes that employers may factor into an employee’s salary a premium for expected overtime hours worked. To the extent they do so, that premium would be reflected accurately in the data. Third, the earnings measure includes tips and discretionary commissions which do not qualify towards the required salary. The Department believes tips are an uncommon form of

payment for these white-collar workers. Discretionary commissions tend to be paid irregularly and hence are unlikely to be counted as “usual earning.” Additionally, as noted above, most salaried workers do not receive commissions.

Lastly, the CPS annual earnings variable is topcoded at \$150,000. Topcoding refers to how data sets handle observations at the top of the distribution. For the CPS annual earnings variable, workers earning above \$2,884.61 ($\$150,000 \div 52$ weeks) per week are reported as earning \$2,884.61 per week. The Department imputed earnings for topcoded workers in the CPS data to adequately estimate impacts.³²¹

iii. Duties

The CPS MORG data do not capture information about job duties. Therefore, the Department used probability estimates of passing the duties test by occupational title to estimate the number of workers passing the duties test. This is the same methodology used in recent part 541 rulemakings, and the Department believes it continues to be the best available methodology. The probabilities of passing the duties test are from an analysis performed by WHD in 1998 in response to a request from the GAO. Because WHD enforces the FLSA’s overtime requirements and regularly assesses workers’ exempt

status, WHD was uniquely qualified to provide the analysis. The analysis was originally published in the GAO’s 1999 white-collar exemptions report.³²²

WHD examined 499 occupational codes and determined that 251 occupational codes likely included EAP exempt workers.³²³ For each, WHD assigned one of four probability codes reflecting the estimated likelihood, expressed as ranges, that a worker in that occupation would perform duties required to meet the EAP duties tests (Table 3). All occupations and their associated probability codes are listed in Appendix A. Just as in the 2004, 2016, and 2019 final rules, the Department has supplemented this analysis to account for the HCE exemption. The Department modified the four probability codes to reflect probabilities of passing the HCE duties test based on its analysis of the provisions of the highly compensated test relative to the standard duties test. To illustrate, WHD assigned exempt probability code 4 to the occupation “first-line supervisors/managers of construction trades and extraction workers” (Census code 6200), which indicates that a worker in this occupation has a 0 to 10 percent likelihood of meeting the standard EAP duties test. However, if that worker earned at least \$100,000 annually (now \$107,432 annually), they were assigned a 15 percent probability of passing the more lenient HCE duties test.³²⁴

TABLE 3—PROBABILITY WORKER IN CATEGORY PASSES THE DUTIES TESTS

Probability code	The standard EAP test		The HCE test	
	Lower bound (%)	Upper bound (%)	Lower bound (%)	Upper bound (%)
0	0	0	0	0
1	90	100	100	100
2	50	90	94	96
3	10	50	58.4	60
4	0	10	15	15

The occupations identified in GAO’s 1999 report map to an earlier occupational classification scheme (the 1990 Census occupational codes).³²⁵ For this proposed rule, the Department used

occupational crosswalks to map the previous occupational codes to the 2018 Census occupational codes, which are used in the CPS MORG 2020 through 2022 data. If a new occupation

comprises more than one previous occupation, then the new occupation’s probability code is the weighted average of the previous occupations’ probability

³¹⁹ The CPS MORG variable PRERNWA, which measures weekly earnings, is used to identify weekly salary.

³²⁰ In some instances, this may include too much nondiscretionary bonuses and commissions (*i.e.*, when it is more than 10 percent of usual earnings). But in other instances, it may not include enough nondiscretionary bonuses and commissions (*i.e.*, when the respondent does not count them as usual earnings).

³²¹ The Department used the standard Pareto distribution approach to impute earnings above the topcoded value as described in Armour, P. and

Burkhauser, R (2013). Using the Pareto Distribution to Improve Estimates of Topcoded Earnings. Center for Economic Studies (CES).

³²² Fair Labor Standards Act: White Collar Exemptions in the Modern Work Place, *supra* note 311, at 40–41.

³²³ WHD excluded nine that were not relevant to the analysis for various reasons. For example, one code was assigned to unemployed persons whose last job was in the Armed Forces, some codes were assigned to workers who are not FLSA covered, others had no observations.

³²⁴ The HCE duties test is used in conjunction with the HCE total annual compensation requirement to determine eligibility for the HCE exemption. It is much less stringent than the standard and short duties tests to reflect that very highly paid employees are much more likely to be properly classified as exempt.

³²⁵ Census occupation codes were also updated in 2002 and 2010. References to occupational codes in this analysis refer to the 2002 Census occupational codes. Crosswalks and methodology available at: <https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html>.

codes, rounded to the closest probability code.

These codes provide information on the likelihood that an employee met the duties tests, but they do not identify the workers in the CPS MORG who passed the test. For example, for every ten public relations managers, between five and nine are assumed to pass the standard duties test (based on probability category 2). However, it is unknown which of these ten workers are exempt; therefore, for the purposes of producing an estimate, the Department must assign a status to these workers. Exemption status could be randomly assigned with equal probability, but this would ignore the earnings of the worker as a factor in determining the probability of exemption. The probability of qualifying for the exemption increases with earnings because higher paid workers are more likely to perform the required duties.³²⁶

The Department estimated the probability of qualifying for the standard exemption for each worker as a function of both earnings and the occupation's exempt probability category using a gamma distribution.³²⁷

³²⁶ For the standard exemption, the relationship between earnings and exemption status is not linear and is better represented with a gamma distribution. For the HCE exemption, the relationship between earnings and exemption can be well represented with a linear function because the relationship is linear at high salary levels (as determined by the Department in the 2004 rule). Therefore, the gamma model and the linear model would produce similar results for highly compensated workers. See 69 FR 22204–08, 22215–16.

³²⁷ The gamma distribution was chosen because, during the 2004 revision, this non-linear distribution best fit the data compared to the other non-linear distributions considered (*i.e.*, normal and lognormal). A gamma distribution is a general type of statistical distribution that is based on two parameters that control the scale (alpha) and shape (in this context, called the rate parameter, beta).

Based on these revised probabilities, each worker was assigned exempt or nonexempt status based on a random draw from a binomial distribution using the worker's revised probability as the probability of success. Thus, if this method is applied to ten workers who each have a 60 percent probability of being exempt, six workers would be expected to be designated as exempt.³²⁸ For details, see Appendix A (in the rulemaking docket).

The Department acknowledges that the probability codes used to determine the share of workers in an occupation who are EAP exempt are 25 years old. However, the Department believes the probability codes continue to estimate exemption status accurately given the fact that the standard duties test is not substantively different from the former short duties tests reflected in the codes. For the 2016 rulemaking, the Department reviewed O*NET³²⁹ to determine the extent to which the 1998 probability codes reflected current occupational duties. The Department's review of O*NET verified the continued appropriateness of the 1998 probability codes.³³⁰

The Department estimates that of the existing 51.9 million salaried white-collar workers considered in the analysis, 36.4 million currently qualify for the EAP exemption.

³²⁸ A binomial distribution is frequently used for a dichotomous variable where there are two possible outcomes; for example, whether one owns a home (outcome of 1) or does not own a home (outcome of 0). Taking a random draw from a binomial distribution results in either a zero or a one based on a probability of "success" (outcome of 1). This methodology assigns exempt status to the appropriate share of workers without biasing the results with manual assignment.

³²⁹ The O*NET database contains hundreds of standardized and occupation-specific descriptors. See <http://www.onetcenter.org>.

³³⁰ 81 FR 32459.

6. Potentially Affected Exempt EAP Workers

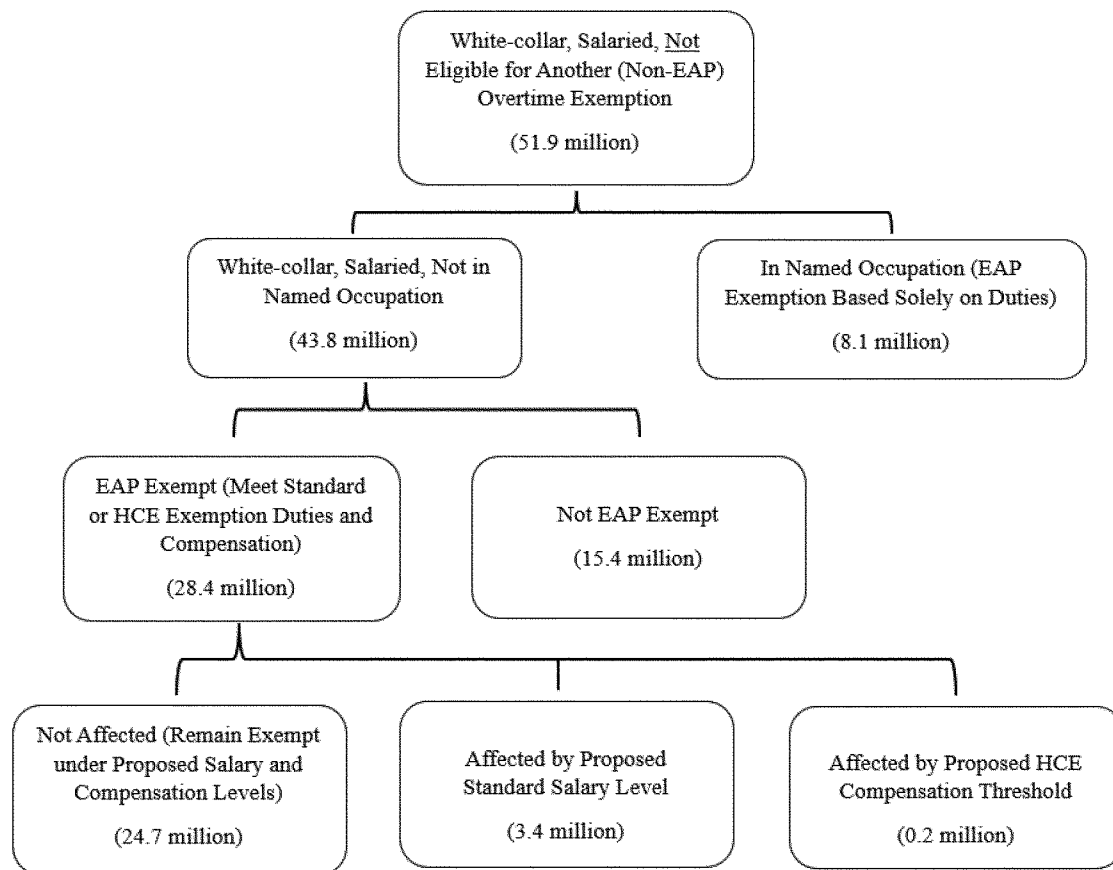
The Department excluded some of the current EAP exempt workers from further analysis because the proposed rule would not affect them. Specifically, the Department excluded workers in named occupations who are not required to pass the salary requirements (although they must still pass a duties test) and therefore whose exemption status does not depend on their earnings. These occupations include physicians (identified with Census occupation codes 3010, 3040, 3060, 3120), lawyers (2100), teachers (occupations 2200–2550 and industries 7860 or 7870), academic administrative personnel (school counselors (occupation 2000 and industries 7860 or 7870) and educational administrators (occupation 0230 and industries 7860 or 7870)), and outside sales workers (a subset of occupation 4950). Out of the 36.4 million workers who were EAP exempt, 8.1 million, or 22.1 percent, were expected to be in named occupations. Thus, the proposed changes to the standard salary level and HCE compensation tests would not affect these workers. The 28.4 million EAP exempt workers remaining in the analysis are referred to in this proposed rule as "potentially affected" (17.1 percent of all workers).

Based on analysis of the occupational codes and CPS earnings data (described above), the Department has concluded there are 28.4 million potentially affected EAP workers.³³¹

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³³¹ Of these workers, approximately 16.0 million pass only the standard test, 11.9 million pass both the standard and the HCE tests, and 420,000 pass only the HCE test.

Figure 2: Exemption Status and Number of Affected Workers



As shown in Figure 2 above, 8.1 million of the 51.9 million salaried white-collar workers are in named occupations and will not be affected by a change in the earnings requirements. The Department also estimates that of the remaining 43.8 million salaried white-collar workers, about 11.7 million earn below the Department's proposed standard salary level of \$1,059 per week and about 32.1 million earn above the Department's proposed salary level.

Thus, approximately 27 percent of salaried white-collar employees earn below the proposed salary level, whereas approximately 73 percent of salaried white-collar employees earn above the salary level and would have their exemption status turn on their job duties.

7. Number of Affected EAP Workers

The Department estimated that the proposed increase in the standard salary level from \$684 per week to \$1,059 per

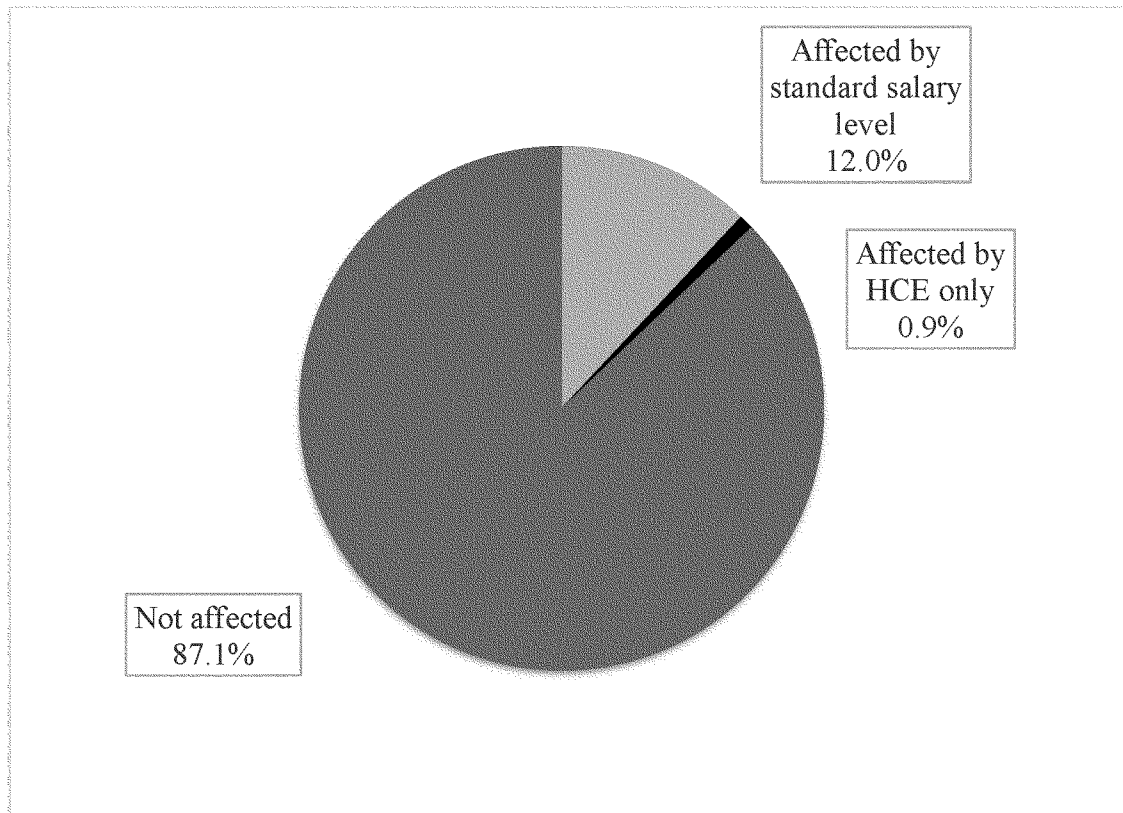
week would affect 3.4 million workers in Year 1 (of these 3.4 million affected employees, 1.8 million earn less than the long test salary level (\$925)).³³² The Department estimated that the proposed increase in the HCE annual compensation level from \$107,432 to \$143,988 would impact 248,900 workers (Figure 3).³³³ In total, the Department expects that 3.6 million workers out of the 28.4 million potentially affected workers would be affected in Year 1.

³³² See section VII.C.8 (Alternative 2). As discuss in section IV.A, such employees were always excluded from the EAP exemption prior to 2019, either by the long test salary level itself, or under the 2004 rule salary level, which was equivalent to

the long test salary level. The remaining 1.6 million of these affected employees earn between the long test salary level and the Department's proposed standard salary level.

³³³ This group includes workers who may currently be nonexempt under more protective state EAP laws and regulations, such as some workers in Alaska, California, Colorado, Maine, New York, Washington, and Wisconsin.

Figure 3: Pie Chart of Potentially Affected Employees and their Affected Status



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8. Supplemental Analysis on the Number of Affected Workers in the Territories

The Department is proposing to apply the standard salary level to all territories that are subject to the Federal minimum wage, including the Commonwealth of the Northern Mariana Islands (CNMI), Guam, Puerto Rico, and the U.S. Virgin Islands, and to update the special salary level for American Samoa in relation to the new standard salary level. In American Samoa, the salary level would be set at 84 percent of the new standard salary level, or \$890 per week (\$1,059 x 84 percent). In the other territories, the salary level would be set at the proposed standard salary level of the 35th percentile of weekly nonhourly earnings in the lowest wage Census region (currently the South), or \$1,059 per week. The salary levels in the territories have not been updated since 2004, when the salary level for Puerto Rico, Guam, the U.S. Virgin Islands, and the CNMI was set to \$455 per week and the salary level for American Samoa was set to \$380 per week. Therefore, the increases in those salary levels will be more pronounced than in the 50 states and the District of Columbia. This may lead to larger impacts resulting from the

increased standard salary level in the territories. Unfortunately, data are not available to conduct a full analysis of impacts in the territories. Therefore, the Department applied reasonable assumptions to the available data to estimate the number of affected workers in the territories.³³⁴

The CPS data used for the impact analysis does not include data for the territories, and no other data source provides individual level data on earnings, occupation, and pay basis (*i.e.*, hourly or salaried). The Department identified several data sources with pertinent information on the territories:

- BLS Occupational Employment and Wage Statistics (OEWS)
- The Puerto Rico Community Survey
- The Census of Island Areas
- The Economic Census
- County Business Patterns (CBP)

For Puerto Rico, Guam, and the U.S. Virgin Islands the Department used OEWS data.³³⁵ The OEWS does not include American Samoa or the CNMI; the Department used CBP (discussed below) data on the number of workers

³³⁴ The Department was unable to estimate transfer payments in the territories because of the additional assumptions that would be necessary.

³³⁵ OEWS 2022. <https://www.bls.gov/oes/tables.htm>.

for these territories. The Department believes OEWS is more appropriate for this analysis than CBP because it provides the number of white-collar workers and information about earnings, which CBP does not.³³⁶ The Puerto Rico Community Survey provides individual-level earnings information for Puerto Rico that is not available in the OEWS.³³⁷ However, the Department chose to use OEWS because it includes data on additional territories, and to limit the number of data sets used for consistency. The Department welcomes comments on the choice of data set for this analysis, and the overall methodology for estimating the impact on territories. The Department also welcomes recommendations for additional sources of data on workers in the territories.

The OEWS reports the number of workers by detailed occupation, to which the Department applied the

³³⁶ CBP includes total quarterly payroll and the number of employees, but no information about the distribution of these earnings.

³³⁷ The Government Accountability Office assessed the impacts of the 2016 rulemaking in Puerto Rico using the Puerto Rico Community Survey. GAO. (2018). Limited Federal Data Hinder Analysis of Economic Condition and DOL's 2016 Overtime Rule. <https://www.gao.gov/assets/700/693309.pdf>.

probability codes to estimate the number of white-collar workers who meet the duties test requirements for the EAP exemption. The OEWS does not have information on the share of employees in each occupation who are salaried. In order to estimate this share, the Department calculated the share of workers in the 50 states and DC who meet the duties requirement in the CPS

data who are salaried, controlling for the distribution of workers across occupations in each of the three territories.³³⁸ The Department then multiplied the share of workers who meet the duties requirement who are salaried in each occupation by the number of workers who meet the duties requirements in that territory.

The OEWS also reports select percentiles of the earnings distribution for each occupation (10th, 25th, 50th, 75th, and 90th). This allows the Department to estimate an earnings distribution for each occupation and approximate the number of workers who earn between the old and new salary levels.³³⁹ These calculations are summarized in Table 4.

TABLE 4—ESTIMATED NUMBER OF AFFECTED WORKERS IN TERRITORIES USING OEWS

Population or parameter	Puerto Rico	Guam	U.S. Virgin Islands
Workers ^a	907,930	51,340	27,860
Workers who meet duties requirements	169,241	10,413	5,808
Share of workers meeting duties requirements who are salaried ^{b c}	54%	60%	57%
Salaried workers meeting duties requirements	91,919	6,285	3,333
Share between salary thresholds (\$455–\$1,059)	49%	38%	32%
Salaried workers meeting duties requirements between thresholds (<i>i.e.</i> , affected workers)	44,881	2,407	1,071

^a Limited to wage and salary workers in nonfarm establishments.

^b Also removes workers unlikely to be impacted by this rulemaking such as workers in named occupations and workers exempt under another non-EAP overtime exemption.

^c Ratio calculated from CPS data for employees in the 50 states and the District of Columbia while controlling for occupation distribution.

There are several reasons why the estimated number of workers calculated from the OEWS may over or underestimate the true number of affected workers. The Department does not know the size of the biases and so does not know which dominate. First, the share of workers who are salaried in the territories may differ from in the 50 states and the District of Columbia. If the share is higher in the territories than the states, then the Department’s approach will underestimate the number of affected workers but overestimate the number if the share is lower. Second, the OEWS is limited to

wage and salary workers in nonfarm establishments which may lead to an undercount of affected workers.³⁴⁰

The Department used 2021 CBP data to estimate the number of affected workers in American Samoa and the CNMI. The methodology is largely the same as for the analysis using OEWS data. Table 5 shows estimates using CBP data for all five territories to facilitate a comparison of OEWS and CBP results for Puerto Rico, Guam, and the U.S. Virgin Islands.

CBP provides employment data for each territory. To estimate the number of workers who may be exempt, the

Department calculated the share of workers in the OEWS analysis who meet the duties requirements and are salaried in each of the other three territories and applied that weighted average to American Samoa and the CNMI. The Department also calculated the share of exempt workers who earn between the current and proposed salary thresholds in the three territories covered by the OEWS data and applied them to American Samoa and the CNMI. The Department then multiplied the number of workers by these two shares to estimate the number of affected workers.³⁴¹

TABLE 5—ESTIMATED NUMBER OF AFFECTED WORKERS IN TERRITORIES USING CBP

Population or parameter	Puerto Rico	Guam	U.S. Virgin Islands	American Samoa	CNMI
Workers	660,654	49,876	25,652	7,808	12,763
Share who are salaried and meet duties requirements ^a	10%	12%	12%	10%	10%
Salaried workers meeting duties requirements	66,885	6,106	3,069	803	1,313
Share between salary thresholds ^b	49%	38%	32%	48%	48%
Salaried workers meeting duties requirements between thresholds (<i>i.e.</i> , affected workers)	32,657	2,339	986	383	625

^a Ratio calculated from OEWS data for Puerto Rico, Guam, and U.S. Virgin Islands. Average used for American Samoa and the CNMI. Excludes workers unlikely to be impacted by this rulemaking such as workers in named occupations and workers exempt under another non-EAP overtime exemption.

^b Excludes workers unlikely to be impacted by this rulemaking such as workers in named occupations and workers exempt under another non-EAP overtime exemption.

³³⁸ The Department also excluded workers who are unlikely to be affected by this rulemaking, including workers in named occupations and workers exempt under another non-EAP overtime exemption.

³³⁹ The Department interpolated values between the reported percentiles by assuming a uniform distribution for each segment (*e.g.*, between the 10th and the 25th percentiles the Department assumed the earnings distribution is linear). The

Department assumed a minimum value of \$100 and a maximum value of three times the 90th percentile.

³⁴⁰ In particular, “The OEWS survey excludes the majority of the agricultural sector, with the exception of logging (NAICS 113310), support activities for crop production (NAICS 1151), and support activities for animal production (NAICS 1152). Private households (NAICS 814) also are excluded. OEWS Federal Government data include the U.S. Postal Service and the Federal executive branch only. All other industries, including state

and local government, are covered by the survey.” See https://www.bls.gov/oes/current/oes_tec.htm.

³⁴¹ American Samoa has lower current and proposed salary thresholds. However, earnings are also lower in American Samoa. Therefore, the Department believes to estimate American Samoa impacts, it is more appropriate to use the salary thresholds in the other territories when applied to wage data for those territories, rather than using the lower American Samoa thresholds combined with the higher earnings data for other territories.

In general, the same potential biases apply here as with the OEWS analysis. However, employment coverage differs slightly between the OEWS and CBP. The CBP excludes government workers (including state and local workers) and covered workers in a few select NAICS, resulting in a downward bias in the number of affected workers.³⁴² Additionally, the estimates for American Samoa and the CNMI assume the share of workers in these territories who meet the duties requirements and are salaried, and the share of these workers who earn between the current and proposed salary thresholds, are similar to those shares in Puerto Rico, Guam, and the U.S. Virgin Islands.

As a sensitivity analysis, the Department compared the results from the CBP analysis to the OEWS analysis for Puerto Rico, Guam, and the U.S. Virgin Islands. The two estimates of the number of affected workers are within 10 percent for both Guam and the U.S. Virgin Islands. The Puerto Rico estimates differ by a larger amount because the CBP number of workers in Puerto Rico is smaller than the OEWS number due to differences in the covered population.

Table 6 includes the estimated number of affected workers by area using the preferred data source for each (i.e., OEWS for Puerto Rico, Guam, and U.S. Virgin Islands and CBP for

American Samoa and the CNMI). The share of workers affected by the rule ranges from 3.8 to 4.9 percent for each territory, with an average of 4.9 percent over all territories, which is higher than the average of 2.2 percent estimated for the 50 states and the District of Columbia. The effect is larger in the territories than the states for two reasons. First, the increase in salary level will be larger since the salary level wasn't increased for these territories in the 2019 rulemaking. Second, earnings tend to be lower in the territories, and so more workers may fall within the impacted salary range.

TABLE 6—SUMMARY OF NUMBER OF AFFECTED WORKERS BY TERRITORY

Territory	All workers	Number of affected workers	Affected as share of all workers (%)
Puerto Rico	907,930	44,881	4.9
Guam	51,340	2,407	4.7
U.S. Virgin Islands	27,860	1,071	3.8
American Samoa	7,808	383	4.9
CNMI	12,763	625	4.9
Total	1,007,701	49,367	4.9

Although the share of affected workers to total workers in the territories is larger, these workers still comprise only a fraction of the workforce. As is true for the mainland U.S., the Department believes that many of these workers are unlikely to work regular overtime. The Department welcomes comments and data on the prevalence of overtime work in the territories.

The Department has not included this supplemental estimate of affected workers in the territories in the larger analysis of affected workers due to the limitations of the estimates and the inability to estimate transfers. Even if this supplemental estimate were to be included in the broader analysis, the total number of affected workers would be little changed, as the number of affected workers in the territories (49,367) is less than 1.5% of our affected workers estimate (3.6 million).

C. Effects of Revised Salary and Compensation Levels

1. Overview and Summary of Quantified Effects

The Department is proposing to set the standard salary level using the 35th percentile of earnings of full-time salaried workers in the lowest-wage Census region (currently the South) and to set the HCE compensation level at the annualized weekly earnings of the 85th percentile of full-time salaried workers nationwide. In both cases the Department used 2022 CPS data to calculate the levels.³⁴³ The levels presented in this analysis are likely lower than the corresponding levels would be at the time a final rule is published, given that the Department would use the most recent data available. However, the economic impacts estimated here are an appropriate proxy for the effects likely to occur at the time of implementation if the proposal is finalized.

Both transfers from employers to employees and between employees, and direct employer costs, would depend on

how employers respond to this rulemaking. Employer response is expected to vary by the characteristics of the affected EAP workers. Assumptions related to employer responses are discussed below.

Table 7 presents the estimated number of affected workers, costs, and transfers associated with increasing the standard salary and HCE compensation levels. The Department estimated that the direct employer costs of this proposed rule, if finalized, would total \$1.2 billion in the first year, with 10-year annualized direct costs of \$664 million per year using a 7 percent discount rate.

In addition to these direct costs, this proposed rule would transfer income from employers to employees. Estimated Year 1 transfers would equal \$1.2 billion, with annualized transfers of \$1.3 billion per year using both the 3 percent and 7 percent real discount rates. Potential employer costs due to reduced profits and additional hiring were not quantified but are discussed in section VII.C.3.v.

³⁴² In particular, “CBP covers most NAICS industries excluding crop and animal production; rail transportation; Postal Service; pension, health, welfare, and vacation funds; trusts, estates, and

agency accounts; office of notaries; private households; and public administration. CBP also excludes most establishments reporting government

employees.” See <https://www.census.gov/programs-surveys/cbp/about.html>.

³⁴³ Full-time is defined as 35 or more hours per week.

TABLE 7—SUMMARY OF AFFECTED WORKERS AND REGULATORY COSTS AND TRANSFERS

Impact ^a	Year 1	Future years ^b		Annualized value	
		Year 2	Year 10	3% Real discount rate	7% Real discount rate
Affected Workers (1,000s)					
Standard	3,399	2,999	4,288	(c)	(c)
HCE	249	269	769	(c)	(c)
Total	3,648	3,268	5,057	(c)	(c)
Direct Employer Costs (Millions in \$2022)					
Regulatory familiarization	\$427.2	\$0.0	\$65.1	\$67.9	\$75.0
Adjustment ^c	\$240.8	\$8.1	\$15.0	\$35.7	\$40.0
Managerial	\$534.9	\$500.2	\$667.9	\$552.8	\$548.5
Total direct costs ^d	\$1,202.8	\$508.3	\$748.0	\$656.4	\$663.6
Transfers from Employers to Workers (Millions in \$2022) ^e					
Due to minimum wage	\$48.6	\$27.1	\$17.2	\$25.2	\$25.9
Due to overtime pay	\$1,185.6	\$921.8	\$1,963.9	\$1,292.9	\$1,268.5
Total transfers ^f	\$1,234.2	\$949.0	\$1,981.2	\$1,318.1	\$1,294.3

^a Additional costs and benefits of the rule that could not be quantified or monetized are discussed in the text.

^b These costs/transfers represent a range over the nine-year span.

^c Not annualized.

^d Adjustment costs occur in all years when there are newly affected workers. Adjustment costs may occur in years without updated earnings thresholds because some workers' projected earnings are estimated using negative earnings growth.

^e Components may not add to total due to rounding.

^f This is the net transfer from employers to workers. There may also be transfers between workers.

2. Characteristics of Affected EAP Workers

Table 8 presents the number of affected EAP workers, the mean number of overtime hours they work per week, and their average weekly earnings. The Department considered two types of overtime workers in this analysis: regular overtime workers and occasional overtime workers.³⁴⁴ Regular overtime workers typically worked more than 40 hours per week. Occasional overtime workers typically worked 40 hours or less per week, but they worked more than 40 hours in the week they were surveyed. The Department considered these two populations separately in the analysis because labor market responses to overtime pay requirements may differ for these two types of workers.

The 3.4 million workers affected by the increase in the standard salary level work on average 1.6 usual hours of overtime per week and earn on average

\$914 per week.³⁴⁵ However, most of these workers (about 85 percent) usually do not work overtime. The 15 percent of affected workers who usually work overtime average 11.0 hours of overtime per week. In a representative week, roughly 121,000 (or 3.6%) of the 3.4 million affected workers occasionally work overtime; they averaged 8.7 hours of overtime in the weeks they worked overtime.³⁴⁶ Finally, 8,000 (or 0.2%) of all workers affected by the increase in the salary level earn less than the minimum wage.

The 248,900 workers affected by the change in the HCE compensation level average 3.1 hours of overtime per week and earn an average of \$2,355 per week (\$122,460 per year). About 72 percent of these workers do not usually work overtime, while the 28 percent who usually work overtime average 11.1 hours of overtime per week. Among the 3.8% who occasionally work overtime,

they averaged 12.7 hours in the weeks that they worked overtime.

Although most affected workers who typically do not work overtime would be unlikely to experience significant changes in their daily work routine, those who regularly work overtime may experience significant changes. Moreover, affected EAP workers who routinely work overtime and earn less than the minimum wage would be most likely to experience significant changes.³⁴⁷

Employers might respond by paying overtime premiums; reducing or eliminating overtime hours; reducing employees' regular wage rates to keep overall compensation consistent (provided that the reduced rates still exceed the minimum wage); increasing employees' salaries to the updated earnings threshold to preserve their exempt status;³⁴⁸ or using some combination of these responses.

³⁴⁴ Regular overtime workers were identified in the CPS MORG with variable PEHRUSL1. Occasional overtime workers were identified with variables PEHRUSL1 and PEHRACT1.

³⁴⁵ CPS defines "usual hours" as hours worked 50 percent or more of the time.

³⁴⁶ This group represents the number of workers with occasional overtime hours in the week the CPS MORG survey was conducted. Because the survey week is a representative week, the Department

believes the prevalence of occasional overtime in the survey week and the characteristics of these workers are representative of other weeks (even though a different group of workers would be identified as occasional overtime workers in a different week).

³⁴⁷ A small proportion (0.2 percent) of affected EAP workers earn implicit hourly wages that are less than the applicable minimum wage (the higher of the state or Federal minimum wage). The implicit hourly wage is calculated as total weekly earnings

divided by total weekly hours worked. For example, workers earning the \$684 per week standard salary level would earn less than the Federal minimum wage if they work 95 or more hours in a week (\$684 ÷ 95 hours = \$7.20 per hour).

³⁴⁸ Increasing employees' salaries to the updated salary level would be less common for affected workers earning below the minimum wage and more generally would be inversely correlated with baseline salary and compensation.

TABLE 8—NUMBER OF AFFECTED EAP WORKERS, MEAN OVERTIME HOURS, AND MEAN WEEKLY EARNINGS, YEAR 1

Type of affected EAP worker	Affected EAP workers ^a		Mean overtime hours	Mean usual weekly earnings
	Number (1,000s)	% of total		
Standard Salary Level				
All affected EAP workers	3,399	100	1.6	\$914
Earn less than the minimum wage ^b	8	0.2	33.2	809
Regularly work overtime	494	14.5	11.0	917
Occasionally work overtime ^c	121	3.6	8.7	914
HCE Compensation Level				
All affected EAP workers	249	100	3.1	2,355
Earn less than the minimum wage ^b	70	28.3	11.1	2,332
Regularly work overtime	9	3.8	12.7	2,347

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Estimated number of workers exempt under the EAP exemptions who will be entitled to overtime protection under the updated salary levels (if their weekly earnings do not increase to the new salary levels).

^b The applicable minimum wage is the higher of the Federal minimum wage and the state minimum wage. These workers all regularly work overtime and are also included in that row. HCE workers will not be affected by the minimum wage provision.

^c Workers who do not usually work overtime but did in the CPS reference week. Mean overtime hours are actual overtime hours in the reference week. Other workers may occasionally work overtime in other weeks.

This section characterizes the population of affected workers by industry, occupation, employer type, location of residence, and demographics. The Department chose to provide as much detail as possible while maintaining adequate sample sizes.

Table 9 presents the distribution of affected EAP workers by industry and occupation, using Census industry and occupation codes. The industry with the most affected EAP workers is professional and business services (687,000), while the industry with the highest percentage of EAP workers affected is agriculture, forestry, fishing,

and hunting (about 22 percent). The occupational category with the most affected EAP workers is management, business, and financial (1.6 million), while the occupation category with the highest percentage of EAP workers affected is services (about 31 percent).

Potentially affected workers in private-sector nonprofits are more likely to be affected than workers in private-sector for-profit firms (16.8 percent compared with 12.0 percent). However, as discussed in section VII.B.3, the estimates of workers subject to the FLSA include workers employed by enterprises that are not subject to the FLSA under the law’s enterprise

coverage requirements because there is no data set that would adequately inform an estimate of the size of this worker population in order to exclude them from these estimates. Although failing to exclude workers who work for non-covered enterprises would only affect a small percentage of workers generally, it may have a larger effect (and result in a larger overestimate) for workers in nonprofits because when determining FLSA enterprise coverage only revenue derived from business operations, not charitable activities, is included.

TABLE 9—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY INDUSTRY AND OCCUPATION, YEAR 1

Industry/occupation/nonprofit	Workers subject to FLSA (millions)	Potentially affected EAP workers (millions) ^a	Not-affected (millions) ^b	Affected (millions) ^c	Affected as share of potentially affected (%)
Total	139.40	28.36	24.71	3.65	12.9
By Industry^d					
Agriculture, forestry, fishing, & hunting	1.33	0.06	0.04	0.01	22.1
Mining	0.62	0.17	0.16	0.01	7.3
Construction	8.91	1.19	1.03	0.15	13.0
Manufacturing	15.13	3.90	3.58	0.32	8.1
Wholesale trade	3.23	0.85	0.75	0.10	12.2
Retail trade	15.38	1.85	1.54	0.31	16.7
Transportation & utilities	8.51	1.03	0.91	0.12	11.5
Information	2.56	0.96	0.84	0.12	12.3
Financial activities	9.85	4.25	3.77	0.48	11.3
Professional & business services	16.78	6.75	6.07	0.69	10.2
Education	14.02	1.12	0.92	0.202	18.0
Healthcare & social services	20.53	3.60	2.97	0.627	17.4
Leisure & hospitality	11.60	0.87	0.69	0.18	21.1
Other services	5.31	0.74	0.60	0.14	18.9

TABLE 9—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY INDUSTRY AND OCCUPATION, YEAR 1—Continued

Industry/occupation/nonprofit	Workers subject to FLSA (millions)	Potentially affected EAP workers (millions) ^a	Not-affected (millions) ^b	Affected (millions) ^c	Affected as share of potentially affected (%)
Public administration	5.63	1.01	0.83	0.18	18.0
By Occupation^d					
Management, business, & financial	23.57	14.56	12.91	1.65	11.3
Professional & related	34.77	10.18	8.92	1.26	12.4
Services	21.84	0.13	0.09	0.04	31.0
Sales and related	12.63	2.36	1.95	0.41	17.5
Office & administrative support	15.81	0.93	0.67	0.26	28.1
Farming, fishing, & forestry	0.93	0.00	0.00	0.00	0.00
Construction & extraction	6.72	0.03	0.02	0.01	19.6
Installation, maintenance, & repair	4.53	0.04	0.04	0.00	6.4
Production	7.98	0.09	0.08	0.01	12.3
Transportation & material moving	10.60	0.04	0.04	0.01	13.5
By Nonprofit and Government Status					
Nonprofit, private	9.80	2.27	1.89	0.38	16.8
For profit, private	110.90	23.90	21.03	2.87	12.0
Government (state, local, and Federal)	18.70	2.20	1.80	0.40	18.1

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Exempt workers who are white-collar, salaried, not eligible for another (non-EAP) overtime exemption, and not in a named occupation.

^b Workers who continue to be exempt after the increases in the salary levels (assuming affected workers earning below the new salary level do not have their weekly earnings increased to the new level).

^c Estimated number of workers exempt under the EAP exemptions who will be entitled to overtime protection under the updated salary levels (if their weekly earnings do not increase to the new salary levels).

^d Census industry and occupation categories.

Table 10 presents the distribution of affected EAP workers based on Census Regions and Divisions, and metropolitan statistical area (MSA) status. The region with the most affected workers will be the South (1.5 million), but the South’s percentage of potentially affected workers who are estimated to be affected is relatively small (15.2 percent). Although 90 percent of affected EAP workers will reside in MSAs (3.28 of 3.65 million), so do a

corresponding 88 percent of all workers subject to the FLSA.³⁴⁹ Employers in low-wage industries, regions, and in non-metropolitan areas may be more affected because they typically pay lower wages and salaries. The Department believes the salary level included in this proposed rule is appropriate for these lower-wage sectors, in part because the proposed methodology uses earnings data from the lowest-wage census region. Moreover, the duties test would

continue to determine exemption status for the vast majority of workers in low-wage regions and industries under the proposed rule. For example, as displayed in Table 10, 84.8 percent of potentially affected EAP workers in the South Census Region earn more than the proposed salary level and thus would not be affected by the proposed rule (8.39 ÷ 9.89). Effects by region and industry are considered in section VII.C.7.

TABLE 10—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY REGION, DIVISION, AND MSA STATUS, YEAR 1

Region/division/metropolitan status	Workers subject to FLSA (millions)	Potentially affected EAP workers (millions) ^a	Not-affected (millions) ^b	Affected (millions) ^c	Affected as share of potentially affected (%)
Total	139.40	28.36	24.71	3.65	12.9
By Region/Division					
<i>Northeast</i>	24.75	5.74	5.10	0.64	11.1
New England	6.83	1.71	1.54	0.17	9.9
Middle Atlantic	17.92	4.03	3.56	0.47	11.6
<i>Midwest</i>	30.39	5.87	5.07	0.80	13.7
East North Central	20.47	4.01	3.48	0.53	13.3
West North Central	9.92	1.86	1.59	0.27	14.6
<i>South</i>	51.42	9.89	8.39	1.50	15.2

³⁴⁹ Identified with CPS MORG variable GTMETSTA.

TABLE 10—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY REGION, DIVISION, AND MSA STATUS, YEAR 1—Continued

Region/division/metropolitan status	Workers subject to FLSA (millions)	Potentially affected EAP workers (millions) ^a	Not-affected (millions) ^b	Affected (millions) ^c	Affected as share of potentially affected (%)
South Atlantic	26.76	5.50	4.68	0.81	14.8
East South Central	7.69	1.22	1.00	0.22	18.3
West South Central	16.97	3.18	2.71	0.47	14.7
West	32.83	6.86	6.15	0.70	10.3
Mountain	10.73	2.07	1.79	0.28	13.7
Pacific	22.10	4.78	4.36	0.42	8.8
By Metropolitan Status					
Metropolitan	122.92	26.61	23.33	3.28	12.3
Non-metropolitan	15.47	1.62	1.28	0.34	20.8
Not identified	1.01	0.13	0.10	0.03	22.1

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Exempt workers who are white-collar, salaried, not eligible for another (non-EAP) overtime exemption, and not in a named occupation.

^b Workers who continue to be exempt after the increases in the salary levels (assuming affected workers earning below the new salary level do not have their weekly earnings increased to the new level).

^c Estimated number of workers exempt under the EAP exemptions who will be entitled to overtime protection under the updated salary levels (if their weekly earnings do not increase to the new salary levels).

Table 11 presents the distribution of affected EAP workers by demographics. Potentially affected women, Black workers, Hispanic workers, young workers, and workers with less education are all more likely to be affected than other worker types. This is because EAP exempt workers with these characteristics are more likely to earn within the affected standard salary range than EAP exempt workers without these characteristics. For example, of potentially affected workers, women tend to have lower salaries and are

therefore more likely to be in the affected range. Median weekly earnings for potentially affected women are \$1,649 compared to \$2,074 for men.

Among potentially affected workers, certain demographic groups—women, Black workers, Hispanic workers, young workers, and workers with less education—have an increased likelihood of being affected by this rulemaking, even though workers in these demographic groups are less likely to be EAP exempt in the first place. Therefore, as a share of all workers, not

just potentially affected workers, workers in these demographic groups may not be more likely to be affected. For example, when looking at potentially affected workers, 19.7 percent of potentially affected Black workers are affected, while only 12.7 percent of potentially affected white workers are affected. However, when looking at total workers, about the same shares of total Black and total white workers would be affected (2.5 percent of Black workers and 2.6 percent of white workers).

TABLE 11—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY DEMOGRAPHICS, YEAR 1

Demographic	Workers subject to FLSA (millions)	Potentially Affected EAP Workers (millions) ^a	Not-Affected (millions) ^b	Affected (millions) ^c	Affected as share of all workers (%)	Affected as share of potentially affected (%)
Total	139.40	28.36	24.71	3.65	2.6	12.9
By Sex						
Male	72.15	16.62	15.04	1.57	2.2	9.5
Female	67.25	11.74	9.67	2.08	3.1	17.7
By Race						
White only	107.29	22.05	19.25	2.80	2.6	12.7
Black only	17.66	2.26	1.82	0.44	2.5	19.7
All others	14.45	4.05	3.65	0.40	2.8	9.9
By Ethnicity						
Hispanic	25.66	2.57	2.15	0.42	1.6	16.3
Not Hispanic	113.74	25.79	22.56	3.23	2.8	12.5
By Age						
16–25	21.21	1.28	0.92	0.36	1.7	28.3
26–35	33.47	7.17	6.06	1.11	3.3	15.5

TABLE 11—ESTIMATED NUMBER OF EXEMPT WORKERS WITH THE CURRENT AND PROPOSED SALARY LEVELS, BY DEMOGRAPHICS, YEAR 1—Continued

Demographic	Workers subject to FLSA (millions)	Potentially Affected EAP Workers (millions) ^a	Not-Affected (millions) ^b	Affected (millions) ^c	Affected as share of all workers (%)	Affected as share of potentially affected (%)
36–45	29.84	7.49	6.68	0.81	2.7	10.9
46–55	27.37	6.73	6.02	0.72	2.6	10.6
56+	27.50	5.69	5.04	0.65	2.4	11.4
By Education						
No degree	10.35	0.13	0.09	0.05	0.4	35.1
High school diploma	58.01	4.56	3.58	0.98	1.7	21.4
Associate's degree	14.70	1.91	1.54	0.37	2.5	19.6
Bachelor's degree	35.80	13.61	12.02	1.59	4.4	11.7
Master's degree	15.52	6.80	6.24	0.56	3.6	8.3
Professional degree	2.03	0.38	0.35	0.04	1.8	9.3
PhD	2.98	0.98	0.91	0.07	2.3	7.2

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Exempt workers who are white-collar, salaried, not eligible for another (non-EAP) overtime exemption, and not in a named occupation.

^b Workers who continue to be exempt after the increases in the salary level (assuming affected workers' weekly earnings do not increase to the new salary level).

^c Estimated number of workers exempt under the EAP exemptions who would be entitled to overtime protection under the updated salary levels (if their weekly earnings do not increase to the new salary level).

3. Costs

i. Summary

The Department quantified three direct costs to employers in this analysis: (1) regulatory familiarization costs; (2) adjustment costs; and (3) managerial costs. These are the same

costs quantified in the 2016 and 2019 rulemakings. The Department estimated that in Year 1, regulatory familiarization costs would be \$427.2 million, adjustment costs would be \$240.8 million, and managerial costs would be \$534.9 million (Table 12). Total direct

employer costs in Year 1 would be \$1.2 billion. Recurring costs are projected in section VII.C.10. The Department discusses costs that are not quantified in section VII.C.3.v. The Department welcomes comments on its cost estimates.

TABLE 12—SUMMARY OF YEAR 1 DIRECT EMPLOYER COSTS [millions]

Direct employer costs	Standard salary level	HCE compensation level	Total
Regulatory familiarization ^a			\$427.2
Adjustment	\$224.4	\$16.4	240.8
Managerial	485.5	49.4	534.9
Total direct costs	709.8	65.9	1,202.8

^a Regulatory familiarization costs are assessed jointly for the proposed change in the standard salary level and the HCE compensation level.

ii. Regulatory Familiarization Costs

This rulemaking would impose direct costs on firms by requiring them to review the regulation. To estimate these “regulatory familiarization costs,” three pieces of information must be estimated: (1) the number of affected establishments; (2) a wage level for the employees reviewing the rule; and (3) the amount of time spent reviewing the rule. The Department generally used the same methodology for calculating regulatory familiarization costs that it used in recent rulemakings.

Regulatory familiarization costs can be calculated at an establishment level or at a firm level. The Department assumed that regulatory familiarization occurs at a decentralized level and used the number of establishments in its cost

estimate; this results in a higher estimate than would result from using the number of firms. The most recent data on private sector establishments and firms at the time this proposed rule was drafted are from the 2020 Statistics of U.S. Businesses (SUSB), which reports 8.00 million establishments with paid employees.³⁵⁰ Additionally, there were an estimated 90,126 state and local governments in 2017, the most recent data available.³⁵¹ The Department thus estimated 8.09 million entities (the term entity is used to refer to the combination of establishments and governments).

³⁵⁰ Statistics of U.S. Businesses 2020, <https://www.census.gov/programs-surveys/susb.html>.

³⁵¹ 2017 Census of Governments. Table 1, <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>.

The Department assumes that all entities would incur some regulatory familiarization costs, even if they do not employ exempt workers, because all entities would need to confirm whether this rulemaking affects their employees. Entities with more affected EAP workers would likely spend more time reviewing the regulation than entities with fewer or no affected EAP workers (since a more careful reading of the regulation will probably follow the initial decision that the entity is affected). However, the Department did not know the distribution of affected EAP workers across entities, so it used an average cost per entity.

The Department believes an average of one hour per entity is appropriate because the regulated community is

likely to be familiar with the content of this rulemaking. EAP exemptions have existed in one form or another since 1938, and a final rule was published as recently as 2019. Furthermore, employers who use the exemptions must apply them every time they hire an employee whom they seek to classify as exempt. Thus, employers should be familiar with the exemptions. The most significant changes in this proposed rulemaking are setting a new standard salary level and a new HCE compensation level for exempt workers and establishing a mechanism for keeping these thresholds up to date. The changed regulatory text is only a few pages, and the Department will provide summaries and other compliance assistance materials that will help inform employers that are implementing the final rule. The Department thus believes, consistent with its approach in the 2016 and 2019 rules, that one hour is an appropriate average estimate for the time each entity would spend reviewing the changes made by this rulemaking. Additionally, the estimated 1 hour for regulatory familiarization represents an assumption about the average for all entities in the U.S., even those without any affected or exempt workers, which are unlikely to spend much time reviewing the rulemaking. Some businesses, of course, would spend more than 1 hour, and some would spend less.

The Department's analysis assumes that compensation, benefits, and job analysis specialists (SOC 13–1141) with a median wage of \$32.59 per hour would review the rulemaking.^{352 353} The Department also assumed that benefits are paid at a rate of 45 percent of the base wage³⁵⁴ and overhead costs are paid at a rate of 17 percent of the base wage,³⁵⁵ resulting in an hourly rate of \$52.80. The Department thus estimates regulatory familiarization costs in Year 1 would be \$427.2 million ($\$52.80 \text{ per hour} \times 1 \text{ hour} \times 8.09 \text{ million entities}$).

³⁵² OEWS 2022. Available at: <https://www.bls.gov/oes/current/oes131141.htm>.

³⁵³ Previous related rulemakings used the CPS to estimate wage rates. The Department is using OEWS data now to conform with standard practice for the Department's economic analyses.

³⁵⁴ The benefits-earnings ratio is derived from BLS's Employer Costs for Employee Compensation data using variables CMU1020000000000D and CMU1030000000000D. This fringe benefit rate includes some fixed costs such as health insurance.

³⁵⁵ The Department believes that the overhead costs associated with this rulemaking are small because existing systems maintained by employers to track currently hourly employees can be used for newly overtime-eligible workers. However, acknowledging that there might be additional overhead costs, the Department has included an overhead rate of 17 percent.

The Department also conducted a sensitivity analysis. First, as previously noted, the Department used the number of establishments rather than the number of firms, which results in a higher estimate of the regulatory familiarization cost. Using the number of firms, 6.2 million, would result in a reduced regulatory familiarization cost estimate of \$329.0 million in Year 1.

iii. Adjustment Costs

This rulemaking would also impose direct costs on establishments by requiring them to evaluate the exemption status of employees, update and adapt overtime policies, notify employees of policy changes, and adjust their payroll systems. The Department believes the size of these “adjustment costs” would depend on the number of affected EAP workers and would occur in any year when exemption status is changed for any workers. To estimate adjustment costs, three pieces of information must be estimated: (1) a wage level for the employees making the adjustments; (2) the amount of time spent making the adjustments; and (3) the estimated number of newly affected EAP workers. The Department again estimated that the average wage with benefits and overhead costs for a mid-level human resource worker is \$52.80 per hour (as explained above).

The Department estimated that it would take establishments an average of 75 minutes per affected worker to make the necessary adjustments. This is the same time estimate as used in the 2016 and 2019 rulemakings. Little applicable data were identified from which to estimate the amount of time required to make these adjustments. The estimated number of affected EAP workers in Year 1 is 3.6 million (as discussed in section VII.B.7). Therefore, total estimated Year 1 adjustment costs would be \$240.8 million ($\$52.80 \times 1.25 \text{ hours} \times 3.6 \text{ million workers}$).

The Department notes that the 75-minute-per-worker average time estimate is an assumption about the average across all workers. This estimate assumes that the time is focused on analyzing more complicated situations. For example, employers are likely to incur relatively low adjustment costs for some workers, such as those who work no overtime (described below as Type 1 workers). This leaves more time for employers to spend on adjustment costs for workers who work overtime either occasionally or regularly. To demonstrate, if the aggregate time spent on adjustments (75 min \times 3.6 million workers) was spread out over only workers who regularly work overtime,

then the time estimate is 4.4 hours per worker.

The Department used a time estimate per affected worker, rather than per establishment, because the distribution of affected workers across establishments is unknown. However, it may be helpful to present the total time estimate per establishment based on a range of affected workers. If an establishment has five affected workers, the time estimate for adjustment costs is 6.25 hours. If an establishment has 25 affected workers, the time estimate for adjustment costs is 31.25 hours. And if an establishment has 50 affected workers, the time estimate for adjustment costs is 62.5 hours.

A reduction in the cost to employers of determining employees' exemption status may partially offset adjustment costs. Currently, to determine whether an employee is exempt, employers must apply the duties test to salaried workers who earn \$684 or more per week. However, when the rule takes effect, firms would no longer be required to apply the duties test to employees earning less than the new standard salary level. While this would be a clear cost savings to employers for these employees, the Department did not estimate the potential size of this cost savings.

iv. Managerial Costs

If an employee becomes nonexempt due to the changes in the salary levels, then firms may incur ongoing managerial costs because the employer may spend more time developing work schedules and closely monitoring an employee's hours to minimize or avoid paying that employee overtime. For example, the manager of a newly nonexempt worker may have to assess whether the marginal benefit of scheduling the worker for more than 40 hours exceeds the marginal cost of paying the overtime premium. Additionally, the manager may have to spend more time monitoring the employee's work and productivity since the marginal cost of producing the worker per hour has increased. Unlike regulatory familiarization and adjustment costs, which occur primarily in Year 1, managerial costs are incurred more uniformly every year.

The Department applied managerial costs to workers who (1) become nonexempt, overtime-protected and (2) either regularly work overtime or occasionally work overtime, but on a predictable basis—an estimated 738,000 workers (see Table 16 and accompanying explanation). Consistent with its approach in its 2019 rule, the Department assumed that management

would spend an additional ten minutes per week scheduling and monitoring each affected worker expected to become nonexempt, overtime-eligible as a result of this rule, and whose hours would be adjusted.

There was little precedent or data to aid in evaluating managerial costs. Prior to the 2016 rulemaking, earlier part 541 rulemakings did not estimate managerial costs. The Department likewise found no estimates of managerial costs after reviewing the literature. Thus, the Department used the same methodology as the 2019 rule.

The Department believes these additional managerial costs would not be prohibitive. Currently, EAP exempt employees account for about 22 percent of the U.S. labor force; as such, the Department expects that most employers of EAP exempt workers also employ nonexempt workers. Those employers already have in place recordkeeping systems and standard operating procedures for ensuring employees only work overtime under employer-prescribed circumstances. Thus, such systems generally do not need to be invented for managing formerly exempt EAP employees. The Department also notes that under the FLSA recordkeeping regulations in part 516, employers determine how to make and keep an accurate record of hours worked by employees. For example, employers may tell their workers to write their own time records and any timekeeping plan is acceptable if it is complete and accurate. Additionally, if the nonexempt employee works a fixed schedule, e.g., 9:00 a.m.–5:30 p.m. Monday–Friday, the employer may keep a record showing the exact schedule of daily and weekly hours and merely indicate exceptions to that schedule.³⁵⁶

As discussed in detail below, most affected workers do not currently work overtime, and there is no reason to expect their hours worked to change when their status changes from exempt to nonexempt. For that group of workers, management would have little or no need to increase their monitoring of hours worked; therefore, these workers are not included in the managerial cost calculation. Under these assumptions, the additional managerial hours worked per week would be 123,000 hours ((10 minutes ÷ 60 minutes) × 738,000 workers).

The median hourly wage in 2022 for a manager was \$51.62.³⁵⁷ Together with

a 45 percent benefits rate and a 17 percent overhead cost, this totals \$83.63 per hour.³⁵⁸ Thus, the estimated Year 1 managerial costs total \$534.9 million (123,000 hours per week × 52 weeks × \$83.63/hour). Although the exact magnitude would vary each year with the number of affected EAP workers, the Department anticipates that employers would incur managerial costs annually.

v. Other Potential Costs

In addition to the costs discussed above, the Department notes that the 2016 and 2019 final rules discussed other potential costs that could not be quantified. These potential costs are discussed qualitatively below. The Department welcomes comments on the potential costs associated with this proposed rule and any data that could help to quantify them.

(a) Reduced Scheduling Flexibility

To the extent that some employers spend more time monitoring nonexempt workers' hours, the proposed rule could impose costs on newly nonexempt, overtime eligible workers who could have a more limited ability to adjust their schedules. However, the proposed rule does not require employers to reduce scheduling flexibility. Employers can continue to offer flexible schedules and require workers to monitor their own hours and to follow the employers' timekeeping rules. Additionally, some exempt workers already monitor their hours for billing purposes. A study by Lonnie Golden found, using data from the General Social Survey (GSS), that "[i]n general, salaried workers at the lower (less than \$50,000) income levels don't have noticeably greater levels of work flexibility that they would 'lose' if they become more like their hourly counterparts."³⁵⁹ Because there is little data or literature on these potential costs, the Department did not quantify potential costs regarding scheduling flexibility.

(b) Preference for Salaried Status

Some of the workers who would become nonexempt as a result of the proposed rule could have their pay changed from salaried to hourly status

be an overestimate of the wage rate for managers who monitor workers' hours because (1) it includes very highly paid employees such as CEOs, and (2) some lower-level supervisors are not counted as managers in the data.

³⁵⁸ The benefits ratio is derived from BLS' 2022 Employer Costs for Employee Compensation data using variables CMU1020000000000D and CMU1030000000000D.

³⁵⁹ Golden, L. (2014). Flexibility and Overtime Among Hourly and Salaried Workers. Economic Policy Institute. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2597174.

despite preferring to remain salaried. Research has shown that salaried workers are more likely than hourly workers to receive benefits such as paid vacation time and health insurance³⁶⁰ and are more satisfied with their benefits.³⁶¹ Additionally, when employer demand for labor decreases, hourly workers tend to see their hours cut before salaried workers, making earnings for hourly workers less predictable.³⁶² However, this literature generally does not control for differences between salaried and hourly workers such as education, job title, or earnings; therefore, this correlation is not necessarily attributable to hourly status.

If workers become nonexempt and the employer chooses to pay them on an hourly rather than salary basis, this may result in the employer reducing the workers' benefits. But the Department notes that this rulemaking would not require employers to reduce workers' benefits. These newly nonexempt workers may continue to be paid a salary, as long as that salary is equivalent to a base wage at least equal to the minimum wage rate for every hour worked, and the employee receives a 50 percent premium on that employee's regular rate for any overtime hours each week.³⁶³ Similarly, employers may continue to provide these workers with the same level of benefits as before, whether paid on an hourly or salary basis. Lastly, the nature of the market mechanism may be such that employers cannot reduce benefits without risking workers leaving, resulting in turnover costs to employers. The Department did not quantify potential costs regarding reduction in workers' benefits.

(c) Increased Prices

As discussed in the transfers section below, businesses may be able to help mitigate increased labor costs following this rulemaking by rebalancing the hours that their employees are working. Businesses that are unable to rebalance these hours and do incur increased

³⁶⁰ Lambert, S. J. (2007). Making a Difference for Hourly Employees. In A. Booth, & A. C. Crouter, *Work-Life Policies that Make a Real Difference for Individuals, Families, and Communities*. Washington, DC: Urban Institute Press.

³⁶¹ Balkin, D. B., & Griffeth, R. W. (1993). The Determinants of Employee Benefits Satisfaction. *Journal of Business and Psychology*, 7(3), 323–339.

³⁶² Lambert, S. J., & Henly, J. R. (2009). *Scheduling in Hourly Jobs: Promising Practices for the Twenty-First Century Economy*. The Mobility Agenda. Lambert, S. J. (2007). Making a Difference for Hourly Employees. In A. Booth, & A. C. Crouter, *Work-Life Policies that Make a Real Difference for Individuals, Families, and Communities*. Washington, DC: Urban Institute Press.

³⁶³ 29 CFR 778.113–.114.

³⁵⁶ See Fact Sheet #21: Recordkeeping Requirements under the Fair Labor Standards Act, available at: <https://www.dol.gov/whd/regs/compliance/whdfs21.pdf>.

³⁵⁷ OEWS 2022. Available at: <https://www.bls.gov/oes/current/oes110000.htm>. This may

labor costs might pass along these increased labor costs to consumers through higher prices. The Department anticipates that some firms could offset part of the additional labor costs through charging higher prices for the firms' goods and services. However, because costs and transfers would be, on average, small relative to payroll and revenues, the Department does not expect the proposed rule to have a significant effect on prices. The Department estimated that, on average, costs and transfers make up less than 0.03 percent of payroll and 0.005 percent of revenues, although for specific industries and firms this percentage may be larger (see Table 27). Therefore, any potential change in prices related to costs and transfers from this rulemaking would be modest. Further, any significant price increases would not represent a separate category of effects from those estimated in this economic analysis. Rather, such price increases (where they occur) would be the channel through which consumers, rather than employers or employees, bear rule-induced costs (including transfers).

While economic theory suggests that an increase in labor costs in excess of productivity gains would lead to increases in prices, much of the empirical literature has found that wage inflation does not predict price inflation.³⁶⁴ For example, Peneva et al. (2015) explore the relationship between labor costs and price inflation between 1965 and 2012, finding that the influence of labor costs on prices has decreased over the past several decades and have made a relatively small contribution to price inflation in recent years.³⁶⁵

(d) Reduced Profits

The increase in workers' earnings resulting from the proposed salary levels would be a transfer of income from firms to workers, not a cost. However, there are potential secondary effects (both costs and benefits) of the transfer due to the potential difference in the marginal utility of income and the marginal propensity to consume or save between workers and businesses. Thus, the Department acknowledges that the increased employer costs and transfer payments as a result of this proposed rule may reduce the profits of business firms, although (1) some firms may offset some of these costs and transfers by making payroll adjustments, and (2) some firms may mitigate their reduced profits due to these costs and transfers through increased prices. Because costs and transfers are, on average, small relative to payroll revenues, the Department does not expect this rulemaking to have a significant effect on profits.

(e) Hiring Costs

To the extent that firms respond to this proposed rule by reducing overtime hours, they may do so by spreading hours to other workers, including current workers employed for fewer than 40 hours per week by that employer, current workers who remain nonexempt, and newly hired workers. If new workers are hired to absorb these transferred hours, then the associated hiring costs would be a cost of this proposed rule. However, new employees would likely only be hired if their wages, onboarding costs, and training costs are less than the cost of overtime pay for the newly affected workers. The Department does not know how many new employees would be hired and thus did not estimate this cost.

(f) Hours-Related Worker Effects

Following the implementation of this rulemaking, some workers may see an increase in hours worked. For some affected workers, if their employers respond to the rule by increasing their salary to keep their exemption status, the change may also be accompanied by an increase in assigned hours. Additionally, some employers might respond to this regulation by reducing the overtime hours of affected workers and transferring these hours to other workers who remain exempt. This increase in hours could result in reduced personal time for these workers.

4. Transfers

i. Overview

Transfer payments occur when income is redistributed from one party to another. The Department has quantified two transfers from employers to employees that would result from the proposed rule: (1) transfers to ensure compliance with the FLSA minimum wage provision; and (2) transfers to ensure compliance with the FLSA overtime pay provision. Transfers in Year 1 due to the minimum wage provision were estimated to be \$48.6 million. The increase in the HCE compensation level does not affect minimum wage transfers because workers eligible for the HCE exemption earn well above the minimum wage. The Department estimates that transfers due to the applicability of the FLSA's overtime pay provision would be \$1.2 billion: \$932.1 million from the increased standard salary level and \$253.5 million from the increased HCE compensation level. Total Year 1 transfers are estimated at \$1.2 billion (Table 13).

TABLE 13—TOTAL ANNUAL CHANGE IN EARNINGS FOR AFFECTED EAP WORKERS BY PROVISION, YEAR 1
[Millions]

Provision	Total	Standard salary level	HCE compensation level
Total	\$1,234.2	\$980.7	\$253.5
Minimum wage only	48.6	48.6
Overtime pay only ^a	1,185.6	932.1	253.5

³⁶⁴ Church, J.D. and Akin, B. (2017). "Examining price transmission across labor compensation costs, consumer prices, and finished-goods prices," *Monthly Labor Review*, U.S. Bureau of Labor Statistics; Emery, K. & Chang, C. (1996). Do Wages Help Predict Inflation?, Federal Reserve Bank of Dallas, Economic Review First Quarter 1996.

<https://www.dallasfed.org/-/media/documents/research/er/1996/er9601a.pdf>; Jonsson, M. & Palmqvist, S. (2004). Do Higher Wages Cause Inflation? Sveriges Riksbank Working Paper Series 159. http://archive.riksbank.se/Upload/WorkingPapers/WP_159.pdf.

³⁶⁵ Peneva, E. V. and Rudd, J. B. (2015). "The Passthrough of Labor Costs to Price Inflation," Finance and Economics Discussion Series 2015-042. Washington: Board of Governors of the Federal Reserve System. <http://dx.doi.org/10.17016/FEDS.2015.042>.

Because the overtime premium depends on the employee’s regular rate of pay, the estimates of minimum wage transfers and overtime transfers are linked. This can be considered a two-step approach. The Department first identified affected EAP workers with an implicit regular hourly wage lower than the minimum wage, and then calculated the wage increase necessary to reach the minimum wage. Then, the Department estimated overtime payments.

ii. Transfers Due to the Minimum Wage Provision

For this analysis, the hourly rate of pay was calculated as usual weekly earnings divided by usual weekly hours worked. To earn less than the Federal or most state minimum wages, this set of workers must work many hours per week. For example, a worker paid \$684 per week must work 94.3 hours per week to earn less than the Federal minimum wage of \$7.25 per hour ($\$684 \div \$7.25 = 94.3$).³⁶⁶ The applicable minimum wage is the higher of the Federal minimum wage and the state minimum wage as of January 1, 2022. Most affected EAP workers already receive at least the minimum wage; only

an estimated 0.2 percent (8,200 in total) earn an implicit hourly rate of pay less than the Federal minimum wage. The Department estimated transfers due to payment of the minimum wage by calculating the change in earnings if wages rose to the minimum wage for workers who become nonexempt.³⁶⁷

In response to an increase in the regular rate of pay to the minimum wage, employers may reduce the workers’ hours. In theory, since the quantity of labor hours demanded is inversely related to wages, a higher mandated wage would, all things being equal, result in fewer hours of labor demanded. However, the weight of the empirical evidence finds that increases in the minimum wage that are similar in magnitude to what would be caused by this regulatory provision have caused little or no significant job loss.³⁶⁸ Thus, in the case of this proposed regulation, the Department believes that any displacement effect due to the minimum wage provision would be negligible. This is partially due to the small number of workers affected by this provision. According to the Wolfson and Belman (2016) meta-

analysis cited above, the consensus range for labor demand elasticity was -0.05 to -0.12 . However for Year 1 of this analysis, the Department estimated the potential displacement effects (*i.e.*, the estimated reduction in hours) of the transfer attributed to the minimum wage by multiplying the percent change in the regular rate of pay by a labor demand elasticity of -0.2 (years 2–10 use a long run elasticity of -0.4).^{369 370} The Department chose this labor demand elasticity because it was used in the 2019 final rule and is consistent with the labor demand elasticity estimates used when estimating other transfers further below.

At the new standard salary level, the Department estimated that 8,200 affected EAP workers would, on average, see an hourly wage increase of \$1.99, work 3.2 fewer hours per week and receive an increase in weekly earnings of \$113.88 as a result of coverage by the minimum wage provisions (Table 14). The total change in weekly earnings due to the payment of the minimum wage was estimated to be \$0.9 million per week ($\$113.88 \times 8,200$) or \$48.6 million in Year 1.

TABLE 14—MINIMUM WAGE ONLY: MEAN HOURLY WAGES, USUAL WEEKLY HOURS AND WEEKLY EARNINGS FOR AFFECTED EAP WORKERS, YEAR 1

Time period	Hourly wage ^a	Usual weekly hours	Usual weekly earnings	Total weekly transfer (1,000s)
Before rule	\$11.35	73.2	\$808.60
After rule	13.34	69.9	922.48
Change	1.99	- 3.2	113.88	\$934

Note: Pooled data for 2020–2022 adjusted to reflect 2022.

^a The applicable minimum wage is the higher of the Federal minimum wage and the state minimum wage.

iii. Transfers Due to the Overtime Pay Provision

(a) Introduction

The FLSA requires covered employers to pay an overtime premium to nonexempt covered workers who work in excess of 40 hours per week. For workers who become nonexempt, the rulemaking would result in a transfer of income to the affected workers, increasing the marginal cost of labor, which employers would likely try to

offset by adjusting the wages and/or hours of affected workers. The size of the transfer would depend largely on how employers choose to respond to the updated salary levels. Employers may respond by: (1) paying overtime premiums to affected workers; (2) reducing overtime hours of affected workers and potentially transferring some of these hours to other workers; (3) reducing the regular rate of pay for affected workers working overtime (provided that the reduced rates still

exceed the minimum wage); (4) increasing affected workers’ salaries to the updated salary or compensation level to preserve their exempt status; or (5) using some combination of these responses. How employers would respond depends on many factors, including the relative costs of each of these alternatives. In turn, the relative costs of each of these alternatives are a function of workers’ earnings and hours worked.

³⁶⁶ The Federal minimum wage has not increased since 2009. Workers in states with minimum wages higher than the Federal minimum wage could earn less than the state minimum wage working fewer hours.

³⁶⁷ Because these workers’ hourly wages will be set at the minimum wage after this proposed rule, their employers will not be able to adjust their wages downward to offset part of the cost of paying the overtime pay premium (which will be discussed in the following section). Therefore, these workers

will generally receive larger transfers attributed to the overtime pay provision than other workers.

³⁶⁸ Wolfson, Paul J. and Belman, Dale, 15 Years of Research on U.S. Employment and the Minimum Wage (December 10, 2016). Tuck School of Business Working Paper No. 2705499. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2705499. Dube, Arindrajit, Impacts of Minimum Wages: Review of the International Evidence (November 2019). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844350/impacts_of_minimum_wages_

[review_of_the_international_evidence_Arindrajit_Dube_web.pdf](#).

³⁶⁹ Labor demand elasticity is the percentage change in labor hours demanded in response to a one percent change in wages.

³⁷⁰ This elasticity estimate represents a short run demand elasticity for general labor, and is based on the Department’s analysis of Lichter, A., Peichl, A. & Sieglöcher, A. (2014). The Own-Wage Elasticity of Labor Demand: A Meta-Regression Analysis. IZA DP No. 7958.

(b) Literature on Employer Adjustments

Two conceptual models are useful for thinking about how employers may respond to when certain employees become eligible for overtime: (1) the “fixed-wage” or “labor demand” model, and (2) the “fixed-job” or “employment contract” model.³⁷¹ These models make different assumptions about the demand for overtime hours and the structure of the employment agreement, which result in different implications for predicting employer responses.

The fixed-wage model assumes that the standard hourly wage is independent of the statutory overtime premium. Under the fixed-wage model, a transition of workers from overtime exempt to overtime nonexempt would cause a reduction in overtime hours for affected workers, an increase in the prevalence of a 40-hour workweek among affected workers, and an increase in the earnings of affected workers who continue to work overtime.

In contrast, the fixed-job model assumes that the standard hourly wage is affected by the statutory overtime premium. Thus, employers can neutralize any transition of workers from overtime exempt to overtime nonexempt by reducing the standard hourly wage of affected workers so that their weekly earnings and hours worked are unchanged, except when minimum wage laws prevent employers from lowering the standard hourly wage below the minimum wage. Under the fixed-job model, a transition of workers from overtime exempt to overtime nonexempt would have different effects on minimum-wage workers and above-minimum-wage workers. Similar to the fixed-wage model, minimum-wage workers would experience a reduction in overtime hours, an increase in the prevalence of a 40-hour workweek at a given employer (though not necessarily overall), and an increase in earnings for the portion of minimum-wage workers who continue to work overtime for a given employer. Unlike the fixed-wage model, however, above-minimum-wage workers would experience no change.

The Department conducted a literature review to evaluate studies of how labor markets adjust to a change in the requirement to pay overtime. These studies are generally supportive of the fixed-job model of labor market adjustment, in that wages adjust to offset the requirement to pay an

overtime premium as predicted by the fixed-job model, but do not adjust enough to completely offset the overtime premium as predicted by the model.

As in the 2016 and 2019 rules, the Department believes the two most important papers in this literature are the studies by Trejo (1991) and Barkume (2010). Analyzing the economic effects of the overtime pay provisions of the FLSA, Trejo (1991) found “the data analyzed here suggest the wage adjustments occur to mitigate the purely demand-driven effects predicted by the fixed-wage model, but these adjustments are not large enough to neutralize the overtime pay regulations completely.” Trejo noted, “In accordance with the fixed job model, the overtime law appears to have a greater impact on minimum-wage workers.” He also stated, “[T]he finding that overtime-pay coverage status systematically influences the hours-of-work distribution for nonminimum-wage workers is supportive of the fixed-wage model. No significant differences in weekly earnings were discovered between the covered and non-covered sectors, which is consistent with the fixed-job model.” However, “overtime pay compliance is higher for union than for nonunion workers, a result that is more easily reconciled with the fixed wage model.” Trejo’s findings are supportive of the fixed-wage model whose adjustment is incomplete largely due to the minimum-wage requirement.³⁷²

A second paper by Trejo (2003) took a different approach to testing the consistency of the fixed-wage adjustment models with overtime coverage and data on hours worked.³⁷³ In this paper, he examined time-series data on employee hours by industry. After controlling for underlying trends in hours worked over 20 years, he found changes in overtime coverage had no impact on the prevalence of overtime hours worked. This result supports the fixed-job model. Unlike the 1991 paper, however, he did not examine impacts of overtime coverage on employees’ weekly or hourly earnings, so this finding in support of the fixed-job model only analyzes one implication of the model.

Barkume (2010) built on the analytic method used in Trejo (1991).³⁷⁴ However, Barkume observed that Trejo did not account for “quasi-fixed” employment costs (e.g., benefits) that do not vary with hours worked, and therefore affect employers’ decisions on overtime hours worked. After incorporating these quasi-fixed costs in the model, Barkume found results consistent with those of Trejo (1991): “though wage rates in otherwise similar jobs declined with greater overtime hours, they were not enough to prevent the FLSA overtime provisions from increasing labor costs.” Barkume also determined that the 1991 model did not account for evidence that in the absence of regulation some employers may voluntarily pay workers some overtime premium to entice them to work longer hours, to compensate workers for unexpected changes in their schedules, or as a result of collective bargaining. Barkume found that how much wages and hours worked adjusted in response to the overtime pay requirement depended on what overtime pay would be in absence of regulation.

In addition, Bell and Hart (2003) examined the standard hourly wage, average hourly earnings (including overtime), the overtime premium, and overtime hours worked in Britain.³⁷⁵ Unlike the United States, Britain does not have national labor laws regulating overtime compensation. Bell and Hart found that after accounting for overtime, average hourly earnings are generally uniform in an industry because firms paying below-market level straight-time wages tend to pay above-market overtime premiums and firms paying above-market level straight-time wages tend to pay below-market overtime premiums. Bell and Hart concluded “this is consistent with a model in which workers and firms enter into an implicit contract that specifies total hours at a constant, market-determined, hourly wage rate. Their research is also consistent with studies showing that employers may pay overtime premiums either in the absence of a regulatory mandate (e.g., Britain), or when the mandate exists but the requirements are not met (e.g., United States).³⁷⁶

On balance, consistent with its 2016 and 2019 rulemakings, the Department

³⁷¹ See Trejo, S.J. (1991). The Effects of Overtime Pay Regulation on Worker Compensation. *American Economic Review*, 81(4), 719–740, and Barkume, A. (2010). The Structure of Labor Costs with Overtime Work in U.S. Jobs. *Industrial and Labor Relations Review*, 64(1), 128–142.

³⁷² Trejo, S.J. (1991). The Effects of Overtime Pay Regulation on Worker Compensation. *American Economic Review*, 81(4), 719–740.

³⁷³ Trejo, S.J. (2003). Does the Statutory Overtime Premium Discourage Long Workweeks? *Industrial and Labor Relations Review*, 56(3), 375–392.

³⁷⁴ Barkume, A. (2010). The Structure of Labor Costs with Overtime Work in U.S. Jobs. *Industrial and Labor Relations Review*, 64(1), 128–142.

³⁷⁵ Bell, D.N.F. and Hart, R.A. (2003). Wages, Hours, and Overtime Premia: Evidence from the British Labor Market. *Industrial and Labor Relations Review*, 56(3), 470–480.

³⁷⁶ Hart, R.A. and Yue, M. (2000). Why Do Firms Pay an Overtime Premium? IZA Discussion Paper No. 163.

finds strong support for the fixed-job model as the best approximation for the likely effects of a transition of above-minimum-wage workers from overtime exempt to overtime nonexempt and the fixed-wage model as the best approximation of the likely effects of a transition of minimum-wage workers from overtime exempt to overtime nonexempt. In addition, the studies suggest that although observed wage adjustment patterns are consistent with the fixed-job model, this evidence also suggests that the actual wage adjustment might, especially in the short run, be less than 100 percent as predicted by the fixed-job model. Thus, the hybrid model used in this analysis may be described as an incomplete fixed-job adjustment model.

To determine the magnitude of the adjustment, the Department accounted for the following findings. Earlier research had demonstrated that in the absence of regulation some employers may voluntarily pay workers some overtime premium to entice them to work longer hours, to compensate workers for unexpected changes in their schedules, or as a result of collective bargaining.³⁷⁷ Barkume (2010) found that the measured adjustment of wages and hours to overtime premium requirements depended on what overtime premium might be paid in absence of any requirement to do so. Thus, when Barkume assumed that workers would receive an average voluntary overtime pay premium of 28 percent in the absence of an overtime pay regulation, which is the average overtime premium that Bell and Hart (2003) found British employers paid in the absence of any overtime regulations, the straight-time hourly wage adjusted downward by 80 percent of the amount that would occur with the fixed-job model.³⁷⁸ When Barkume assumed workers would receive no voluntary overtime pay premium in the absence of an overtime pay regulation, the results were more consistent with Trejo's (1991) findings that the adjustment was a smaller percentage. The Department modeled an adjustment process between these two findings. Although it seemed reasonable that some premium was paid

for overtime in the absence of regulation, Barkume's assumption of a 28 percent initial overtime premium is likely too high for the salaried workers potentially affected by a change in the salary and compensation level requirements for the EAP exemptions because this assumption is based on a study of workers in Britain. British workers were likely paid a larger voluntary overtime premium than American workers because Britain did not have a required overtime pay regulation and so collective bargaining played a larger role in implementing overtime pay.³⁷⁹ In the sections that follow, the Department uses a method between these two papers to model transfers.

(c) Identifying Types of Affected Workers

The Department identified four types of workers whose work characteristics affect how it modeled employers' responses to the changes in both the standard salary level and HCE compensation level:

- *Type 1:* Workers who do not work overtime.
- *Type 2:* Workers who do not regularly work overtime but occasionally work overtime.
- *Type 3:* Workers who regularly work overtime and become overtime eligible (nonexempt).
- *Type 4:* Workers who regularly work overtime and remain exempt, because it is less expensive for the employer to pay the updated salary level than to pay overtime and incur additional managerial costs.

The Department began by identifying the number of workers in each type. After modeling employer adjustments, it estimated transfer payments. Type 3 and 4 workers were identified as those who regularly work overtime (CPS variable PEHRUSL1 greater than 40). To distinguish Type 3 workers from Type 4 workers, the Department first estimated each worker's weekly earnings if they became nonexempt, to which it added weekly managerial costs for each affected worker of \$13.94 (\$83.63 per hour × (10 minutes ÷ 60 minutes)).³⁸⁰ Then, the Department identified as Type 4 those workers whose expected nonexempt earnings plus weekly managerial costs exceeds the updated standard salary level, and, conversely, as Type 3 those whose expected nonexempt earnings plus weekly managerial costs are less than

the new standard salary. The Department assumed that firms would include incremental managerial costs in their determination of whether to treat an affected employee as a Type 3 or Type 4 worker because those costs are only incurred if the employee is a Type 3 worker.

Identifying Type 2 workers involved two steps. First, using CPS MORG data, the Department identified those who do not usually work overtime but did work overtime in the survey week (the week referred to in the CPS questionnaire, variable PEHRACT1 greater than 40). Next, the Department supplemented the CPS data with data from the Survey of Income and Program Participation (SIPP) to look at likelihood of working some overtime during the year. Based on 2021 data, the most recent available, the Department found that 31.3 percent of non-hourly workers worked overtime at some point in a year. Therefore, the Department classified a share of workers who reported they do not usually work overtime, and did not work overtime in the reference week, as Type 2 workers such that a total of approximately 31.3 percent of affected workers were Type 2, 3, or 4. Type 2 workers are subdivided into Types 2A and 2B later in the analysis (Table 15).

TABLE 15—TYPES OF AFFECTED WORKERS

Type of worker	Percent of total
Type 1	69
Type 2A	8
Type 2B	8
Type 3	12
Type 4	3

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

* *Type 1:* Workers who do not work overtime and gain overtime protection.

* *Type 2:* Workers who work occasional overtime and gain overtime protection.

• *Type 2A:* Those who work *unexpected* overtime hours.

• *Type 2B:* Those who work *expected* overtime.

* *Type 3:* Workers who work regular overtime and gain overtime protection.

* *Type 4:* Workers who work regular overtime and remain exempt (*i.e.*, earnings increase to the updated salary or compensation level).

(d) Modeling Changes in Wages and Hours

The incomplete fixed-job model predicts that employers would adjust wages of regular overtime workers but not to the full extent indicated by the fixed-job model, and thus some employees would receive a small increase in weekly earnings due to overtime pay coverage. The Department

³⁷⁷ Barzel, Y. (1973). The Determination of Daily Hours and Wages. *The Quarterly Journal of Economics*, 87(2), 220–238, demonstrated that modest fluctuations in labor demand could justify substantial overtime premiums in the employment contract model. Hart, R.A. and Yue, M. (2000). Why Do Firms Pay an Overtime Premium? IZA Discussion Paper No. 163, showed that establishing an overtime premium in an employment contract can reduce inefficiencies.

³⁷⁸ Barkume, A. (2010). The Structure of Labor Costs with Overtime Work in U.S. Jobs. *Industrial and Labor Relations Review*, 64(1), 128–142.

³⁷⁹ Bell, D.N.F. and Hart, R.A. (2003). Wages, Hours, and Overtime Premia: Evidence from the British Labor Market. *Industrial and Labor Relations Review*, 56(3), 470–480.

³⁸⁰ See section VII.C.3.iv (managerial costs).

used the average of two estimates of the incomplete fixed-job model adjustments to model impacts of this proposed rule:³⁸¹

- Trejo's (1991) estimate that the overtime-induced wage change is 40 percent of the adjustment toward the amount predicted by the fixed-job model, assuming an initial zero overtime pay premium, and
- Barkume's (2010) estimate that the wage change is 80 percent of the predicted adjustment assuming an initial 28 percent overtime pay premium.

This is approximately equivalent to assuming that salaried overtime workers implicitly receive the equivalent of a 14 percent overtime premium in the absence of regulation (the midpoint between 0 and 28 percent).

Modeling changes in hourly wages, hours, and earnings for Type 1 and Type 4 workers was relatively straightforward. Type 1 affected EAP workers would become overtime-eligible, but because they do not work overtime, they would see no change in their wages, hours, or weekly earnings. Type 4 workers would remain exempt because their earnings would be raised to at least the updated EAP level (either the standard salary level or HCE compensation level). These workers' earnings would increase by the difference between their current earnings and the amount necessary to satisfy the new salary or compensation level. It is possible employers would increase these workers' hours in response to paying them a higher salary, but the Department did not have enough information to model this potential change.³⁸²

Modeling changes in wages, hours, and earnings for Type 2 and Type 3 workers was more complex. The Department distinguished those who regularly work overtime (Type 3 workers) from those who occasionally

work overtime (Type 2 workers) because employer adjustment to the rule may differ accordingly. Employers are more likely to adjust hours worked and wages for regular overtime workers because their hours are predictable. Conversely, in response to a transient, perhaps unpredicted, shift in market demand for the good or service such employers provide, employers are more likely to pay for occasional overtime rather than adjust hours worked and pay.

The Department treated Type 2 affected workers in two ways due to the uncertainty of the nature of these occasional overtime hours. The Department assumed that 50 percent of these occasional overtime workers worked *unexpected* overtime hours (Type 2A) and the other 50 percent worked *expected* overtime (Type 2B). Workers were randomly assigned to these two groups. Workers with *expected* occasional overtime hours were treated like Type 3 affected workers (incomplete fixed-job model adjustments). Workers with *unexpected* occasional overtime hours were assumed to receive a 50 percent pay premium for the overtime hours worked and receive no change in base wage or hours (full overtime premium model).³⁸³ When modeling Type 2 workers' hour and wage adjustments, the Department treated those identified as Type 2 using the CPS data as representative of all Type 2 workers.³⁸⁴ The Department estimated employer adjustments and transfers assuming that the patterns observed in the CPS reference week are representative of an average week in the year. Thus, the Department assumes total transfers for the year are equal to 52 times the transfers estimated for a representative week for which the Department has CPS data. However, these transfers are spread over a larger group including those who occasionally work overtime but did not do so in the CPS reference week.³⁸⁵

³⁸³ The Department uses the term "full overtime premium" to describe the adjustment process as modeled. The full overtime premium model is a special case of the general fixed-wage model in that the Department assumes the demand for labor under these circumstances is completely inelastic. That is, employers make no changes to employees' hours in response to these temporary, unanticipated changes in demand.

³⁸⁴ As explained in the previous section, to estimate the population of Type 2 workers, the Department supplemented workers who report working overtime in the CPS reference week with some workers who do not work overtime in the reference week to reflect the fact that different workers work occasional overtime in different weeks.

³⁸⁵ If a different week was chosen as the survey week, then some of these workers would not have worked overtime. However, because the data are

Since employers would pay more for the same number of labor hours, for Type 2 and Type 3 EAP workers, the quantity of labor hours demanded by employers would decrease. The reduction in hours is calculated using the elasticity of labor demand with respect to wages. The Department used a short-term demand elasticity of -0.20 to estimate the percentage decrease in hours worked in Year 1 and a long-term elasticity of -0.4 to estimate the percentage decrease in hours worked in Years 2–10. These elasticity estimates are based on the Department's analysis of Lichter et al. (2014).³⁸⁶ Brown and Hamermesh (2019) estimated the elasticity of overtime hours for EAP-exempt workers.³⁸⁸ This estimate is based on a difference-in-differences in hours for two groups of workers between two time periods. However, some groups of workers are incorrectly defined, so the Department has not used these estimates.³⁸⁹

For Type 3 affected workers, and the 50 percent of Type 2 affected workers who worked *expected* overtime, the Department estimated adjusted total hours worked after making wage adjustments using the incomplete fixed-job model. To estimate adjusted hours worked, the Department set the percent change in total hours worked equal to the percent change in average wages multiplied by the wage elasticity of labor demand.³⁹⁰ Figure 4 is a flow

representative of both the population and all twelve months in a year, the Department believes the share of Type 2 workers identified in the CPS data in the given week is representative of an average week in the year.

³⁸⁶ Lichter, A., Peichl, A. & Sieglösch, A. (2014). The Own-Wage Elasticity of Labor Demand: A Meta-Regression Analysis. IZA DP No. 7958.

³⁸⁷ Some researchers have estimated larger impacts on the number of overtime hours worked. For example, Hamermesh and Trejo (2000) conclude the price elasticity of demand for overtime hours is at least -0.5 . The Department decided to use a general measure of elasticity applied to the average change in wages since the increase in the overtime wage is somewhat offset by a decrease in the non-overtime wage as indicated in the fixed-job model. Hamermesh, D. and S. Trejo. (2000). The Demand for Hours of Labor: Direct Evidence from California. *The Review of Economics and Statistics*, 82(1), 38–47.

³⁸⁸ Brown, Charles C., and Daniel S. Hamermesh. (2019). "Wages and Hours Laws: What Do We Know? What Can Be Done?" RSF: The Russell Sage Foundation Journal of the Social Sciences 5(5): 68–87. DOI: 10.7758/RSF.2019.5.5.04.

³⁸⁹ For example, the authors defined the "non-exempt 1987–1989" group as workers earning above \$223 but below \$455 during this period. Because the salary level for the long test was \$155 or \$170 and was \$250 for the short test, see section VII.A.1 (Table 1), some of these workers would be exempt.

³⁹⁰ In this equation, the only unknown is adjusted total hours worked. Since adjusted total hours worked is in the denominator of the left side of the equation and is also in the numerator of the right side of the equation, solving for adjusted total hours worked requires solving a quadratic equation.

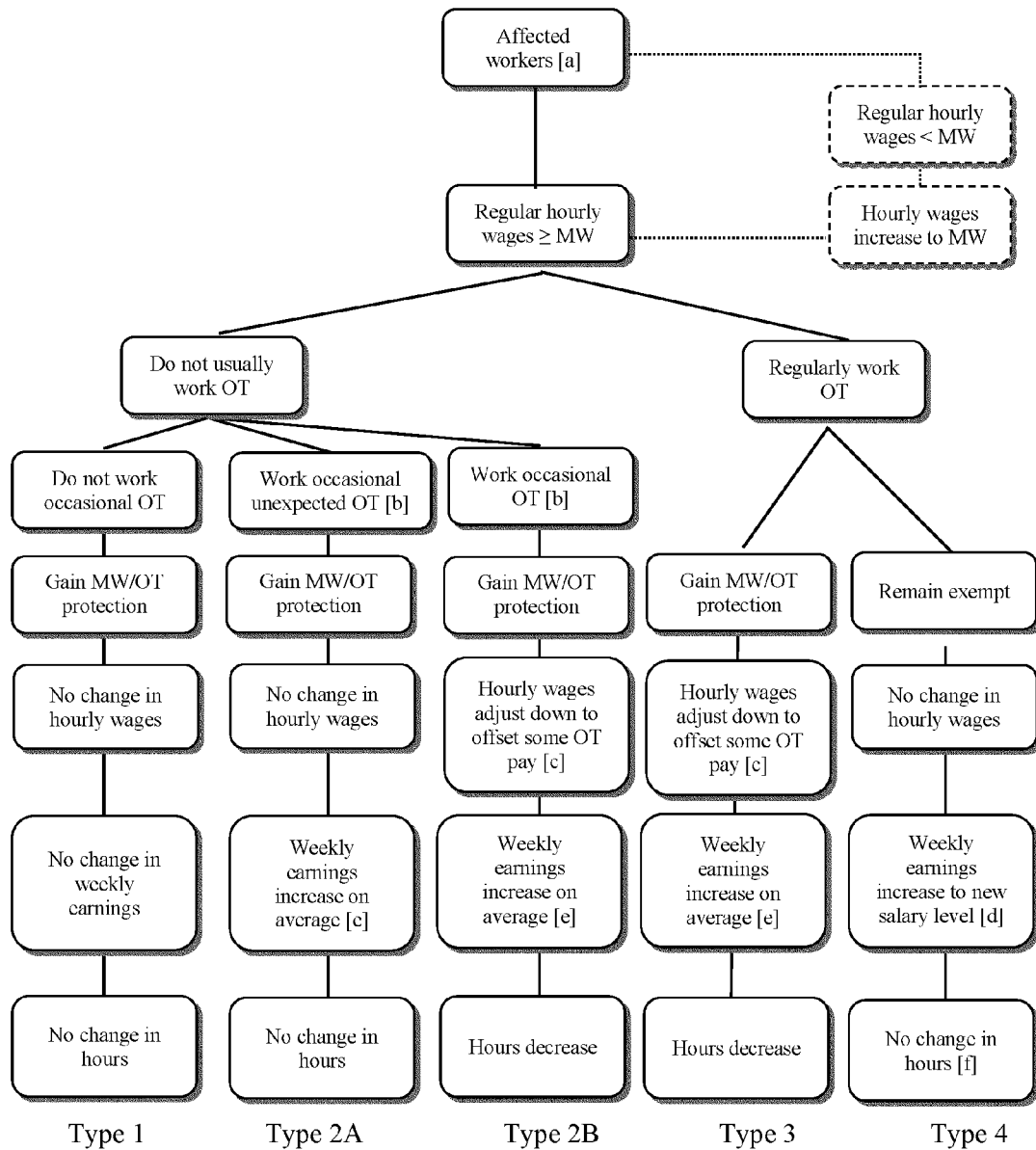
³⁸¹ Both studies considered a population that included hourly workers. Evidence is not available on how the adjustment towards the fixed-job model differs between salaried and hourly workers. The fixed-job model may be more likely to hold for salaried workers than for hourly workers since salaried workers directly observe their weekly total earnings, not their implicit equivalent hourly wage. Thus, applying the partial adjustment to the fixed-job model as estimated by these studies may overestimate the transfers from employers to salaried workers. The Department does not attempt to quantify the magnitude of this potential overestimate, but welcomes comments on how to refine the quantitative approach.

³⁸² Cherry, Monica, "Are Salaried Workers Compensated for Overtime Hours?" *Journal of Labor Research* 25(3): 485–494, September 2004, found that exempt full-time salaried employees earn more when they work more hours, but her results do not lend themselves to the quantification of the effect on hours of an increase in earnings.

chart summarizing the four types of affected EAP workers. Also shown are the effects on exempt status, weekly

earnings, and hours worked for each type of affected worker.
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Figure 4: Flow Chart of Proposed Rule's Effect on Earnings and Hours Worked



[a] Those who are exempt under the current EAP exemptions and would gain minimum wage and overtime protection or receive a raise to the increased salary or compensation level.

[b] The Department used two methods to identify occasional overtime workers. The first includes workers who report they usually work 40 hours or fewer per week (identified with variable PEHRUSL1 in CPS MORG), but in the reference week worked more than 40 hours (variable PEHRACT1 in CPS MORG). The second includes reclassifying some additional workers who usually work 40 hours or fewer per week, and in the reference week worked 40 hours or fewer, to match the proportion of workers measured in other data sets who work overtime at any point in the year.

[c] The amount wages are adjusted downwards depends on whether the fixed-job model or the fixed-wage model holds. The Department’s primary method uses a combination of the two.

Employers reduce the regular hourly wage rate somewhat in response to overtime pay requirements, but the wage is not reduced enough to keep total compensation constant.

[d] Based on hourly wage and weekly hours it is more cost efficient for the employer to increase the worker’s weekly salary to the updated salary level than to pay overtime pay.

[e] On average, the Department’s modeling of regulatory effects yields a result in which employees’ overall weekly earnings will increase despite a small decrease in average hours worked. In some limited cases, employers might decrease employees’ hours enough to cause those employees’ weekly earnings to decrease.

[f] The Department assumed hours would not change; however, it is possible employers will increase these workers’ hours in response to paying them a higher salary or to avoid paying overtime premiums to newly nonexempt coworkers.

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(e) Estimated Number of and Effects on Affected EAP Workers

The Department estimated the proposed rule would affect 3.6 million

workers (Table 16), of which 2.5 million are Type 1 workers (68.7 percent of all affected EAP workers), 579,200 were estimated to be Type 2 workers (15.9 percent), 448,400 were Type 3 workers

(12.3 percent), and 115,700 were estimated to be Type 4 workers (3.2 percent).

TABLE 16—AFFECTED EAP WORKERS BY TYPE (1,000S), YEAR 1

EAP test	Total	No overtime (T1)	Occasional overtime (T2)	Regular overtime	
				Newly nonexempt (T3)	Remain exempt (T4)
Standard salary level	3,399.4	2,335.7	569.9	384.9	108.9
HCE compensation level	248.9	169.2	9.3	63.5	6.8
Total	3,648.3	2,504.9	579.2	448.4	115.7

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

* *Type 1:* Workers who do not work overtime and gain overtime protection.

* *Type 2:* Workers who work occasional overtime and gain overtime protection.

* *Type 3:* Workers who work regular overtime and gain overtime protection.

* *Type 4:* Workers who work regular overtime and remain exempt (*i.e.*, earnings increase to the updated salary level).

The proposed rule would affect some affected workers’ hourly wages, hours, and weekly earnings. Predicted changes in implicit wage rates are outlined in Table 17, changes in hours in Table 18, and changes in weekly earnings in Table 19. How these would change depends on the type of worker, but on average the Department projects that weekly earnings would be unchanged or increase while hours worked would be unchanged or decrease.

Type 1 workers would have no change in wages, hours, or earnings due to the overtime pay provision because these workers do not work overtime.³⁹¹

³⁹¹ It is possible that these workers may experience an increase in hours and weekly earnings because of transfers of hours from other newly nonexempt workers who do usually work overtime. Due to the high level of uncertainty in employers’ responses regarding the transfer of hours, the Department did not have credible evidence to support an estimation of the number of hours transferred to other workers.

Some Type 1 workers who earn less than the Federal or state minimum wage would see an increase in wages, a decrease in hours, and an increase in weekly earnings.

For Type 2A workers, the Department assumed employers would be unable to adjust the hours or regular rate of pay for these occasional overtime workers whose overtime is irregularly scheduled and unpredictable. These workers would receive a 50 percent premium on their regular hourly wage for each hour worked in excess of 40 hours per week, and so average weekly earnings would increase.³⁹²

³⁹² Type 2 workers will not see increases in regular earnings to the new salary or compensation levels (as Type 4 workers do) even if their new earnings in this week exceed those new levels. This is because the estimated new earnings only reflect their earnings in those weeks when overtime is worked; their earnings in typical weeks when they do not work overtime do not exceed the salary or compensation level.

For Type 3 workers and Type 2B workers (the 50 percent of Type 2 workers who regularly work occasional overtime, an estimated 738,000 workers), the Department used the incomplete fixed-job model to estimate changes in the regular rate of pay. These workers would see a decrease in their average regular hourly wage and a small decrease in hours. However, because these workers would receive a 50 percent premium on their regular hourly wage for each hour worked in excess of 40 hours per week, their average weekly earnings would increase. The reduction in hours is relatively small and is due to a decrease in labor demand from the increase in the average hourly wage as predicted by the incomplete fixed-job model (Table 18).

Type 4 workers’ implicit hourly rates of pay and weekly earnings would increase to meet the updated standard salary level or HCE annual

compensation level. Type 4 workers' hours may increase to offset the additional earnings, but due to lack of

data, the Department assumed hours would not change.

TABLE 17—AVERAGE REGULAR RATE OF PAY BY TYPE OF AFFECTED EAP WORKER, YEAR 1

Time period	Total	No overtime (T1)	Occasional overtime (T2)	Regular overtime	
				Newly non-exempt (T3)	Remain exempt (T4)
Standard Salary Level					
Before rule	\$23.55	\$24.18	\$25.48	\$17.82	\$20.07
After rule	\$23.43	\$24.18	\$25.36	\$16.90	\$20.42
Change (\$)	-\$0.11	\$0.00	-\$0.12	-\$0.92	\$0.34
Change (%)	-0.5%	0.0%	-0.5%	-5.2%	1.7%
HCE Compensation Level					
Before rule	\$56.10	\$60.07	\$58.90	\$45.92	\$48.63
After rule	\$55.31	\$60.07	\$54.99	\$43.31	\$49.78
Change (\$)	-\$0.79	\$0.00	-\$3.91	-\$2.61	\$1.15
Change (%)	-1.4%	0.0%	-6.6%	-5.7%	2.4%

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

*Type 1: Workers who do not work overtime and gain overtime protection.

*Type 2: Workers who work occasional overtime and gain overtime protection.

*Type 3: Workers who work regular overtime and gain overtime protection.

*Type 4: Workers who work regular overtime and remain exempt (i.e., earnings increase to the updated salary level).

TABLE 18—AVERAGE WEEKLY HOURS BY TYPE OF AFFECTED EAP WORKER, YEAR 1

Time period	Total	No overtime worked (T1)	Occasional OT (T2)	Regular OT	
				Newly non-exempt (T3)	Remain exempt (T4)
Standard Salary Level^a					
Before rule	41.0	38.9	40.9	50.4	52.9
After rule	41.0	38.9	40.9	50.0	52.9
Change (hours)	0.0	0.0	0.0	-0.4	0.0
Change (%)	-0.1%	0.0%	-0.1%	-0.8%	0.0%
HCE Compensation Level^a					
Before rule	43.3	39.5	52.7	50.6	56.0
After rule	43.2	39.5	52.3	50.3	56.0
Change (hours)	-0.1	0.0	-0.4	-0.3	0.0
Change (%)	-0.2%	0.0%	-0.7%	-0.7%	0.0%

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Usual hours for Types 1, 3, and 4 but actual hours for Type 2 workers identified in the CPS MORG.

*Type 1: Workers who do not work overtime and gain overtime protection.

*Type 2: Workers who work occasional overtime and gain overtime protection.

*Type 3: Workers who work regular overtime and gain overtime protection.

*Type 4: Workers who work regular overtime and remain exempt (i.e., earnings increase to the updated salary level).

TABLE 19—AVERAGE WEEKLY EARNINGS BY TYPE OF AFFECTED EAP WORKER, YEAR 1

Time period	Total	No overtime (T1)	Occasional overtime (T2)	Regular overtime	
				Newly non-exempt (T3)	Remain exempt (T4)
Standard Salary Level^a					
Before rule	\$913.71	\$904.82	\$947.26	\$882.62	\$1,038.69
After rule	\$919.26	\$904.82	\$960.66	\$906.04	\$1,059.00
Change (\$)	\$5.55	\$0.00	\$13.39	\$23.42	\$20.31
Change (%)	0.6%	0.0%	1.4%	2.7%	2.0%
HCE Compensation Level^a					
Before rule	\$2,354.99	\$2,323.22	\$3,101.59	\$2,292.51	\$2,704.08

TABLE 19—AVERAGE WEEKLY EARNINGS BY TYPE OF AFFECTED EAP WORKER, YEAR 1—Continued

Time period	Total	No overtime (T1)	Occasional overtime (T2)	Regular overtime	
				Newly non-exempt (T3)	Remain exempt (T4)
After rule	\$2,374.58	\$2,323.22	\$3,193.44	\$2,348.79	\$2,769.00
Change (\$)	\$19.59	\$0.00	\$91.85	\$56.28	\$64.92
Change (%)	0.8%	0.0%	3.0%	2.5%	2.4%

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a The mean of the hourly wage multiplied by the mean of the hours does not necessarily equal the mean of the weekly earnings because the product of two averages is not necessarily equal to the average of the product.

*Type 1: Workers who do not work overtime and gain overtime protection.

*Type 2: Workers who work occasional overtime and gain overtime protection.

*Type 3: Workers who work regular overtime and gain overtime protection.

*Type 4: Workers who work regular overtime and remain exempt (*i.e.*, earnings increase to the updated salary level).

At the new standard salary level, the average weekly earnings of affected workers would increase \$5.55 (0.6 percent), from \$913.71 to \$919.26. Multiplying the average change of \$5.55 by the 3.4 million EAP workers affected by the change in the standard salary level and 52 weeks equals an increase in earnings of \$1.0 billion in the first year. For workers affected by the change in the HCE compensation level, average weekly earnings would increase by \$19.59. When multiplied by 248,900 affected workers and 52 weeks, the national increase would be \$253.5 million in the first year. Thus, total Year 1 transfer payments attributable to this proposed rule would total \$1.2 billion.

The Department is only aware of one paper that modeled the impacts of the 2019 rule's increases in the salary and compensation levels. Quach (2021)³⁹³ used administrative payroll data from May 2008 to January 2020 to estimate the impacts of the rescinded 2016 rule and the 2019 rule on employment, earnings, and salary status.³⁹⁴ The paper has not been published in a peer-reviewed journal and has significant limitations, including that its use of administrative payroll data from ADP means that the findings are not representative as ADP customers do not represent a random sample of the workplace. Furthermore, the paper's analysis only includes the 22 states that have not updated their state or local minimum wages since 2014.³⁹⁵

In terms of its findings, concerning employment, the author did not find the impact to be statistically different from

zero for either rule, although he did find a significant decrease in employment when state overtime exemption laws were incorporated. Concerning earnings, he found an increase in base weekly earnings and an increase in overtime pay for both rules. The percent change in total pay that he estimates, around 1 to 2 percent depending on the rule, is not vastly different than the Department's estimate of 0.6 percent. Concerning salary status, he found an increase in the number of hourly jobs after the 2016 rule but not after the 2019 rule. His analysis of both rules showed a shift in the number of salaried workers from below to above the threshold (as does the Department's analysis).

The Department has not adjusted its methodology in response to this paper given the concerns listed above, but remains interested in further peer-reviewed research that may provide relevant findings.

Additionally, it can be informative to look at papers which predict the impact of rulemakings. For example, Rohwedder and Wenger (2015) analyzed the effects of increasing the standard salary level from the then baseline level of \$455 per week.³⁹⁶ They compared hourly and salaried workers in the CPS using quantile treatment effects. This methodology estimates the effect of a worker becoming nonexempt by comparing similar workers who are hourly and salaried. They found no statistically significant change in hours or wages on average. However, their point estimates, averaged across all affected workers, show small increases in earnings and decreases in hours, similar to the Department's analysis. For example, using a salary level of \$750, they estimated weekly earnings may increase between \$2 and \$22 and

weekly hours may decrease by approximately 0.4 hours.

iv. Potential Transfers Not Quantified

This proposed rule could lead to additional transfers that the Department is unable to quantify. For example, in response to this proposed rule, some employers may decrease the hours of newly nonexempt workers who usually work overtime. These hours may be transferred to other workers, such as non-overtime workers and exempt workers who are not affected by the rule. Depending on how these hours are transferred, it could lead to either a reduction or increase in earnings for other workers. Employers may also offset increased labor costs by reducing bonuses or benefits instead of reducing base wages or hours worked. If this occurs, an employee's overall compensation may not be affected.

The rule could also reduce reliance on social assistance programs for some workers who may receive a transfer of income resulting from this proposed rule if finalized. For low-income workers, this transfer could result in a reduced need for social assistance programs such as Medicaid, the Earned Income Tax Credit (EITC), the Supplemental Nutrition Assistance Program (SNAP), the Temporary Assistance for Needy Families (TANF) program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and school breakfasts and lunches. A worker earning the current salary level of \$684 per week earns \$35,568 annually, which is roughly equivalent to the Federal poverty level for a family of five and makes the family eligible for many social assistance programs.³⁹⁷ Thus, transferring income to these workers

³⁹³ Quach, S. (2022). The Labor Market Effects of Expanding Overtime Coverage. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3608506.

³⁹⁴ The Department notes that the effective date of the 2019 final rule was in January 2020, so using data from this month may not fully capture the effects of the 2019 rule.

³⁹⁵ This is a reasonable restriction to minimize the influence of exogenous factors. However, it makes the sample unrepresentative of the U.S.

³⁹⁶ Rohwedder, S. and Wenger, J.B. (2015). The Fair Labor Standards Act: Worker Misclassification and the Hours and Earnings Effects of Expanded Coverage. RAND Labor and Population.

³⁹⁷ Department of Health and Human Services (2023). Federal Poverty Level. <https://www.healthcare.gov/glossary/federal-poverty-level-fpl/>.

could reduce eligibility for government social assistance programs and could therefore also reduce government expenditures.

The Department requests comments and data on additional transfers that could occur if this rule were finalized as proposed.

5. Benefits and Cost Savings

The Department expects that this proposed rule could lead to multiple benefits, which are discussed qualitatively below. The Department welcomes comments on the potential benefits associated with this proposed rule and any data that could help to quantify them.

First, the updated salary level would strengthen the overtime protection of salaried, white-collar employees who do not pass the standard duties test and who earn between the current salary standard salary level and the proposed salary level. These employees are nonexempt but, because they satisfy the current salary level threshold, employers must apply the duties test to determine their exemption status. At the proposed salary level, the number of white-collar salaried employees who fail the duties test but earn at or above the salary level would decrease by 4.1 million. Because these nonexempt employees would not meet the proposed salary level, employers would be able to determine their exemption status based solely on the salary test. If any of these employers previously spent significant time evaluating the duties of these workers to determine exemption status, the change to determining exemption status based on the salary level could lead to some cost savings.

As the Department has noted in prior EAP rulemakings, some salaried, white-collar employees who meet the salary level threshold but do not meet the duties test may be misclassified as exempt from overtime protection due to misapplication of the duties test.³⁹⁸ To the extent that some of the 4.1 million salaried, white-collar employees who do not meet the duties test and earn between the current \$684 per week salary level and the proposed \$1,059 per week salary level are misclassified as exempt, the proposed salary level would make it more clear for workers and employers that such workers are not EAP exempt.³⁹⁹

³⁹⁸ See 84 FR 51279–80; 81 FR 32463; 69 FR 22213.

³⁹⁹ See Rohwedder, S. and Wenger, J.B. (2015). The Fair Labor Standards Act: Worker Misclassification and the Hours and Earnings Effects of Expanded Coverage. RAND Labor and Population. RAND conducted a survey to identify the number of workers who may have failed the

Second, this proposed rule could potentially lead to increased worker productivity if workers receive an increase in compensation. Increased productivity could occur through numerous channels, such as employee retention and level of effort. A strand of economic research, commonly referred to as “efficiency wage” theory, considers how an increase in compensation may be met with greater productivity.⁴⁰⁰ Efficiency wages may elicit greater effort on the part of workers, making them more effective on the job.⁴⁰¹ Other research on increases in the minimum wage have demonstrated a positive relationship between increased compensation and worker productivity. For example, Kim and Jang (2019) showed that wage raises increase productivity for up to two years after the wage increase.⁴⁰² They found that in both full and limited-service restaurants productivity increased due to improved worker morale after a wage increase.

Additionally, research demonstrates a correlation between increased earnings and reduced employee turnover.⁴⁰³ ⁴⁰⁴ Reducing turnover, in turn, may increase productivity because new employees have less firm-specific skills and knowledge and thus could be less productive and require additional

standards duties test and yet are classified as EAP exempt. The survey, a special module to the American Life Panel, asked respondents: (1) their hours worked, (2) whether they are paid on an hourly or salary basis, (3) their typical earnings, (4) whether they perform certain job responsibilities that are treated as proxies for whether they would justify exempt status, and (5) whether they receive any overtime pay. Using these data, Rohwedder and Wenger found that “11.5 percent of salaried workers were classified as exempt by their employer although they did not meet the criteria for being so.” This survey was conducted when the salary level was \$455. The exact percentage may no longer be applicable, but the concern that in some instances the duties test may be misapplied remains.

⁴⁰⁰ Akerlof, G.A. (1982). Labor Contracts as Partial Gift Exchange. *The Quarterly Journal of Economics*, 97(4), 543–569.

⁴⁰¹ Another model of efficiency wages, which is less applicable here, is the adverse selection model in which higher wages raise the quality of the pool of applicants.

⁴⁰² Kim, H.S., & Jang, S. (2019). Minimum Wage Increase and Firm Productivity: Evidence from the Restaurant Industry. *Tourism Management* 71, 378–388. <https://doi.org/10.1016/j.tourman.2018.10.029>.

⁴⁰³ Howes, Candace. (2005). Living Wages and Retention of Homecare Workers in San Francisco. *Industrial Relations*, 44(1), 139–163. Dube, A., Lester, T.W., & Reich, M. (2014). Minimum Wage Shocks, Employment Flows and Labor Market Frictions. IRLE Working Paper #149–13.

⁴⁰⁴ This literature tends to focus on changes in earnings for a specific sector or subset of the labor force. The impact on turnover when earnings increase across sectors (as would be the case with this regulation) may be smaller.

supervision and training.⁴⁰⁵ Reduced turnover could also reduce firms’ hiring and training costs. As a result, even though marginal labor costs rise, they may rise by less than the amount of the wage change because the higher wages may be offset by increased productivity and reduced hiring costs for firms.

Third, this rulemaking could result in an increase in personal time for some workers. Due to the increase in marginal cost for overtime hours for newly overtime-eligible workers, employers could demand fewer hours from some of the workers affected by this rulemaking. If these workers’ pay remains the same, they could benefit from increased personal time and improved work-life balance. Empirical evidence shows that workers in the United States typically work more than workers in other comparatively wealthy countries.⁴⁰⁶ Although estimates of the actual level of overwork vary considerably, workers in executive, administrative, and professional occupations tend to work longer hours.⁴⁰⁷ They also have the highest percentage of workers who would prefer to work fewer hours compared to other occupational categories.⁴⁰⁸ Therefore, the Department believes that this proposed rule may result in reduced time spent working for a group of workers, some of whom may prefer such an outcome.

6. Sensitivity Analysis of Transfer Payments

Because the Department cannot predict employers’ precise reactions to the proposed rule, the Department calculated bounds on the size of the estimated transfers from employers to workers, relative to the primary estimates in this RIA. For the upper bound, the Department assumed that the

⁴⁰⁵ Argote, L., Insko, C. A., Yovetich, N., & Romero, A. A. (1995). Group Learning Curves: The Effects of Turnover and Task Complexity on Group Performance. *Journal of Applied Social Psychology*, 25(6), 512–529. Shaw, J. D. (2011). Turnover Rates and Organizational Performance: Review, Critique, and Research Agenda. *Organizational Psychology Review*, 1(3), 187–213.

⁴⁰⁶ For more information, see OECD series, average annual hours actually worked per worker, available at: <http://stats.oecd.org/index.aspx?DataSetCode=ANHRS>.

⁴⁰⁷ Boushey, H. and Ansel, B. (2016). Overworked America, The economic causes and consequences of long work hours. Washington Center for Equitable Growth. <https://equitablegrowth.org/research-paper/overworked-america/?longform=true>.

⁴⁰⁸ Hamermesh, D.S., Kawaguchi, D., Lee, J. (2014). Does Labor Legislation Benefit Workers? Well-Being after an Hours Reduction. IZA DP No. 8077.

Golden, L., & Gebreselassie, T. (2007). Overemployment Mismatches: The Preference for Fewer Work Hours. *Monthly Labor Review*, 130(4), 18–37.

Hamermesh, D.S. (2014). Not Enough Time? *American Economist*, 59(2).

full overtime premium model is more likely to occur than in the primary model. For the lower bound, the Department assumed that the complete fixed-job model is more likely to occur than in the primary model. Based on these assumptions, estimated transfers may range from \$557.3 million to \$2.4 billion, with the primary estimate equal to \$1.2 billion.

For a reasonable upper bound on transfer payments, the Department assumed that all occasional overtime workers and half of regular overtime workers would receive the full overtime premium (*i.e.*, such workers will work the same number of hours but be paid

1.5 times their implicit initial hourly wage for all overtime hours) (Table 20). The full overtime premium model is a special case of the fixed-wage model where there is no change in hours. For the other half of regular overtime workers, the Department assumed in the upper-bound method that they would have their implicit hourly wage adjusted as predicted by the incomplete fixed-job model (wage rates fall and hours are reduced but total earnings continue to increase, as in the primary method). In the primary model, the Department assumed that only 50 percent of occasional overtime workers and no

regular overtime workers would receive the full overtime premium. The plausible lower bound on transfer payments also depends on whether employees work regular overtime or occasional overtime. For those who regularly work overtime hours and half of those who work occasional overtime, the Department assumed the employees' wages would fully adjust as predicted by the fixed-job model.⁴⁰⁹ For the other half of employees with occasional overtime hours, the lower bound assumes they would be paid one and one-half times their implicit hourly wage for overtime hours worked (full overtime premium).

TABLE 20—SUMMARY OF THE ASSUMPTIONS USED TO CALCULATE THE LOWER ESTIMATE, PRIMARY ESTIMATE, AND UPPER ESTIMATE OF TRANSFERS

Lower transfer estimate	Primary estimate	Upper transfer estimate
Occasional Overtime Workers (Type 2)		
50% fixed-job model	50% incomplete fixed-job model	100% full overtime premium.
50% full overtime premium	50% full overtime premium	
Regular Overtime Workers (Type 3)		
100% fixed-job model	100% incomplete fixed-job model	50% incomplete fixed-job model. 50% full overtime premium.

* Full overtime premium model: Regular rate of pay equals the implicit hourly wage prior to the regulation (with no adjustments); workers are paid 1.5 times this base wage for the same number of overtime hours worked prior to the regulation.

* Fixed-job model: Base wages are set at the higher of: (1) a rate such that total earnings and hours remain the same before and after the regulation; thus the base wage falls, and workers are paid 1.5 times the new base wage for overtime hours (the fixed-job model) or (2) the minimum wage.

* Incomplete fixed-job model: Regular rates of pay are partially adjusted to the wage implied by the fixed-job model.

7. Effects by Regions and Industries

This section compares the number of affected workers, costs, and transfers across regions and industries. Although impacts would be more pronounced in some regions or industries, the Department has concluded that in no region or industry are the costs overly burdensome. The proportion of total costs and transfers in each region would be fairly consistent with the proportion of total workers in each region. Affected workers are overrepresented in some industries, but costs and transfers would still be manageable as a share of payroll and of total revenue (*See* Table 24 for regions and Table 27 for industries).

The Department also compared costs and transfers relative to total payrolls and revenues. This provides a common method of assessing the relative effects of the rule on different regions or

industries, and the magnitude of adjustments the rule may require on the part of enterprises in each region or industry. The relative costs and transfers expressed as a percentage of payroll are particularly useful measures of the relative size of adjustment faced by organizations in a region or industry because they benchmark against the cost category directly associated with the labor force. Average estimated costs and transfers from this proposed rule are very small relative to current payroll or current revenue—less than a tenth of a percent of payroll and of revenue in each region and in each industry.

Salaries vary across the U.S. geographically. To ensure the proposed standard salary level would not be too high in any region of the country, the Department has used only wages in the lowest-wage region, the South, to set the salary level. However, because wages

are lower in the South and the Midwest than the Northeast and the West, impacts may be larger in these two lower-wage regions. This section considers impacts across the four Census regions to ensure the impacts in the lower-wage regions would be manageable. The South has by far the most affected workers (1.5 million), though it also has the most workers of any Census region (Table 21). As a share of potentially affected workers in the region, the South would have somewhat more affected workers relative to other regions (15.2 percent are affected compared with 10.3 to 13.7 percent in other regions). However, as a share of all workers in the region, the South would not be particularly affected relative to other regions (2.9 percent are affected compared with 2.1 to 2.6 percent in other regions).

⁴⁰⁹ The straight-time wage adjusts to a level that keeps weekly earnings constant when overtime

hours are paid at 1.5 times the straight-time wage. In cases where adjusting the straight-time wage

results in a wage less than the minimum wage, the straight-time wage is set to the minimum wage.

TABLE 21—POTENTIALLY AFFECTED AND AFFECTED WORKERS, BY REGION, YEAR 1

Region	Workers subject to FLSA (millions)	Potentially affected workers (millions) ^a	Affected workers (millions) ^b	Affected workers as a percent of potentially affected workers %	Affected workers as a percent of all workers %
All	139.4	28.4	3.6	12.9	2.6
Northeast	24.8	5.7	0.6	11.1	2.6
Midwest	30.4	5.9	0.8	13.7	2.6
South	51.4	9.9	1.5	15.2	2.9
West	32.8	6.9	0.7	10.3	2.1

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a EAP exempt workers who are white-collar, salaried, not eligible for another (non-EAP) overtime exemption, and not in a named occupation.

^b Currently EAP exempt workers who will be entitled to overtime protection under the updated earnings levels or whose weekly earnings will increase to the new earnings levels to remain exempt.

Total transfers in the first year were estimated to be \$1.2 billion (Table 22). As expected, the transfers in the South would be the largest portion because the largest number of affected workers would be in the South. However, transfers per affected worker would be on the low-end in the South. Annual transfers per worker would be \$328 in the South, and between \$332 and \$357 in other regions.

TABLE 22—ANNUAL TRANSFERS BY REGION, YEAR 1

Region	Total annual change in earnings (millions)	Annual transfer per affected worker	Annual transfers per entity	Percent of total transfers by region (%)
All	\$1,234.2	\$338	\$153	100.0
Northeast	211.2	332	143	17.1
Midwest	279.1	347	166	22.6
South	492.8	328	169	39.9
West	251.1	357	125	20.3

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

TABLE 23—ANNUAL COSTS BY REGION, YEAR 1

Region	Total direct costs (millions)	Total direct costs per entity	Percent of total direct costs by region (%)
All	\$1,202.8	\$149	100.0
Northeast	202.8	137	16.9
Midwest	278.5	165	23.2
South	470.5	161	39.1
West	251.1	125	20.9

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

Direct employer costs are composed of regulatory familiarization costs, adjustment costs, and managerial costs. The Department estimates that total direct employer costs would be the highest in the South (\$470.5 million) and lowest in the Northeast (\$202.8 million). Transfers and direct employer costs in each region, as a percentage of the total transfers and direct costs, would range from 17.0 percent in the Northeast to 39.5 percent in the South.

These proportions are almost the same as the proportions of the total workforce in each region: 17.8 percent in the Northeast and 36.9 percent in the South. Costs and transfers per establishment would be slightly higher in the South (\$330) than on average, but still small (Table 24).

Another way to compare the relative effects of this proposed rule by region is to consider the transfers and costs as a proportion of payroll and revenues

(Table 24).⁴¹⁰ Nationally, employer costs and transfers would be approximately 0.027 percent of payroll. By region, direct employer costs and transfers as a percent of payroll would be approximately the same (between 0.021 and 0.032 percent of payroll). Employer costs and transfers as a percent of revenue would be 0.005 percent nationally and range between 0.004 and 0.006 percent in each region.

⁴¹⁰ The Department uses 2017 data here because although payroll data are available for 2021, the most recent revenue data are for 2017.

TABLE 24—ANNUAL TRANSFERS AND COSTS AS PERCENT OF PAYROLL AND OF REVENUE BY REGION, YEAR 1

Region	Transfers and costs per entity	Payroll (billions) ^a	Revenue (billions) ^a	Costs and transfers	
				As percent of payroll (%)	As percent of revenue (%)
All	\$301	\$9,141	\$48,894	0.027	0.005
Northeast	279	1,940	9,557	0.021	0.004
Midwest	331	1,879	10,884	0.030	0.005
South	330	3,028	17,193	0.032	0.006
West	250	2,295	11,260	0.022	0.004

^a Payroll and revenue data exclude the Federal Government.

Sources: Costs and transfers based on pooled CPS data for 2020–2022 adjusted to reflect 2022. Private sector payroll and revenue data from 2017 SUSB. State and local payroll and revenue data from State and Local Government Finances 2020. Inflated to \$2022 using GDP deflator.

Impacts may be more pronounced in some industries. In particular, lower-wage industries where more workers may earn between \$684 and the proposed new salary level may be impacted more. Additionally, industries where EAP workers are more prevalent may experience larger impacts. To gauge the effect of the proposed rule on industries, the Department estimated affected workers, costs, and transfers for

the 13 major industry groups. The Department also compared estimates of combined costs and transfers as a percent of payroll and revenue across industries.

Table 25 presents the number of affected workers by industry. The industry with the most affected workers is professional and business services (687,400). The industry with the largest share of workers affected is financial

activities (4.9 percent). This is because the financial activities industry is heavily composed of salaried white-collar workers. As a share of potentially affected workers, the industry with the highest share affected is agriculture, forestry, fishing, & hunting (22.1 percent), followed by leisure and hospitality (21.1 percent).

TABLE 25—POTENTIALLY AFFECTED AND AFFECTED WORKERS, BY INDUSTRY, YEAR 1

Industry	Workers subject to FLSA (1,000s)	Potentially affected workers (1,000s) ^a	Affected workers (1,000s) ^b	Affected workers as a percent of potentially affected workers (%)	Affected workers as a percent of all workers (%)
All	139,397.0	28,359.5	3,648.3	12.9	2.6
Agriculture, forestry, fishing, & hunting	1,331.5	55.6	12.3	22.1	0.9
Mining	619.5	171.1	12.5	7.3	2.0
Construction	8,914.6	1,188.4	154.4	13.0	1.7
Manufacturing	15,129.2	3,900.8	317.1	8.1	2.1
Wholesale trade	3,226.4	850.5	103.9	12.2	3.2
Retail trade	15,381.2	1,853.1	308.7	16.7	2.0
Transportation & utilities	8,507.1	1,033.5	118.9	11.5	1.4
Information	2,559.2	962.4	118.6	12.3	4.6
Financial activities	9,851.4	4,250.7	480.7	11.3	4.9
Professional & business services	16,784.2	6,754.2	687.4	10.2	4.1
Education	14,017.6	1,121.0	201.8	18.0	1.4
Healthcare & social services	20,534.6	3,599.7	626.9	17.4	3.1
Leisure & hospitality	11,597.6	869.1	183.5	21.1	1.6
Other services	5,314.5	736.5	139.2	18.9	2.6
Public administration	5,628.3	1,012.9	182.4	18.0	3.2

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a EAP exempt workers who are white-collar, salaried, not eligible for another (non-EAP) overtime exemption, and not in a named occupation.

^b Currently EAP exempt workers who will be entitled to overtime protection under the updated earnings levels or whose weekly earnings will increase to the new earnings levels to remain exempt.

Both transfers and costs would be the largest in the professional and business services industry because this industry is large and heavily composed of salaried white-collar workers (Table 26). Combined, in Year 1, these total \$471.7

million and represent 19.4 percent of nationwide transfers and costs. Transfers and costs are also large in the healthcare and social services industry, at least partially due to the large size of this industry. However, transfers per

affected worker would be relatively low in this industry, \$251 in the first year compared with \$338 nationally. A third industry with relatively large total transfers and costs is the financial activities industry.

TABLE 26—ANNUAL TRANSFERS AND COSTS BY INDUSTRY, YEAR 1

Industry	Transfers (millions)	Transfer per affected worker	Direct costs (millions) ^a	Transfers and costs (millions)	Percent of total transfers and costs by industry (%)
All	\$1,234.2	\$338	\$1,202.1	\$2,436.3	100.0
Agriculture, forestry, fishing, & hunting	4.2	341	3.2	7.4	0.3
Mining	2.9	234	2.6	5.6	0.2
Construction	49.1	318	74.0	123.2	5.1
Manufacturing	114.0	360	91.9	205.9	8.5
Wholesale trade	42.9	413	46.3	89.2	3.7
Retail trade	148.8	482	138.7	287.6	11.8
Transportation & utilities	46.3	389	37.0	83.3	3.4
Information	34.5	290	32.3	66.7	2.7
Financial activities	144.3	300	143.2	287.5	11.8
Professional & business services	250.7	365	221.0	471.7	19.4
Education	54.3	269	42.2	96.5	4.0
Healthcare & social services	157.5	251	164.0	321.5	13.2
Leisure & hospitality	86.8	473	99.2	186.1	7.6
Other services	35.6	256	69.5	105.1	4.3
Public administration	62.2	341	37.0	99.2	4.1

Sources: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Regulatory familiarization costs exclude 13,981 establishments whose industry is “not classified.”

To measure the impact on businesses, a comparison of transfers and costs to payroll, revenue, or profit is more helpful than looking at the absolute size of transfers and costs per industry. As a percent of payroll, transfers and costs would be highest in agriculture, forestry, fishing, and hunting; education; and retail trade (Table 27). However, the magnitude of the relative shares would be small, representing less than 0.1 percent of payroll costs in all industries. The Department’s estimates of transfers and costs as a percent of revenue by industry also indicated a very small effect of less than 0.02 percent of revenues in any industry. The

industries with the largest transfers and costs as a percent of revenue would be education; agriculture, forestry, fishing, and hunting; and professional and business services. Table 27 illustrates that the differences in costs and transfers relative to revenues would be quite small across industry groupings.

The overall magnitude of costs and transfers as a percentage of profits represents less than 1.0 percent of overall profits in each industry.^{411 412} By industry, the value of total costs and transfers as a percent of profits ranges from a low of .02 percent (wholesale trade) to a high of 0.71 percent (agriculture, forestry, fishing, and

hunting). Benchmarking against profits is potentially helpful in the sense that it provides a measure of the proposed rule’s effect against returns to investment. However, this metric must be interpreted carefully as it does not account for differences across industries in risk-adjusted rates of return which are not readily available for this analysis. The ratio of costs and transfers to profits also does not reflect differences in the firm-level adjustment to profit impacts reflecting cross-industry variation in market structure.⁴¹³

TABLE 27—ANNUAL TRANSFERS, TOTAL COSTS, AND TRANSFERS AND COSTS AS PERCENT OF PAYROLL, REVENUE, AND PROFIT BY INDUSTRY, YEAR 1

Industry	Costs and transfers per entity	Payroll (billions) ^a	Revenue (billions) ^a	Costs and transfers as percent of:		
				Payroll ^a	Revenue ^a	Profit ^a
All	\$301.7	\$9,140.5	\$48,894.1	0.027	0.005	0.052
Agriculture, forestry, fishing, & hunting	323.5	8.3	41.0	0.089	0.018	0.709
Mining	233.0	59.7	476.5	0.009	0.001	^b
Construction	163.5	471.2	2,346.7	0.026	0.005	0.090
Manufacturing	726.1	805.8	6,522.0	0.026	0.003	0.030
Wholesale trade	228.1	512.7	10,287.6	0.017	0.001	0.020
Retail trade	277.4	524.6	5,773.6	0.055	0.005	0.154
Transportation & utilities	300.4	369.0	1,719.9	0.023	0.005	0.257
Information	414.6	421.2	1,860.4	0.016	0.004	0.022

⁴¹¹ Internal Revenue Service. (2023). SOI Tax Stats—Corporation Income Tax Returns Complete Report (Publication 16). Available at: <https://www.irs.gov/statistics/soi-tax-stats-corporation-income-tax-returns-complete-report-publication-16>.

⁴¹² Table 1 of the IRS report provides total receipts, net income, and deficits by industry. For each industry, the Department calculated the profit-to-revenue ratio as net income (column (7)) less any

deficit (column (8)) divided by total receipts (column (3)). Profits were then calculated as revenues multiplied by profit-to-revenue ratios. Profits could not be used directly because they are limited to only active corporations.

⁴¹³ In particular, a basic model of competitive product markets would predict that highly competitive industries with lower rates of return would adjust to increases in the marginal cost of

labor arising from the rule through an overall, industry-level increase in prices and a reduction in quantity demanded based on the relative elasticities of supply and demand. Alternatively, more concentrated markets with higher rates of return would be more likely to adjust through some combination of price increases and profit reductions based on elasticities as well as interfirm pricing responses.

TABLE 27—ANNUAL TRANSFERS, TOTAL COSTS, AND TRANSFERS AND COSTS AS PERCENT OF PAYROLL, REVENUE, AND PROFIT BY INDUSTRY, YEAR 1—Continued

Industry	Costs and transfers per entity	Payroll (billions) ^a	Revenue (billions) ^a	Costs and transfers as percent of:		
				Payroll ^a	Revenue ^a	Profit ^a
Financial activities	314.4	896.4	5,881.0	0.032	0.005	0.023
Professional & business services	330.6	1,888.7	3,451.6	0.025	0.014	0.122
Education	876.2	168.8	484.3	0.057	0.020	0.310
Healthcare & social services	346.4	1,175.4	2,986.5	0.027	0.011	0.144
Leisure & hospitality	210.1	423.4	1,429.5	0.044	0.013	0.158
Other services	136.3	213.5	850.6	0.049	0.012	0.183
Public administration	1,100.1	1,201.8	4,782.8	0.008	0.002	^c

Sources: Pooled CPS data for 2020–2022 adjusted to reflect 2022. Private sector payroll and revenue data from 2017 SUSB. State and local payroll and revenue data from State and Local Government Finances 2020 are used for the Public Administration industry. Profit-to-revenue data from the Internal Revenue Service 2019. Inflated to \$2022 using GDP deflator.

^a Payroll and revenue data exclude the Federal Government. Profit-to-revenue data limited to active corporations. Regulatory familiarization costs, payrolls, and revenues exclude 13,981 establishments whose industry is “not classified.” Because transfer payments include all workers, the estimates of costs and transfers as a share of payroll or revenue are slightly overestimated.

^b Profits were negative in this industry in this year.

^c Profit is not applicable for public administration.

8. Regulatory Alternatives

The Department considered a range of alternatives before selecting its methods for updating the standard salary level and the HCE compensation level (*see* section IV.A.5). As seen in Table 28, the Department has calculated the salary/compensation levels, the number of affected workers, and the associated costs and transfers for these alternative levels.

The Department proposes to update the standard salary level using earnings for the 35th percentile of full-time salaried workers in the South Census region, \$1,059 per week. The alternative methods considered for setting the standard salary level are:

- Alternative 1: 2004/2019 method—\$822 per week—20th percentile of earnings of nonhourly full-time workers in the South Census region and in the retail industry nationally.

- Alternative 2: Kantor long test method—\$925 per week—10th percentile of earnings of likely exempt workers.

- Alternative 3: 2016 method—\$1,145 per week—40th percentile of earnings of nonhourly full-time workers in the South Census region

- Alternative 4: Kantor short test method—\$1,378 per week—Kantor long test level multiplied by 149 percent (the historical average relationship between the long and short test levels).

The Department considered using the 2004 methodology (the 20th percentile of full-time salaried white-collar workers in the lowest-wage Census region (currently the South) and in retail nationally), which is currently \$822 per week (\$42,744 per year). This is also the methodology that the Department used in the 2019 rule.⁴¹⁴ However, the salary

level produced by the 2004 methodology is below the current equivalent long test salary level (\$925 per week), which the Department considers to be the lower boundary for an appropriate salary level.

The Department also considered setting the standard salary level at the long test level (\$925 per week or \$48,100 per year). Doing so would ensure the initial screening function of the salary level by restoring overtime protections to those employees who were consistently excluded from the EAP exemption under each iteration of the regulations prior to 2019, either by the long test salary level itself, or under the 2004 rule salary level, which was set equivalent to the long test salary level.⁴¹⁵ However, as explained above, setting the standard salary level at the long test level would perpetuate the problems that have become evident under the 2004 and 2019 rules.

The Department also considered setting the standard salary level at the 40th earnings percentile of salaried white-collar workers in the lowest-wage Census Region (currently the South) (\$1,145 per week or \$59,540 per year). This salary level is roughly the midpoint between the long and short test salary level alternatives (\$925 per week and \$1,378 per week, respectively). However, the Department is concerned that this approach could be seen by courts as making salary level determinative of exemption status for too large a portion of employees, as this salary level would make the salary paid by the employer determinative of exemption status for roughly half (47%) of white-collar employees who earn between the long and short test salary levels. The Department is also

concerned that this approach would generate the same concerns that led to the district court decision invalidating the 2016 rule (which adopted the same methodology).

Finally, the Department considered setting the standard salary level at the current equivalent of the short test salary level (\$1,378 per week or \$71,656 per year).⁴¹⁶ This would ensure that all employees who earn between the long and short test salary levels and perform substantial amounts of nonexempt work would be entitled to overtime compensation. However, by making exemption status for all employees who earn between the long and short test levels depend on the salary paid by the employer, this approach would prevent employers from being able to use the EAP exemption for employees earning between these salary levels who do not perform substantial amounts of nonexempt work and thus were historically exempt under the long test.

As described above, the Department proposes to update the HCE compensation level using earnings for the 85th percentile of all full-time salaried workers nationally, \$143,988 per year. The Department also evaluated the following alternative methods to set the HCE compensation levels:

- HCE alternative 1: 2019 method⁴¹⁷—\$125,268 annually—80th percentile of earnings of nonhourly full-time workers nationally.

- HCE alternative 2: 2016 method⁴¹⁸—\$172,796 annually—90th percentile of earnings of nonhourly full-time workers nationally.

The Department believes that HCE alternative 1 would not produce a

⁴¹⁶ *See id.*

⁴¹⁷ *See* 81 FR 32429.

⁴¹⁸ *See* 84 FR 51250.

⁴¹⁴ 84 FR 51260.

⁴¹⁵ *See* section IV.A.1.

threshold high enough to reserve the HCE test for employees at the top of today's economic ladder and ensure that the HCE threshold continues to appropriately complement the minimal HCE duties test. The Department also considered setting the HCE threshold at the 90th percentile; however, the

Department is concerned that the resulting level (\$172,796) would restrict the use of the HCE exemption for employers in low-wage regions and industries. The Department believes its proposal to adjust the HCE total annual compensation threshold to reflect the 85th percentile of earnings of nonhourly

full-time workers nationally strikes the appropriate balance and ensures that the HCE test continues to serve its intended function as a streamlined alternative for employees who are highly likely to pass the standard duties test.

TABLE 28—UPDATED STANDARD SALARY AND HCE COMPENSATION LEVELS AND ALTERNATIVES, AFFECTED EAP WORKERS, COSTS, AND TRANSFERS, YEAR 1

Alternative	Salary level	Affected EAP workers (1,000s)	Year 1 effects (millions)	
			Adj. & managerial costs	Transfers
Standard Salary Level (Weekly)				
Alt. #1: 2004/2019 method ^a	\$822	825	\$159.0	\$170.8
Alt #2: Kantor long test ^b	925	1,773	367.4	456.8
Proposed rule: 35th percentile South ^c	1,059	3,399	709.8	980.7
Alt. #3: 2016 method—40th percentile South ^c	1,145	4,312	955.2	1,415.9
Alt. #4: Kantor short test ^d	1,378	7,640	1,728.3	3,136.6
HCE Compensation Level (Annually)				
HCE alt. #1: 2019 method—80th percentile ^e	125,268	166	43.1	151.6
Proposed rule: 85th percentile ^e	143,988	249	65.9	253.5
HCE alt. #2: 2016 method—90th percentile ^e	172,796	295	84.0	330.0

Note: Regulatory familiarization costs are excluded because they do not vary based on the selected values of the salary levels. Additionally, they cannot be disaggregated by exemption type (*i.e.*, standard versus HCE). The Department requests comment on how to refine familiarization cost estimates in a manner that distinguishes among regulatory alternatives.

^a 20th percentile earnings of nonhourly full-time workers in the South Census region and retail industry (excludes workers not subject to the FLSA, not subject to the salary level test, and in agriculture or transportation). Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^b 10th percentile earnings of likely exempt workers. Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^c Designated percentile of earnings of nonhourly full-time workers in the South Census region (excludes workers not subject to the FLSA, not subject to the salary level test, and in agriculture or transportation). CPS 2022 data.

^d Kantor short test is set as the long test level multiplied by 149 percent. This is the historical average relationship between the two levels.

^e Designated percentile of earnings of nonhourly full-time workers nationally (excludes workers not subject to the FLSA, not subject to the salary level test, and in agriculture or transportation). CPS 2022 data.

9. Automatic Updates

Between updates to the standard salary and HCE compensation levels, nominal wages typically increase, resulting in an increase in the number of workers qualifying for the EAP exemption, even if there has been no change in their duties or real earnings. Thus, workers whom Congress intended to be covered by the minimum wage and overtime pay provisions of the FLSA may lose those protections. Automatically updating the salary and compensation levels allows these thresholds to keep pace with changes in earnings and continue to serve as an effective dividing line between potentially exempt and nonexempt workers. Furthermore, automatically updating the salary and compensation levels will provide employers more certainty in knowing that these levels will change by smaller amounts on a regular basis, rather than the more disruptive increases caused by much larger changes after longer, uncertain increments of time. This would allow

firms to better predict short- and long-term costs and employment needs.

The Department is including in this proposed rule a mechanism for automatically updating the salary and compensation levels every 3 years to reflect current earnings. For purposes of this analysis, the Department assumes that the standard salary would be updated using the same methodology that the Department proposes to use to set the standard salary level: the 35th percentile of weekly earnings of full-time salaried workers in the lowest-wage Census Region (currently the South). Likewise, the Department assumes that the HCE annual compensation level would be updated using the same methodology the Department proposes to use to set this earnings threshold: the 85th percentile of weekly earnings of full-time salaried workers nationally.

As previously discussed, future automatic updates will set the earnings thresholds using the most recent 12 months of CPS data preceding the Department's notice to automatically update the thresholds. To estimate

future thresholds in years when the salary and compensation levels will be updated, the Department used the historic geometric growth rate between 2011 and 2021 in (1) the 35th earnings percentile of full-time salaried workers in the South for the standard salary level and (2) the 85th earnings percentile of full-time salaried workers nationally for the HCE compensation level. For example, between 2011 and 2021, the annual growth rate in the 35th percentile of full-time salaried workers in the South has increased by 2.72 percent. To estimate the first automatic update salary level of \$1,148, the Department multiplied \$1,059 by 1.0272 to the power of three. Figure 5 shows the projected automatic update levels for the first 10 years. Note that these projections are illustrative estimates based on past wage growth; the actual level at the time of the update will depend on the wage growth that occurs between now and the update date. Figure 6 shows the standard salary levels in both nominal and 2022 dollars.

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Figure 5: Projected Future Salary and Compensation Levels, Nominal Dollars

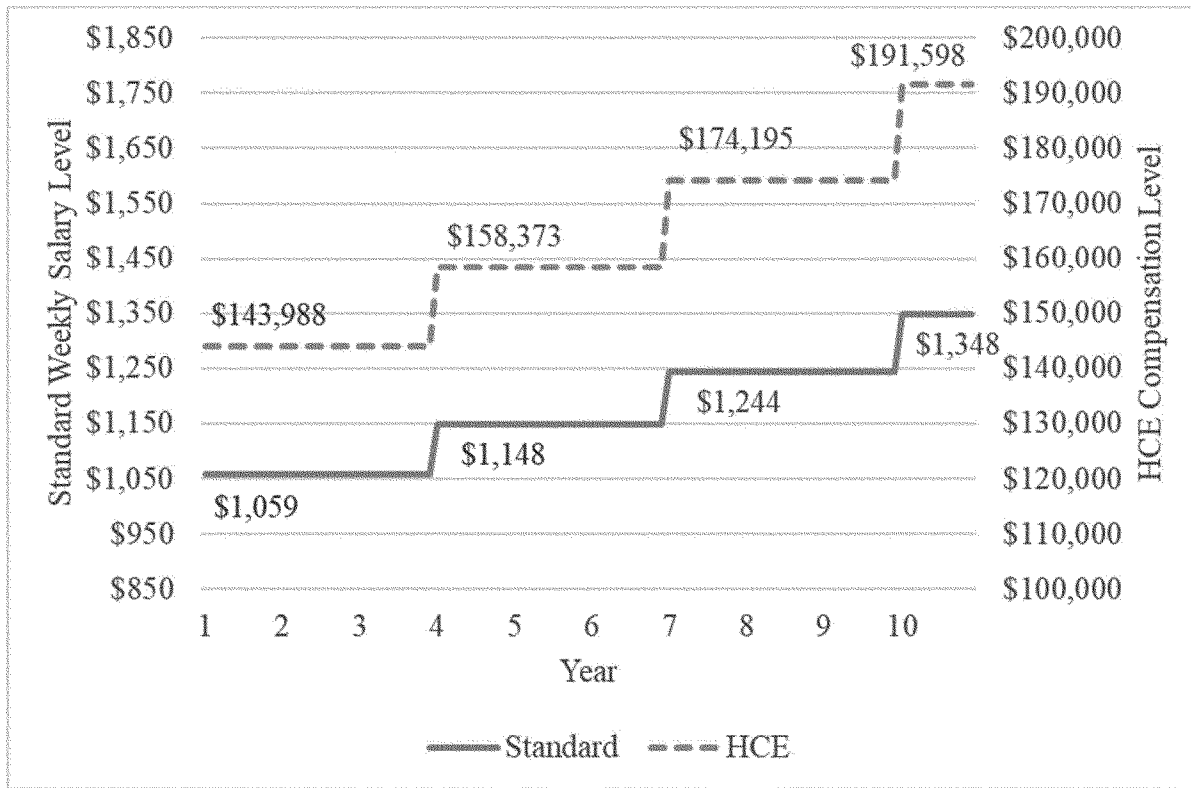
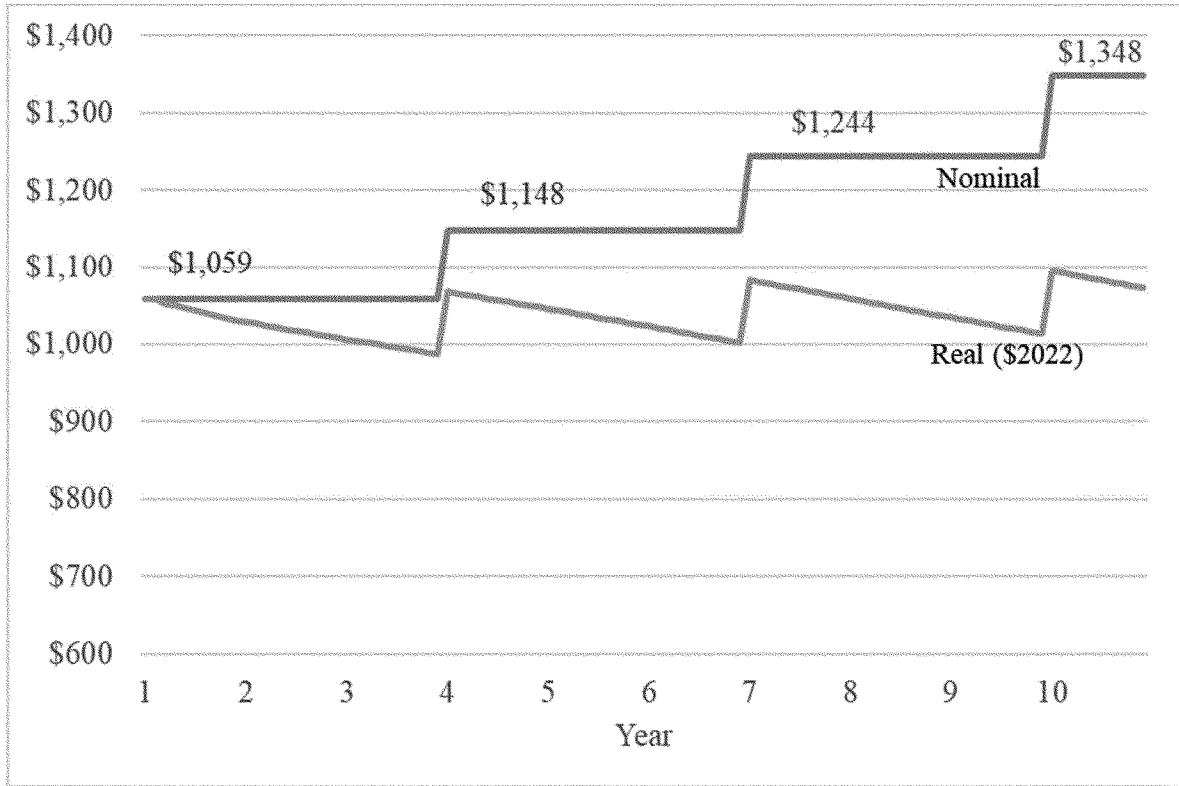


Figure 6: Projected Future Standard Salary Levels, Nominal and Real (Constant 2022 Dollars)



10. Projections

The Department estimated that in Year 1, 3.6 million EAP workers would be affected, with about 248,900 of these attributable to the revised HCE compensation level (Table 29). In Year 10, the number of affected EAP workers was estimated to equal 5.1 million with 768,700 attributable to the updated HCE

compensation level. Average annualized costs are \$664 million and transfers are \$1.3 billion using a 7 percent real discount rate. These projections involved several steps.

1. Use past growth in the earnings distribution to estimate future salary and compensation levels (see section VII.C.9).

- 2. Predict workers' earnings, absent a change in the salary levels.
- 3. Compare workers' predicted earnings to the predicted salary and compensation levels to estimate affected workers.
- 4. Project future employment levels.
- 5. Estimate employer adjustments to hours and pay.
- 6. Calculate costs and transfers.

Figure 7: 10-Year Projected Number of Affected Workers

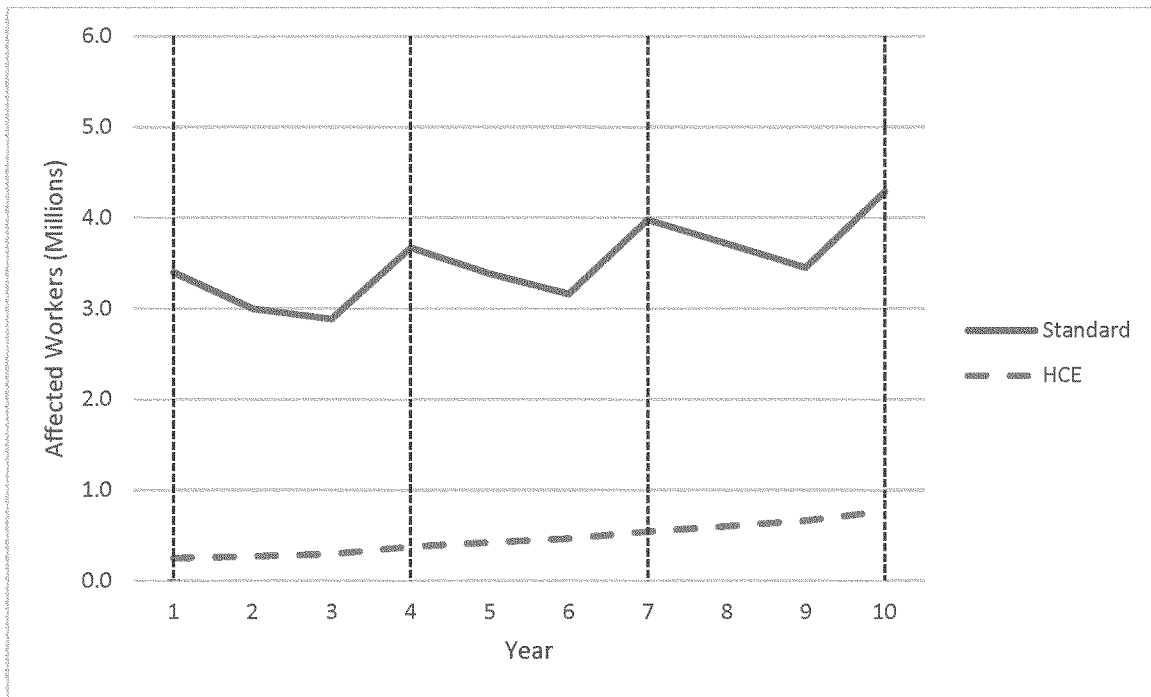
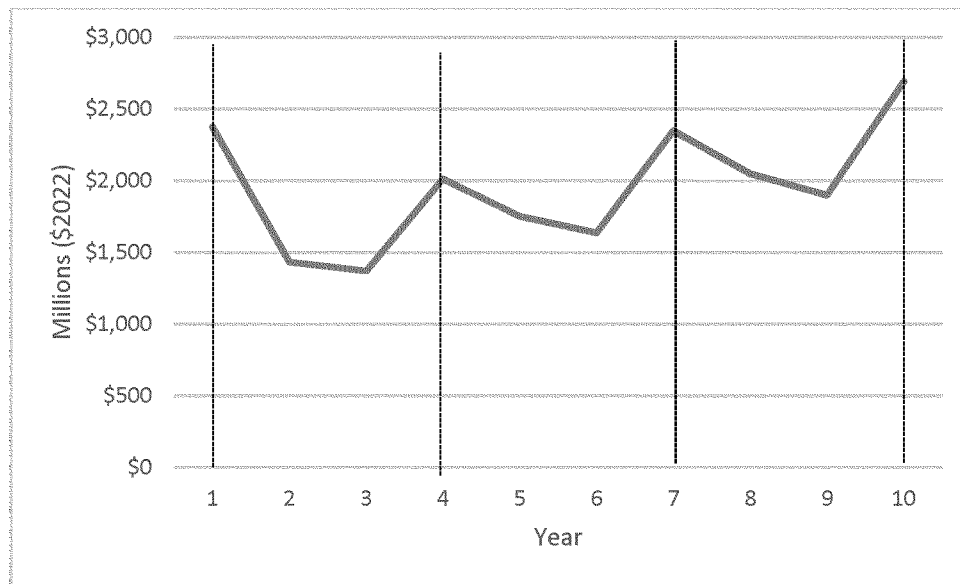


Figure 8: 10-Year Projected Costs and Transfers (Millions \$2022)



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TABLE 29—PROJECTED COSTS AND TRANSFERS, STANDARD SALARY AND HCE COMPENSATION LEVELS

Year	Affected EAP workers (millions)	Costs (millions \$2022)				Transfers (millions \$2022)		
		Regulatory familiarization ^a	Adjustment ^a	Managerial	Total	Due to MW	Due to OT	Total
Year 1	3.6	\$427.2	\$240.8	\$534.9	\$1,202.8	\$48.6	\$1,185.6	\$1,234.2
Year 2	3.3	0.0	8.1	500.2	508.3	27.1	921.8	949.0
Year 3	3.2	0.0	7.7	470.5	478.2	23.6	891.5	915.1
Year 4	4.0	69.1	11.1	561.5	641.6	20.5	1,382.0	1,402.5
Year 5	3.8	0.0	8.2	534.0	542.2	23.2	1,212.2	1,235.4
Year 6	3.6	0.0	7.2	524.6	531.8	23.0	1,107.3	1,130.3
Year 7	4.5	67.1	12.2	620.1	699.3	23.6	1,661.2	1,684.8
Year 8	4.3	0.0	7.1	583.1	590.2	19.8	1,467.4	1,487.2
Year 9	4.1	0.0	7.9	566.5	574.4	20.1	1,332.6	1,352.8
Year 10	5.1	65.1	15.0	667.9	748.0	17.2	1,963.9	1,981.2
Annualized (3% real discount rate)		67.9	35.7	552.8	656.4	25.2	1,292.9	1,318.1
Annualized (7% real discount rate)		75.0	40.0	548.5	663.6	25.9	1,268.5	1,294.3

^a Regulatory familiarization costs occur in years when the salary and compensation levels are updated. Adjustment costs occur in all years when there are newly affected workers.

The Department calculated workers’ earnings in future years by applying the historical wage growth rate in the workers’ industry-occupation to current earnings. The wage growth rate was calculated as the geometric growth rate in median wages using CPS MORG data for occupation-industry categories from 2010–2022.⁴¹⁹ The geometric growth rate is the constant annual growth rate that when compounded (applied to the first year’s wage, then to the resulting second year’s wage, etc.) yields the last historical year’s wage. This rate only depends on the wage values in the first and last year.⁴²⁰

The geometric wage growth rates per industry-occupation combination were also calculated from the BLS’ Occupational Employment and Wage Statistics (OEWS) survey. In occupation-industry categories where the CPS MORG data had an insufficient number of observations to reliably calculate median wages, the Department used the growth rate in median wages calculated

⁴¹⁹ To maximize the number of observations used in calculating the median wage for each occupation-industry category, 3 years of data were pooled for each of the endpoint years. Specifically, data from 2010, 2011, and 2012 (converted to 2011 dollars) were used to calculate the 2011 median wage and data from 2020, 2021, and 2022 (converted to 2021 dollars) were used to calculate the 2021 median wage.

⁴²⁰ The geometric growth rate may be a flawed measure if either or both of the endpoint years were atypical; however, in this instance these values seem typical. An alternative method would be to use the time series of median wage data to estimate the linear trend in the values and continue this to project future median wages. This method may be preferred if either or both of the endpoint years are outliers, since the trend will be less influenced by them. However, the linear trend may be flawed if there are outliers in the interim years. The Department chose to use the geometric mean because individual year fluctuations are difficult to predict and applying the geometric growth rate to each year provides a better estimate of the long-term growth in wages.

from the OEWS data.⁴²¹ Any remaining occupation-industry combinations without sufficient data in either data source were assigned the median of the growth rates in median wages from the CPS MORG data.

The Department compared workers’ counter-factual earnings (*i.e.*, absent the rulemaking) to the predicted salary levels. If the counter-factual earnings are below the relevant salary level (*i.e.*, standard or HCE) then the worker is considered affected. In other words, in each year affected EAP workers were identified as those who would be exempt absent the rule change (*e.g.*, would earn at least \$684 if exempt under standard salary level) but have projected earnings in the future year that are less than the relevant salary level. The projected number of affected workers also includes workers who were not EAP exempt in the base year but would have become exempt in the absence of this proposed rule in Years 2 through 10. For example, a worker who passes the standard duties test may earn less than \$684 in Year 1 but between \$684 and the new salary level in subsequent years; such a worker will be counted as an affected worker in those subsequent years. Additionally, the number of affected workers is not limited to newly affected workers. Workers who are affected in a given year may remain affected in subsequent years (*e.g.*, because they earn between \$684 and \$1,059 in years 1, 2, and 3), and continue to be counted as affected.

The projected number of affected workers also accounts for anticipated employment growth. Employment

⁴²¹ To lessen small sample bias in the estimation of the median growth rate, this rate was only calculated using CPS MORG data when these data contained at least 10 observations in each time period.

growth was estimated as the geometric annual growth rate based on the 10-year employment projection from BLS’ National Employment Matrix (NEM) for 2021 to 2031 within an occupation-industry category.^{422 423} The Department applied these growth rates to the sample weights of the workers to estimate increased employment levels over time. This is because the Department cannot introduce new observations to the CPS MORG data to represent the newly employed.

For workers newly affected in Year 2 through Year 10, employers’ wage and hour adjustments due to the rulemaking are generally estimated as described in section VII.C.4. The only difference is the hours adjustment now uses a long-run elasticity of labor demand of –0.4.⁴²⁴ Employer adjustments are made in the first year the worker is affected and then applied to all future years in which the worker continues to be affected (unless the worker switches to a Type 4 worker). Workers’ earnings in predicted years are earnings post employer adjustments, with overtime pay, and with ongoing wage growth based on historical growth rates (as described above).

The Department quantified three types of direct employer costs in the 10-

⁴²² Bureau of Labor Statistics, Employment Projections Program. 2021–31 National Employment Matrix. <https://www.bls.gov/emp/ind-occ-matrix/matrix.xlsx>.

⁴²³ An alternative method is to spread the total change in the level of employment over the ten years evenly (constant change in the number employed). The Department believes that on average employment is more likely to grow at a constant percentage rate rather than by a constant level (a decreasing percentage rate).

⁴²⁴ Based on the Department’s analysis of the following paper:

Lichter, A., Peichl, A. & Siegloch, A. (2014). The Own-Wage Elasticity of Labor Demand: A Meta-Regression Analysis. IZA DP No. 7958.

year projections: (1) regulatory familiarization costs; (2) adjustment costs; and (3) managerial costs. Section VII.C.3. provides details on the methodology for estimating these costs. This section only discusses the aspects specific to projections. Projected costs and transfers were deflated to 2022 dollars using the Congressional Budget Office's projections for the CPI-U.⁴²⁵

Regulatory familiarization costs occur in years when the salary and compensation levels are updated. Thus, in addition to Year 1, some regulatory familiarization costs are expected to occur in Year 4, Year 7, and Year 10. The Department assumed 10 minutes per establishment for time to access and read the published notice in the **Federal Register** with the updated standard salary level and HCE compensation level. This time estimate is low because the majority of establishments will not have newly affected workers. The time estimate has been increased from 5 minutes in the 2016 rulemaking. In each of these 3 years regulatory familiarization costs are between \$65 and \$70 million. Although start-up firms must become familiar with the FLSA, the difference between the time necessary for familiarization with the current part 541 exemptions and those exemptions as modified by this rulemaking is essentially zero. Therefore, projected regulatory familiarization costs for new entrants over the next 9 years are zero (although these new entrants will incur regulatory familiarization costs in years when the

salary and compensation levels are updated).

Adjustment costs are a function of the number of newly affected EAP workers and would occur in any year in which workers are newly affected. Adjustment costs would be largest in Year 1, of moderate size in automatic update years, and smaller in other years. Management costs would recur each year for all affected EAP workers whose hours are adjusted. Therefore, managerial costs increase in automatic update years and then modestly decrease between updates since earnings growth will cause some workers to no longer be affected in those years.

The Department projected transfers from employers to employees due to the minimum wage provision and the overtime pay provision. Transfers to workers from employers due to the minimum wage provision would decline from \$48.6 million in Year 1 to \$17.2 million in Year 10 as increased earnings over time move workers' regular rates of pay above the minimum wage.⁴²⁶ Transfers due to overtime pay should grow slightly over time because the number of affected workers would increase, although transfers fall in years between automatic updates. Transfers to workers from employers due to the overtime pay provision would increase from \$1.2 billion in Year 1 to \$2.0 billion in Year 10.

⁴²⁶ State minimum wages above the Federal level as of January 1, 2022 were incorporated and used for projected years. Increases in minimum wages were not projected. If state or Federal minimum wages increase over the next 10 years, then estimated projected minimum wage transfers would be underestimated.

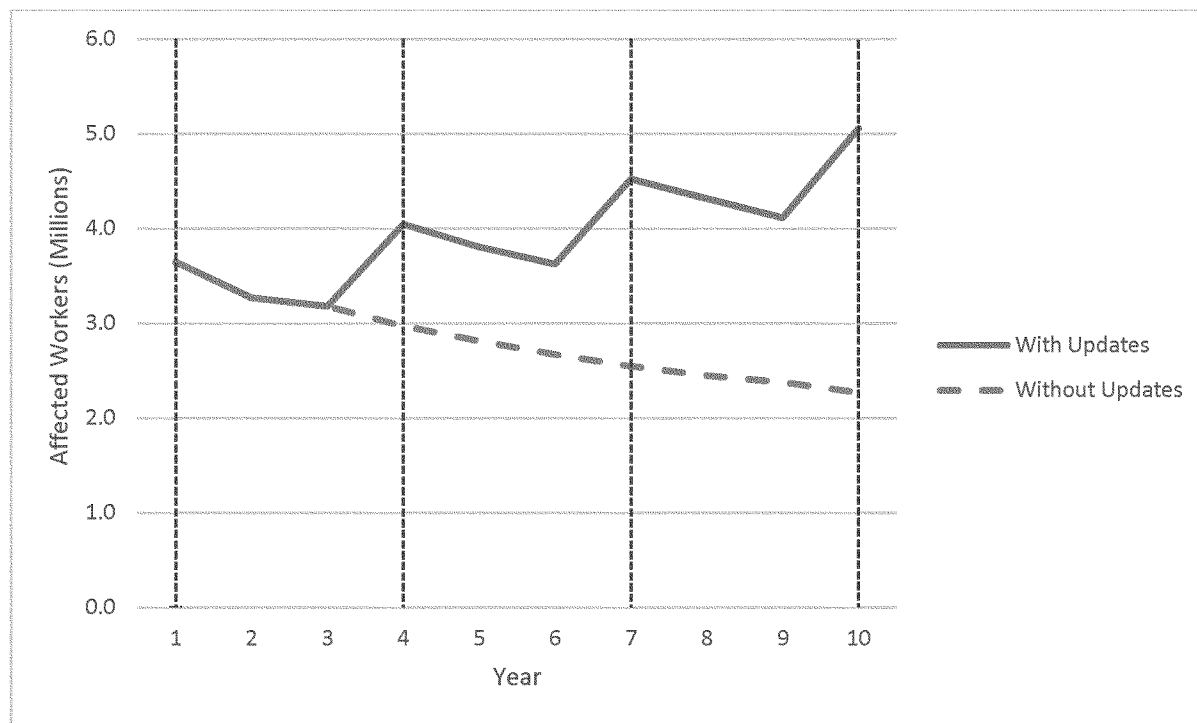
The Department compared projected impacts with and without automatic updating (Table 30). Projections without automatic updating are shown so impacts of the initial increase and subsequent increases can be disaggregated. With triennial automatic updating, the number of affected EAP workers would increase from 3.6 million to 5.1 million over 10 years. Conversely, in the absence of automatic updating, the number of affected EAP workers is projected to decline from 3.6 million in Year 1 to 2.3 million in Year 10. As shown in Figure 9, the number of affected workers decreases from year to year between automatic updates as the real value of the salary and compensation levels decrease, and then increases in update years.

Regarding costs, regulatory familiarization costs are lower without automatic updating because, in the absence of automatic updating, employers would not need to familiarize themselves with updated salary and compensation levels every 3 years. Adjustment costs and managerial costs are a function of the number of affected EAP workers and so will be higher with automatic updating. Average annualized direct costs would be \$663.6 million with automatic updating and \$520.4 million without automatic updating. Transfers are also a function of the number of affected workers and hence are lower without automatic updating. Average annualized transfers would be \$1.3 billion with automatic updating and \$868.2 million without automatic updating. Table 30 shows aggregated costs and transfers over the 10-year horizon.

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⁴²⁵ Congressional Budget Office. 2023. The Budget and Economic Outlook: 2023 To 2033. See <https://www.cbo.gov/system/files/2023-02/58848-Outlook.pdf>.

Figure 9: 10-Year Projected Number of Affected Workers, with and without Automatic Updating



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TABLE 30—COMPARISON OF PROJECTED COSTS AND TRANSFERS WITH AND WITHOUT AUTOMATIC UPDATING

Year	Affected EAP workers (millions)		Costs (millions \$2022)		Transfers (millions \$2022)	
	With updates	Without updates	With updates	Without updates	With updates	Without updates
Year 1	3.6	3.6	\$1,202.8	\$1,202.8	\$1,234.2	\$1,234.2
Year 2	3.3	3.3	508.3	508.3	949.0	949.0
Year 3	3.2	3.2	478.2	478.2	915.1	915.1
Year 4	4.0	3.0	641.6	442.4	1,402.5	860.7
Year 5	3.8	2.8	542.2	421.7	1,235.4	823.4
Year 6	3.6	2.7	531.8	400.5	1,130.3	800.9
Year 7	4.5	2.5	699.3	374.3	1,684.8	769.9
Year 8	4.3	2.4	590.2	357.6	1,487.2	711.3
Year 9	4.1	2.4	574.4	343.4	1,352.8	677.9
Year 10	5.1	2.3	748.0	322.5	1,981.2	646.8
Annualized (3% real discount rate)			656.4	500.2	1,318.1	851.6
Annualized (7% real discount rate)			663.6	520.4	1,294.3	868.2

VIII. Initial Regulatory Flexibility Analysis (IRFA)

The Regulatory Flexibility Act of 1980 (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), hereafter jointly referred to as the RFA, requires that an agency prepare an initial regulatory flexibility analysis (IRFA) when proposing, and a final regulatory flexibility analysis (FRFA) when issuing, regulations that will have

a significant economic impact on a substantial number of small entities. The Department has determined that this rulemaking is economically significant. This section (1) provides an overview of the objectives of this proposed rule; (2) estimates the number of affected small entities and employees; (3) discusses reporting, recordkeeping, and other compliance requirements; (4) presents the steps the Department took to minimize the significant economic

impact on small entities; and (5) declares that it is unaware of any relevant Federal rules that may duplicate, overlap, or conflict with this proposed rule.

A. Objectives of, and Need for, the Proposed Rule

The FLSA requires covered employers to: (1) pay employees who are covered and not exempt from the Act's requirements not less than the Federal

minimum wage for all hours worked and overtime premium pay at a rate of not less than one and one-half times the employee's regular rate of pay for all hours worked over 40 in a workweek, and (2) make, keep, and preserve records of the persons employed by the employer and of the wages, hours, and other conditions and practices of employment. The FLSA provides exemptions from the Act's minimum wage and overtime pay provisions, including one for bona fide executive, administrative, and professional employees, as those terms are "defined and delimited" by the Department.⁴²⁷ The Department's regulations implementing this white-collar exemption are codified at 29 CFR part 541.

To qualify for the EAP exemption under the Department's regulations, the employee generally must meet three criteria: (1) the employee must be paid a predetermined and fixed salary that is not subject to reduction because of variations in the quality or quantity of work performed (the salary basis test); (2) the amount of salary paid must meet a minimum specified amount (the salary level test); and (3) the employee's job duties must primarily involve executive, administrative, or professional duties as defined by the regulations (the duties test). In 2004, the Department revised its regulations to include a highly compensated employee test with a higher salary threshold and a minimal duties test.⁴²⁸ The Department has periodically updated the regulations governing the white-collar exemptions since the FLSA's enactment in 1938. Most recently, the 2019 rule updated the standard salary level test to \$684 per week and the HCE compensation level to \$107,432 annually.

The goal of this rulemaking is not only to update the single standard salary level to account for earnings growth since the 2019 rule, but also to build on lessons learned in the Department's most recent rulemakings to more effectively define and delimit employees working in a bona fide EAP capacity. As explained in greater detail in sections III and IV.A., above, setting the standard salary level at or below the long test salary level, as the 2004 and 2019 rules did, results in the exemption of lower-salaried employees who traditionally were entitled to overtime protection under the long test either because of their low salary or because they perform large amounts of nonexempt work, in effect significantly broadening the exemption compared to

the two-test system. Setting the salary level at the lower end of the historic range of short test salary levels, as the 2016 rule did, would have restored overtime protections to those employees who perform substantial amounts of nonexempt work and earned between the long test salary level and the low end of the short test salary range. However, it would also have resulted in denying employers the use of the exemption for lower-salaried employees who traditionally were not entitled to overtime compensation under the long test, which raised concerns that the Department was in effect narrowing the exemption. By setting a salary level above what would currently be the equivalent of the long test salary level, the proposal would restore the right to overtime pay for salaried white-collar employees who prior to the 2019 rule were always considered nonexempt if they earned below the long test (or long test-equivalent) salary level and ensure that fewer lower paid white-collar employees who perform significant amounts of nonexempt work are included in the exemption. At the same time, by setting it below what would currently be the equivalent of the short test salary level, the proposal would allow employers to continue to use the exemption for many lower paid white-collar employees who were made exempt under the 2004 standard duties test. As such, the proposed salary level would also more reasonably distribute between employees and their employers what the Department now understands to be the impact of the shift from a two-test to a one-test system on employees earning between the long and short test salary levels.

As the Department has previously noted, the amount paid to an employee is "a valuable and easily applied index to the 'bona fide' character of the employment for which the exemption is claimed," as well as the "principal[]" "delimiting requirement" "prevent[ing] abuse" of the exemption.⁴²⁹ Additionally, the salary level test facilitates application of the exemption by saving employees and employers from having to apply the more time-consuming duties analysis to a large group of employees who will not pass it. For these reasons, the salary level test has been a key part of how the Department defines and delimits the EAP exemption since the beginning of its rulemaking on the EAP exemption.⁴³⁰ At the same time, the salary test's role in defining and delimiting the scope of the EAP

exemption must allow for appropriate examination of employee duties.⁴³¹ Under the Department's proposal, duties would continue to determine the exemption status for most salaried white-collar employees, addressing the legal concerns that have been raised about excluding from the EAP exemption too many white-collar employees solely based on their salary level.

The Department also proposes to update the HCE total annual compensation requirement to the annualized weekly earnings for the 85th percentile of full-time salaried workers nationally (\$143,988 in 2022). Though not as high a percentile as the HCE threshold initially adopted in 2004, which covered 93.7 percent of all full-time salaried workers,⁴³² the Department's proposed increase to the HCE threshold would ensure it continues to serve its intended function, because the HCE total annual compensation level would be high enough to exclude all but those employees at the very top of the economic ladder.

The Department is also proposing to apply the standard salary level to all territories that are subject to the Federal minimum wage, and to update the special salary levels for American Samoa and the motion picture industry in relation to the new standard salary level. Having not increased these levels since 2004, there is a need to increase the salary levels in U.S. territories, particularly for employees in those territories that are subject to the Federal minimum wage.

In its three most recent part 541 rulemakings, the Department has expressed its commitment to keeping the earnings thresholds up to date to ensure that they remain effective in helping differentiate between exempt and nonexempt employees. Long intervals between rulemakings have resulted in eroded earnings thresholds based on outdated earnings data that were ill-equipped to help identify bona fide EAP employees. This rulemaking is motivated in part by the need to keep the part 541 earnings thresholds up to date. Based on its long experience with updating the salary levels, the Department has determined that adopting a regulatory provision for automatically updating the salary levels, with an exception for pausing future updates under certain conditions, is the most viable and efficient way to ensure the EAP exemption earnings thresholds keep pace with changes in employee

⁴²⁷ 29 U.S.C. 213(a)(1).

⁴²⁸ § 541.601.

⁴²⁹ Stein Report at 19, 24; see also 81 FR 32422.

⁴³⁰ See 84 FR 51237.

⁴³¹ See *id.* at 51238.

⁴³² See 69 FR 22169 (Table 3).

pay and thus remain effective in helping determine exemption status. Accordingly, the Department is including in this proposed rule a mechanism for automatically updating the salary and compensation levels every 3 years to reflect current earnings. As explained in greater detail in section IV.D., employees and employers alike would benefit from the certainty and stability of regularly scheduled updates using a set methodology.

B. Number of Affected Small Entities

1. Definition of Small Entity

The RFA defines a “small entity” as (1) a small not-for-profit organization, (2) a small governmental jurisdiction, or (3) a small business. The Department used the entity size standards defined by SBA and in effect as of 2019, to classify entities as small or large.⁴³³ The most recent size standards were released in 2022 and use the 2022 NAICS. However, because the data used by the Department to estimate the number of small entities uses the 2017 NAICS, the Department used the 2019 standards instead of the 2022 standards.⁴³⁴

SBA establishes standards for 6-digit NAICS industry codes, and standard size cutoffs are typically based on either the average number of employees, or average annual receipts. However, some exceptions exist, the most notable being that depository institutions (including credit unions, commercial banks, and non-commercial banks) are classified by total assets and small governmental jurisdictions are defined as areas with populations of less than 50,000.⁴³⁵

2. Number of Small Entities and Employees

The primary data source used to estimate the number of small entities

⁴³³ See https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards_Effective%20Aug%2019%2C%202019_Rev.pdf.

⁴³⁴ The SBA size standard changes in 2022 primarily adjusted the standards to the 2022 NAICS, these changes were not substantive. <https://www.govinfo.gov/content/pkg/FR-2022-09-29/pdf/2022-20513.pdf>.

⁴³⁵ See <http://www.sba.gov/advocacy/regulatory-flexibility-act> for details.

⁴³⁶ National Credit Union Association. (2018). 2018 Year End Statistics for Federally Insured Credit Unions. Available at: <https://www.cuna.org/advocacy/credit-union---economic-data/data---statistics/credit-union-profile-reports.html>.

⁴³⁷ Federal Depository Insurance Corporation. (2018). Quarterly Financial Reports-Statistics On Depository Institutions (SDI). Available at: <https://www.fdic.gov/foia/ris/id-sdi/index.html>. Data are from 12/31/17.

⁴³⁸ United States Department of Agriculture. (2019). 2017 Census of Agriculture: United States Summary and State Data: Volume 1, Geographic Area Series, Part 51. Available at: https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_1_US/usv1.pdf.

and employment in these entities is the Statistics of U.S. Businesses (SUSB). Alternative sources were used for industries with asset thresholds (credit unions,⁴³⁶ commercial banks and savings institutions,⁴³⁷ agriculture⁴³⁸), and public administration.⁴³⁹ The Department used 2017 data, when possible, to align with the use of 2017 SUSB data. Private households are excluded from the analysis due to lack of data.

For each industry, the SUSB 2017 tabulates employment, establishment, and firm counts by both enterprise employment size (*e.g.*, 0–4 employees, 5–9 employees) and receipt size (*e.g.*, less than \$100,000, \$100,000–\$499,999).⁴⁴⁰ Although 2020 SUSB data are available, these data do not disaggregate entities by revenue sizes. The Department combined these data with the SBA size standards to estimate the proportion of firms and establishments in each industry that are considered small, and the proportion of workers employed by a small entity. The Department classified all firms and establishments and their employees in categories below the SBA cutoff as small.⁴⁴¹ If a cutoff fell in the middle of a category, the Department assumed a uniform distribution of employees across that bracket to determine what proportion of establishments should be classified as small.⁴⁴² The estimated share of establishments that were small in 2017 was applied to the more recent 2020 SUSB data on the number of small establishments to determine the number of small entities.⁴⁴³

The Department also estimated the number of small establishments and their employees by employer type (nonprofit, for-profit, government). This calculation is similar to the calculation

⁴³⁹ Census of Governments. 2017. Available at: <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>.

⁴⁴⁰ The SUSB defines employment as of March 12th.

⁴⁴¹ The Department’s estimates of the numbers of affected small entities and affected workers who are employees of small entities includes entities not covered by the FLSA and thus are likely overestimates. The Department had no credible way to estimate which enterprises with annual revenues below \$500,000 also did not engage in interstate commerce and hence are not subject to the FLSA.

⁴⁴² The Department assumed that the small entity share of credit card issuing and other depository credit intermediation institutions (which were not separately represented in FDIC asset data), is similar to that of commercial banking and savings institutions.

⁴⁴³ Statistics of U.S. Businesses 2020, <https://www.census.gov/programs-surveys/susb.html>.

⁴⁴⁴ Census of Governments 2017. Available at: <https://www.census.gov/programs-surveys/cog.html>.

⁴⁴⁵ SUSB reports data by “enterprise” size designations (a business organization consisting of

of the number of establishments by industry but with different data. Instead of using data by industry, the Department used SUSB data by Legal Form of Organization for nonprofit and for-profit establishments. The estimated share of establishments that were calculated as small with the 2017 data was then applied to the 2020 SUSB counts. For governments, the Department used the number of governments reported in the 2017 Census of Governments.⁴⁴⁴

Table 31 presents the estimated number of establishments/governments and small establishments/governments in the U.S. (hereafter, referred to as “entities”).⁴⁴⁵ The numbers in the following tables are for Year 1; projected impacts are considered later. The Department found that of the 8.1 million entities, 80 percent (6.5 million) are small by SBA standards. These small entities employ 53.6 million workers, about 37 percent of workers (excluding self-employed, unpaid workers, and members of the armed forces). They also account for roughly 35 percent of total payroll (\$3.5 trillion of \$10.1 trillion).⁴⁴⁶

Although the Department used 6-digit NAICS to determine the number of small entities and the associated number of employees, the following tables aggregate findings to 27 industry categories. This was the most detailed level available while maintaining adequate sample sizes.⁴⁴⁷ The Department started with the 51-industry breakdown and aggregated where necessary to obtain adequate sample sizes.

one or more domestic establishments that were specified under common ownership or control). However, the number of enterprises is not reported for the size designations. Instead, SUSB reports the number of “establishments” (individual plants, regardless of ownership) and “firms” (a collection of establishments with a single owner within a given state and industry) associated with enterprises size categories. Therefore, numbers in this analysis are for the number of establishments associated with small enterprises, which may exceed the number of small enterprises. The Department based the analysis on the number of establishments rather than firms for a more conservative estimate (potential overestimate) of the number of small businesses.

⁴⁴⁶ Since information is not available on employer size in the CPS MORG, respondents were randomly assigned as working in a small business based on the SUSB probability of employment in a small business by detailed Census industry. Annual payroll was estimated based on the CPS weekly earnings of workers by industry size.

⁴⁴⁷ The Department required at least 15 affected workers (*i.e.*, observations) in small entities in Year 1.

TABLE 31—NUMBER OF ENTITIES AND EMPLOYEES BY SBA SIZE STANDARDS, BY INDUSTRY AND EMPLOYER TYPE

Industry/employer type	Entities (1,000s)		Workers (1,000s) ^a		Annual payroll (billions)	
	Total	Small	Total	Small business employed	Total	Small
Total	8,090.3	6,459.6	143,444.4	53,585.6	\$10,054.5	\$3,535.6
Industry^b						
Agriculture, forestry, fishing, and hunting	22.7	18.9	1,364.4	724.4	62.7	34.6
Mining	23.9	19.2	620.8	285.4	66.0	30.6
Construction	753.3	726.7	8,957.5	5,415.9	608.9	369.2
Manufacturing—durable goods	175.2	160.4	9,694.4	4,506.7	785.7	350.4
Manufacturing—non-durable goods	108.3	96.4	5,522.6	2,649.3	416.7	187.9
Wholesale trade	391.1	301.5	3,231.4	1,354.8	249.6	101.8
Retail trade	1,036.8	661.3	15,430.8	4,804.9	769.4	258.8
Transportation and warehousing	257.8	203.2	7,152.0	1,746.5	439.5	106.7
Utilities	19.5	7.8	1,455.4	310.6	137.3	28.3
Information	160.9	93.2	2,570.4	691.7	254.6	67.5
Finance	295.5	132.0	4,865.2	902.9	514.9	97.1
Insurance	181.3	139.7	2,765.4	585.4	\$245.3	\$51.6
Real estate and rental and leasing	437.7	339.0	2,308.4	1,223.1	173.0	92.7
Professional and technical services	943.2	841.5	11,575.6	5,104.8	1,291.5	555.8
Management, administrative and waste management services	483.5	397.8	5,377.8	2,338.5	284.0	111.6
Educational services	110.1	97.6	14,093.6	3,546.7	955.6	223.2
Hospitals	7.1	1.4	7,820.6	282.1	632.3	21.2
Health care services, except hospitals	736.1	567.4	10,187.6	4,466.2	631.5	271.6
Social assistance	185.0	149.8	2,938.8	1,590.5	138.0	71.4
Arts, entertainment, and recreation	151.9	138.4	2,381.3	1,185.8	120.8	59.7
Accommodation	69.2	58.1	1,048.8	408.3	49.3	19.2
Food services and drinking places	664.7	516.6	8,222.4	4,697.9	263.8	151.3
Repair and maintenance	216.1	198.6	1,655.6	1,171.9	90.0	63.3
Personal and laundry services	248.6	221.5	1,520.5	1,184.7	62.4	47.7
Membership associations and organizations	306.6	294.4	2,019.0	1,399.8	138.0	93.6
Public administration ^c	90.1	65.7	8,032.3	1,006.6	654.4	68.5
Employer Type						
Nonprofit, private	596.3	504.5	10,318.0	3,876.8	741.4	249.6
For profit, private	7,403.9	5,874.3	110,919.2	46,388.3	7,688.9	3,072.6
Government (state and local)	90.1	65.7	18,041.2	3,320.6	1,241.3	213.3

Note: Establishment data are from SUSB 2020; worker and payroll data from pooled CPS MORG data for 2020–2022 adjusted to reflect 2022.

^a Excludes the self-employed, unpaid workers, and workers in private households.

^b Summation across industries may not add to the totals reported due to suppressed values and some entities not reporting an industry.

^c Entity number represents the total number of governments, including state and local. Data from Census of Governments, 2017.

Estimates are not limited to entities subject to the FLSA because the Department cannot estimate which enterprises do not meet the enterprise coverage requirements because of data limitations. Although not excluding such entities and associated workers only affects a small percentage of workers generally, it may have a larger effect (and result in a larger overestimate) for non-profits, because revenue from charitable activities is not included when determining enterprise coverage.

3. Number of Affected Small Entities and Employees

The calculation of the number of affected EAP workers was explained in detail in section VII.B. Here, the Department focuses on how these workers were allocated to either small or large entities. To estimate the probability that an exempt EAP worker in the CPS data is employed by a small entity, the Department assumed this probability is equal to the proportion of

all workers employed by small entities in the corresponding industry. That is, if 50 percent of workers in an industry are employed in small entities, then on average small entities are expected to employ one out of every two exempt EAP workers in this industry.⁴⁴⁸ The Department applied these probabilities to the population of exempt EAP workers to find the number of workers (total exempt EAP workers and total affected by the rule) that small entities employ. No data are available to determine whether small businesses (or small businesses in specific industries) are more or less likely than non-small businesses to employ exempt EAP workers or affected EAP workers. Therefore, the best assumption available

⁴⁴⁸ The Department used CPS microdata to estimate the number of affected workers. This was done individually for each observation in the relevant sample by randomly assigning them a small business status based on the best available estimate of the probability of a worker to be employed in a small business in their respective industry.

is to assign the same rates to all small and non-small businesses.^{449 450}

The Department estimated that small entities employ 1.3 million of the 3.6 million affected workers (36.8 percent) (Table 32). This composes 2.5 percent of the 53.6 million workers that small entities employ. The sectors with the highest total number of affected workers employed by small entities are professional and technical services (238,000); health care services, except hospitals (120,000); and retail trade (103,000). The sectors with the largest percent of workers employed by small entities who are affected include:

⁴⁴⁹ A strand of literature indicates that small businesses tend to pay lower wages than larger businesses. This may imply that workers in small businesses are more likely to be affected than workers in large businesses; however, the literature does not make clear what the appropriate alternative rate for small businesses should be.

⁴⁵⁰ Workers are designated as employed in a small business based on their industry of employment. The share of workers considered small in nonprofit, for profit, and government entities is therefore the weighted average of the shares for the industries that compose these categories.

insurance (6.8 percent); finance (5.4 percent); and information (4.9 percent).

TABLE 32—NUMBER OF AFFECTED WORKERS EMPLOYED BY SMALL ENTITIES, BY INDUSTRY AND EMPLOYER TYPE

Industry	Workers (1,000s)		Affected workers (1,000s) ^a	
	Total	Small business employed	Total	Small business employed
Total	143,444.4	53,585.6	3,648.3	1,341.1
Industry				
Agriculture, forestry, fishing, and hunting	1,364.4	724.4	12.3	6.8
Mining	620.8	285.4	12.5	5.1
Construction	8,957.5	5,415.9	154.4	93.4
Manufacturing—durable goods	9,694.4	4,506.7	203.8	94.0
Manufacturing—non-durable goods	5,522.6	2,649.3	113.3	53.6
Wholesale trade	3,231.4	1,354.8	103.9	50.4
Retail trade	15,430.8	4,804.9	308.7	103.1
Transportation and warehousing	7,152.0	1,746.5	87.8	29.1
Utilities	1,455.4	310.6	31.1	6.0
Information	2,570.4	691.7	118.6	33.9
Finance	4,865.2	902.9	241.6	49.1
Insurance	2,765.4	585.4	170.7	39.9
Real estate and rental and leasing	2,308.4	1,223.1	68.3	34.7
Professional and technical services	11,575.6	5,104.8	572.2	238.2
Management, administrative and waste management services	5,377.8	2,338.5	115.2	42.1
Educational services	14,093.6	3,546.7	201.8	44.2
Hospitals	7,820.6	282.1	212.6	5.6
Health care services, except hospitals	10,187.6	4,466.2	290.8	120.4
Social assistance	2,938.8	1,590.5	123.5	72.3
Arts, entertainment, and recreation	2,381.3	1,185.8	92.9	48.6
Accommodation	1,048.8	408.3	15.5	6.1
Food services and drinking places	8,222.4	4,697.9	75.1	42.4
Repair and maintenance	1,655.6	1,171.9	19.8	14.2
Personal and laundry services	1,520.5	1,184.7	19.6	12.5
Membership associations and organizations	2,019.0	1,399.8	99.4	66.0
Public administration	8,032.3	1,006.6	182.4	29.5
Employer Type				
Nonprofit, private	10,318.0	3,876.8	381.5	162.1
For profit, private	110,919.2	46,388.3	2,868.4	1,119.4
Government (state and local)	18,041.2	3,320.6	398.3	59.7

Note: Worker data are from pooled CPS MORG data for 2020–2022 adjusted to reflect 2022.

^a Estimation of affected workers employed by small entities was done at the most detailed industry level available. Therefore, at the more aggregated industry level shown in this table, the ratio of small business employed to total employed does not equal the ratio of affected small business employed to total affected for each industry, nor does it equal the ratio for the national total because relative industry size, employment, and small business employment differs from industry to industry.

Because no information is available on how affected workers would be distributed among small entities, the Department estimated a range of effects. At one end of this range, the Department assumed that each small entity employs no more than one affected worker, meaning that at most 1.3 million of the 6.5 million small entities will employ an affected worker. Thus, these assumptions provide an upper-end estimate of the number of affected small entities. (However, it provides a lower-end estimate of the effect per small entity because costs are spread over a larger number of entities; the impacts experienced by an entity would increase as the share of its workers that are affected increases.) For the purpose of

estimating a lower-range number of affected small entities, the Department used the average size of a small entity as the typical size of an affected small entity, and assumed all workers are affected. This can be considered an approximation of all employees at an entity affected.⁴⁵¹ The average number

⁴⁵¹ This is not the true lower bound estimate of the number of affected entities. Strictly speaking, a true lower bound estimate of the number of affected small entities would be calculated by assuming all employees in the largest small entity are affected. For example, if the SBA standard is that entities with 500 employees are “small,” and 1,350 affected workers are employed by small entities in that industry, then the smallest number of entities that could be affected in that industry (the true lower bound) would be three. However, because such an outcome appears implausible, the Department

of employees in a small entity is the number of workers that small entities employ divided by the total number of small establishments in that industry. The number of affected employees at small businesses is then divided by this average number of employees to calculate 179,700 affected small entities.

Table 33 summarizes the estimated number of affected workers that small entities employ and the expected range for the number of affected small entities by industry. The Department estimated that the rule would affect 1.3 million workers who are employed by somewhere between 179,700 and 1.3

determined a more reasonable lower estimate would be based on average establishment size.

million small entities; this comprises from 2.8 percent to 20.8 percent of all small entities. It also means that from 5.1 million to 6.3 million small entities would incur no more than minimal regulatory familiarization costs (*i.e.*, 6.5 million minus 1.3 million equals 5.1 million; 6.5 million minus 179,700

equals 6.3 million, using rounded values). The table also presents the average number of affected employees per establishment using the method in which all employees at the establishment would be affected. For the other method, by definition, there would always be one affected employee

per establishment. Also displayed is the average payroll per small establishment by industry (based on both affected and non-affected small entities), calculated by dividing total payroll of small businesses by the number of small businesses (Table 31) (applicable to both methods).

TABLE 33—NUMBER OF SMALL AFFECTED ENTITIES AND EMPLOYEES BY INDUSTRY AND EMPLOYER TYPE

Industry	Affected workers in small entities (1,000s)	Number of small affected entities (1,000s) ^a		Per entity	
		One affected employee per entity ^b	All employees at entity affected ^c	Affected employees ^a	Average annual payroll (\$1,000s)
Total	1,341.1	1,341.1	179.7	7.5	\$547.3
Industry					
Agriculture, forestry, fishing, and hunting	6.8	6.8	0.2	38.4	1,833.6
Mining	5.1	5.1	0.3	14.9	1,594.3
Construction	93.4	93.4	12.5	7.5	508.1
Manufacturing—durable goods	94.0	94.0	3.3	28.1	2,184.4
Manufacturing—non-durable goods	53.6	53.6	2.0	27.5	1,949.1
Wholesale trade	50.4	50.4	11.2	4.5	337.7
Retail trade	103.1	103.1	14.2	7.3	391.3
Transportation and warehousing	29.1	29.1	3.4	8.6	525.0
Utilities	6.0	6.0	0.2	39.9	3,634.2
Information	33.9	33.9	4.6	7.4	723.9
Finance	49.1	49.1	7.2	6.8	735.5
Insurance	39.9	39.9	9.5	4.2	369.4
Real estate and rental and leasing	34.7	34.7	9.6	3.6	273.6
Professional and technical services	238.2	238.2	39.3	6.1	660.5
Management, administrative and waste management services	42.1	42.1	7.2	5.9	280.5
Educational services	44.2	44.2	1.2	36.3	2,286.8
Hospitals	5.6	^d 4.2	0.0	201.6	15,137.3
Health care services, except hospitals	120.4	120.4	15.3	7.9	478.7
Social assistance	72.3	72.3	6.8	10.6	476.7
Arts, entertainment, and recreation	48.6	48.6	5.7	8.6	431.4
Accommodation	6.1	6.1	0.9	7.0	330.8
Food services and drinking places	42.4	42.4	4.7	9.1	292.9
Repair and maintenance	14.2	14.2	2.4	5.9	318.8
Personal and laundry services	12.5	12.5	2.3	5.3	215.3
Membership associations and organizations	66.0	66.0	13.9	4.8	318.1
Public administration ^e	29.5	29.5	1.9	15.3	1,042.9
Employer Type					
Nonprofit, private	162.1	162.1	21.1	7.7	494.8
For profit, private	1,119.4	1,119.4	141.8	7.9	523.1
Government (state and local)	59.7	59.7	1.2	50.5	3,246.6

Note: Establishment data are from SUSB 2020; worker and payroll data from pooled CPS MORG data for 2020–2022 adjusted to reflect 2022.

^a Estimation of both affected small entity employees and affected small entities was done at the most detailed industry level available. Therefore, the ratio of affected small entities employees to total small entity employees for each industry may not match the ratio of small affected entities to total small entities at the more aggregated industry level presented in the table, nor will it equal the ratio at the national level because relative industry size, employment, and small business employment differs from industry to industry.

^b This method may overestimate the number of affected entities and therefore the ratio of affected workers to affected entities may be greater than 1-to-1. However, the Department addresses this issue by also calculating effects based on the assumption that 100 percent of workers at an entity are affected.

^c For example, on average, a small entity in the construction industry employs 7.5 workers (5.4 million employees divided by 726,700 small entities). This method assumes if an entity is affected then all 7.5 workers are affected. Therefore, in the construction industry this method estimates there are 12,500 small affected entities (93,400 affected small entity workers divided by 7.5).

^d Number of entities is smaller than number of affected employees; thus, total number of entities is reported.

^e Entity number represents the total number of state and local governments.

4. Impacts to Affected Small Entities

For small entities, the Department estimated various types of effects, including regulatory familiarization

costs, adjustment costs, managerial costs, and payroll increases borne by employers. The Department estimated a range for the number of affected small entities and the impacts they incur.

While the upper and lower bounds are likely over- and under-estimates, respectively, of effects per small entity, the Department believes that this range of costs and payroll increases provides

the most accurate characterization of the effects of the rule on small employers.⁴⁵² Furthermore, the smaller estimate of the number of affected entities (*i.e.*, where all employees at each affected employer are assumed to be affected) will result in the largest

costs and payroll increases per entity as a percent of establishment payroll and revenue, and the Department expects that many, if not most, entities will incur smaller costs, payroll increases, and effects relative to entity size.

Parameters that are used in the small business cost analysis for Year 1 are provided in Table 34, along with summary data of the impacts. See section C.3 of the Regulatory Impact Analysis for a more fulsome discussion on these costs.

TABLE 34—OVERVIEW OF PARAMETERS USED FOR COSTS TO SMALL BUSINESSES AND THE IMPACTS ON SMALL BUSINESSES

Small business costs	Cost
Direct and Payroll Costs	
Average total cost per affected entity ^a	\$4,323.
Range of total costs per affected entity ^a	\$1,833–\$146,781.
Average percent of revenue per affected entity	0.16%.
Average percent of payroll per affected entity	0.79%.
Direct Costs	
Regulatory familiarization:	
Time (first year)	1 hour per entity.
Time (update years)	10 minutes per entity.
Hourly wage	\$52.80.
Adjustment:	
Time (first year affected)	75 minutes per newly affected worker.
Hourly wage	\$52.80.
Managerial:	
Time (weekly)	10 minutes per affected worker whose hours change.
Hourly wage	\$83.63.
Payroll Increases	
Average payroll increase per affected entity ^a	\$2,638.
Range of payroll increases per affected entity ^a	\$769–\$103,871.

^a Using the methodology where all employees at an affected small firm are affected. This assumption generates upper-end estimates. Lower-end cost estimates are significantly smaller.

The Department expects total direct employer costs would range from \$294.6 million to \$356.0 million for affected small entities (*i.e.*, those with affected employees) in the first year (an average cost of between \$265 to \$1,640 per entity) (Table 35). Small entities that do not employ affected workers would incur \$270.2 million to \$331.6 million

in regulatory familiarization costs (an average cost of \$52.80 per entity). The three industries with the highest costs (professional and technical services; health care services, except hospitals; and retail trade) account for about 35 percent of the costs. Hospitals are expected to incur the largest cost per establishment (\$42,900 using the

method where all employees are affected), although the costs are not expected to exceed 0.3 percent of payroll. The food services and drinking places industry is expected to experience the largest effect as a share of payroll (estimated direct costs compose 0.68 percent of average entity payroll).

TABLE 35—YEAR 1 SMALL ESTABLISHMENT DIRECT COSTS, TOTAL AND PER ESTABLISHMENT, BY INDUSTRY AND EMPLOYER TYPE

Industry	Direct cost to small entities in year 1 ^a					
	One affected employee			All employees affected		
	Total (millions) ^a	Cost per affected entity	Percent of annual payroll	Total (millions) ^b	Cost per affected entity	Percent of annual payroll
Total	\$356.0	\$265	0.05	\$294.6	\$1,640	0.30
Industry						
Agriculture, forestry, fishing, and hunting	1.8	265	0.01	1.5	8,221	0.45
Mining	1.4	265	0.02	1.1	3,219	0.20
Construction	24.8	265	0.05	20.5	1,637	0.32
Manufacturing—durable goods	25.0	265	0.01	20.2	6,025	0.28
Manufacturing—non-durable goods	14.2	265	0.01	11.5	5,895	0.30
Wholesale trade	13.4	265	0.08	11.3	1,008	0.30
Retail trade	27.4	265	0.07	22.7	1,598	0.41
Transportation and warehousing	7.7	265	0.05	6.4	1,880	0.36

⁴⁵² As noted previously, these are not the true lower and upper bounds. The values presented are

the highest and lowest estimates the Department believes are plausible.

TABLE 35—YEAR 1 SMALL ESTABLISHMENT DIRECT COSTS, TOTAL AND PER ESTABLISHMENT, BY INDUSTRY AND EMPLOYER TYPE—Continued

Industry	Direct cost to small entities in year 1 ^a					
	One affected employee			All employees affected		
	Total (millions) ^a	Cost per affected entity	Percent of annual payroll	Total (millions) ^b	Cost per affected entity	Percent of annual payroll
Utilities	1.6	265	0.01	1.3	8,527	0.23
Information	9.0	265	0.04	7.4	1,630	0.23
Finance	13.0	265	0.04	10.8	1,507	0.20
Insurance	10.6	265	0.07	9.0	943	0.26
Real estate and rental and leasing	9.2	265	0.10	7.9	820	0.30
Professional and technical services	63.2	265	0.04	52.7	1,343	0.20
Management, administrative and waste management services	11.2	265	0.10	9.3	1,303	0.46
Educational services	11.7	265	0.01	9.5	7,777	0.34
Hospitals	1.5	265	0.00	1.2	42,910	0.28
Health care services, except hospitals	32.0	265	0.06	26.4	1,726	0.36
Social assistance	19.2	265	0.06	15.7	2,311	0.48
Arts, entertainment, and recreation	12.9	265	0.06	10.6	1,874	0.43
Accommodation	1.6	265	0.08	1.3	1,547	0.47
Food services and drinking places	11.2	265	0.09	9.3	1,986	0.68
Repair and maintenance	3.8	265	0.08	3.1	1,307	0.41
Personal and laundry services	3.3	265	0.13	2.8	1,190	0.55
Membership associations and organizations	17.5	265	0.08	14.8	1,064	0.33
Public administration	7.8	265	0.03	6.4	3,311	0.32
Employer Type						
Nonprofit, private	42.6	263	0.05	35.2	1,669	0.34
For profit, private	344.8	308	0.06	293.1	2,068	0.40
Government (state and local)	16.2	272	0.01	13.1	11,119	0.34

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^aDirect costs include regulatory familiarization, adjustment, and managerial costs.

^bThe range of costs per entity depends on the number of affected entities. The minimum assumes that each affected entity has one affected worker (therefore, the number of affected entities is equal to the number of affected workers). The maximum assumes the share of workers in small entities who are affected is also the share of small entity entities that are affected.

It is possible that the costs of the proposed rule may be disproportionately large for small entities, especially because small entities often have limited human resources personnel on staff. However, the Department expects that small entities would rely on compliance assistance materials provided by the Department or industry associations to become familiar with the final rule once issued. Additionally, the Department notes that the proposed rule is quite limited in scope because the changes all relate to the salary component of the part 541 regulations. Finally, the Department believes that most entities

have at least some nonexempt employees and, therefore, already have policies and systems in place for monitoring and recording their hours. The Department believes that applying those same policies and systems to the workers whose exemption status changes would not be an unreasonable burden on small businesses.

Average weekly earnings for affected EAP workers in small entities are expected to increase by about \$6.91 per week per affected worker, using the incomplete fixed-job model⁴⁵³ described in section VII.C.4.iii.⁴⁵⁴ This would lead to \$482.2 million in additional annual wage payments to

employees in small entities (less than 0.5 percent of aggregate affected establishment payroll; Table 36). The largest payroll increases per establishment are expected in hospitals (up to \$103,900 per entity); utilities (up to \$20,900 per entity); and non-durable goods manufacturing (up to \$11,700 per entity). However, average payroll increases per entity would exceed one percent of average annual payroll in only three sectors: food services and drinking places (2.5 percent); management, administrative and waste management services (1.2 percent); and transportation and warehousing (1.1 percent).

TABLE 36—YEAR 1 SMALL ESTABLISHMENT PAYROLL INCREASES, TOTAL AND PER ESTABLISHMENT, BY INDUSTRY AND EMPLOYER TYPE

Industry	Increased payroll for small entities in year 1 ^a				
	Total (millions)	One affected employee		All employees affected	
		Per entity	Percent of annual payroll	Per entity	Percent of annual payroll
Total	\$482.2	\$360	0.07%	\$2,683	0.49%

⁴⁵³The incomplete fixed-job model reflects the Department's determination that an appropriate estimate of the impact on the implicit hourly rate of pay for regular overtime workers should be determined using the average of Barkume's and Trejo's two estimates of the incomplete fixed-job

model adjustments: a wage change that is 40 percent of the adjustment toward the amount predicted by the fixed-job model, assuming an initial zero overtime pay premium, and a wage change that is 80 percent of the adjustment

assuming an initial 28 percent overtime pay premium.

⁴⁵⁴This is an average increase for all affected workers (both standard test and HCE), and reconciles to the weighted average of individual salary changes discussed in the Transfers section.

TABLE 36—YEAR 1 SMALL ESTABLISHMENT PAYROLL INCREASES, TOTAL AND PER ESTABLISHMENT, BY INDUSTRY AND EMPLOYER TYPE—Continued

Industry	Increased payroll for small entities in year 1 ^a				
	Total (millions)	One affected employee		All employees affected	
		Per entity	Percent of annual payroll	Per entity	Percent of annual payroll
Industry					
Agriculture, forestry, fishing, and hunting	0.9	126	0.01	4,837	0.26
Mining	1.7	330	0.02	4,918	0.31
Construction	30.0	321	0.07	2,391	0.47
Manufacturing—durable goods	31.5	335	0.02	9,423	0.43
Manufacturing—non-durable goods	22.8	426	0.02	11,707	0.60
Wholesale trade	24.7	491	0.15	2,206	0.65
Retail trade	51.3	497	0.13	3,613	0.92
Transportation and warehousing	20.0	687	0.14	5,907	1.13
Utilities	3.1	524	0.01	20,888	0.57
Information	12.0	353	0.05	2,622	0.36
Finance	15.9	324	0.04	2,214	0.30
Insurance	11.8	297	0.08	1,244	0.34
Real estate and rental and leasing	15.8	456	0.17	1,646	0.60
Professional and technical services	77.5	326	0.05	1,975	0.30
Management, administrative and waste management services	24.4	580	0.21	3,407	1.21
Educational services	9.0	204	0.01	7,417	0.32
Hospitals	2.9	515	0.00	103,871	0.69
Health care services, except hospitals	38.3	318	0.07	2,502	0.52
Social assistance	10.5	145	0.03	1,539	0.32
Arts, entertainment, and recreation	14.3	295	0.07	2,523	0.58
Accommodation	1.7	279	0.09	1,959	0.59
Food services and drinking places	34.2	808	0.28	7,345	2.51
Repair and maintenance	7.0	490	0.16	2,893	0.91
Personal and laundry services	2.8	221	0.11	1,183	0.55
Membership associations and organizations	10.7	162	0.05	769	0.24
Public administration	7.3	249	0.02	3,810	0.37
Employer Type					
Nonprofit, private	49.3	304	0.06	2,336	0.47
For profit, private	421.3	376	0.07	2,972	0.57
Government (state and local)	11.6	194	0.01	9,816	0.30

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^aAggregate change in total annual payroll experienced by small entities under the updated salary levels after labor market adjustments. This amount represents the total amount of (wage) transfers from employers to employees.

Table 37 presents estimated first year direct costs and payroll increases combined per entity and the costs and payroll increases as a percent of average entity payroll. The Department presents only the results for the upper bound scenario where all workers employed by the entity are affected. Combined costs and payroll increases per establishment range from \$1,800 in membership associations to \$146,800 in hospitals.

Combined costs and payroll increases compose more than two percent of average annual payroll in one sector, food services and drinking places (3.2 percent).

However, comparing costs and payroll increases to payrolls overstates the effects on entities because payroll represents only a fraction of the financial resources available to an establishment. The Department approximated revenue per affected

small establishment by calculating the ratio of small business revenues to payroll by industry from the 2017 SUSB data then multiplying that ratio by average small entity payroll.⁴⁵⁵ Using this approximation of annual revenues as a benchmark, only one sector would have costs and payroll increases amounting to close to one percent of revenues, food services and drinking places (1.0 percent).

⁴⁵⁵ The Department used this estimate of revenue, instead of small business revenue reported directly from the 2017 SUSB so revenue aligned with payrolls in 2022.

TABLE 37—YEAR 1 SMALL ESTABLISHMENT DIRECT COSTS AND PAYROLL INCREASES, TOTAL AND PER ENTITY, BY INDUSTRY AND EMPLOYER TYPE, USING ALL EMPLOYEES IN ENTITY AFFECTED METHOD

Industry	Costs and payroll increases for small affected entities, all employees affected			
	Total (millions)	Per entity ^a	Percent of annual payroll	Percent of estimated revenues ^b
Total	\$776.8	\$4,323	0.79%	0.16%
Industry				
Agriculture, forestry, fishing, and hunting	2.3	13,058	0.71	0.14
Mining	2.8	8,136	0.51	0.07
Construction	50.5	4,028	0.79	0.18
Manufacturing—durable goods	51.7	15,448	0.71	0.15
Manufacturing—non-durable goods	34.3	17,601	0.90	0.12
Wholesale trade	36.1	3,214	0.95	0.07
Retail trade	73.9	5,210	1.33	0.13
Transportation and warehousing	26.4	7,786	1.48	0.35
Utilities	4.4	29,415	0.81	0.06
Information	19.4	4,252	0.59	0.17
Finance	26.7	3,721	0.51	0.15
Insurance	20.8	2,187	0.59	0.13
Real estate and rental and leasing	23.7	2,466	0.90	0.20
Professional and technical services	130.2	3,317	0.50	0.20
Management, administrative and waste management services	33.7	4,710	1.68	0.68
Educational services	18.5	15,194	0.66	0.27
Hospitals	4.1	146,781	0.97	0.41
Health care services, except hospitals	64.7	4,228	0.88	0.37
Social assistance	26.2	3,850	0.81	0.38
Arts, entertainment, and recreation	24.9	4,397	1.02	0.33
Accommodation	3.0	3,506	1.06	0.26
Food services and drinking places	43.5	9,332	3.19	1.00
Repair and maintenance	10.1	4,200	1.32	0.37
Personal and laundry services	5.5	2,373	1.10	0.39
Membership associations and organizations	25.4	1,833	0.58	0.14
Public administration	13.7	7,122	0.68	0.17
Employer Type				
Nonprofit, private	94.40	3,570	1.00	0.30
For profit, private	585.30	3,532	1.00	0.20
Government (state and local)	12.20	9,264	0.60	0.20

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

^a Total direct costs and transfers for small entities in which all employees are affected. Impacts to small entities in which one employee is affected will be a fraction of the impacts presented in this table.

^b Revenues estimated by calculating the ratio of estimated small business revenues to payroll from the 2017 SUSB, and multiplying by payroll per small entity. For the public administration sector, the ratio was calculated using revenues and payroll from the 2017 Census of Governments.

5. Projected Effects to Affected Small Entities in Year 2 Through Year 10

To determine how small businesses would be affected in future years, the Department projected costs to small businesses for 9 years after Year 1 of the

rule. Projected employment and earnings were calculated using the same methodology described in section VII.B.3. Affected employees in small firms follow a similar pattern to affected workers in all entities: the number

decreases gradually between automatic update years, and then increases. There are 1.3 million affected workers in small entities in Year 1 and 1.9 million in Year 10. Table 38 reports affected workers in these 2 years only.

TABLE 38—PROJECTED NUMBER OF AFFECTED WORKERS IN SMALL ENTITIES, BY INDUSTRY

Industry	Affected workers in small entities (1,000s)	
	Year 1	Year 10
Total	1,341.1	1,872.1
Agriculture, forestry, fishing, and hunting	6.8	7.6
Mining	5.1	7.1
Construction	93.4	127.3
Manufacturing—durable goods	94.0	125.3
Manufacturing—non-durable goods	53.6	78.5

TABLE 38—PROJECTED NUMBER OF AFFECTED WORKERS IN SMALL ENTITIES, BY INDUSTRY—Continued

Industry	Affected workers in small entities (1,000s)	
	Year 1	Year 10
Wholesale trade	50.4	73.3
Retail trade	103.1	125.6
Transportation and warehousing	29.1	40.2
Utilities	6.0	7.2
Information	33.9	39.6
Finance	49.1	59.2
Insurance	39.9	60.2
Real estate and rental and leasing	34.7	55.4
Professional and technical services	238.2	342.6
Management, administrative and waste management services	42.1	56.3
Educational services	44.2	62.1
Hospitals	5.6	8.8
Health care services, except hospitals	120.4	172.0
Social assistance	72.3	118.6
Arts, entertainment, and recreation	48.6	78.9
Accommodation	6.1	10.6
Food services and drinking places	42.4	56.4
Repair and maintenance	14.2	21.2
Personal and laundry services	12.5	15.1
Membership associations and organizations	66.0	80.8
Public administration	29.5	42.4

Note: Worker data are from Pooled CPS data for 2020–2022 adjusted to reflect 2022.

Direct costs and payroll increases for small entities vary by year but generally decrease between automatic updates as the real value of the salary and compensation levels decrease and the

number of affected workers consequently decreases. In automatic updating years, costs would increase due to newly affected workers and some regulatory familiarization costs. Direct

costs and payroll increases for small businesses would be fairly close in Year 10 (an automatic update year) and Year 1, \$0.8 billion in Year 1 and \$1.0 billion in Year 10 (Table 39 and Figure 10).

TABLE 39—PROJECTED DIRECT COSTS AND PAYROLL INCREASES FOR AFFECTED SMALL ENTITIES, BY INDUSTRY, USING ALL EMPLOYEES IN ENTITY AFFECTED METHOD

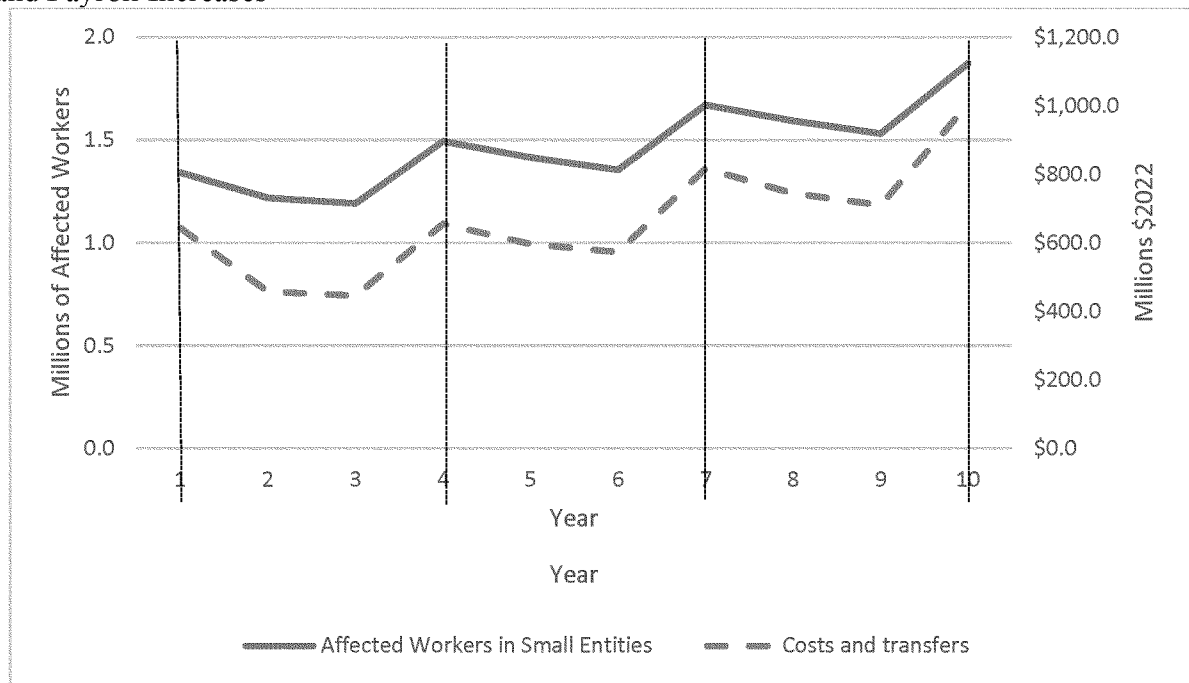
Industry	Costs and payroll increases for small affected entities, all employees affected (millions \$2022)	
	Year 1	Year 10
Total	\$776.8	\$1,015.9
Agriculture, forestry, fishing, and hunting	2.3	5.6
Mining	2.8	3.3
Construction	50.5	65.1
Manufacturing—durable goods	51.7	64.3
Manufacturing—non-durable goods	34.3	43.8
Wholesale trade	36.1	62.7
Retail trade	73.9	74.6
Transportation and warehousing	26.4	70.4
Utilities	4.4	3.7
Information	19.4	15.9
Finance	26.7	33.0
Insurance	20.8	25.1
Real estate and rental and leasing	23.7	29.7
Professional and technical services	130.2	166.8
Management, administrative and waste management services	33.7	29.0
Educational services	18.5	24.3
Hospitals	4.1	15.7
Health care services, except hospitals	64.7	70.4
Social assistance	26.2	37.3
Arts, entertainment, and recreation	24.9	39.7
Accommodation	3.0	5.0
Food services and drinking places	43.5	51.3
Repair and maintenance	10.1	17.4
Personal and laundry services	5.5	2.3

TABLE 39—PROJECTED DIRECT COSTS AND PAYROLL INCREASES FOR AFFECTED SMALL ENTITIES, BY INDUSTRY, USING ALL EMPLOYEES IN ENTITY AFFECTED METHOD—Continued

Industry	Costs and payroll increases for small affected entities, all employees affected (millions \$2022)	
	Year 1	Year 10
Membership associations and organizations	25.4	28.0
Public administration	13.7	31.4

Note: Pooled CPS data for 2020–2022 adjusted to reflect 2022.

Figure 10: 10-Year Projected Number of Affected Workers in Small Entities, and Associated Costs and Payroll Increases



C. Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Proposed Rule

The FLSA sets minimum wage, overtime pay, and recordkeeping requirements for employment subject to its provisions. Unless exempt, covered employees must be paid at least the minimum wage and not less than one and one-half times their regular rates of pay for overtime hours worked.

Pursuant to section 11(c) of the FLSA, the Department’s regulations at part 516 require covered employers to maintain certain records about their employees. Bona fide EAP workers are subject to some of these recordkeeping requirements but exempt from others related to pay and worktime.⁴⁵⁶ Thus, although this rulemaking would not

introduce any new recordkeeping requirements, employers would need to keep some additional records for affected employees who become newly nonexempt if they do not presently record such information. As indicated in this analysis, this proposed rule expands minimum wage and overtime pay coverage to 3.6 million affected EAP workers, of which 1.3 million are employed by a small entity. This would result in an increase in employer burden and was estimated in the PRA portion (section VI) of this proposed rule. Note that the burdens reported for the PRA section of this proposed rule include the entire information collection and not merely the additional burden estimated as a result of this proposed rule.

D. Steps the Agency Has Taken To Minimize the Significant Economic Impact on Small Entities

This section describes the steps the agency has taken to minimize the economic impact on small entities, consistent with the stated objectives of the FLSA. It includes a statement of the factual, policy, and legal reasons for the selected standard and HCE levels adopted in the proposed rule and why alternatives were rejected.

In this proposed rule, the Department sets the standard salary level equal to the 35th percentile of earnings of full-time salaried workers in the lowest-wage Census Region (currently the South). Based on 2022 data, this results in a salary level of \$1,059 per week. By setting a salary level above the long term salary level, the proposal would ensure that fewer lower paid white-collar employees who perform significant amounts of nonexempt work are

⁴⁵⁶ See 29 CFR 516.3 (providing that employers need not maintain the records required by 29 CFR 516.2(a)(6) through (10) for their EAP workers).

included in the exemption. At the same time, by setting it below the short test salary level, the proposal would allow employers to continue to use the exemption for many lower paid white-collar employees who were made exempt under the 2004 standard duties test. Thus, the Department believes that the proposed salary level would also more reasonably distribute between employees and their employers the impact of the shift from a two-test to a one-test system on employees earning between the long and short test salary levels. As in prior rulemakings, the Department has not proposed to establish multiple salary levels based on region, industry, employer size, or any other factor, which stakeholders have generally agreed would significantly complicate the regulations.⁴⁵⁷ Instead, the Department has again proposed to set the standard salary level using earnings data from the lowest-income Census Region, in part to accommodate small employers and employers in low-income industries.⁴⁵⁸

The Department has proposed to set the HCE total annual compensation level equal to the 85th percentile of earnings of full-time salaried workers nationally (\$143,988 annually based on 2022 data). The Department believes that this level avoids costs associated with evaluating, under the standard duties test, the exemption statuses of large numbers of highly-paid white-collar employees, many of whom would have remained exempt even under that test, while providing a meaningful and appropriate complement to the more lenient HCE duties test. While the proposed threshold is higher than the HCE level adopted in the 2019 rule (which was set equal to the 80th percentile of earnings for salaried workers nationwide), the proposed HCE threshold in this rule would be lower than the HCE percentile adopted in the 2004 and 2016 rules, which covered 93.7 and 90 percent of salaried workers nationwide, respectively. The Department further believes that nearly all of the highly-paid white-collar workers earning above this threshold “would satisfy any duties test.”⁴⁵⁹

1. Differing Compliance and Reporting Requirements for Small Entities

This proposed rule provides no differing compliance requirements and reporting requirements for small entities. The Department has strived to minimize respondent recordkeeping burden by requiring no specific form or

order of records under the FLSA and its corresponding regulations. Moreover, employers would normally maintain the records under usual or customary business practices.

2. Least Burdensome Option or Explanation Required

The Department believes it has chosen the most effective option that updates and clarifies the rule and results in the least burden. Among the options considered by the Department, the least restrictive option was using the 2004 methodology (the 20th percentile of weekly earnings of full-time nonhourly workers in the lowest-wage Census region, currently the South, and in retail nationally) to set the standard salary level, which was also the methodology used in the 2019 rule. As noted above, however, the salary level produced by the 2004 methodology is below the long test salary level, which the Department considers to be the lower boundary for an appropriate salary level in a one-test system using the current standard duties test. Using the 2004 methodology thus does not address the Department’s concerns discussed above under Objectives of, and Need for, the Proposed Rule.

Pursuant to section 603(c) of the RFA, the following alternatives are to be addressed:

i. Differing Compliance or Reporting Requirements That Take Into Account the Resources Available to Small Entities

The FLSA creates a level playing field for businesses by setting a floor below which employers may not pay their employees. To establish differing compliance or reporting requirements for small businesses would undermine this important purpose of the FLSA. The Department makes available a variety of resources to employers for understanding their obligations and achieving compliance. Therefore, the Department has not proposed differing compliance or reporting requirements for small businesses.

ii. The Clarification, Consolidation, or Simplification of Compliance and Reporting Requirements for Small Entities

This proposed rule imposes no new reporting requirements. The Department makes available a variety of resources to employers for understanding their obligations and achieving compliance.

iii. The Use of Performance Rather Than Design Standards

Under this proposed rule, employers may achieve compliance through a

variety of means. Employers may elect to continue to claim the EAP exemption for affected employees by adjusting salary levels, hiring additional workers or spreading overtime hours to other employees, or compensating employees for overtime hours worked. The Department makes available a variety of resources to employers for understanding their obligations and achieving compliance.

iv. An Exemption From Coverage of the Rule, or Any Part Thereof, for Such Small Entities

Creating an exemption from coverage of this rulemaking for businesses with as many as 500 employees, those defined as small businesses under SBA’s size standards, is inconsistent with the FLSA, which applies to all employers that satisfy the enterprise coverage threshold or employ individually covered employees, regardless of employer size.⁴⁶⁰

E. Identification, to the Extent Practicable, of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rule

The Department is not aware of any Federal rules that duplicate, overlap, or conflict with this proposed rule.

IX. Unfunded Mandates Reform Act Analysis

The Unfunded Mandates Reform Act of 1995 (UMRA),⁴⁶¹ requires agencies to prepare a written statement for proposed rulemaking that includes any Federal mandate that may result in increased expenditures by state, local, and tribal governments, in the aggregate, or by the private sector, of \$192 million (\$100 million in 1995 dollars adjusted for inflation to 2022) or more in at least one year. This statement must: (1) identify the authorizing legislation; (2) present the estimated costs and benefits of the rule and, to the extent that such estimates are feasible and relevant, present its estimated effects on the national economy; (3) summarize and evaluate state, local, and tribal government input; and (4) identify reasonable alternatives and select, or explain the non-selection, of the least costly, most cost-effective, or least burdensome alternative.

A. Authorizing Legislation

This proposed rule is issued pursuant to section 13(a)(1) of the Fair Labor Standards Act (FLSA or Act), 29 U.S.C. 213(a)(1). The section exempts from the FLSA’s minimum wage and overtime

⁴⁵⁷ See 84 FR 51239; 81 FR 32411; 69 FR 22171.

⁴⁵⁸ See 84 FR 51238; 81 FR 32527; 69 FR 22237.

⁴⁵⁹ 84 FR 51250 (internal citation omitted).

⁴⁶⁰ See 29 U.S.C. 203(s).

⁴⁶¹ 2 U.S.C. 1501 *et seq.*

pay requirements “any employee employed in a bona fide executive, administrative, or professional capacity (including any employee employed in the capacity of academic administrative personnel or teacher in elementary or secondary schools), or in the capacity of outside salesman (as such terms are defined and delimited from time to time by regulations of the Secretary, subject to the provisions of [the Administrative Procedure Act] . . .).”⁴⁶² The requirements of the exemption are contained in part 541 of the Department’s regulations. Section 3(e) of the FLSA⁴⁶³ defines “employee” to include most individuals employed by a state, political subdivision of a state, or

interstate governmental agency. Section 3(x) of the FLSA⁴⁶⁴ also defines public agencies to include the government of a state or political subdivision thereof, or any interstate governmental agency.

B. Costs and Benefits

For purposes of the UMRA, this proposed rule includes a Federal mandate that is expected to result in increased expenditures by the private sector of more than \$192 million in at least one year, but the rule will not result in increased expenditures by state, local and tribal governments, in the aggregate, of \$192 million or more in any one year.

Based on the economic impact analysis of this proposed rule, the

Department determined that Year 1 costs for state and local governments would total \$184.1 million, of which \$74.0 million are direct employer costs and \$110.1 million are payroll increases (Table 40). In subsequent years, state and local governments may experience payroll increases of as much as \$192.5 million per year.

The proposed rule would result in Year 1 costs to the private sector of approximately \$2.2 billion, of which \$1.1 billion are direct employer costs and \$1.1 billion are payroll increases. In subsequent years, the Department estimated that the private sector may experience a payroll increase of as much as \$1.8 billion per year.

TABLE 40—SUMMARY OF YEAR 1 IMPACTS BY TYPE OF EMPLOYER

Impact	Total	Private	Government ^a
Affected EAP Workers (1,000s)			
Number	3,648	3,250	392
Direct Employer Costs (Millions)			
Regulatory familiarization	\$427.2	\$422.4	\$4.8
Adjustment	240.8	214.5	25.9
Managerial	534.9	490.0	43.3
Total direct costs	1,202.8	1,126.8	74.0
Payroll Increases (Millions)			
From employers to workers	\$1,234.2	\$1,121.4	\$110.1
Direct Employer Costs & Payroll Increases (Millions)			
From employers	\$2,437.0	\$2,248.2	\$184.1

^a Includes only state, local, and tribal governments.

UMRA requires agencies to estimate the effect of a regulation on the national economy if, at its discretion, such estimates are reasonably feasible and the effect is relevant and material.⁴⁶⁵ However, OMB guidance on this requirement notes that such macroeconomic effects tend to be measurable in nationwide econometric models only if the economic effect of the regulation reaches 0.25 percent to 0.5 percent of GDP, or in the range of \$63.7 billion to \$127.3 billion (using 2022 GDP). A regulation with a smaller aggregate effect is not likely to have a measurable effect in macro-economic terms unless it is highly focused on a particular geographic region or

economic sector, which is not the case with this proposed rule.

The Department’s RIA estimates that the total first-year costs (direct employer costs and payroll increases from employers to workers) of the proposed rule would be approximately \$2.2 billion for private employers and \$184.1 million for state and local governments. Given OMB’s guidance, the Department has determined that a full macro-economic analysis is not likely to show any measurable effect on the economy. Therefore, these costs are compared to payroll costs and revenue to demonstrate the feasibility of adapting to these new rules.

Total first-year state and local government costs compose 0.02 percent

of state and local government payrolls.⁴⁶⁶ First-year state and local government costs compose 0.004 percent of state and local government revenues (projected 2022 revenues were estimated to be \$4.8 trillion).⁴⁶⁷ Effects of this magnitude will not result in significant disruptions to typical state and local governments. The \$184.1 million in state and local government costs constitutes an average of approximately \$2,000 for each of the approximately 90,126 state and local entities. The Department considers these costs to be quite small both in absolute terms and in relation to payroll and revenue.

Total first-year private sector costs compose 0.029 percent of private sector

⁴⁶² 29 U.S.C. 213(a)(1).

⁴⁶³ 29 U.S.C. 203(e).

⁴⁶⁴ 29 U.S.C. 203(x).

⁴⁶⁵ 2 U.S.C. 1532(a)(4).

⁴⁶⁶ 2020 state and local government payrolls were \$1.1 trillion, inflated to 2022 payroll costs of \$1.2 trillion using the GDP deflator. State and Local Government Finances 2020. Available at <https://www.census.gov/data/datasets/2020/econ/local/public-use-datasets.html>.

⁴⁶⁷ 2020 state and local revenues were \$4.3 trillion, inflated to 2022 dollars using the GDP deflator. State and Local Government Finances 2020. Available at <https://www.census.gov/data/datasets/2020/econ/local/public-use-datasets.html>.

payrolls nationwide.⁴⁶⁸ Total private sector first-year costs compose 0.005 percent of national private sector revenues (revenues in 2022 are projected to be \$43.7 trillion).⁴⁶⁹ The Department concludes that effects of this magnitude are affordable and will not result in significant disruptions to typical firms in any of the major industry categories.

C. Summary of State, Local, and Tribal Government Input

The Department held a series of stakeholder listening sessions between March 8, 2022 and June 3, 2022 to gather input on its part 541 regulations. Stakeholders invited to participate in these listening sessions included representatives from labor unions; worker advocate groups; industry associations; small business associations; state and local governments; tribal governments; non-profits; and representatives from specific industries such as K–12 education, higher education, healthcare, retail, restaurant, manufacturing, and wholesale. Stakeholders were invited to share their input on issues including the appropriate EAP salary level, the costs and benefits of increasing the salary level to employers and employees, the methodology for updating the salary level and frequency of updates, and whether changes to the duties test are warranted. A listening session was held specifically for state and local governments on April 1, 2022, and a session for tribal governments was held on May 12, 2022. The input received at these listening sessions aided the Department in drafting its proposed rule.

D. Least Burdensome Option or Explanation Required

This proposed rule has described the Department's consideration of various options throughout the preamble (*see* section IV.A.5) and economic impact analysis (*see* section VII.C.8). The Department believes that it has chosen the least burdensome but still cost-effective methodology to update the salary level consistent with the Department's statutory obligation to define and delimit the scope of the EAP exemption. Although some alternative options considered would set the

⁴⁶⁸ Private sector payroll costs are projected to be \$7.8 trillion in 2022 based on private sector payroll costs of \$6.6 trillion in 2017, inflated to 2022 dollars using the GDP deflator. 2017 Economic Census of the United States.

⁴⁶⁹ Private sector revenues in 2017 were \$37.0 trillion using the 2017 Economic Census of the United States. This was inflated to 2022 dollars using the GDP deflator.

standard salary level at a rate lower than the proposed level, that outcome would not necessarily be the most cost-effective or least-burdensome. A salary level equal to or below the long test level would result in the exemption of lower-salaried employees who traditionally were entitled to overtime protection under the long test either because of their low salary or because they perform large amounts of nonexempt work, effectively placing the impact of the move from a two-test system to a one-test system on employees.

Selecting a standard salary level in a one-test system inevitably affects the risk and cost of providing overtime protection to employees paid between the long and short test salary levels. Too low of a salary level shifts the impact of the move to a one-test system to employees by exempting lower-salaried employees who perform large amounts of nonexempt work. However, too high a salary level shifts the impact of the move to a one-test system to employers by denying them the use of the exemption for lower-salaried employees who traditionally were exempt under the long duties test, thereby increasing their labor costs. The Department determined that setting the standard salary level equivalent to the earnings of the 35th percentile of full-time salaried workers in the lowest-wage Census region and automatically updating it every three years to reflect current earnings appropriately accounts for the shift from a two-test to a one-test system for determining exemption status, protecting lower-paid white-collar employees who traditionally have been entitled to overtime protection, while allowing employers to use the exemption for EAP employees earning less than the short test salary level.

The Department believes that the proposed rule could reduce burden on employers of nonexempt workers who earn between the current and proposed standard salary level. Currently, employers must rely on the duties test to determine the exemption status of these workers. But if this proposal is finalized, the exemption status of these workers will be determined based on the simpler salary level test.

X. Executive Order 13132, Federalism

The Department has reviewed this proposed rule in accordance with Executive Order 13132 regarding federalism and determined that it does not have federalism implications. The proposed rule would not have substantial direct effects on the States, on the relationship between the National Government and the States, or

on the distribution of power and responsibilities among the various levels of government.

XI. Executive Order 13175, Indian Tribal Governments

This proposed rule will not have tribal implications under Executive Order 13175 that would require a tribal summary impact statement. The proposed rule would not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

List of Subjects in 29 CFR Part 541

Labor, Minimum wages, Overtime pay, Salaries, Teachers, Wages.

For the reasons set out in the preamble, the Wage and Hour Division, Department, of Labor proposes to amend 29 CFR part 541 as follows:

PART 541—DEFINING AND DELIMITING THE EXEMPTIONS FOR EXECUTIVE, ADMINISTRATIVE, PROFESSIONAL, COMPUTER, AND OUTSIDE SALES EMPLOYEES

- 1. The authority citation for part 541 is revised to read as follows:

Authority: 29 U.S.C. 213; Pub. L. 101–583, 104 Stat. 2871; Reorganization Plan No. 6 of 1950 (3 CFR, 1945–53 Comp., p. 1004); Secretary's Order 01–2014 (Dec. 19, 2014), 79 FR 77527 (Dec. 24, 2014).

- 2. Add § 541.5 to read as follows:

§ 541.5 Severability.

If any provision of this part is held to be invalid or unenforceable by its terms, or as applied to any person or circumstance, or stayed pending further agency action, the provision must be construed so as to continue to give the maximum effect to the provision permitted by law, unless such holding be one of utter invalidity or unenforceability, in which event the provision will be severable from part 541 and will not affect the remainder thereof.

- 3. Amend § 541.100, by revising paragraph (a)(1) to read as follows:

§ 541.100 General rule for executive employees.

(a) * * *

(1) Compensated on a salary basis at not less than the level set forth in § 541.600;

* * * * *

- 4. Amend § 541.200, by revising paragraph (a)(1) to read as follows:

§ 541.200 General rule for administrative employees.

(a) * * *

(1) Compensated on a salary or fee basis at not less than the level set forth in § 541.600;

* * * * *

■ 5. Amend § 541.204, by revising paragraph (a)(1) to read as follows:

§ 541.204 Educational establishments.

(a) * * *

(1) Compensated on a salary or fee basis at not less than the level set forth in § 541.600; or on a salary basis which is at least equal to the entrance salary for teachers in the educational establishment by which employed; and

* * * * *

■ 6. Amend § 541.300, by revising paragraph (a)(1) to read as follows:

§ 541.300 General rule for professional employees.

(a) * * *

(1) Compensated on a salary or fee basis at not less than the level set forth in § 541.600; and

* * * * *

■ 7. Amend § 541.400, by revising the first sentence of paragraph (b) to read as follows:

§ 541.400 General rule for computer employees.

* * * * *

(b) The section 13(a)(1) exemption applies to any computer employee who is compensated on a salary or fee basis at not less than the level set forth in § 541.600. * * *

* * * * *

■ 8. Revise § 541.600 to read as follows:

§ 541.600 Amount of salary required.

(a) *Standard salary level.* (1) To qualify as an exempt executive, administrative, or professional employee under section 13(a)(1) of the Act, an employee must be compensated on a salary basis at a rate per week of not less than the standard salary level (the 35th percentile of weekly earnings of full-time nonhourly workers in the lowest-wage Census Region), unless employed in American Samoa as set forth in paragraph (b) of this section, exclusive of board, lodging, or other facilities. As of [EFFECTIVE DATE OF THE FINAL RULE], and until such time as the standard salary level is updated pursuant to § 541.607, the standard salary level is \$1,059 per week. Administrative and professional employees may also be paid on a fee basis, as defined in § 541.605.

(2) Beginning 3 years from the date the \$1,059 per week salary level takes effect, and every 3 years thereafter, the

Secretary will update the amount of the required standard salary level pursuant to § 541.607.

(b) *American Samoa.* To qualify as an exempt executive, administrative, or professional employee under section 13(a)(1) of the Act, an employee in American Samoa (except if employed by the Federal Government), must be compensated on a salary basis at a rate of not less than 84 percent of the standard salary level applicable under paragraph (a) of this section (e.g., \$890 per week when the standard salary level is \$1,059), exclusive of board, lodging, or other facilities. Provided that 90 days after the highest industry minimum wage for American Samoa equals the minimum wage under section 6(a)(1) of the Act, exempt employees employed in all industries in American Samoa must be paid the full standard salary level set forth in paragraph (a) of this section, subject to the exceptions provided in paragraphs (d) through (f) of this section. Administrative and professional employees may also be paid on a fee basis, as defined in § 541.605.

(c) *Frequency of payment.* The salary level requirement may be translated into equivalent amounts for periods longer than one week. For example, the \$1,059 per week requirement described in paragraph (a) of this section would be met if the employee is compensated biweekly on a salary basis of not less than \$2,118, semimonthly on a salary basis of not less than \$2,295, or monthly on a salary basis of not less than \$4,589. However, the shortest period of payment that will meet this compensation requirement is one week.

(d) *Alternative salary level for academic administrative employees.* In the case of academic administrative employees, the salary level requirement also may be met by compensation on a salary basis at a rate at least equal to the entrance salary for teachers in the educational establishment by which the employee is employed, as provided in § 541.204(a)(1).

(e) *Hourly rate for computer employees.* In the case of computer employees, the compensation requirement also may be met by compensation on an hourly basis at a rate not less than \$27.63 an hour, as provided in § 541.400(b).

(f) *Exceptions to the standard salary criteria.* In the case of professional employees, the compensation requirements in this section shall not apply to employees engaged as teachers (see § 541.303); employees who hold a valid license or certificate permitting the practice of law or medicine or any of their branches and are actually engaged in the practice thereof (see

§ 541.304); or to employees who hold the requisite academic degree for the general practice of medicine and are engaged in an internship or resident program pursuant to the practice of the profession (see § 541.304). In the case of medical occupations, the exception from the salary or fee requirement does not apply to pharmacists, nurses, therapists, technologists, sanitarians, dietitians, social workers, psychologists, psychometrists, or other professions which service the medical profession.

■ 9. Amend § 541.601 by:

■ a. Adding introductory text to paragraph (a);

■ b. Revising paragraph (a)(1);

■ c. Revising paragraph (a)(2);

■ d. Adding paragraph (a)(3);

■ e. Revising the first sentence of paragraph (b)(1); and

■ f. Revising the second, third, and fourth sentences of paragraph (b)(2).

The revisions and additions read as follows:

§ 541.601 Highly compensated employees.

(a) An employee shall be exempt under section 13(a)(1) of the Act if:

(1) The employee receives not less than the total annual compensation level (the annualized earnings amount of the 85th percentile of full-time nonhourly workers nationally), and the employee customarily and regularly performs any one or more of the exempt duties or responsibilities of an executive, administrative, or professional employee identified in subpart B, C, or D of this part. As of [EFFECTIVE DATE OF THE FINAL RULE], and until such time as the total annual compensation level is updated pursuant to § 541.607, such an employee must receive total annual compensation of at least \$143,988.

(2) Beginning 3 years from the date the \$143,988 total annual compensation level takes effect, and every 3 years thereafter, the Secretary will update the required total annual compensation amount pursuant to § 541.607.

(3) Where the annual period covers periods both prior to and after the \$143,988 total annual compensation level takes effect, or the effective date of any future change to the total annual compensation requirement made pursuant to § 541.607, the amount of total annual compensation due will be determined on a proportional basis.

(b)(1) Total annual compensation must include at least a weekly amount equal to that required by § 541.600(a) paid on a salary or fee basis as set forth in §§ 541.602 and 541.605, except that § 541.602(a)(3) will not apply to highly compensated employees. * * *

(2) * * * For example, for a 52-week period beginning [EFFECTIVE DATE OF

FINAL RULE], an employee may earn \$120,000 in base salary, and the employer may anticipate based upon past sales that the employee also will earn \$25,000 in commissions. However, due to poor sales in the final quarter of the year, the employee only earns \$20,000 in commissions. In this situation, the employer may within one month after the end of the year make a payment of at least \$3,988 to the employee. * * *

* * * * *

■ 10. Amend § 541.604 by:

- a. Revising the second, third, and fourth sentences of paragraph (a); and
- b. Revising the third sentence in paragraph (b).

The revisions read as follows:

§ 541.604 Minimum guarantee plus extras.

(a) * * * Thus, for example, an exempt employee guaranteed at least \$1,059 each week paid on a salary basis may also receive additional compensation of a one percent commission on sales. An exempt employee also may receive a percentage of the sales or profits of the employer if the employment arrangement also includes a guarantee of at least \$1,059 each week paid on a salary basis. Similarly, the exemption is not lost if an exempt employee who is guaranteed at least \$1,059 each week paid on a salary basis also receives additional compensation based on hours worked for work beyond the normal workweek. * * *

(b) * * * Thus, for example, an exempt employee guaranteed compensation of at least \$1,125 for any week in which the employee performs any work, and who normally works four or five shifts each week, may be paid \$325 per shift without violating the \$1,059 per week salary basis requirement. * * *

■ 11. Amend § 541.605 by revising the second sentence of paragraph (b) to read as follows:

§ 541.605 Fee basis.

* * * * *

(b) * * * Thus, for example, an artist paid \$550 for a picture that took 20 hours to complete meets the \$1,059 minimum salary requirement for exemption since earnings at this rate would yield the artist \$1,100 if 40 hours were worked. * * *

■ 12. Add § 541.607 to read as follows:

§ 541.607 Automatic updates to amounts of salary and compensation required.

(a) *Standard salary level.* (1) Beginning 3 years from [EFFECTIVE DATE OF THE FINAL RULE], and every 3 years thereafter, the amount required to be paid to an exempt employee on a salary or fee basis, as applicable, pursuant to § 541.600(a) will be updated to reflect current earnings data.

(2) The Secretary will determine the lowest-wage Census Region for paragraph (a)(1) of this section using the 35th percentile of weekly earnings of full-time nonhourly workers in the Census Regions based on data from the Current Population Survey as published by the Bureau of Labor Statistics.

(b) *Highly compensated employees.* (1) Beginning 3 years from [EFFECTIVE DATE OF THE FINAL RULE], and every 3 years thereafter, the amount required in total annual compensation for an exempt highly compensated employee pursuant to § 541.601 will be updated to reflect current earnings data.

(2) The Secretary will use the 85th percentile of weekly earnings of full-time nonhourly workers nationally based on data from the Current Population Survey as published by the Bureau of Labor Statistics for paragraph (b)(1) of this section.

(c) *Notice.* (1) Not fewer than 150 days before each automatic update of earnings requirements under this section, the Secretary will publish a notice in the **Federal Register** stating the updated amounts required by paragraphs (a) and (b) of this section, which shall be determined by applying the methodologies set forth in those paragraphs to data from the four quarters preceding the notice as published by the Bureau of Labor Statistics.

(2) No later than the effective date of the updated earnings requirements, the Wage and Hour Division will publish on its website the applicable earnings requirements for employees paid pursuant to this part.

(d) *Delay of updates.* An automatic update to the earnings thresholds is delayed from taking effect for a period of 120 days if the Secretary has separately published a notice of proposed rulemaking in the **Federal Register**, not fewer than 150 days before the date the automatic update is set to take effect, proposing changes to the earnings threshold(s) and/or automatic updating mechanism. If the Secretary does not issue a final rule affecting the

scheduled automatic update to the earnings thresholds by the end of the 120-day extension, the updated amounts published in accordance with paragraph (c)(1) of this section will take effect upon the expiration of the 120-day period. The 120-day delay of a scheduled update under this paragraph will not change the effective dates for future automatic updates of the earnings requirements under this section.

■ 13. Revise § 541.709 to read as follows:

§ 541.709 Motion picture producing industry.

(a) *Base rate.* The requirement that the employee be paid “on a salary basis” does not apply to an employee in the motion picture producing industry who is compensated at a base rate of at least \$1,617 per week (exclusive of board, lodging, or other facilities), except as provided in paragraph (b) of this section. Thus, an employee in this industry who is otherwise exempt under subparts B, C, or D of this part, and who is employed at a base rate of at least the applicable current minimum amount a week is exempt if paid a proportionate amount (based on a week of not more than 6 days) for any week in which the employee does not work a full workweek for any reason. Moreover, an otherwise exempt employee in this industry qualifies for exemption if the employee is employed at a daily rate under the following circumstances:

(1) The employee is in a job category for which a weekly base rate is not provided and the daily base rate would yield at least the minimum weekly amount if 6 days were worked; or

(2) The employee is in a job category having the minimum weekly base rate and the daily base rate is at least one-sixth of such weekly base rate.

(b) *Updating the base rate.* Upon the date of each increase to the standard salary level pursuant to § 541.607, the base rate required to be paid to an exempt motion picture producing employee pursuant to this section will be updated from the previously applicable base rate, adjusted by the same percentage as the updated standard salary set by § 541.607(a), and rounded to the nearest multiple of \$1.00.

Julie A. Su,

Acting Secretary, Department of Labor.

[FR Doc. 2023-19032 Filed 9-7-23; 8:45 am]

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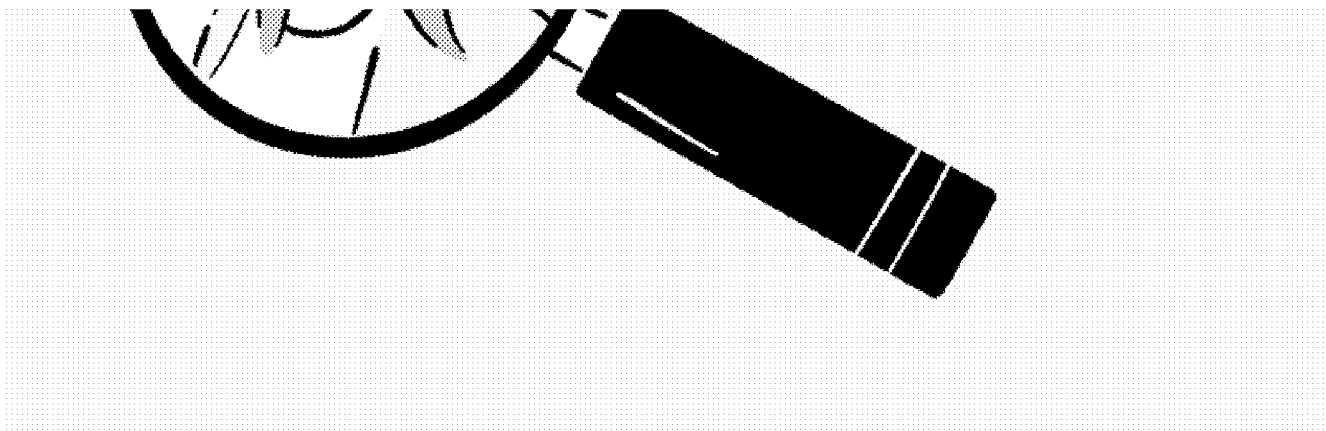
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The search for the leaders who will take your company to the next level is worth the investment. (BCV)

How To Hire Your First Leadership Team

There's a lot at stake when you're making your first leadership hires. Follow these steps to determine the right leaders for your early-stage startup.



Leslie Crowe

9 min read • October 24, 2023



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For early-stage founders, nailing your first leadership hires is key. There's a lot at stake when you're hiring the people responsible for building out the functional areas of your company — your business, your company culture, the future.

In my work at BCV, I advise our founders on how to successfully scale their organizations and capitalize on our extensive talent network. Before I joined BCV, I worked at three hypergrowth-stage companies: Dropbox, MuleSoft and TripActions. At each of those companies, I was there when we scaled from hundreds to thousands of employees in a very short period of time. And because of that, I spent a lot of time thinking about people infrastructure and the all-important question: How do you pick the right leaders for your organization at the right time?

As a startup founder, your job is to recruit a world-class team, and your C-suite will provide a foundation for taking your company to the next level. Using my own successes (and failures) in this arena, I'll share a few of my key learnings that can help you as you approach your first leadership hires.

Do your research

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experience.

It can be tempting to leap straight into recruiting, but the founders who make early hires the best are the ones who do their homework ahead of time. In practice, this looks like going out and finding five candidates the trusted people in your network think are amazing. These are the kinds of people who you wish you *could* recruit, but probably can't because they're either so good at what they do or have a little more experience than what you'd be looking to hire for.

Your goal is not to hire these people. Instead, you're on a fact-finding mission, and your goal is to take a call with each of these people to uncover what "great" looks like. In the course of your conversations with each of them, you should better understand the caliber of talent that you should be looking for when you *do* go out to hire for the role. Ask questions that help you uncover: What makes them tick? What kind of opportunity would attract them away from the work they're doing today? What traits would they look for in a CEO? What red flags should you watch out for when you're interviewing someone for a CTO or CMO role?

When I joined TripActions, I was tasked with hiring the entire people leadership team — aka go recruit an entire team of people that have more in-

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referrals and acted as resources throughout my process. One of them even helped me do a final round interview as I was deciding on a candidate.

So much value came out of a set of activities that on the surface may not seem to be directly related to actual recruiting but proved to be invaluable to the process, and I recommend you try a similar approach.

These conversations won't just inform your hiring process. You'll also do a better job assessing candidates and will waste a lot less of your time down the line than if you'd jumped in and started interviewing candidates without doing some research.

Be strategic and practical about your search

Founders doing their first executive searches often want to leverage their networks for their searches for as long as they can. This isn't a bad strategy — you *should* ask your investors, friends, past colleagues, etc. for referrals, see who they know, and reach out to the people in your network.

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someone being in a leadership role as soon as possible for an early-stage company is really high. If you need a VP of sales, you want them there as soon as possible, because every moment they're working with you can have a tangible impact on your business. As you well know, startup time moves so differently than time at a big company, and so much can happen in just a month.

One of our portfolio companies recently experienced this. The team is hiring a CFO with a search firm and a chief people officer without a firm. The founder agreed we'd give it two months to source the CPO without a firm and if we didn't have major traction by then, we'd bring in a search firm. By time-bounding your search with a deadline, you give yourself an opportunity to pull the cord and get the help you need. Don't let your search drag out too long — time has a cost.

And don't think you need to go alone on this — our team works very closely with founders on searches even before they're officially searches and can help you set the strategy, advise on profile and set you up with the very best search firms given your search perimeters. Reach out early and reach out often. You don't need to be an expert in exec search, that's what we're here for.

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Thinking about your leadership roles years down the line just doesn't make sense for an early-stage company — businesses change so quickly that if you try to hire someone who will help your company five years from now, you may be overlooking a great person who can help your company *today*. You're likely to hire someone that either has way too much experience or is comfortable at a much different scale from the one that you're at right now.

It can be tempting to look at each leadership hire in a silo. But the reality is, what you decide you need in a head of X will depend on the other people you have sitting around the table. Not every leadership hire is going to be equal in terms of the type of experience they bring to the table, the number of years of work experience they have, or whether they've done their job before at a different organization.

Your first VP of marketing may not be equal in experience to your first VP of finance, who may not be equal to your first VP of sales. Maybe you're heading towards an exit, and so you're ready for a very experienced CFO to guide you there, but at the same time you keep more of an up-and-comer in your people role because you feel confident that, surrounded by an experienced CFO and GC, you can support them.

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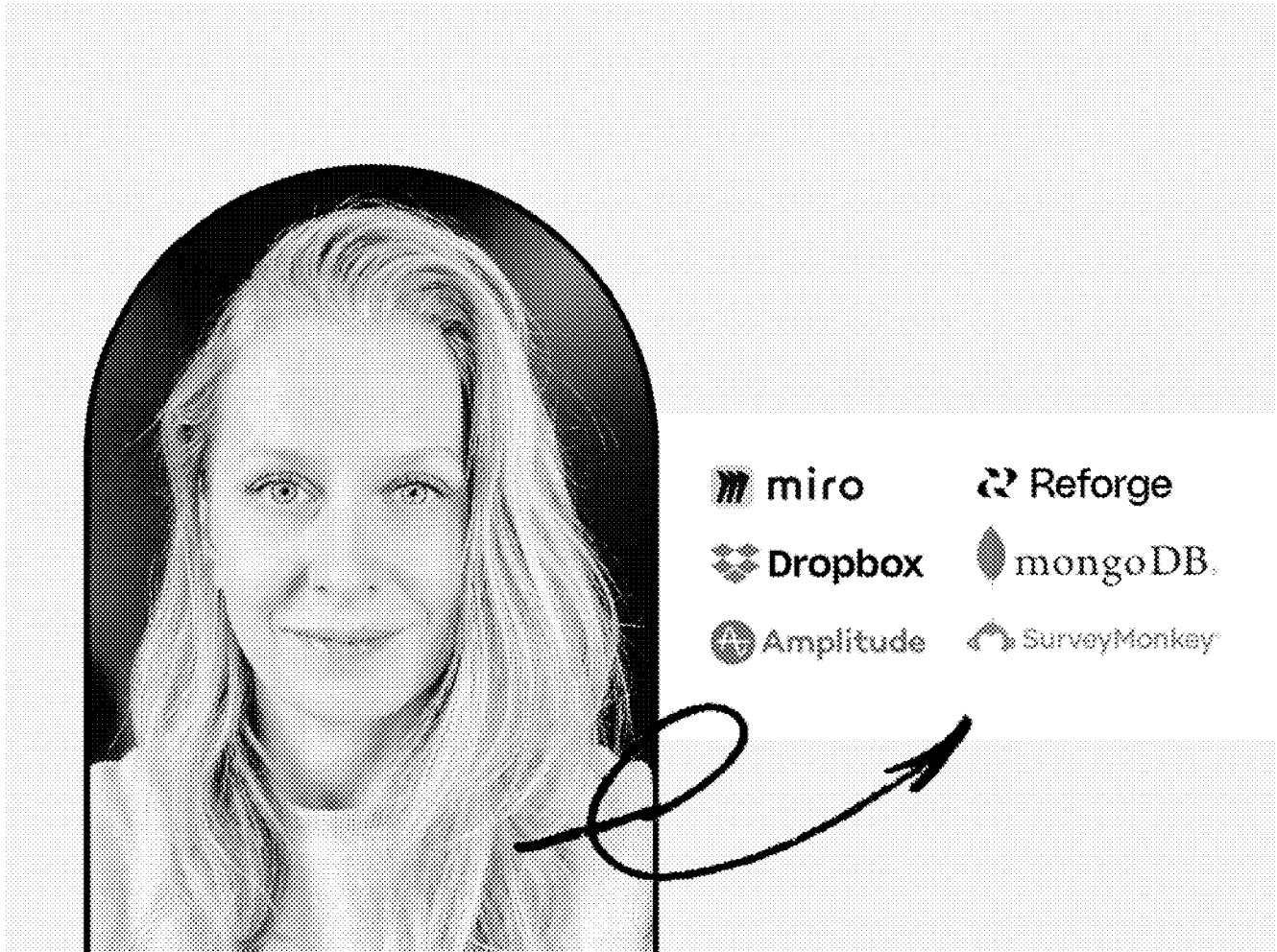
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that can take you where you need to go — whether you're starting from scratch or preparing for an IPO.

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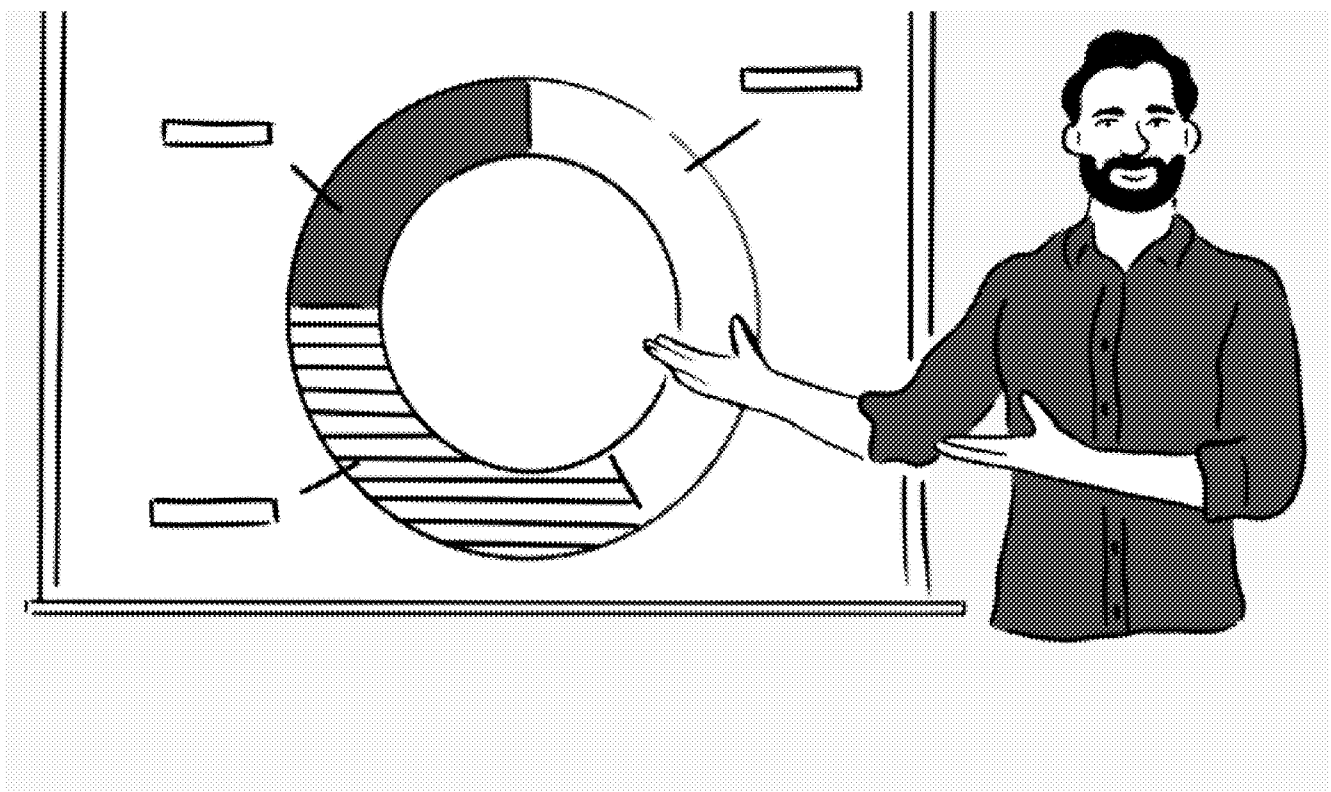
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Disclosure



U.S. Small Business
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Table of Small Business Size Standards

Matched to North American Industry Classification System Codes

This table lists small business size standards matched to industries described in the North American Industry Classification System (NAICS), as modified by the Office of Management and Budget, effective January 1, 2022.

The size standards are for the most part expressed in either millions of dollars (those preceded by “\$”) or number of employees (those without the “\$”). A size standard is the largest that a concern can be and still qualify as a small business for Federal Government programs. For the most part, size standards are the average annual receipts or the average employment of a firm. How to calculate average annual receipts and average employment of a firm can be found in 13 CFR § 121.104 and 13 CFR § 121.106, respectively.

SBA also includes the table of size standards in the Small Business Size Regulations, 13 CFR § 121.201. This table includes size standards that have changed since the last publication of 13 CFR § 121.

For more information on these size standards, please visit [SBA’s Size Standards webpage](#).

If you have any other questions concerning size standards, contact a Size Specialist at your nearest SBA Government Contracting Area Office (list at the end of the table), or contact the Office of Size Standards by email at sizestandards@sba.gov or by phone at (202) 205-6618.

Important Notice:

Businesses registered in the System for Award Management (SAM.gov) must update their SAM registration in order to have their small business status updated based on the new size standards effective March 17, 2023. Until the SAM registration is updated, the SAM profiles will continue to display the small business status under the old size standards.

*These size standards are effective
March 17, 2023*

Sector 11 – Agriculture, Forestry, Fishing and Hunting

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
111110	Soybean Farming	\$2.25	
111120	Oilseed (except Soybean) Farming	\$2.25	
111130	Dry Pea and Bean Farming	\$2.75	
111140	Wheat Farming	\$2.25	
111150	Corn Farming	\$2.5	
111160	Rice Farming	\$2.5	
111191	Oilseed and Grain Combination Farming	\$2.25	
111199	All Other Grain Farming	\$2.25	
111211	Potato Farming	\$4.25	
111219	Other Vegetable (except Potato) and Melon Farming	\$3.75	
111310	Orange Groves	\$4.0	
111320	Citrus (except Orange) Groves	\$4.25	
111331	Apple Orchards	\$4.5	
111332	Grape Vineyards	\$4.0	
111333	Strawberry Farming	\$5.5	
111334	Berry (except Strawberry) Farming	\$3.75	
111335	Tree Nut Farming	\$3.75	
111336	Fruit and Tree Nut Combination Farming	\$5.0	
111339	Other Noncitrus Fruit Farming	\$3.5	
111411	Mushroom Production	\$4.5	
111419	Other Food Crops Grown Under Cover	\$4.5	
111421	Nursery and Tree Production	\$3.25	
111422	Floriculture Production	\$3.75	
111910	Tobacco Farming	\$2.5	
111920	Cotton Farming	\$3.25	
111930	Sugarcane Farming	\$5.0	
111940	Hay Farming	\$2.5	
111991	Sugar Beet Farming	\$2.5	
111992	Peanut Farming	\$2.5	
111998	All Other Miscellaneous Crop Farming	\$2.5	
112111	Beef Cattle Ranching and Farming	\$2.5	
112112	Cattle Feedlots	\$22.0	
112120	Dairy Cattle and Milk Production	\$3.75	
112210	Hog and Pig Farming	\$4.0	
112310	Chicken Egg Production	\$19.0	
112320	Broilers and Other Meat Type Chicken Production	\$3.5	
112330	Turkey Production	\$3.75	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
112340	Poultry Hatcheries	\$4.0	
112390	Other Poultry Production	\$3.75	
112410	Sheep Farming	\$3.5	
112420	Goat Farming	\$2.5	
112511	Finfish Farming and Fish Hatcheries	\$3.75	
112512	Shellfish Farming	\$3.75	
112519	Other Aquaculture	\$3.75	
112910	Apiculture	\$3.25	
112920	Horses and Other Equine Production	\$2.75	
112930	Fur Bearing Animal and Rabbit Production	\$3.75	
112990	All Other Animal Production	\$2.75	
113110	Timber Tract Operations	\$19.0	
113210	Forest Nurseries and Gathering of Forest Products	\$20.5	
113310	Logging		500
114111	Finfish Fishing	\$25.0	
114112	Shellfish Fishing	\$14.0	
114119	Other Marine Fishing	\$11.5	
114210	Hunting and Trapping	\$8.5	
115111	Cotton Ginning	\$16.0	
115112	Soil Preparation, Planting, and Cultivating	\$9.5	
115113	Crop Harvesting, Primarily by Machine	\$13.5	
115114	Postharvest Crop Activities (except Cotton Ginning)	\$34.0	
115115	Farm Labor Contractors and Crew Leaders	\$19.0	
115116	Farm Management Services	\$15.5	
115210	Support Activities for Animal Production	\$11.0	
115310	Support Activities for Forestry	\$11.5	
115310 (Exception 1)	Forest Fire Suppression ¹	\$34.0	
115310 (Exception 2)	Fuels Management Services ¹	\$34.0	

Sector 21 – Mining, Quarrying, and Oil and Gas

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
211120	Crude Petroleum Extraction		1,250
211130	Natural Gas Extraction		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
212114	Surface Coal Mining		1,250
212115	Underground Coal Mining		1,500
212210	Iron Ore Mining		1,400
212220	Gold Ore and Silver Ore Mining		1,500
212230	Copper, Nickel, Lead, and Zinc Mining		1,400
212290	Other Metal Ore Mining		1,250
212311	Dimension Stone Mining and Quarrying		500
212312	Crushed and Broken Limestone Mining and Quarrying		750
212313	Crushed and Broken Granite Mining and Quarrying		850
212319	Other Crushed and Broken Stone Mining and Quarrying		550
212321	Construction Sand and Gravel Mining		500
212322	Industrial Sand Mining		750
212323	Kaolin, Clay, and Ceramic and Refractory Minerals Mining		650
212390	Other Nonmetallic Mineral Mining and Quarrying		600
213111	Drilling Oil and Gas Wells		1,000
213112	Support Activities for Oil and Gas Operations	\$47.0	
213113	Support Activities for Coal Mining	\$27.5	
213114	Support Activities for Metal Mining	\$41.0	
213115	Support Activities for Nonmetallic Minerals (except Fuels) Mining	\$20.5	

Sector 22 – Utilities

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
221111	Hydroelectric Power Generation		750
221112	Fossil Fuel Electric Power Generation		950
221113	Nuclear Electric Power Generation		1,150
221114	Solar Electric Power Generation		500
221115	Wind Electric Power Generation		1,150
221116	Geothermal Electric Power Generation		250
221117	Biomass Electric Power Generation		550
221118	Other Electric Power Generation		650
221121	Electric Bulk Power Transmission and Control		950
221122	Electric Power Distribution		1,100

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
221210	Natural Gas Distribution		1,150
221310	Water Supply and Irrigation Systems	\$41.0	
221320	Sewage Treatment Facilities	\$35.0	
221330	Steam and Air Conditioning Supply	\$30.0	

Sector 23 – Construction

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
236115	New Single-family Housing Construction (Except For-Sale Builders)	\$45.0	
236116	New Multifamily Housing Construction (except For-Sale Builders)	\$45.0	
236117	New Housing For-Sale Builders	\$45.0	
236118	Residential Remodelers	\$45.0	
236210	Industrial Building Construction	\$45.0	
236220	Commercial and Institutional Building Construction	\$45.0	
237110	Water and Sewer Line and Related Structures Construction	\$45.0	
237120	Oil and Gas Pipeline and Related Structures Construction	\$45.0	
237130	Power and Communication Line and Related Structures Construction	\$45.0	
237210	Land Subdivision	\$34.0	
237310	Highway, Street, and Bridge Construction	\$45.0	
237990	Other Heavy and Civil Engineering Construction	\$45.0	
237990 (Exception)	Dredging and Surface Cleanup Activities ²	\$37.0	
238110	Poured Concrete Foundation and Structure Contractors	\$19.0	
238120	Structural Steel and Precast Concrete Contractors	\$19.0	
238130	Framing Contractors	\$19.0	
238140	Masonry Contractors	\$19.0	
238150	Glass and Glazing Contractors	\$19.0	
238160	Roofing Contractors	\$19.0	
238170	Siding Contractors	\$19.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
238190	Other Foundation, Structure, and Building Exterior Contractors	\$19.0	
238210	Electrical Contractors and Other Wiring Installation Contractors	\$19.0	
238220	Plumbing, Heating, and Air Conditioning Contractors	\$19.0	
238290	Other Building Equipment Contractors	\$22.0	
238310	Drywall and Insulation Contractors	\$19.0	
238320	Painting and Wall Covering Contractors	\$19.0	
238330	Flooring Contractors	\$19.0	
238340	Tile and Terrazzo Contractors	\$19.0	
238350	Finish Carpentry Contractors	\$19.0	
238390	Other Building Finishing Contractors	\$19.0	
238910	Site Preparation Contractors	\$19.0	
238990	All Other Specialty Trade Contractors	\$19.0	
238990 (Exception)	Building and Property Specialty Trade Services ¹³	\$19.0	

Sector 31 – 33 – Manufacturing

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
311111	Dog and Cat Food Manufacturing		1,250
311119	Other Animal Food Manufacturing		650
311211	Flour Milling		1,050
311212	Rice Milling		750
311213	Malt Manufacturing		500
311221	Wet Corn Milling and Starch Manufacturing		1,300
311224	Soybean and Other Oilseed Processing		1,250
311225	Fats and Oils Refining and Blending		1,100
311230	Breakfast Cereal Manufacturing		1,300
311313	Beet Sugar Manufacturing		1,150
311314	Cane Sugar Manufacturing		1,050
311340	Nonchocolate Confectionery Manufacturing		1,000
311351	Chocolate and Confectionery Manufacturing from Cacao Beans		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
311352	Confectionery Manufacturing from Purchased Chocolate		1,000
311411	Frozen Fruit, Juice and Vegetable Manufacturing		1,100
311412	Frozen Specialty Food Manufacturing		1,250
311421	Fruit and Vegetable Canning ³		1,000
311422	Specialty Canning		1,400
311423	Dried and Dehydrated Food Manufacturing		750
311511	Fluid Milk Manufacturing		1,150
311512	Creamery Butter Manufacturing		750
311513	Cheese Manufacturing		1,250
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing		1,000
311520	Ice Cream and Frozen Dessert Manufacturing		1,000
311611	Animal (except Poultry) Slaughtering		1,150
311612	Meat Processed from Carcasses		1,000
311613	Rendering and Meat Byproduct Processing		750
311615	Poultry Processing		1,250
311710	Seafood Product Preparation and Packaging		750
311811	Retail Bakeries		500
311812	Commercial Bakeries		1,000
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing		750
311821	Cookie and Cracker Manufacturing		1,250
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour		850
311830	Tortilla Manufacturing		1,250
311911	Roasted Nuts and Peanut Butter Manufacturing		750
311919	Other Snack Food Manufacturing		1,250
311920	Coffee and Tea Manufacturing		1,000
311930	Flavoring Syrup and Concentrate Manufacturing		1,100
311941	Mayonnaise, Dressing and Other Prepared Sauce Manufacturing		650
311942	Spice and Extract Manufacturing		500
311991	Perishable Prepared Food Manufacturing		700
311999	All Other Miscellaneous Food Manufacturing		700
312111	Soft Drink Manufacturing		1,400
312112	Bottled Water Manufacturing		1,100
312113	Ice Manufacturing		750
312120	Breweries		1,250
312130	Wineries		1,000

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
312140	Distilleries		1,100
312230	Tobacco Manufacturing		1,500
313110	Fiber, Yarn, and Thread Mills		1,250
313210	Broadwoven Fabric Mills		1,000
313220	Narrow Fabric Mills and Schiffli Machine Embroidery		550
313230	Nonwoven Fabric Mills		850
313240	Knit Fabric Mills		500
313310	Textile and Fabric Finishing Mills		1,000
313320	Fabric Coating Mills		1,000
314110	Carpet and Rug Mills		1,500
314120	Curtain and Linen Mills		750
314910	Textile Bag and Canvas Mills		500
314994	Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills		1,000
314999	All Other Miscellaneous Textile Product Mills		550
315120	Apparel Knitting Mills		850
315210	Cut and Sew Apparel Contractors		750
315250	Cut and Sew Apparel Manufacturing (except Contractors)		750
315990	Apparel Accessories and Other Apparel Manufacturing		600
316110	Leather and Hide Tanning and Finishing		800
316210	Footwear Manufacturing		1,000
316990	Other Leather and Allied Product Manufacturing		500
321113	Sawmills		550
321114	Wood Preservation		550
321211	Hardwood Veneer and Plywood Manufacturing		600
321212	Softwood Veneer and Plywood Manufacturing		1,250
321215	Engineered Wood Member Manufacturing		500
321219	Reconstituted Wood Product Manufacturing		750
321911	Wood Window and Door Manufacturing		1,000
321912	Cut Stock, Resawing Lumber, and Planing		500
321918	Other Millwork (including Flooring)		500
321920	Wood Container and Pallet Manufacturing		500
321991	Manufactured Home (Mobile Home) Manufacturing		1,250
321992	Prefabricated Wood Building Manufacturing		500
321999	All Other Miscellaneous Wood Product Manufacturing		500
322110	Pulp Mills		1,050
322120	Paper Mills		1,250
322130	Paperboard Mills		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
322211	Corrugated and Solid Fiber Box Manufacturing		1,250
322212	Folding Paperboard Box Manufacturing		750
322219	Other Paperboard Container Manufacturing		1,000
322220	Paper Bag and Coated and Treated Paper Manufacturing		750
322230	Stationery Product Manufacturing		750
322291	Sanitary Paper Product Manufacturing		1,500
322299	All Other Converted Paper Product Manufacturing		500
323111	Commercial Printing (except Screen and Books)		650
323113	Commercial Screen Printing		500
323117	Books Printing		1,250
323120	Support Activities for Printing		550
324110	Petroleum Refineries ⁴		1,500
324121	Asphalt Paving Mixture and Block Manufacturing		500
324122	Asphalt Shingle and Coating Materials Manufacturing		1,100
324191	Petroleum Lubricating Oil and Grease Manufacturing		900
324199	All Other Petroleum and Coal Products Manufacturing		950
325110	Petrochemical Manufacturing		1,300
325120	Industrial Gas Manufacturing		1,200
325130	Synthetic Dye and Pigment Manufacturing		1,050
325180	Other Basic Inorganic Chemical Manufacturing		1,000
325193	Ethyl Alcohol Manufacturing		1,000
325194	Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing		1,250
325199	All Other Basic Organic Chemical Manufacturing		1,250
325211	Plastics Material and Resin Manufacturing		1,250
325212	Synthetic Rubber Manufacturing		1,000
325220	Artificial and Synthetic Fibers and Filaments Manufacturing		1,050
325311	Nitrogenous Fertilizer Manufacturing		1,050
325312	Phosphatic Fertilizer Manufacturing		1,350
325314	Fertilizer (Mixing Only) Manufacturing		550
325315	Compost Manufacturing		550
325320	Pesticide and Other Agricultural Chemical Manufacturing		1,150
325411	Medicinal and Botanical Manufacturing		1,000
325412	Pharmaceutical Preparation Manufacturing		1,300
325413	In Vitro Diagnostic Substance Manufacturing		1,250
325414	Biological Product (except Diagnostic) Manufacturing		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
325510	Paint and Coating Manufacturing		1,000
325520	Adhesive Manufacturing		550
325611	Soap and Other Detergent Manufacturing		1,100
325612	Polish and Other Sanitation Good Manufacturing		900
325613	Surface Active Agent Manufacturing		1,100
325620	Toilet Preparation Manufacturing		1,250
325910	Printing Ink Manufacturing		750
325920	Explosives Manufacturing		750
325991	Custom Compounding of Purchased Resins		600
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing		1,500
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		650
326111	Plastic Bag and Pouch Manufacturing		750
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing		1,000
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing		750
326121	Unlaminated Plastics Profile Shape Manufacturing		600
326122	Plastics Pipe and Pipe Fitting Manufacturing		750
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing		650
326140	Polystyrene Foam Product Manufacturing		1,000
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing		750
326160	Plastics Bottle Manufacturing		1,250
326191	Plastics Plumbing Fixture Manufacturing		750
326199	All Other Plastics Product Manufacturing		750
326211	Tire Manufacturing (except Retreading) ⁵		1,500
326212	Tire Retreading		500
326220	Rubber and Plastics Hoses and Belting Manufacturing		800
326291	Rubber Product Manufacturing for Mechanical Use		750
326299	All Other Rubber Product Manufacturing		650
327110	Pottery, Ceramics, and Plumbing Fixture Manufacturing		1,000
327120	Clay Building Material and Refractories Manufacturing		750
327211	Flat Glass Manufacturing		1,100
327212	Other Pressed and Blown Glass and Glassware Manufacturing		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
327213	Glass Container Manufacturing		1,250
327215	Glass Product Manufacturing Made of Purchased Glass		1,000
327310	Cement Manufacturing		1,000
327320	Ready Mix Concrete Manufacturing		500
327331	Concrete Block and Brick Manufacturing		500
327332	Concrete Pipe Manufacturing		750
327390	Other Concrete Product Manufacturing		500
327410	Lime Manufacturing		1,050
327420	Gypsum Product Manufacturing		1,500
327910	Abrasive Product Manufacturing		900
327991	Cut Stone and Stone Product Manufacturing		500
327992	Ground or Treated Mineral and Earth Manufacturing		600
327993	Mineral Wool Manufacturing		1,500
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing		750
331110	Iron and Steel Mills and Ferroalloy Manufacturing		1,500
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel		1,000
331221	Rolled Steel Shape Manufacturing		1,000
331222	Steel Wire Drawing		1,000
331313	Alumina Refining and Primary Aluminum Production		1,300
331314	Secondary Smelting and Alloying of Aluminum		750
331315	Aluminum Sheet, Plate and Foil Manufacturing		1,400
331318	Other Aluminum Rolling, Drawing, and Extruding		750
331410	Nonferrous Metal (except Aluminum) Smelting and Refining		1,000
331420	Copper Rolling, Drawing, Extruding, and Alloying		1,050
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing and Extruding		900
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)		850
331511	Iron Foundries		1,000
331512	Steel Investment Foundries		1,050
331513	Steel Foundries (except Investment)		700
331523	Nonferrous Metal Die-Casting Foundries		700
331524	Aluminum Foundries (except Die Casting)		550
331529	Other Nonferrous Metal Foundries (except Die-Casting)		500

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
332111	Iron and Steel Forging		750
332112	Nonferrous Forging		950
332114	Custom Roll Forming		600
332117	Powder Metallurgy Part Manufacturing		550
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)		500
332215	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing		1,000
332216	Saw Blade and Handtool Manufacturing		750
332311	Prefabricated Metal Building and Component Manufacturing		750
332312	Fabricated Structural Metal Manufacturing		500
332313	Plate Work Manufacturing		750
332321	Metal Window and Door Manufacturing		750
332322	Sheet Metal Work Manufacturing		500
332323	Ornamental and Architectural Metal Work Manufacturing		500
332410	Power Boiler and Heat Exchanger Manufacturing		750
332420	Metal Tank (Heavy Gauge) Manufacturing		750
332431	Metal Can Manufacturing		1,500
332439	Other Metal Container Manufacturing		600
332510	Hardware Manufacturing		750
332613	Spring Manufacturing		600
332618	Other Fabricated Wire Product Manufacturing		500
332710	Machine Shops		500
332721	Precision Turned Product Manufacturing		500
332722	Bolt, Nut, Screw, Rivet and Washer Manufacturing		600
332811	Metal Heat Treating		750
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers		600
332813	Electroplating, Plating, Polishing, Anodizing and Coloring		500
332911	Industrial Valve Manufacturing		750
332912	Fluid Power Valve and Hose Fitting Manufacturing		1,000
332913	Plumbing Fixture Fitting and Trim Manufacturing		1,000
332919	Other Metal Valve and Pipe Fitting Manufacturing		750
332991	Ball and Roller Bearing Manufacturing		1,250
332992	Small Arms Ammunition Manufacturing		1,300
332993	Ammunition (except Small Arms) Manufacturing		1,500

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing		1,000
332996	Fabricated Pipe and Pipe Fitting Manufacturing		550
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing		750
333111	Farm Machinery and Equipment Manufacturing ⁶		1,250
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing ⁶		1,500
333120	Construction Machinery Manufacturing ⁶		1,250
333131	Mining Machinery and Equipment Manufacturing ⁶		900
333132	Oil and Gas Field Machinery and Equipment Manufacturing ⁶		1,250
333241	Food Product Machinery Manufacturing ⁶		500
333242	Semiconductor Machinery Manufacturing ⁶		1,500
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing ⁶		550
333248	All Other Industrial Machinery Manufacturing ⁶		750
333310	Commercial and Service Industry Machinery Manufacturing ⁶		1,000
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing ⁶		500
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing ⁶		500
333415	Air Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing ⁶		1,250
333511	Industrial Mold Manufacturing ⁶		500
333514	Special Die and Tool, Die Set, Jig and Fixture Manufacturing ⁶		500
333515	Cutting Tool and Machine Tool Accessory Manufacturing ⁶		500
333517	Machine Tool Manufacturing ⁶		500
333519	Rolling Mill and Other Metalworking Machinery Manufacturing ⁶		500
333611	Turbine and Turbine Generator Set Unit Manufacturing ⁶		1,500
333612	Speed Changer, Industrial High Speed Drive and Gear Manufacturing ⁶		750

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
333613	Mechanical Power Transmission Equipment Manufacturing ⁶		750
333618	Other Engine Equipment Manufacturing ⁶		1,500
333912	Air and Gas Compressor Manufacturing ⁶		1,000
333914	Measuring, Dispensing, and Other Pumping Equipment Manufacturing ⁶		750
333921	Elevator and Moving Stairway Manufacturing ⁶		1,000
333922	Conveyor and Conveying Equipment Manufacturing ⁶		500
333923	Overhead Traveling Crane, Hoist and Monorail System Manufacturing ⁶		1,250
333924	Industrial Truck, Tractor, Trailer and Stacker Machinery Manufacturing ⁶		900
333991	Power Driven Hand Tool Manufacturing ⁶		950
333992	Welding and Soldering Equipment Manufacturing ⁶		1,250
333993	Packaging Machinery Manufacturing ⁶		600
333994	Industrial Process Furnace and Oven Manufacturing ⁶		500
333995	Fluid Power Cylinder and Actuator Manufacturing ⁶		800
333996	Fluid Power Pump and Motor Manufacturing ⁶		1,250
333998	All Other Miscellaneous General Purpose Machinery Manufacturing ⁶		700
334111	Electronic Computer Manufacturing ⁶		1,250
334112	Computer Storage Device Manufacturing ⁶		1,250
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing ⁶		1,000
334210	Telephone Apparatus Manufacturing ⁶		1,250
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing ⁶		1,250
334290	Other Communications Equipment Manufacturing ⁶		800
334310	Audio and Video Equipment Manufacturing ⁶		750
334412	Bare Printed Circuit Board Manufacturing ⁶		750
334413	Semiconductor and Related Device Manufacturing ⁶		1,250
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing ⁶		550
334417	Electronic Connector Manufacturing ⁶		1,000
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing ⁶		750
334419	Other Electronic Component Manufacturing ⁶		750
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing ⁶		1,250

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing ⁶		1,350
334512	Automatic Environmental Control Manufacturing for Residential, Commercial and Appliance Use ⁶		650
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables ⁶		750
334514	Totalizing Fluid Meter and Counting Device Manufacturing ⁶		850
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals ⁶		750
334516	Analytical Laboratory Instrument Manufacturing ⁶		1,000
334517	Irradiation Apparatus Manufacturing ⁶		1,200
334519	Other Measuring and Controlling Device Manufacturing ⁶		600
334610	Manufacturing and Reproducing Magnetic and Optical Media ⁶		1,250
335131	Residential Electric Lighting Fixture Manufacturing		750
335132	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing ⁶		600
335139	Electric Lamp Bulb and Other Lighting Equipment Manufacturing ⁶		1,250
335210	Small Electrical Appliance Manufacturing ⁶		1,500
335220	Major Household Appliance Manufacturing ⁶		1,500
335311	Power, Distribution and Specialty Transformer Manufacturing ⁶		800
335312	Motor and Generator Manufacturing ⁶		1,250
335313	Switchgear and Switchboard Apparatus Manufacturing ⁶		1,250
335314	Relay and Industrial Control Manufacturing ⁶		750
335910	Battery Manufacturing ⁶		1,250
335921	Fiber Optic Cable Manufacturing ⁶		1,000
335929	Other Communication and Energy Wire Manufacturing ⁶		1,000
335931	Current Carrying Wiring Device Manufacturing ⁶		600
335932	Noncurrent Carrying Wiring Device Manufacturing ⁶		1,000
335991	Carbon and Graphite Product Manufacturing ⁶		900

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing ⁶		600
336110	Automobile and Light Duty Motor Vehicle Manufacturing ⁶		1,500
336120	Heavy Duty Truck Manufacturing ⁶		1,500
336211	Motor Vehicle Body Manufacturing ⁶		1,000
336212	Truck Trailer Manufacturing ⁶		1,000
336213	Motor Home Manufacturing ⁶		1,250
336214	Travel Trailer and Camper Manufacturing ⁶		1,000
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing ⁶		1,050
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing ⁶		1,000
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing ⁶		1,000
336340	Motor Vehicle Brake System Manufacturing ⁶		1,250
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing ⁶		1,500
336360	Motor Vehicle Seating and Interior Trim Manufacturing ⁶		1,500
336370	Motor Vehicle Metal Stamping ⁶		1,000
336390	Other Motor Vehicle Parts Manufacturing ⁶		1,000
336411	Aircraft Manufacturing ⁶		1,500
336412	Aircraft Engine and Engine Parts Manufacturing ⁶		1,500
336413	Other Aircraft Part and Auxiliary Equipment Manufacturing ^{6,7}		1,250
336414	Guided Missile and Space Vehicle Manufacturing ⁶		1,300
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing ⁶		1,250
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing ⁶		1,050
336510	Railroad Rolling Stock Manufacturing ⁶		1,500
336611	Ship Building and Repairing ⁶		1,300
336612	Boat Building ⁶		1,000
336991	Motorcycle, Bicycle and Parts Manufacturing ⁶		1,050
336992	Military Armored Vehicle, Tank and Tank Component Manufacturing ⁶		1,500
336999	All Other Transportation Equipment Manufacturing ⁶		1,000

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
337110	Wood Kitchen Cabinet and Counter Top Manufacturing		750
337121	Upholstered Household Furniture Manufacturing		1,000
337122	Nonupholstered Wood Household Furniture Manufacturing		750
337126	Household Furniture (except Wood and Upholstered) Manufacturing		950
337127	Institutional Furniture Manufacturing		500
337211	Wood Office Furniture Manufacturing		1,000
337212	Custom Architectural Woodwork and Millwork Manufacturing		500
337214	Office Furniture (Except Wood) Manufacturing		1,100
337215	Showcase, Partition, Shelving, and Locker Manufacturing		500
337910	Mattress Manufacturing		1,000
337920	Blind and Shade Manufacturing		1,000
339112	Surgical and Medical Instrument Manufacturing		1,000
339113	Surgical Appliance and Supplies Manufacturing		800
339114	Dental Equipment and Supplies Manufacturing		750
339115	Ophthalmic Goods Manufacturing		1,000
339116	Dental Laboratories		500
339910	Jewelry and Silverware Manufacturing		700
339920	Sporting and Athletic Goods Manufacturing		750
339930	Doll, Toy, and Game Manufacturing		700
339940	Office Supplies (except Paper) Manufacturing		750
339950	Sign Manufacturing		500
339991	Gasket, Packing, and Sealing Device Manufacturing		600
339992	Musical Instrument Manufacturing		1,000
339993	Fastener, Button, Needle and Pin Manufacturing		750
339994	Broom, Brush and Mop Manufacturing		750
339995	Burial Casket Manufacturing		1,000
339999	All Other Miscellaneous Manufacturing		550

Sector 42 – Wholesale Trade

(These NAICS codes shall not be used to classify Government acquisitions for supplies. They also shall not be used by Federal government contractors when subcontracting for the acquisition for supplies. The applicable manufacturing NAICS code shall be used to classify acquisitions for supplies. A Wholesale Trade or Retail Trade business concern submitting an offer or a quote on a supply acquisition is categorized as a nonmanufacturer and deemed small if it has 500 or fewer employees and meets the requirements of 13 CFR 121.406.)

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
423110	Automobile and Other Motor Vehicle Merchant Wholesalers		250
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers		200
423130	Tire and Tube Merchant Wholesalers		200
423140	Motor Vehicle Parts (Used) Merchant Wholesalers		125
423210	Furniture Merchant Wholesalers		100
423220	Home Furnishing Merchant Wholesalers		100
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers		150
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers		150
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers		225
423390	Other Construction Material Merchant Wholesalers		100
423410	Photographic Equipment and Supplies Merchant Wholesalers		200
423420	Office Equipment Merchant Wholesalers		200
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers		250
423440	Other Commercial Equipment Merchant Wholesalers		100
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers		200
423460	Ophthalmic Goods Merchant Wholesalers		175
423490	Other Professional Equipment and Supplies Merchant Wholesalers		150

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
423510	Metal Service Centers and Other Metal Merchant Wholesalers		200
423520	Coal and Other Mineral and Ore Merchant Wholesalers		200
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers		200
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers		225
423690	Other Electronic Parts and Equipment Merchant Wholesalers		250
423710	Hardware Merchant Wholesalers		150
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers		200
423730	Warm Air Heating and Air Conditioning Equipment and Supplies Merchant Wholesalers		175
423740	Refrigeration Equipment and Supplies Merchant Wholesalers		125
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers		250
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers		125
423830	Industrial Machinery and Equipment Merchant Wholesalers		100
423840	Industrial Supplies Merchant Wholesalers		125
423850	Service Establishment Equipment and Supplies Merchant Wholesalers		125
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers		175
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers		100
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers		175
423930	Recyclable Material Merchant Wholesalers		125
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers		125
423990	Other Miscellaneous Durable Goods Merchant Wholesalers		100
424110	Printing and Writing Paper Merchant Wholesalers		225
424120	Stationary and Office Supplies Merchant Wholesalers		150

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
424130	Industrial and Personal Service Paper Merchant Wholesalers		150
424210	Drugs and Druggists' Sundries Merchant Wholesalers		250
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers		100
424340	Footwear Merchant Wholesalers		200
424350	Clothing and Clothing Accessories Merchant Wholesalers		150
424410	General Line Grocery Merchant Wholesalers		250
424420	Packaged Frozen Food Merchant Wholesalers		200
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers		200
424440	Poultry and Poultry Product Merchant Wholesalers		150
424450	Confectionery Merchant Wholesalers		225
424460	Fish and Seafood Merchant Wholesalers		100
424470	Meat and Meat Product Merchant Wholesalers		150
424480	Fresh Fruit and Vegetable Merchant Wholesalers		100
424490	Other Grocery and Related Products Merchant Wholesalers		250
424510	Grain and Field Bean Merchant Wholesalers		200
424520	Livestock Merchant Wholesalers		125
424590	Other Farm Product Raw Material Merchant Wholesalers		175
424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers		150
424690	Other Chemical and Allied Products Merchant Wholesalers		175
424710	Petroleum Bulk Stations and Terminals		225
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)		200
424810	Beer and Ale Merchant Wholesalers		200
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers		250
424910	Farm Supplies Merchant Wholesalers		200
424920	Book, Periodical, and Newspaper Merchant Wholesalers		200
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers		100

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
424940	Tobacco Product and Electronic Cigarette Merchant Wholesalers		250
424950	Paint, Varnish, and Supplies Merchant Wholesalers		150
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers		100
425120	Wholesale Trade Agents and Brokers		125

Sector 44 - 45 -- Retail Trade

(These NAICS codes shall not be used to classify Government acquisitions for supplies. They also shall not be used by Federal government contractors when subcontracting for the acquisition for supplies. The applicable manufacturing NAICS code shall be used to classify acquisitions for supplies. A Wholesale Trade or Retail Trade business concern submitting an offer or a quote on a supply acquisition is categorized as a nonmanufacturer and deemed small if it has 500 or fewer employees and meets the requirements of 13 CFR 121.406.)

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
441110	New Car Dealers		200
441120	Used Car Dealers	\$30.5	
441210	Recreational Vehicle Dealers	\$40.0	
441222	Boat Dealers	\$40.0	
441227	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$40.0	
441330	Automotive Parts and Accessories Retailers	\$28.5	
441340	Tire Dealers	\$25.5	
444110	Home Centers	\$47.0	
444120	Paint and Wallpaper Retailers	\$34.0	
444140	Hardware Retailers	\$16.5	
444180	Other Building Material Dealers	\$25.0	
444230	Outdoor Power Equipment Retailers	\$9.5	
444240	Nursery, Garden Center, and Farm Supply Retailers	\$21.5	
445110	Supermarkets and Other Grocery Retailers (except Convenience Retailers)	\$40.0	
445131	Convenience Retailers	\$36.5	
445132	Vending Machine Operators	\$21.0	
445230	Fruit and Vegetable Retailers	\$9.0	
445240	Meat Retailers	\$9.0	
445250	Fish and Seafood Retailers	\$9.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
445291	Baked Goods Retailers	\$16.0	
445292	Confectionery and Nut Retailers	\$19.5	
445298	All Other Specialty Food Retailers	\$10.0	
445320	Beer, Wine, and Liquor Retailers	\$10.0	
449110	Furniture Retailers	\$25.0	
449121	Floor Covering Retailers	\$9.0	
449122	Window Treatment Retailers	\$11.5	
449129	All Other Home Furnishings Retailers	\$33.5	
449210	Electronics and Appliance Retailers	\$40.0	
455110	Department Stores	\$40.0	
455211	Warehouse Clubs and Supercenters	\$47.0	
455219	All Other General Merchandise Retailers	\$40.0	
456110	Pharmacies and Drug Retailers	\$37.5	
456120	Cosmetics, Beauty Supplies, and Perfume Retailers	\$34.0	
456130	Optical Goods Retailers	\$29.5	
456191	Food (Health) Supplement Retailers	\$22.5	
456199	All Other Health and Personal Care Retailers	\$9.5	
457110	Gasoline Stations with Convenience Stores	\$36.5	
457120	Other Gasoline Stations	\$33.5	
457210	Fuel Dealers		100
458110	Clothing and Clothing Accessories Retailers	\$47.0	
458210	Shoe Retailers	\$34.0	
458310	Jewelry Retailers	\$20.5	
458320	Luggage and Leather Goods Retailers	\$38.0	
459110	Sporting Goods Retailers	\$26.5	
459120	Hobby, Toy, and Game Retailers	\$35.0	
459130	Sewing, Needlework, and Piece Goods Retailers	\$34.0	
459140	Musical Instrument and Supplies Retailers	\$22.5	
459210	Book Retailers and News Dealers	\$36.0	
459310	Florists	\$9.0	
459410	Office Supplies and Stationery Retailers	\$40.0	
459420	Gift, Novelty, and Souvenir Retailers	\$13.5	
459510	Used Merchandise Retailers	\$14.0	
459910	Pet and Pet Supplies Retailers	\$32.0	
459920	Art Dealers	\$16.5	
459930	Manufactured (Mobile) Home Dealers	\$19.0	
459991	Tobacco, Electronic Cigarette, and Other Smoking Supplies Retailers	\$11.5	
459999	All Other Miscellaneous Retailers	\$11.5	

Sector 48 - 49 – Transportation and Warehousing

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
481111	Scheduled Passenger Air Transportation		1,500
481112	Scheduled Freight Air Transportation		1,500
481211	Nonscheduled Chartered Passenger Air Transportation		1,500
481212	Nonscheduled Chartered Freight Air Transportation		1,500
481219	Other Nonscheduled Air Transportation	\$25.0	
482111	Line Haul Railroads		1,500
482112	Short Line Railroads		1,500
483111	Deep Sea Freight Transportation		1,050
483112	Deep Sea Passenger Transportation		1,500
483113	Coastal and Great Lakes Freight Transportation		800
483114	Coastal and Great Lakes Passenger Transportation		550
483211	Inland Water Freight Transportation		1,050
483212	Inland Water Passenger Transportation		550
484110	General Freight Trucking, Local	\$34.0	
484121	General Freight Trucking, Long Distance, Truckload	\$34.0	
484122	General Freight Trucking, Long Distance, Less Than Truckload	\$43.0	
484210	Used Household and Office Goods Moving	\$34.0	
484220	Specialized Freight (except Used Goods) Trucking, Local	\$34.0	
484230	Specialized Freight (except Used Goods) Trucking, Long Distance	\$34.0	
485111	Mixed Mode Transit Systems	\$29.0	
485112	Commuter Rail Systems	\$47.0	
485113	Bus and Other Motor Vehicle Transit Systems	\$32.5	
485119	Other Urban Transit Systems	\$37.5	
485210	Interurban and Rural Bus Transportation	\$32.0	
485310	Taxi and Ridesharing Services	\$19.0	
485320	Limousine Service	\$19.0	
485410	School and Employee Bus Transportation	\$30.0	
485510	Charter Bus Industry	\$19.0	
485991	Special Needs Transportation	\$19.0	
485999	All Other Transit and Ground Passenger Transportation	\$19.0	
486110	Pipeline Transportation of Crude Oil		1,500
486210	Pipeline Transportation of Natural Gas	\$41.5	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
486910	Pipeline Transportation of Refined Petroleum Products		1,500
486990	All Other Pipeline Transportation	\$46.0	
487110	Scenic and Sightseeing Transportation, Land	\$20.5	
487210	Scenic and Sightseeing Transportation, Water	\$14.0	
487990	Scenic and Sightseeing Transportation, Other	\$25.0	
488111	Air Traffic Control	\$40.0	
488119	Other Airport Operations	\$40.0	
488190	Other Support Activities for Air Transportation	\$40.0	
488210	Support Activities for Rail Transportation	\$34.0	
488310	Port and Harbor Operations	\$47.0	
488320	Marine Cargo Handling	\$47.0	
488330	Navigational Services to Shipping	\$47.0	
488390	Other Support Activities for Water Transportation	\$47.0	
488410	Motor Vehicle Towing	\$9.0	
488490	Other Support Activities for Road Transportation	\$18.0	
488510	Freight Transportation Arrangement ¹⁰	\$20.0	
488510 (Exception)	Non Vessel Owning Common Carriers and Household Goods Forwarders	\$34.0	
488991	Packing and Crating	\$34.0	
488999	All Other Support Activities for Transportation	\$25.0	
491110	Postal Service	\$9.0	
492110	Couriers and Express Delivery Services		1,500
492210	Local Messengers and Local Delivery	\$34.0	
493110	General Warehousing and Storage	\$34.0	
493120	Refrigerated Warehousing and Storage	\$36.5	
493130	Farm Product Warehousing and Storage	\$34.0	
493190	Other Warehousing and Storage	\$36.5	

Sector 51 – Information

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of Employees
512110	Motion Picture and Video Production	\$40.0	
512120	Motion Picture and Video Distribution	\$39.0	
512131	Motion Picture Theaters (except Drive Ins)	\$47.0	
512132	Drive In Motion Picture Theaters	\$12.5	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of Employees
512191	Teleproduction and Other Postproduction Services	\$39.0	
512199	Other Motion Picture and Video Industries	\$28.5	
512230	Music Publishers		900
512240	Sound Recording Studios	\$11.0	
512250	Record Production and Distribution		900
512290	Other Sound Recording Industries	\$22.5	
513110	Newspaper Publishers		1,000
513120	Periodical Publishers		1,000
513130	Book Publishers		1,000
513140	Directory and Mailing List Publishers		1,000
513191	Greeting Card Publishers		1,000
513199	All Other Publishers		1,000
513210	Software Publishers ¹⁵	\$47.0	
516110	Radio Broadcasting Stations	\$47.0	
516120	Television Broadcasting Stations	\$47.0	
516210	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	\$47.0	
517111	Wired Telecommunications Carriers		1,500
517112	Wireless Telecommunications Carriers (except Satellite)		1,500
517121	Telecommunications Resellers		1,500
517122	Agents for Wireless Telecommunications Services		1,500
517410	Satellite Telecommunications	\$44.0	
517810	All Other Telecommunications	\$40.0	
518210	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	\$40.0	
519210	Libraries and Archives	\$21.0	
519290	Web Search Portals and All Other Information Services		1,000

Sector 52 -- Finance and Insurance

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of Employees
522110	Commercial Banking ⁸	\$850 million in assets	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of Employees
522130	Credit Unions ⁸	\$850 million in assets	
522180	Savings Institutions and Other Depository Credit Intermediation ⁸	\$850 million in assets	
522210	Credit Card Issuing ⁸	\$850 million in assets	
522220	Sales Financing	\$47.0	
522291	Consumer Lending	\$47.0	
522292	Real Estate Credit	\$47.0	
522299	International, Secondary Market, and All Other Nondepository Credit Intermediation	\$47.0	
522310	Mortgage and Nonmortgage Loan Brokers	\$15.0	
522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities	\$47.0	
522390	Other Activities Related to Credit Intermediation	\$28.5	
523150	Investment Banking and Securities Intermediation	\$47.0	
523160	Commodity Contracts Intermediation	\$47.0	
523210	Securities and Commodity Exchanges	\$47.0	
523910	Miscellaneous Intermediation	\$47.0	
523940	Portfolio Management and Investment Advice	\$47.0	
523991	Trust, Fiduciary and Custody Activities	\$47.0	
523999	Miscellaneous Financial Investment Activities	\$47.0	
524113	Direct Life Insurance Carriers	\$47.0	
524114	Direct Health and Medical Insurance Carriers	\$47.0	
524126	Direct Property and Casualty Insurance Carriers		1,500
524127	Direct Title Insurance Carriers	\$47.0	
524128	Other Direct Insurance (except Life, Health and Medical) Carriers	\$47.0	
524130	Reinsurance Carriers	\$47.0	
524210	Insurance Agencies and Brokerages	\$15.0	
524291	Claims Adjusting	\$25.0	
524292	Pharmacy Benefit Management and Other Third-Party Administration of Insurance and Pension Funds	\$45.5	
524298	All Other Insurance Related Activities	\$30.5	
525110	Pension Funds	\$40.0	
525120	Health and Welfare Funds	\$40.0	
525190	Other Insurance Funds	\$40.0	
525910	Open End Investment Funds	\$40.0	
525920	Trusts, Estates, and Agency Accounts	\$40.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of Employees
525990	Other Financial Vehicles	\$40.0	

Sector 53 – Real Estate and Rental and Leasing

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
531110	Lessors of Residential Buildings and Dwellings ⁹	\$34.0	
531110 (Exception)	Leasing of Building Space to the Federal Government by Owners	\$47.0	
531120	Lessors of Nonresidential Buildings (except Miniwarehouses) ⁹	\$34.0	
531120 (Exception)	Leasing of Building Space to the Federal Government by Owners	\$47.0	
531130	Lessors of Miniwarehouses and Self Storage Units ⁹	\$34.0	
531130 (Exception)	Leasing of Building Space to the Federal Government by Owners	\$47.0	
531190	Lessors of Other Real Estate Property ⁹	\$34.0	
531190 (Exception)	Leasing of Building Space to the Federal Government by Owners	\$47.0	
531210	Offices of Real Estate Agents and Brokers ¹⁰	\$15.0	
531311	Residential Property Managers	\$12.5	
531312	Nonresidential Property Managers	\$19.5	
531320	Offices of Real Estate Appraisers	\$9.5	
531390	Other Activities Related to Real Estate	\$19.5	
532111	Passenger Car Rental	\$47.0	
532112	Passenger Car Leasing	\$47.0	
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing	\$47.0	
532210	Consumer Electronics and Appliances Rental	\$47.0	
532281	Formal Wear and Costume Rental	\$25.0	
532282	Video Tape and Disc Rental	\$35.0	
532283	Home Health Equipment Rental	\$41.0	
532284	Recreational Goods Rental	\$9.0	
532289	All Other Consumer Goods Rental	\$12.5	
532310	General Rental Centers	\$9.0	
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	\$45.5	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
532412	Construction, Mining and Forestry Machinery and Equipment Rental and Leasing	\$40.0	
532420	Office Machinery and Equipment Rental and Leasing	\$40.0	
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$40.0	
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$47.0	

Sector 54 – Professional, Scientific and Technical Services

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
541110	Offices of Lawyers	\$15.5	
541191	Title Abstract and Settlement Offices	\$19.5	
541199	All Other Legal Services	\$20.5	
541211	Offices of Certified Public Accountants	\$26.5	
541213	Tax Preparation Services	\$25.0	
541214	Payroll Services	\$39.0	
541219	Other Accounting Services	\$25.0	
541310	Architectural Services	\$12.5	
541320	Landscape Architectural Services	\$9.0	
541330	Engineering Services	\$25.5	
541330 (Exception 1)	Military and Aerospace Equipment and Military Weapons	\$47.0	
541330 (Exception 2)	Contracts and Subcontracts for Engineering Services Awarded Under the National Energy Policy Act of 1992	\$47.0	
541330 (Exception 3)	Marine Engineering and Naval Architecture	\$47.0	
541340	Drafting Services	\$9.0	
541350	Building Inspection Services	\$11.5	
541360	Geophysical Surveying and Mapping Services	\$28.5	
541370	Surveying and Mapping (except Geophysical) Services	\$19.0	
541380	Testing Laboratories and Services	\$19.0	
541410	Interior Design Services	\$9.0	
541420	Industrial Design Services	\$17.0	
541430	Graphic Design Services	\$9.0	

'NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
541490	Other Specialized Design Services	\$13.5	
541511	Custom Computer Programming Services	\$34.0	
541512	Computer Systems Design Services	\$34.0	
541513	Computer Facilities Management Services	\$37.0	
541519	Other Computer Related Services	\$34.0	
541519 (Exception)	Information Technology Value Added Resellers ¹⁸		150
541611	Administrative Management and General Management Consulting Services	\$24.5	
541612	Human Resources Consulting Services	\$29.0	
541613	Marketing Consulting Services	\$19.0	
541614	Process, Physical Distribution and Logistics Consulting Services	\$20.0	
541618	Other Management Consulting Services	\$19.0	
541620	Environmental Consulting Services	\$19.0	
541690	Other Scientific and Technical Consulting Services	\$19.0	
541713	Research and Development in Nanotechnology ¹¹		1,000
541714	Research and Development in Biotechnology (except Nanobiotechnology) ¹¹		1,000
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology) ¹¹		1,000
541715 (Exception 1)	Aircraft, Aircraft Engine and Engine Parts ¹¹		1,500
541715 (Exception 2)	Other Aircraft Parts and Auxiliary Equipment ¹¹		1,250
541715 (Exception 3)	Guided Missiles and Space Vehicles, Their Propulsion Units and Propulsion Parts ¹¹		1,300
541720	Research and Development in the Social Sciences and Humanities	\$28.0	
541810	Advertising Agencies ¹⁰	\$25.5	
541820	Public Relations Agencies	\$19.0	
541830	Media Buying Agencies	\$32.5	
541840	Media Representatives	\$21.0	
541850	Indoor and Outdoor Display Advertising	\$34.5	
541860	Direct Mail Advertising	\$22.0	
541870	Advertising Material Distribution Services	\$28.5	
541890	Other Services Related to Advertising	\$19.0	
541910	Marketing Research and Public Opinion Polling	\$22.5	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
541921	Photography Studios, Portrait	\$16.0	
541922	Commercial Photography	\$9.0	
541930	Translation and Interpretation Services	\$22.5	
541940	Veterinary Services	\$10.0	
541990	All Other Professional, Scientific and Technical Services	\$19.5	

Sector 55 – Management of Companies and Enterprises

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
551111	Offices of Bank Holding Companies	\$38.5	
551112	Offices of Other Holding Companies	\$45.5	

Sector 56 – Administrative and Support and Waste Management and Remediation Services

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
561110	Office Administrative Services	\$12.5	
561210	Facilities Support Services ¹²	\$47.0	
561311	Employment Placement Agencies	\$34.0	
561312	Executive Search Services	\$34.0	
561320	Temporary Help Services	\$34.0	
561330	Professional Employer Organizations	\$41.5	
561410	Document Preparation Services	\$19.0	
561421	Telephone Answering Services	\$19.0	
561422	Telemarketing Bureaus and Other contact Centers	\$25.5	
561431	Private Mail Centers	\$19.0	
561439	Other Business Service Centers (including Copy Shops)	\$26.5	
561440	Collection Agencies	\$19.5	
561450	Credit Bureaus	\$41.0	
561491	Repossession Services	\$19.0	
561492	Court Reporting and Stenotype Services	\$19.0	
561499	All Other Business Support Services	\$21.5	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
561510	Travel Agencies ¹⁰	\$25.0	
561520	Tour Operators ¹⁰	\$25.0	
561591	Convention and Visitors Bureaus	\$25.0	
561599	All Other Travel Arrangement and Reservation Services	\$32.5	
561611	Investigation and Personal Background Check Services	\$25.0	
561612	Security Guards and Patrol Services	\$29.0	
561613	Armored Car Services	\$43.0	
561621	Security Systems Services (except Locksmiths)	\$25.0	
561622	Locksmiths	\$25.0	
561710	Exterminating and Pest Control Services	\$17.5	
561720	Janitorial Services	\$22.0	
561730	Landscaping Services	\$9.5	
561740	Carpet and Upholstery Cleaning Services	\$8.5	
561790	Other Services to Buildings and Dwellings	\$9.0	
561910	Packaging and Labeling Services	\$19.5	
561920	Convention and Trade Show Organizers ¹⁰	\$20.0	
561990	All Other Support Services	\$16.5	
562111	Solid Waste Collection	\$47.0	
562112	Hazardous Waste Collection	\$47.0	
562119	Other Waste Collection	\$47.0	
562211	Hazardous Waste Treatment and Disposal	\$47.0	
562212	Solid Waste Landfill	\$47.0	
562213	Solid Waste Combustors and Incinerators	\$47.0	
562219	Other Nonhazardous Waste Treatment and Disposal	\$47.0	
562910	Remediation Services	\$25.0	
562910 (Exception)	Environmental Remediation Services ¹⁴		1,000
562920	Materials Recovery Facilities	\$25.0	
562991	Septic Tank and Related Services	\$9.0	
562998	All Other Miscellaneous Waste Management Services	\$16.5	

Sector 61 – Educational Services

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
611110	Elementary and Secondary Schools	\$20.0	
611210	Junior Colleges	\$32.5	
611310	Colleges, Universities and Professional Schools	\$34.5	
611410	Business and Secretarial Schools	\$20.5	
611420	Computer Training	\$16.0	
611430	Professional and Management Development Training	\$15.0	
611511	Cosmetology and Barber Schools	\$13.0	
611512	Flight Training	\$34.0	
611513	Apprenticeship Training	\$11.5	
611519	Other Technical and Trade Schools	\$21.0	
611519 (Exception)	Job Corps Centers ¹⁶	\$47.0	
611610	Fine Arts Schools	\$9.0	
611620	Sports and Recreation Instruction	\$9.0	
611630	Language Schools	\$20.5	
611691	Exam Preparation and Tutoring	\$12.5	
611692	Automobile Driving Schools	\$10.0	
611699	All Other Miscellaneous Schools and Instruction	\$16.5	
611710	Educational Support Services	\$24.0	

Sector 62 – Health Care and Social Assistance

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
621111	Offices of Physicians (except Mental Health Specialists)	\$16.0	
621112	Offices of Physicians, Mental Health Specialists	\$13.5	
621210	Offices of Dentists	\$9.0	
621310	Offices of Chiropractors	\$9.0	
621320	Offices of Optometrists	\$9.0	
621330	Offices of Mental Health Practitioners (except Physicians)	\$9.0	
621340	Offices of Physical, Occupational and Speech Therapists and Audiologists	\$12.5	
621391	Offices of Podiatrists	\$9.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
621399	Offices of All Other Miscellaneous Health Practitioners	\$10.0	
621410	Family Planning Centers	\$19.0	
621420	Outpatient Mental Health and Substance Abuse Centers	\$19.0	
621491	HMO Medical Centers	\$44.5	
621492	Kidney Dialysis Centers	\$47.0	
621493	Freestanding Ambulatory Surgical and Emergency Centers	\$19.0	
621498	All Other Outpatient Care Centers	\$25.5	
621511	Medical Laboratories	\$41.5	
621512	Diagnostic Imaging Centers	\$19.0	
621610	Home Health Care Services	\$19.0	
621910	Ambulance Services	\$22.5	
621991	Blood and Organ Banks	\$40.0	
621999	All Other Miscellaneous Ambulatory Health Care Services	\$20.5	
622110	General Medical and Surgical Hospitals	\$47.0	
622210	Psychiatric and Substance Abuse Hospitals	\$47.0	
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	\$47.0	
623110	Nursing Care Facilities (Skilled Nursing Facilities)	\$34.0	
623210	Residential Intellectual and Developmental Disability Facilities	\$19.0	
623220	Residential Mental Health and Substance Abuse Facilities	\$19.0	
623311	Continuing Care Retirement Communities	\$34.0	
623312	Assisted Living Facilities for the Elderly	\$23.5	
623990	Other Residential Care Facilities	\$16.0	
624110	Child and Youth Services	\$15.5	
624120	Services for the Elderly and Persons with Disabilities	\$15.0	
624190	Other Individual and Family Services	\$16.0	
624210	Community Food Services	\$19.5	
624221	Temporary Shelters	\$13.5	
624229	Other Community Housing Services	\$19.0	
624230	Emergency and Other Relief Services	\$41.5	
624310	Vocational Rehabilitation Services	\$15.0	
624410	Child Care Services	\$9.5	

Sector 71 – Arts, Entertainment and Recreation

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
711110	Theater Companies and Dinner Theaters	\$25.0	
711120	Dance Companies	\$18.0	
711130	Musical Groups and Artists	\$15.0	
711190	Other Performing Arts Companies	\$34.0	
711211	Sports Teams and Clubs	\$47.0	
711212	Race Tracks	\$47.0	
711219	Other Spectator Sports	\$16.5	
711310	Promoters of Performing Arts, Sports and Similar Events with Facilities	\$40.0	
711320	Promoters of Performing Arts, Sports and Similar Events without Facilities	\$22.0	
711410	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures	\$17.5	
711510	Independent Artists, Writers, and Performers	\$9.0	
712110	Museums	\$34.0	
712120	Historical Sites	\$13.0	
712130	Zoos and Botanical Gardens	\$34.0	
712190	Nature Parks and Other Similar Institutions	\$19.5	
713110	Amusement and Theme Parks	\$47.0	
713120	Amusement Arcades	\$9.0	
713210	Casinos (except Casino Hotels)	\$34.0	
713290	Other Gambling Industries	\$40.0	
713910	Golf Courses and Country Clubs	\$19.0	
713920	Skiing Facilities	\$35.0	
713930	Marinas	\$11.0	
713940	Fitness and Recreational Sports Centers	\$17.5	
713950	Bowling Centers	\$12.5	
713990	All Other Amusement and Recreation Industries	\$9.0	

Sector 72 – Accommodation and Food Services

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
721110	Hotels (except Casino Hotels) and Motels	\$40.0	
721120	Casino Hotels	\$40.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
721191	Bed and Breakfast Inns	\$9.0	
721199	All Other Traveler Accommodation	\$9.0	
721211	RV (Recreational Vehicle) Parks and Campgrounds	\$10.0	
721214	Recreational and Vacation Camps (except Campgrounds)	\$9.0	
721310	Rooming and Boarding Houses, Dormitories, and Workers' Camps	\$14.0	
722310	Food Service Contractors	\$47.0	
722320	Caterers	\$9.0	
722330	Mobile Food Services	\$9.0	
722410	Drinking Places (Alcoholic Beverages)	\$9.0	
722511	Full-Service Restaurants	\$11.5	
722513	Limited-Service Restaurants	\$13.5	
722514	Cafeterias, Grill Buffets, and Buffets	\$34.0	
722515	Snack and Nonalcoholic Beverage Bars	\$22.5	

Sector 81 – Other Services

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
811111	General Automotive Repair	\$9.0	
811114	Specialized Automotive Repair	\$9.0	
811121	Automotive Body, Paint and Interior Repair and Maintenance	\$9.0	
811122	Automotive Glass Replacement Shops	\$17.5	
811191	Automotive Oil Change and Lubrication Shops	\$11.0	
811192	Car Washes	\$9.0	
811198	All Other Automotive Repair and Maintenance	\$10.0	
811210	Electronic and Precision Equipment Repair and Maintenance	\$34.0	
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$12.5	
811411	Home and Garden Equipment Repair and Maintenance	\$9.0	
811412	Appliance Repair and Maintenance	\$19.0	
811420	Reupholstery and Furniture Repair	\$9.0	

NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
811430	Footwear and Leather Goods Repair	\$9.0	
811490	Other Personal and Household Goods Repair and Maintenance	\$9.0	
812111	Barber Shops	\$9.5	
812112	Beauty Salons	\$9.5	
812113	Nail Salons	\$9.0	
812191	Diet and Weight Reducing Centers	\$27.5	
812199	Other Personal Care Services	\$9.0	
812210	Funeral Homes and Funeral Services	\$12.5	
812220	Cemeteries and Crematories	\$25.0	
812310	Coin Operated Laundries and Drycleaners	\$13.0	
812320	Drycleaning and Laundry Services (except Coin Operated)	\$8.0	
812331	Linen Supply	\$40.0	
812332	Industrial Launderers	\$47.0	
812910	Pet Care (except Veterinary) Services	\$9.0	
812921	Photofinishing Laboratories (except One Hour)	\$29.5	
812922	One Hour Photofinishing	\$19.0	
812930	Parking Lots and Garages	\$47.0	
812990	All Other Personal Services	\$15.0	
813110	Religious Organizations	\$13.0	
813211	Grantmaking Foundations	\$40.0	
813212	Voluntary Health Organizations	\$34.0	
813219	Other Grantmaking and Giving Services	\$47.0	
813311	Human Rights Organizations	\$34.0	
813312	Environment, Conservation and Wildlife Organizations	\$19.5	
813319	Other Social Advocacy Organizations	\$18.0	
813410	Civic and Social Organizations	\$9.5	
813910	Business Associations	\$15.5	
813920	Professional Organizations	\$23.5	
813930	Labor Unions and Similar Labor Organizations	\$16.5	
813940	Political Organizations	\$14.0	
813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)	\$13.5	

Sector 92 – Public Administration¹⁷

(Small business size standards are not established for this Sector. Establishments in the Public Administration Sector are Federal, state, and local government agencies which administer and oversee government programs and activities that are not performed by private establishments.

Footnotes

1. NAICS code 115310 – Support Activities for Forestry – Forest Fire Suppression and Fuels Management Services are two components of Support Activities for Forestry.
Forest Fire Suppression includes establishments which provide services to fight forest fires. These firms usually have fire-fighting crews and equipment. Fuels Management Services firms provide services to clear land of hazardous materials that would fuel forest fires. The treatments used by these firms may include prescribed fire, mechanical removal, establishing fuel breaks, thinning, pruning, and piling.
2. NAICS code 237990 – Dredging: To be considered small for purposes of Government procurement, a firm or its similarly situated subcontractors must perform at least 40 percent of the volume dredged with their own equipment or equipment owned by another small dredging concern.
3. NAICS code 311421 – For purposes of Government procurement for food canning and preserving, the standard of 1,000 employees excludes agricultural labor as defined in section 3306(k) of the Internal Revenue Code, 26 U.S.C. 3306(k).
4. NAICS code 324110 – To qualify as small for purposes of Government procurement, the petroleum refiner, including its affiliates, must be a concern that has either no more than 1,500 employees or no more than 200,000 barrels per calendar day total Operable Atmospheric Crude Oil Distillation capacity. Capacity includes all domestic and foreign affiliates, all owned or leased facilities, and all facilities under a processing agreement or an arrangement such as an exchange agreement or a throughput. To qualify under the capacity size standard, the firm, together with its affiliates, must be primarily engaged in refining crude petroleum into refined petroleum products. A firm’s “primary industry” is determined in accordance with 13 CFR § 121.107.
5. NAICS code 326211 –For Government procurement, a firm is small for bidding on a contract for pneumatic tires within Census NAICS Product Classification codes 3262111 and 3262113, provided that:
 - a. the value of tires within Census NAICS Product Classification codes 3262111 and 3262113 that it manufactured in the United States during the previous calendar year is more than 50 percent of the value of its total worldwide manufacture,
 - b. the value of pneumatic tires within Census NAICS Product Classification codes 3262111 and 3262113 comprising its total worldwide manufacture during the preceding calendar year was less than 5 percent of the value of all such tires manufactured in the United States during that period, and
 - c. the value of the principal product that it manufactured, produced, or sold worldwide during the preceding calendar year is less than 10 percent of the total value of such products manufactured or otherwise produced or sold in the United States during that period.

6. NAICS Subsectors 333, 334, 335 and 336 – For rebuilding machinery or equipment on a factory basis, or equivalent, use the NAICS code for a newly manufactured product. Concerns performing major rebuilding or overhaul activities do not necessarily have to meet the criteria for being a “manufacturer” although the activities may be classified under a manufacturing NAICS code. Ordinary repair services or preservation are not considered rebuilding.
7. NAICS code 336413 – Contracts for the rebuilding or overhaul of aircraft ground support equipment on a contract basis are classified under NAICS code 336413.
8. NAICS codes 522110, 522130, 522180, and 522210 – A financial institution's assets are determined by averaging the assets reported on its four quarterly financial statements for the preceding year. “Assets” for the purposes of this size standard means the assets defined according to the Federal Financial Institutions Examination Council 041 call report form for NAICS codes 522110, 522180, and 522210 and the National Credit Union Administration 5300 call report form for NAICS code 522130.
9. NAICS codes 531110, 531120, 531130, and 531190 – Leasing of building space to the Federal Government by Owners: For Government procurement, a size standard of \$47.0 million in gross receipts applies to the owners of building space leased to the Federal Government. The standard does not apply to an agent.
10. NAICS codes 488510 (excluding the exception), 531210, 541810, 561510, 561520 and 561920 – As measured by total revenues, but excluding funds received in trust for an unaffiliated third party, such as bookings or sales subject to commissions. The commissions received are included as revenues.
11. NAICS codes 541713, 541714 and 541715:
 - a. "Research and Development" means laboratory or other physical research and development. It does not include economic, educational, engineering, operations, systems, or other nonphysical research; or computer programming, data processing, commercial and/or "medical laboratory testing. For research and development contracts requiring the delivery of a manufactured product, the appropriate size standard is that of the manufacturing industry.
 - b. For purposes of the Small Business Innovation Research (SBIR) and Small Business Transfer Technology (STTR) programs, the term “research” or “research and development” means any activity which is (A) a systematic, intensive study directed toward greater knowledge or understanding of the subject studied; (B) a systematic study directed specifically toward applying new knowledge to meet a recognized need; or (C) a systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements. See 15 U.S.C. § 638(e)(5) and section 3 of the SBIR and STTR policy directives available at www.sbir.gov. For size eligibility requirements for the SBIR and STTR programs, see § 121.702 of these regulations.
 - c. "Research and Development" for guided missiles and space vehicles includes evaluations and simulation, and other services requiring thorough knowledge of complete missiles and spacecraft.

12. NAICS code 561210 – Facilities Support Services:

- a. If one or more activities of Facilities Support Services as defined in paragraph (b) (below in this footnote) can be identified with a specific industry and that industry accounts for 50% or more of the value of an entire procurement, then the proper classification of the procurement is that of the specific industry, not Facilities Support Services.
- b. "Facilities Support Services" requires the performance of three or more separate activities in the areas of services or specialty trade contractors industries. If services are performed, these service activities must each be in a separate NAICS industry. If the procurement requires the use of specialty trade contractors (plumbing, painting, plastering, carpentry, etc.), all such specialty trade contractors activities are considered a single activity and classified as "Building and Property Specialty Trade Services." Since "Building and Property Specialty Trade Services" is only one activity, two additional activities of separate NAICS industries are required for a procurement to be classified as "Facilities Support Services."

13. NAICS code 238990 – Building and Property Specialty Trade Services: If a procurement requires the use of multiple specialty trade contractors (i.e., plumbing, painting, plastering, carpentry, etc.), and no specialty trade accounts for 50% or more of the value of the procurement, all such specialty trade contractors activities are considered a single activity and classified as Building and Property Specialty Trade Services.

14. NAICS code 562910 – Environmental Remediation Services:

- a. For SBA assistance as a small business concern in the industry of Environmental Remediation Services, other than for Government procurement, a concern must be engaged primarily in furnishing a range of services for the remediation of a contaminated environment to an acceptable condition including, but not limited to, preliminary assessment, site inspection, testing, remedial investigation, feasibility studies, regulatory compliance, remedial design, containment, remedial action, removal of contaminated materials, nuclear remediation, storage of contaminated materials and security and site closeouts. If one of such activities accounts for 50 percent or more of a concern's total revenues, employees, or other related factors, the concern's primary industry is that of the particular industry and not the Environmental Remediation Services Industry.
- b. For purposes of classifying a Government procurement as Environmental Remediation Services, the general purpose of the procurement must be to restore or directly support the restoration of a contaminated environment. This includes activities such as preliminary assessment, site inspection, testing, remedial investigation, feasibility studies, regulatory compliance, remedial design, remediation services, containment, nuclear remediation, and removal of contaminated materials or security and site closeouts. The general purpose of the procurement need not necessarily include remedial actions. Also, the procurement must be composed of activities in three or more separate industries with separate NAICS codes or, in some instances (e.g., engineering), smaller sub-components of NAICS codes with separate and distinct size standards. These activities may include, but are not limited to, separate activities in industries such as: Heavy Construction; Special Trade Contractors; Engineering Services; Architectural Services; Management Consulting Services; Hazardous and Other Waste Collection; Remediation Services; Testing Laboratories; and Research and Development in the Physical, Engineering, and Life Sciences. If any activity in the procurement can be

identified with a separate NAICS code, or component of a code with a separate distinct size standard, and that industry accounts for 50 percent or more of the value of the entire procurement, then the proper size standard is the one for that particular industry, and not the Environmental Remediation Service size standard.

15. NAICS code 513210 – For purposes of Government procurement, the purchase of software subject to potential waiver of the nonmanufacturer rule pursuant to § 121.1203(d) should be classified under this NAICS code.
16. NAICS code 611519 – Job Corps Centers. For classifying a Federal procurement, the purpose of the solicitation must be for the management and operation of a U.S. Department of Labor Job Corps Center. The activities involved include admissions activities, life skills training, educational activities, comprehensive career preparation activities, career development activities, career transition activities, as well as the management and support functions and services needed to operate and maintain the facility. For SBA assistance as a small business concern, other than for Federal Government procurements, a concern must be primarily engaged in providing the services to operate and maintain Federal Job Corps Centers.
17. NAICS Sector 92 – Small business size standards are not established for this sector. Establishments in the Public Administration sector are Federal, State, and local government agencies which administer and oversee government programs and activities that are not performed by private establishments. Concerns performing operational services for the administration of a government program are classified under the NAICS private sector industry based on the activities performed. Similarly, procurements for these types of services are classified under the NAICS private sector industry that best describes the activities to be performed. For example, if a government agency issues a procurement for law enforcement services, the requirement would be classified using one of the NAICS industry codes under NAICS industry 56161, Investigation, Guard, and Armored Car Services.
18. NAICS code 541519 – An Information Technology Value Added Reseller (ITVAR) provides a total solution to information technology acquisitions by providing multi-vendor hardware and software along with significant value added services. Significant value added services consist of, but are not limited to, configuration consulting and design, systems integration, installation of multi-vendor computer equipment, customization of hardware or software, training, product technical support, maintenance, and end user support. For purposes of Government procurement, an information technology procurement classified under this exception and 150-employee size standard must consist of at least 15% and not more than 50% of value added services, as measured by the total contract price. In addition, the offeror must comply with the manufacturing performance requirements, or comply with the non-manufacturer rule by supplying the products of small business concerns, unless SBA has issued a class or contract specific waiver of the non-manufacturer rule. If the contract consists of less than 15% of value added services, then it must be classified under a NAICS manufacturing industry. If the contract consists of more than 50% of value added services, then it must be classified under the NAICS industry that best describes the predominate service of the procurement.
19. [Reserved]
20. [Reserved]

Contacts

SBA's Office of Government Contracting has six area offices with an employee designated as a Size Specialist. Below are the office addresses and telephone numbers.

Area I

Office of Government Contracting
Boston Area Office
U.S. Small Business Administration 10 Causeway
Street
Room 265
Boston, MA 02222-1093
Tel: (617) 565-5622

Area II

Office of Government Contracting
Philadelphia Area Office
U.S. Small Business Administration Parkview
Tower
1150 First Avenue
Suite 1001
King of Prussia, PA 19406 Tel: (610) 382-3190

Area III

Office of Government Contracting
Atlanta Area Office
U.S. Small Business Administration 233
Peachtree Street, NE
Suite 1805
Atlanta, GA 30309
Tel: (404) 331-7587

Area IV

Office of Government Contracting
Chicago Area Office
U.S. Small Business Administration 500 West
Madison Street
Suite 1250
Chicago, IL 60661-2511
Tel: 312.353.7674

Area V

Office Government Contracting
Dallas Area Office
U.S. Small Business Administration 4300 Amon
Carter Boulevard,
Suite 116
Fort Worth, TX 76155 Tel: (817) 684-5303

Area VI

Office of Government Contracting
San Francisco Area Office
U.S. Small Business Administration 455 Market
Street
6th Floor
San Francisco, CA 94105 Tel: (415) 744-8429

IN WASHINGTON, DC, THERE ARE TWO OFFICES THAT YOU MAY CONTACT

Office of Size Standards

U.S. Small Business Administration 409 3rd
Street, SW
Washington, DC 20416
Tel: (202) 205-6618

Office of Government Contracting

U.S. Small Business Administration 409 3rd
Street, SW
Washington, DC 20416
Tel: (202) 205-6460



COLA increases for dollar limitations on benefits and contributions

The tax law places limits on the dollar amount of contributions to retirement plans and IRAs and the amount of benefits under a pension plan. IRC Section 415 requires the limits to be adjusted annually for cost-of-living increases.

- Limits by plan type (IRA, 401(k), SEP, SIMPLE IRA, 403(b), 457(b), defined benefit)
- 2024 cost-of-living adjustments for pension plans and retirement-related items (IR-2023-203)
- COLA Table [PDF](#) for prior years' dollar limitations and Internal Revenue Code references.

IRAs	2024	2023	2022	2021
IRA Contribution Limit	\$7,000	\$6,500	\$6,000	\$6,000
IRA Catch-Up Contributions	1,000	1,000	1,000	1,000

Traditional IRA AGI Deduction Phase-out Starting at	2024	2023	2022	2021
Joint Return	123,000	116,000	109,000	105,000
Single or Head of Household	77,000	73,000	68,000	66,000

SEP	2024	2023	2022	2021
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Topics for Retirement Plans

- Individual Retirement Arrangements (IRAs)
- Types of Retirement Plans
- Retirement Topics — Required Minimum Distributions (RMDs)
- Retirement Plans Frequently Asked Questions (FAQs)
- Retirement Plan Forms and Publications
- Correcting Plan Errors
- Retirement Topics
- Tax-Exempt & Government Entities Division at-a-glance
- Retirement Plans

SEP Minimum Compensation	750	750	650	650
SEP Maximum Contribution	69,000	66,000	61,000	58,000
SEP Maximum Compensation	345,000	330,000	305,000	290,000

SIMPLE Plans	2024	2023	2022	2021
SIMPLE Maximum Contributions	16,000	15,500	14,000	13,500
Catch-up Contributions	3,500	3,500	3,000	3,000

401(k), 403(b), Profit-Sharing Plans, etc.	2024	2023	2022	2021
Annual Compensation	345,000	330,000	305,000	290,000
Elective Deferrals	23,000	22,500	20,500	19,500
Catch-up Contributions	7,500	7,500	6,500	6,500
Defined Contribution Limits	69,000	66,000	61,000	58,000
ESOP Limits	1,380,000	1,330,000	1,230,000	1,165,000
	275,000	265,000	245,000	230,000

Other	2024	2023	2022	2021
HCE Threshold	155,000	150,000	135,000	130,000
Defined Benefit Limits	275,000	265,000	245,000	230,000
Key Employee	220,000	215,000	200,000	185,000
457 Elective Deferrals	23,000	22,500	20,500	19,500
Control Employee (board member or officer)	135,000	130,000	120,000	115,000

Control Employee (compensation-based)	275,000	265,000	245,000	235,000
Taxable Wage Base	168,600	160,200	147,000	142,800

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BROOKINGS

RESEARCH

Federal investments in sector-based training can boost workers' upward mobility

Mayu Takeuchi and Joseph Parilla

December 7, 2023

By some metrics, the U.S. labor market recovery has been the envy of the world, with [unemployment](#) rates at record lows and workers' [earnings](#) rising at a substantial clip.

But these glowing figures mask harsh realities. The low unemployment levels are partially [attributable](https://www.brookings.edu/articles/tight-labor-markets-and-wage-growth-in-the-current-economy/) to low labor force participation rates, and even with the income gains, the U.S. has the third-highest [share of workers earning low pay](#) among 26 countries in the Organisation for Economic Co-operation and Development (OECD). This prevalence of low-paying work stifles upward economic mobility; nearly [60% of U.S. adults](https://www.brookings.edu/articles/pathways-to-upward-mobility-overview/) who were socioeconomically disadvantaged in their teens continue to struggle economically at age 30.

For decades, policymakers have turned to job training programs to address these challenges, with mixed results. But among the most [successful](#) (<https://www.brookings.edu/articles/do-sectoral-training-programs-work-what-the-evidence-on-project-quest-and-year-up-really-shows/>) programs are “sector-based” training initiatives. These [partnerships](#) focus on training for high-demand occupations in growing sectors, recognizing that aligning training programs across groups of businesses with similar skills needs can aggregate demand and justify investment in resources to train workers.

For these reasons, sector-based training can be a useful tool within broader [place-based](https://www.brookings.edu/articles/bidens-big-bet-on-place-based-industrial-policy/) economic strategies that seek to enhance local economic prosperity. To better understand how regions are designing training programs that support industry competitiveness and worker mobility, this analysis provides a detailed programmatic review of these training efforts within one federal place-based program: the Economic Development Administration’s (EDA) \$1 billion [Build Back Better Regional Challenge](#) (BBBRC). We examine how BBBRC proposals incorporate the design elements of previous successful sector-based training initiatives.

The BBBRC makes a significant down payment on sector-based training

The BBBRC asked 60 regional coalitions—each comprised of businesses, governments, universities, and community-based organizations—to design comprehensive, place-based, multi-project strategies that develop nationally critical [industry clusters](https://www.brookings.edu/wp-content/uploads/2018/07/201807_Brookings-Metro_Rethinking-Clusters-Initiatives_Full-report-final.pdf) in ways that deliver economic opportunity to historically excluded people and communities. In September 2022, 21 of those regions received implementation grants ranging from \$25 million to \$65 million.

Sector-based training programs have a “dual customer” model that aligns closely with the BBBRC’s objectives and design. Employers are one customer, with programs offering opportunities to develop a more skilled, productive workforce that is less vulnerable to [disruptions](#) from coming technological innovations. For example, these programs can train manufacturing workers in advanced manufacturing or “[Industry 4.0](#)” approaches; upskill biopharmaceutical workers to harness automated technologies; and prepare agricultural workers to deploy smart technologies that also build climate resilience.

Workers are the second customer. Sector-based training programs are often designed for people without college degrees, which can expand employers’ reach to unemployed and underemployed populations—especially valuable in today’s tight labor

market. The programs can also help workers advance into higher-wage jobs in higher-earning industries and occupations.

In the context of the BBBRC, we define sector-based training programs as industry-focused workforce training programs that are designed to be completed in less than two years. These can include short-term trainings, certificate programs, and on-the-job incumbent worker trainings, up to but not including two-year degrees.

The 60 regional coalitions that applied for BBBRC implementation grants requested \$706 million for sector-based job training project proposals. This represents roughly 16% of the total funding requested from the EDA. As part of the implementation grants awarded to 21 winning coalitions, 30 projects received nearly \$227 million to execute sector-based training and related expenses.

The BBBRC marks a large and much-needed federal investment in workforce development. The Workforce Innovation and Opportunity Act (WIOA) provides the architecture for the public workforce development system, but it is significantly underfunded: Overall WIOA funding has declined in real terms since its passage in 2014, and less than one-third of people exiting WIOA adult and dislocated worker programs in Program Year 2021 had actually received training. This underinvestment is particularly damaging to the nation's middle- and lower-wage workers, as higher-paid workers are more likely to receive employer-provided training (the most common form of job training in the U.S.). Thus, public investments in workforce development fill important gaps—training workers that might not otherwise have access—and the BBBRC provides a substantial boost to those investments.

BBBRC sector-based training program proposals vary in cost, design, duration, and structure

The EDA allowed the 60 regional coalitions considerable flexibility to design programs that meet their diverse local needs, assets, and priorities. Some project proposals are built on existing course offerings, while others support the development of entirely new training programs. Accordingly, there was considerable variation in many details of the BBBRC's sector-based training program proposals, such as:

- **Duration.** The proposed programs range from being as short as two-and-a-half days to completion (as in the case of the Accelerate North Carolina coalition's manufacturing prep program) to over a year, such as the 18-month artificial intelligence training for veterans through Bidwell Training Center and supported by the Southwestern Pennsylvania New Economy Collaborative.
- **On-the-job options.** Some programs offer opportunities for employees to receive training and take courses while they hold full- or part-time jobs. Other programs offer off-the-job learning opportunities with different levels of hands-on engagement.
- **Sectors.** The 83 project proposals are led by institutions spanning diverse sectors: 45% led by higher education institutions, 29% by private industry, 18% by community organizations, and 8% by government entities.
- **Target populations.** Some projects gear their trainings toward current high school students, while others serve incumbent workers, including those without degrees. Some projects further define specific target populations, such as women or members of Indigenous tribes. Additionally, across the 83 project proposals, 42 articulate quantitative goals for reaching participants of historically excluded communities and demographics.
- **Cost.** Project costs vary across the 83 proposals we analyzed, with a median training cost per person of approximately \$14,600 (25th percentile: \$5,600; 75th percentile: \$33,800). For each project, training cost per person was calculated by dividing the total project budget by the number of people expected to participate in the training over the BBBRC grant period. By comparison, the average training cost per person served through WIOA was less than \$2,000. The comparatively high per capita cost in BBBRC proposals reflects the resources necessary for operating a quality sectoral training program: intensive wraparound services and employer engagement staff, in addition to equipment and other training materials. BBBRC proposal costs are aligned with the per person costs of other strong sectoral programs.

BBBRC sector-based training programs catalyze cross-sector partnerships and demonstrate strong employer engagement, wraparound supports, and experiential learning opportunities

There is often wide variation in the quality and impact of sector-based training models. Some have been shown to advance worker earnings, while others have not. Prior evidence suggests that job training programs are most likely to deliver tangible benefits to workers if they have three key design elements:

- ***Strong employer engagement.*** Regional employers and other industry representatives should be involved in the design and/or development of the sector-based training program, in collaboration with regional higher education institutions and training providers through the cross-sector BBBRC coalitions. Representatives can be involved in various ways, including but not limited to: engaging directly and consistently in curriculum development; responding to surveys that shape curriculum and program development; and participating in ongoing programs reviews. Research has shown \times that employer engagement is critical for ensuring programs are aligned with local labor market needs. In turn, the more aligned programs are with labor market needs, the more they are associated \times with better economic opportunities and outcomes.
- ***Wraparound supports.*** Program participants should be provided with resources that reduce barriers to accessing training and job opportunities, including but not limited to: career coaching/counseling, transportation, child care, mental health services, financial education, language education, and legal services. Research reviewing a variety of workforce training programs has identified \times wraparound supports as critical to success. While they may be challenging to scale up due to resource needs, wraparounds ensure that participants from the most hard-to-reach, under-resourced communities can access and complete these training programs and realize their full potential. As a path forward, employers may partner with community-based organizations that offer locally tailored wraparound services.
- ***Experiential learning opportunities.*** Program participants should receive training for applied occupational skills \times in practical, hands-on settings in addition to combinations of in-person and virtual learning in classroom settings from academic, industry, and workforce training experts. Broader research on job training has found that the best programs offer opportunities for students to gain practical skills (<https://www.brookings.edu/articles/preparing-americas-labor-force-workforce-development-programs-in-public-community-colleges/>). Hands-on, experiential trainings have been shown to positively \times impact \times earnings and employment, and these opportunities are especially important for young people (<https://www.brookings.edu/articles/work-based-learning-can-advance-equity->

and-opportunity-for-americas-young-people/) who experience disproportionately high levels of unemployment, are more likely to be working in low-wage jobs, and were more likely to be displaced (<https://www.brookings.edu/articles/the-pandemic-hurt-low-wage-workers-the-most-and-so-far-the-recovery-has-helped-them-the-least/>) by the pandemic than other age groups.

Below, we spotlight three examples of funded BBBRC projects that demonstrate all three core design elements of good workforce training programs as well as a diversity of program designs and structures.

Three examples of well-designed, federally funded training programs at a glance

Coalition	Fresno-Merced Future of Food (F3)	Southwestern Pennsylvania New Economy Collaborative	St. Louis Tech Triangle
Project lead	Merced College	Southwestern Pennsylvania Commission	The Rung Foundation's Rung for Women
Cluster focus	Sustainable food production	Information technology	Advanced manufacturing
Program structure	Self-paced, short-term trainings and certificates	Certificates (e.g., 18- month training)	10-week Professional Skills Course plus hands-on training
Requested funding (from EDA and other sources)	\$24.8 million	\$47.1 million	\$1.6 million
Reach (over four years)	8,400 participants	10,100 participants	90 participants
Employer engagement	Cross-sector task force (community colleges, industry, workforce) identify skills gaps and emerging needs to develop programs	Businesses partner with organizations, including a labor union, to customize trainings and apprenticeships to local employers' priority needs	Employers inform curriculum and sit on an Employer Advisory Council to provide ongoing feedback for improved alignment
Wraparound supports	Career counseling and other targeted wraparounds provided in partnership with nonprofits (e.g., California Farmworker Foundation)	Workforce boards and educational institutions will fund wraparounds including mentorship, transportation, broadband, child care, and living stipends	Rung offers wraparounds including coaching, child care, health care, counseling, transportation, equipment support, and financial education
Experiential learning	Regionally standardized, hands- on, competency- based curricula	Various opportunities for hands-on learning	Both classroom and hands-on learning

Source: Brookings Metro analysis of BBBRC Phase 2 application materials

These investments in sector-based training programs promise both short- and long-term returns. In their project proposal, for example, the [St. Louis Tech Triangle coalition](#) estimated that their project, highlighted above, would cut new hire training by 50% and boost employee retention. By providing students with opportunities for hands-on training for in-demand skills, these sector-based training initiatives can prepare workers to fill higher-quality jobs that meet employers' needs, and on shorter timelines than associate degree programs.

BBBRC coalitions must now put sector-based training plans into practice

Our detailed review of the BBBRC's sector-based training efforts reveals a significant investment in these programs, with the EDA investing \$227 million in winning sector-based training projects across the 21 coalitions. And as these coalitions dive into implementation, they will be tested on their abilities to put plans into practice. It is [relatively easy](#) to implement more diluted sector-based efforts that deliver mediocre results—but implementing initiatives that deliver meaningful outcomes requires robust frameworks, evidence-based standards, and strong cross-sector collaborations.

For employer engagement, whether a strategy taps into pre-existing relationships between employers and intermediaries or cultivates new cross-sector partnerships, all BBBRC coalitions will need to strategically convene stakeholders and maintain alignment toward regional objectives. And to offer appropriate wraparound supports and meaningful experiential learning opportunities, regional coalitions will need to continuously assess workers' and employers' needs, effectively deploy resources, and seek opportunities to secure capital to scale and ensure the sustainability of programs beyond the BBBRC grant period.

The BBBRC's commitment to sector-based training signifies a [promising step](#) toward addressing the challenges of low-wage work and stagnant economic mobility in the U.S. As the country continues its journey toward economic recovery and prosperity, it is vital to recognize the potential of these training programs in fostering a skilled and adaptable workforce, supporting industry growth, and ultimately facilitating greater economic mobility for all. To achieve this, it is crucial that future initiatives continue to

emphasize the core design elements that have proven to be the bedrock of successful sector-based training programs.

AUTHORS



Mayu Takeuchi Research Assistant - Brookings Metro



Joseph Parilla Senior Fellow & Director of Applied Research - Brookings Metro
X @joeparilla

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Table 8-A
NAICS codes that constitute high-technology industries

2002 NAICS code	2007 NAICS code	Industry
1131	1131	Timber track operations
1132	1132	Forest nurseries and gathering of forest products
2111	2111	Oil and gas extraction
2211	2211	Electric power generation, transmission, and distribution
3241	3241	Petroleum and coal products manufacturing
3251	3251	Basic chemical manufacturing
3252	3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing
3253	3253	Pesticide, fertilizer, and other agricultural chemical manufacturing
3254	3254	Pharmaceutical and medicine manufacturing
3255	3255	Paint, coating, and adhesive manufacturing
3259	3259	Other chemical product and preparation manufacturing
3332	3332	Industrial machinery manufacturing
3333	3333	Commercial and service industry machinery manufacturing
3336	3336	Engine, turbine, and power transmission equipment manufacturing
3339	3339	Other general purpose machinery manufacturing
3341	3341	Computer and peripheral equipment manufacturing
3342	3342	Communications equipment manufacturing
3343	3343	Audio and video equipment manufacturing
3344	3344	Semiconductor and other electronic component manufacturing
3345	3345	Navigational, measuring, electromedical, and control instruments manufacturing
3346	3346	Manufacturing and reproducing magnetic and optical media
3353	3353	Electrical equipment manufacturing
3364	3364	Aerospace product and parts manufacturing
3369	3369	Other transportation equipment manufacturing
4234	4234	Professional and commercial equipment and supplies, merchant wholesalers
4861	4861	Pipeline transportation of crude oil
4862	4862	Pipeline transportation of natural gas
4869	4869	Other pipeline transportation
5112	5112	Software publishers
5161	na	Internet publishing and broadcasting
na	519130	Internet publishing and broadcasting and Web search portals
5171	5171	Wired telecommunications carriers
5172	5172	Wireless telecommunications carriers (except satellite)
5173	na	Telecommunications resellers
5174	5174	Satellite telecommunications
5179	5179	Other telecommunications
5181	na	Internet service providers and Web search portals
5182	5182	Data processing, hosting, and related services
5211	5211	Monetary authorities, central bank
5232	5232	Securities and commodity exchanges
5413	5413	Architectural, engineering, and related services
5415	5415	Computer systems design and related services
5416	5416	Management, scientific, and technical consulting services
5417	5417	Scientific research and development services
5511	5511	Management of companies and enterprises
5612	5612	Facilities support services
na	561312	Executive search services
8112	8112	Electronic and precision equipment repair and maintenance

na = not applicable.

NAICS = North American Industry Classification System.

NOTES: Data on high-tech industries for 2008 and earlier years were compiled using the 2002 NAICS codes. Data for 2009 and 2010 were compiled using the 2007 NAICS codes.

Employment Restrictions on Resource Transferability and Value Appropriation from Employees

Natarajan Balasubramanian
Syracuse University
nabalasu@syr.edu

Evan Starr
University of Maryland
estarr@umd.edu

Shotaro Yamaguchi
University of Maryland
shotaro@umd.edu

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Abstract

We examine the joint adoption of four employment restrictions that limit firm resource outflows—non-disclosure, non-solicitation, non-recruitment, and non-compete agreements—and their associations with value appropriation from employees. Using novel individual- and firm-level survey data, we find that when firms adopt restrictions, they tend to adopt either all four restrictions or only a non-disclosure agreement. Adoption of all restrictions is more likely when workers have access to valuable resources, non-competes are more enforceable, and states adopt the inevitable disclosure doctrine. Employees with all restrictions earn 5.4% less than employees with only non-disclosures, with this effect being driven by workers with low bargaining power. Analyses of earnings and a single restriction (e.g., only non-competes) yield opposite results from those considering joint adoption, likely because of selection.

1. Introduction

Many valuable resources of firms—information, client relationships, and capabilities—are accessible to, and often are embedded in, their workers. Because workers can move or otherwise share such resources, firms face the risk of those resources leaking to their competitors (Coff 1997, Campbell et al. 2012, Mawdsley and Somaya, 2016). A widely discussed way for firms to address this risk is by using non-compete agreements (NCAs), which prohibit departing workers from joining or starting competing firms (Marx et al. 2009, Garmaise 2011, Marx 2011, Starr et al. 2018, Young 2021).¹ However, the literature has largely ignored other closely related contract terms that firms can use to achieve similar goals, including non-disclosure agreements (NDAs), which prohibit workers from disclosing confidential information, and non-solicitation (NSA) and non-recruitment agreements (NRAs), which prohibit departing workers from soliciting/recruiting former clients and co-workers, respectively. Consequently, empirical evidence on these restrictions is limited.

Studying these restrictions is important for at least two reasons. Firms are known to use multiple protection mechanisms such as patenting and trade secrecy (Cohen et al., 2000; Levin et al., 1987; Contigiani et al. 2018, Kang and Lee 2022) to sustain resource-based advantages (Barney 1991, Melero et al. 2020). However, in the context of employment restrictions, we have no evidence on (a) whether and under what circumstances firms co-adopt such restrictions or substitute between them, and (b) how (co-)adoption of restrictions relates to important outcomes like value appropriation by firms and employees. Such evidence may become particularly valuable if the Federal Trade Commission's recently proposed NCA ban is codified (Federal Trade Commission 2023). Second, the co-adoption of restrictions requires us to re-consider prior observational studies of just one restriction and think carefully about the implicit comparisons being made when workers bound by

¹ For an overview, see Starr (2019a). Prior empirical research has also studied how NCAs and their enforceability influences entrepreneurship (Stuart and Sorenson 2003, Starr et al. 2018, Marx 2022), business dynamism (Kang and Fleming 2020), innovation (Samila and Sorenson 2011, Conti 2014, Johnson et al. 2021), investment (Starr 2019b, Starr et al. 2021, Jeffers 2022), acquisitions (Younge, Tong Fleming 2015), firm value (Younge and Marx 2016, Hiraiwa et al. 2022), value appropriation (Lavetti et al. 2020, Starr et al. 2021, Lipsitz and Starr 2022, Balasubramanian et al. 2020, Rothstein and Starr 2022). It has also studied predictors of NCA use (Johnson and Lipsitz 2020, Starr et al. 2021, Rothstein and Starr 2022, Lavetti et al. 2021) as well as how NCA enforceability affects the adoption of other protection mechanisms (Kang and Lee 2022, Sanga 2018, Mukherjee and Vasconcelos 2011).

that restriction are compared with those that are not bound by it (e.g., with four restrictions, there are 16 unique combinations of restrictions; NCAs are present in eight of them and absent from the others).

To address these gaps, we leverage two novel, large-scale surveys—one of workers, and one of firms—derived from a 2017 partnership with Payscale.com, and use an abductive, question-driven approach to provide descriptive answers to three interrelated questions: (1) How common are NDAs, NSAs, NRAs, and NCAs, and do they tend to be jointly or separately adopted? (2) How do resource access and protection related factors relate to the set of restrictions firms adopt? (3) How do different sets of restrictions relate to value appropriation from workers?

Answering the first two questions helps us understand what combinations of restrictions firms choose, and whether factors studied in the prior literature (largely on NCAs), such as workers' access to valuable resources (e.g., trade secrets) or the state's legal regime, are associated with the restrictions firms adopt. The third question focuses on an important outcome for strategic management, value appropriation, and is associated with an important theoretical tension (Coff 1999, Sevchenko et al. 2021): can firms extract value from employees by using these restrictions (Arnow-Richman 2006, Balan 2021, Lobel 2021), or will workers extract value by refusing to agree to such restrictions without additional compensation, as anticipated by efficient contracting theories (e.g., Rubin and Shedd 1981)? Investigating the third question also gives us the opportunity to study how incorporating a broader set of restrictions yields different insights relative to studying just one.

Our answers to these questions make at least two important contributions. First, we offer new, descriptive empirical evidence on the individual and joint use of such restrictions that open the door to future questions in strategic management. We find that, although NCAs have attracted the most attention, they are the least common. They cover about 1 in 5 workers and are almost always found with the other three restrictions. Moreover, just three out of 16 possible sets of restrictions—no restrictions, only an NDA, or all four—cover 82% of workers. Such a strong co-occurrence of restrictions suggests the need for a broader theory that can explain such bundling and raises questions about whether NCAs (or other restrictions) can be studied—and their effects estimated—

individually. We also find that the use of all four restrictions is positively correlated with the worker's access to valuable firm resources such as client information, and that firms substitute away from all four restrictions towards other combinations when NCAs are less enforceable—but marginally toward all four restrictions when the state has adopted the inevitable disclosure doctrine (IDD).

Our second contribution is to offer new evidence on how these restrictions are related to value appropriation from workers, as measured by their earnings. We document that among the three most common sets of restrictions, workers with only an NDA are the highest earning, while those with all four restrictions earn 3-7% less, and those with no restrictions are the lowest earning. To explain this non-monotonic pattern, we posit that the comparison between workers with all four restrictions vs. only an NDA is less affected by selection bias than a comparison between workers with all vs. no restrictions—because it nets out selection into *any* restrictions. We provide support for this idea using Monte Carlo simulations, tests of unobservable selection, and related evidence from the firm survey. Consistent with this idea, we show that estimates from studying one restriction alone paint a very different story from that obtained by simultaneously studying multiple restrictions. Finally, we show that the negative earnings results related to value capture are driven by non-top-managers and workers with low bargaining power, while top managers and workers with greater bargaining power are relatively better off. Thus, workers' bargaining power seems to be a boundary condition for whether and when firms can extract value from employees by using these restrictions.

2. Framing the Questions

2.1. Adoption of employment restrictions limiting resource transferability

Prior literature covering employment restrictions that limit resource transferability focuses almost entirely on NCAs, perhaps because they are seemingly the most severe of these restrictions and directly prohibit mobility to competitors. Relative to NCAs, three other restrictions—NDAs, NSAs, and NRAs—apply more broadly beyond direct competitors but protect resources more narrowly. NDAs tend to prohibit workers from using or disclosing firm information and apply in perpetuity, while NSAs and NRAs prohibit workers from soliciting former clients and coworkers,

respectively, within a limited period of time post-departure. See Table A1 for a description of each restriction (table and figure numbers starting with “A” are in the Online Appendix). Per employment lawyers, these restrictions also differ in their enforceability, with NCAs being the most difficult to enforce and NDAs being the easiest, conditional on being able to prove a violation.

Except for NDAs, only recently have even legal scholars been writing about these other restrictions, and these writings have been theoretical in nature (Graves 2022, Arnow-Richman 2022 et al. 2022, Lobel 2021). Sockin et al. (2022), who use the industry NDA data reported herein, is one exception. Indeed, where these restrictions appear to be emphasized most is in policy and practitioner discussions and primarily as substitutes for NCAs if NCAs were banned (Silverman 2021, Beck 2022, Federal Trade Commission 2023).

Given this lack of research, we currently do not know how common these other restrictions are and whether firms do indeed adopt them in lieu of or alongside NCAs. For example, if the firm can prohibit the worker from joining or starting a competitor with an NCA, then would they require the other restrictions? They may choose not to do so if there are costs to adopting the other restrictions and they offer little incremental protection beyond NCAs. Or, if the firm can effectively leverage NDAs, NSAs, and NRAs to limit the outflow of information, clients, and workers, then would they need to adopt NCAs as well? That could be the case if the protective effect of these restrictions works multiplicatively. Without such baseline information on these restrictions, answering broader questions about their role in value appropriation is difficult. Accordingly, we ask the following research question first:

Question 1: How common are NDAs, NSAs, and NRAs? Do they tend to be jointly or separately adopted?

2.2. Why do firms adopt certain combinations of employment restrictions?

The standard justification for NCAs is that they are required to support investments in the development and sharing of valuable information. For example, Rubin and Shedd (1981) discuss a situation in which the firm is concerned that a worker with access to trade secrets may appropriate the value of such secrets without paying for them. Since the worker likely won't be able to pay for

such trade secrets due to liquidity constraints (Johnson and Lipsitz 2020, Wickelgren 2018), the NCA serves as a promise by the worker not to appropriate such investments. If courts enforce NCAs and hold workers to their promises, the argument goes, we should observe a greater incidence of NCAs for workers with access to valuable information.

Prior research substantiates these ideas to some extent; NCAs are most likely to be found in jobs that require access to valuable information and resources, such as managerial or professional jobs (Starr et al. 2021, Lavetti et al. 2021, Rothstein and Starr 2022), with executives of publicly traded firms signing NCAs at a rate between 64-80% (Garmaise 2011, Bishara et al. 2015, Shi 2022). NCAs are also found, albeit in lower proportion, in low-wage jobs (Starr et al. 2021, Rothstein and Starr 2022, Johnson and Lipsitz 2021). Indeed, Colvin and Shierholz (2019) find in the only pre-existing broad survey of firms that 31.8% of firms use NCAs with *all* their employees, while 49.4% use them for at least some workers.

While in theory, court enforceability of NCAs serves as a backstop to maintain investment incentives, there is mixed evidence on how NCA adoption relates to NCA enforceability. All available studies document that NCAs are still used in places where they are unenforceable (Sanga 2018, Starr et al. 2021, Colvin and Shierholz 2019, Rothstein and Starr 2022), with some finding that NCAs are somewhat more common where they are enforceable (Sanga 2018, Lavetti et al. 2021), and others finding little difference (Prescott et al. 2016, Colvin and Shierholz 2019). To our knowledge, no study has examined how other legal protection mechanisms, such as those related to trade secrets (Png 2017a, Contigiani et al. 2018), relate to NCA use.

These existing arguments regarding NCAs offer useful guidance for when we might expect NDAs, NSAs, and NRAs to be adopted, particularly as theory about the latter is largely undeveloped. Because these restrictions also protect against the diffusion of valuable information and resources whose leakage may hurt firms, we might expect firms to deploy them in jobs that involve access to such resources. Moreover, because we have more than one restriction, it is important to consider how firms might substitute (or not) between these restrictions based on state policies. For example, if NCAs are unenforceable, and the other restrictions can (partially) substitute

for NCAs, firms may shift away from NCAs towards other restrictions. In contrast, if the protection afforded is complementary, firms may choose to reduce their reliance on other restrictions. Similarly, if a state adopts the IDD—which allows a firm to preclude a departing worker from moving to a competitor on the basis that they would inevitably disclose trade secrets, even without an NCA—then perhaps they do not need these agreements since the IDD can be used by firms to protect against the leakage of valuable resources. This leads to our second research question.

Question 2: How do resource access and protection related factors, such as state policies on NCA enforceability and IDD, relate to the set of restrictions firms adopt?

2.3. Restriction adoption and value appropriation

An important question for strategy is whether and how these restrictions relate to value appropriation. In this regard, prior literature on NCAs suggests that the underlying motivation for using NCAs is to protect firms from the leakage of valuable resources. However, by imposing restrictions on workers, *ex-post*, they also confer (temporary) monopsony power to firms, which can be used by firms to appropriate value from workers (like how patents not only protect inventions by granting firms temporary monopoly power, but also allow “trolls” to use them purely to extract value). Indeed, that firms can use NCAs to insulate themselves from labor market competition (Hardaway 2016) and potentially reduce wages are key reasons why NCAs have been a topic of longstanding debate (Balan 2021; Balasubramanian et. al. 2021).

In classic efficient contracting theories in labor economics, value appropriation in the firm-worker relationship is the outcome of a two-sided bargaining process, where workers and firms negotiate over and voluntarily agree to the terms of the employment contracts, including any restrictions (Rubin and Shedd 1981). These models would argue that workers will benefit from NCAs, either through receiving an *ex-ante* compensating differential sufficient to compensate for any *ex-post* harm (Shi 2022), or through investments induced by the NCAs that pass through to worker earnings (Lavetti et al. 2021, Kini et al. 2021). Such models assume that if a worker were to expect harm from agreeing to an NCA, they would negotiate for agreeable terms or not take the job.

However, various frictions in labor markets mean that workers may not be able to bargain for such efficient outcomes, and firms may still be able to use NCAs to appropriate value from workers. For instance, a firm may be a dominant employer for workers in some occupations, making it hard for those workers to find alternative employers. Similarly, novice workers may have limited outside opportunities. Workers may also be unaware of the law (Prescott and Starr 2022) or lack the wherewithal to fully understand, negotiate, and engage in litigation, even if their contract terms are non-enforceable (Starr et al. 2020). All these factors reduce the workers' bargaining power relative to firms. In this regard, legal scholars have been concerned that employees do not read the details of their contracts *ex-ante* (Arnow-Richman 2006, Ayres and Schwartz 2014) and overestimate their protections *ex-post* (Kim 1997). Broadly then, there is a question about not only the effect of NCAs on value appropriation, but also whether NCAs have differential effects for workers with low versus high bargaining power (Krueger and Posner 2018).

Of course, if firms could costlessly impose NCAs (or other restrictions) on workers and appropriate value, we should observe all workers being bound by them. Yet this is not true. Requiring NCAs may make it harder for the firm to attract potential workers (Ganco et al. 2023) and so firms may strategically choose not to use them for some (or all) workers. Firms may also find it costly to engage in negotiations with every worker, and hence, may adopt boilerplate contracts, so that groups of workers within the firm are covered by the same set of restrictions. Here again, the bargaining power of the worker relative to the firm is likely to play a role.

Evidence from the literature on NCAs is conflicted on the overall direction of the NCA-earnings relationship (Starr 2021). A major disconnect comes from the level of analysis. Well-identified studies of state NCA *policies* (at the state level) tend to find that where NCAs are more likely to be enforced, firms tend to invest more (Starr 2019b, Jeffers 2021), but both low- and high-wage workers (including high-tech workers and executives) are less mobile and have lower earnings (Fallick et al. 2006, Marx et al. 2009, Garmaise 2011, Starr 2019b, Balasubramanian et al. 2020, Lipsitz and Starr 2021, Young 2021, Johnson et al. 2022). In contrast, every study of NCA *use*—including studies of the average worker and of physicians and executives—finds that NCAs

themselves are associated with higher earnings (Starr et al. 2021, Lavetti et al. 2021, Rothstein and Starr 2022, Shi 2022, Kini et al. 2021). It is possible to theoretically resolve these directionally discordant findings (e.g., through negative spillovers to workers without NCAs, Starr et al. (2019)), but a positive selection effect on earnings may be a more practically plausible explanation.

In light of this large prior literature on NCAs, when we consider the broader suite of employment restrictions, it is natural to think about how they also relate to value appropriation from workers—either on their own or in combination. For example, Graves (2021) makes a theoretical argument that NRAs are tools to capture value, courts have determined that the other restrictions can also be as restrictive as NCAs,² and Lobel (2021) argues that the co-adoption of multiple restrictions makes for an ironclad combination that multiplicatively locks workers in and allows firms to extract value from them. At the same time, the same efficient contracting theories that apply to NCAs also apply to the broader set of restrictions as well. Thus, any such relationship between earnings and restrictions that put *ex-post* limits on the transferability of resources is ambiguous—and may well depend on employee bargaining power. And just as the empirical literature on NCA use has been unable to address whether selection into restriction adoption drives overall wage differentials, we may wonder if selection has a role here as well. This leads to our third question:

Question 3: How do different sets of restrictions relate to value appropriation from workers?

3. Data

Our primary source of data is an employee-level survey that was the result of a collaboration with an American compensation software and data company, Payscale.com (“Payscale”). Payscale deployed the survey to individuals who visited the website between February 7, 2017, and August 28, 2017, and indicated their interest in knowing their earnings potential.³ Overall, 44,523 individuals

² See e.g., *TLS Management & Marketing Services, LLC v. Rodriguez-Toledo*, No. 19-1104 (1st Cir. 2020) and *Deere Emps. Credit Union v. Smith* (Ill. App. Ct. 2016) regarding rulings that find that broad NDAs are effective NCAs.

³ The survey was marketed as a “Salary Survey” and came with the tagline “Do you know what people like you are earning? Stop guessing.” Thus, respondents have an incentive to respond accurately to the information, so that they can get accurate information on their earnings potential.

responded to the survey and completed the demographic questions.⁴ We then limit the sample to private sector, working-age employees, comprising 35,983 individuals.⁵ We further excluded those missing data on any of the four employment restrictions, which leads to our final sample of 33,637 individuals. This sample is three times larger than the largest previous nationally representative survey (Prescott et al. 2016). Table A2 shows that the differences in demographics between our final sample and those who are missing data on the employment restrictions are negligible. The precise wording and question structure for the restrictions is in Figure A1.

Since the sample of individuals visiting Payscale.com and completing the survey is likely not random, we weight the individual data to match the US population by income, age, gender, and for-profit status of the employee.⁶ Table A3 compares the weighted and unweighted individual data to the American Community Survey data for 2017 (Ruggles et al. 2020), which reflects the US population. The table shows that on average our unweighted sample is younger, more female, higher earning, and more likely to be in the non-profit sector. Weighting virtually eliminates these differences, however (though it does not necessarily remove differences in unobservables). Below, unless stated otherwise, we report weighted results for the individual-level data.

We complement this data with a 2017 firm-level survey, deployed annually by Payscale to HR professionals and leaders within the firm (and independent of the individual-level survey).⁷ We limited our sample to private or publicly traded firms located in the US with non-missing answers regarding the use of restrictions and key independent variables (N=1,855).

In addition to these Payscale datasets, we draw from two alternative datasets to develop our empirical measures for access to valuable information as well as bargaining power at the job level.

⁴ Demographics include age, gender, wage, employer type, employer size, job level, industry, occupation, and state.

⁵ We dropped individuals outside of age 18-65, those who were not working, or who were working in public administration, education, and fishing and forestry occupations, as well as independent or government contractors.

⁶ We used iterative proportional fitting (“raking”) to create the weights. We matched on age (deciles), gender, income (quartiles), and whether the employee is for-profit or non-profit. We considered several alternative weighting schemes, but this set did the best in terms of matching overall fit without producing substantial imbalance in the weights.

⁷ Table A4 shows the distribution of job characteristics for the individual who filled out the survey on behalf of the firm. Most of the time it was a “Manager” (36.6%) or “Director” (23.1%) whose job functions included “Human Resources” (54.8%). These facts are reassuring since human resource managers or directors are very likely to know the types of employment restrictions and practices used by the firm. Information on the size distribution of firms in the survey is provided in Table A5. The precise wording and question structure is available in Figure A2.

The bargaining power question derives from a question on the National Longitudinal Survey of Youth 1997, a long-running survey conducted by the Bureau of Labor Statistics, which asks workers whether they bargained over their wages. With regard to access to valuable resources, we leverage the nationally representative dataset from Prescott et al. (2016), which surveys workers about their access to trade secrets, working with clients, and access to client lists. For both surveys, we aggregate the relevant measures to the occupation by industry level (two digit SOC by two digit NAICS) and merge with the individual-level Payscale data at that level.

4. Empirical Findings

Below, we present the findings from our inquiry into the three aforementioned questions. Because the empirical techniques needed to answer each question vary, we describe them as we go.

4.1 The (joint) adoption of employment restrictions

Figure 1, Panel A shows the weighted distribution of each of the four restrictions in the individual-level data (unreported, unweighted results are similar). Approximately 57% of employees in the United States in 2017 were definitely or probably bound by an NDA, with 8.5% not knowing if they were bound.⁸ Following NDAs, NSAs are the next most common restriction—28.4% of employees report agreeing to or probably agreeing to one. On the heels of NSAs are NRAs, which bind 24% of employees. Finally, although they have received the most attention in the literature, NCAs are the least common of these restrictions, and cover 22.1% of employees, similar to prior estimates (Starr et al. 2021, Rothstein and Starr 2022).

Panel B of Figure 1 shows the distribution of the responses for each of the four restrictions in the firm-level data. The pattern of results is similar to the individual data. 70.9% of firms use NDAs with all of their employees, while another 17.3% use them with some but not all of their employees. Following NDAs, 40.9% of firms use NSAs with all employees and 28.5% report using them with some employees, while NRAs cover all employees at 32.6% of firms and some employees at 24.2% of firms. Consistent with the individual-level data, NCAs are the least common restriction,

⁸ Since employees may not know what they have agreed to, we allow for uncertainty by giving them the chance to assess whether they have definitely or probably signed, or whether they have no idea. In general, when we report that an employee agrees, we group the definitely and probably agreed together.

as 29.5% of firms report using them with all employees and 37% report using them with some but not all employees. These statistics about NCA adoption at the firm level are very similar to those in Colvin and Shierholz (2019), which suggests the estimates of the restrictions are likely credible.

Table 1 presents the joint distribution of all 16 combinations of restrictions. Here, we exclude those reporting that they do not know about the use of a specific restriction because we cannot create bundles for them. Among the 16 combinations, column (1) shows that just three combinations cover 82.3% of employees: 38.4% of employees have no restrictions, 25.9% have only an NDA, and 18% have all four. Columns (2) and (3) show similar results from the firm survey. In the firm-level survey, defining restriction adoption as firms using it for all employees, column (2) shows that 70.6% of firms use one of no restrictions (22.2%), only an NDA (25.7%), or all four restrictions (22.7%). Column (3) shows that if we define restriction adoption as using a restriction for all or some employees, 55.2% of firms use all four restrictions, 10.9% use only an NDA, and only 5.2% of firms use no restrictions for any employees.

The joint distribution in Table 1 highlights two important relationships among these restrictions. First, if a worker has, or a firm uses, an NCA, then there is a 70-75% chance that all three other restrictions are present (see Table A6 for pairwise adoption).⁹ That probability is only 30% for NDAs, and between 58% and 67% for NSAs and NRAs in both datasets. Second, and in contrast, if a worker has an NDA, then there is only a 38-50% chance of having an NCA, NRA, or an NSA (with similar numbers for the firm-level data). In contrast, if a firm adopts an NSA, NRA, or NCA, there is at least a 95% chance that an NDA is also adopted. These results suggest that NDAs are the baseline restriction, and others layer on top of it. In Table A7, we formally test and confirm these patterns—that *NDAs are the most likely to be used alone while NCAs are the most likely to be bundled with the other three restrictions*—while controlling for several firm and individual characteristics.

Taken together, these findings strongly suggest that firms perceive complementarities among the restrictions. We revisit potential rationales for complementarities, as well as why NDAs might

⁹This is calculated as the probability of having all four restrictions divided by the sum of the probability of all combinations with an NCA (combinations highlighted with an asterisk in Table 1), which for the individual level is $18/24.2=0.74$.

stand alone, in our discussion. These findings may also matter for thinking about potential outcomes of restriction use and for re-interpreting work on just one restriction. For example, these results suggest that a comparison between a worker with versus without an NCA is mostly a comparison between workers with all four restrictions and a weighted average of workers with only an NDA and no restrictions. Accordingly, the actual treatment in studies of NCA use is (likely) all four restrictions. Similarly, the heterogeneity in those without NCAs asks whether those with only an NDA and those with no restrictions should be in one control group, or whether there is heterogeneity across the groups that motivates separating them. We revisit these ideas in our value appropriation analysis in Section 4.3.

4.2 Where and why do firms adopt particular sets of restrictions?

A natural question after observing these baseline patterns is whether the adoption of restrictions is (uniformly) random. To test this directly, we simulate a distribution in which employees randomly have or in which firms randomly use restrictions for all workers, keeping the sample probability of adopting each restriction constant. We then test whether this simulated distribution is different from our observed distribution. For both the firm-level and individual-level data, a Kolmogorov-Smirnov test rejects the null that these observed and simulated distributions are the same with a p -value < 0.01 in each of 1,000 simulations. Thus, it is extremely unlikely that firms are (uniformly) randomly choosing among the 16 combinations.

Since the joint distribution of restrictions is far from uniformly random, it is natural to wonder what factors shape the combination of restrictions firms select. While there are many possible such factors, following the literature on NCAs, as discussed above, we focus on resource access and protection-related factors such as state policies related to NCAs and the IDD.

To examine access to valuable resources, we leverage the employee-level survey and employ a multinomial logit regression with the dependent variable as the four possible combinations of restrictions: “None”, “Only an NDA”, “Others”, and “All.” We proxy for access to valuable resources in two ways. First, we use data from Prescott et al. (2016) to calculate how likely an employee is in their current occupation-industry to access trade secrets, client information, and work

directly with clients. We create a measure of overall “access to information and relationships” by multiplying these three likelihoods together and merge in by occupation-industry. Second, we also examine whether the worker is a top manager (defined as being a CEO, vice president, or director), which covers 10.2% of our sample,¹⁰ under the assumption that top managers have access to valuable resources. See Table A8 for summary statistics of sets of restrictions, and Table A9 for the incidence of each restriction by occupation and industry.

Panel A of Table 2 shows the results, which includes a full set of control variables—age, gender, class of employee, log firm size, and state fixed effects (industry and occupation fixed effects are not included because information and relational access is at the industry-occupation level), with standard errors clustered by firm. The estimates have been converted into marginal effects, reflecting the percentage point increase or decrease in a given outcome category from a one unit increase in a given independent variable. The results support the thesis that *access to valuable resources is a reason for an employee to be bound by all four restrictions*. A 10 percentage-point increase in information and relational access increases the likelihood that an employee is bound by all four restrictions by 2.03 percentage points (10.7% increase relative to the sample mean; p -value < 0.001), and the likelihood of only an NDA by 1.49 percentage points (5.5% increase; p -value < 0.001). This All vs. only NDA difference rejects a null hypothesis of no difference at p -value=1.3% (based on relative risk ratios). Further, the likelihood of being bound by no restrictions falls by 5.14 percentage points (14.7% decrease; p -value < 0.001). Similarly, relative to other employees, employees in top management are 1.8 percentage-point more likely to have all the restrictions (9.5% increase; p -value = 0.066) and 4.5 percentage-point less likely to have no restrictions (12.9% decrease; p -value = 0.001).¹¹

Panel B of Table 2 examines state-level variation in NCA enforceability and IDD. To code NCA enforceability, we use a continuous enforceability measure developed by Bishara (2011) and

¹⁰ This includes 1,988 directors, 465 chief executives, and 378 vice presidents.

¹¹ Industry analyses in the firm-level survey are consistent with these findings. The industries in which firms are most likely to use all four restrictions and least likely to use none are technology (41.8% use all four vs. 10.2% none), marketing and public relations (35.5% use all four vs. 6.5% none), and biotech and science (33.3% use all four vs. 2.8% none).

Starr (2019b) and reverse it to represent non-enforceability. To code whether a state has adopted IDD, we follow Castellaneta et al. (2016) and use three categories: states favorable towards the IDD, against the IDD, or have no policy on the IDD (the base category). Note that because our survey is cross-sectional, we cannot exploit changes to these NCA and IDD laws over time as some prior literature has done; thus we can only exploit cross-state variation. Hence, in our multinomial logit model, we omit state fixed effects (since otherwise NCA enforceability and IDD would not be identified), while including the other controls and industry and occupation fixed effects.

The results in Panel B of Table 2 show that a one standard-deviation increase in non-enforceability of NCAs is associated with a 1.3 percentage point (3.7% of the sample mean; p -value < 0.001) reduction in the use of no restrictions, increases in the likelihoods of only an NDA by 1.1 percentage point (4.0% of the mean; p -value < 0.001) and other combinations by 0.7 percentage point (3.7% of the mean; p -value < 0.001), and decreases the likelihood of using all four restrictions by 0.5% percentage point (2.6% of the mean; p -value = 0.046). In contrast, we find that rejecting IDD has little relationship with the combination of restrictions a firm chooses, but that in states favorable to IDD, workers are marginally more likely to have all four restrictions. Table A10 replicates these broad patterns in the firm-level data.

Taken together, these results offer modest evidence consistent with the theoretical arguments in the prior literature related to hold-up. This includes, for example, that workers who have access to more valuable resources are more likely to be bound by these restrictions. However, the explanatory power seems small. For example, including top managers and access to information in the model marginally increases the correct prediction rate from 35.7% to 35.9%. The evidence on NCA enforceability suggests some moderate substitution based on the law—when states are less likely to enforce NCAs, firms are more likely to use only an NDA or some other set of restrictions and less likely to use all four. Lastly, even though IDD allows firms to restrict worker movement to competitors without having workers agree to NCAs, we find that where IDD is favored workers are marginally more likely to have all four restrictions, not less. We revisit this puzzle in our discussion.

4.3. Restriction adoption and value appropriation

In this section, we focus on how the adoption of restrictions relates to value appropriation from workers, as measured by their earnings. We also consider the role of selection into restrictions in driving these results and look for heterogeneity based on the extent of worker bargaining power. One important challenge to estimating such relationships is that with four restrictions there are 15 potential comparison groups for any given set of restrictions. It is not necessarily obvious (to the researcher) which one of those 15 comparisons reflects the comparisons a typical firm was making. To simplify our analysis, make interpretation easier, and preserve statistical power, we focus on the three main combinations of restrictions found earlier—None, Only an NDA, and All four—since they account for the vast majority of firms and workers.

We take a descriptive empirical approach in which we analyze the unconditional relationships between earnings and restriction adoption, and then condition on several related controls and firm fixed effects. In the ensuing section, we consider whether these results may be driven by various forms of selection. Our most saturated specification is:

$$Y_{ijoks} = \beta_0 + \beta_1 All_i + \beta_2 OnlyNDA_i + \beta_3 Other_i + \gamma X_{ij} + \lambda_s + \delta_o + \xi_k + \alpha_j + e_{ijoks} \quad (1)$$

where Y_{ijoks} is log annual earnings for individual i in firm j , in occupation o , in industry k , and state s . State fixed effects are given by λ_s , while δ_o and ξ_k refer to occupation (2 digit SOC) and industry (2 digit NAICS) fixed effects. In contrast to prior studies which did not have firm-level identifiers (e.g., Starr et al. 2021, Rothstein and Starr 2022), in some specifications we also include firm fixed effects in α_j .¹² Included in X_{ij} are controls for age, gender, whether the employee is in a for-profit or non-profit firm, and the log of firm size. We cluster standard errors at the firm level.

One way to highlight the challenge relating to the multiplicity of comparison groups is to think about the omitted category. In the above specification, the omitted category of restrictions is “None,” such that β_1 refers to the average difference in log earnings between those with all four restrictions and those with none, while β_2 refers to the average difference in log earnings between those with only an NDA and those with none. Alternatively, we can re-estimate the model with

¹² Note that including firm fixed effects reduces effective sample size because firms with just one observation in the data are dropped. The effective sample of individuals representing firms with at least two or more observations is 7,527. Unreported robustness checks confirm that our main results are not sensitive to using this specific subsample.

Only NDA as the baseline omitted category (this is numerically identical to estimating the difference between β_1 and β_2 when “no restrictions” is the reference category, as in equation 1).

Table 3 presents the coefficients, while Figure 2 provides a visual representation. The left panel of Figure 2 shows the predicted log earnings from estimating an unconditional model, a model with controls, and a model with controls and firm fixed effects, corresponding to the columns of Table 3 (note that in the conditional models, the figure shows the expected effect while holding the covariates at their sample means). *The resulting pattern is a non-linear relationship of earnings across the three main sets of restrictions.* Relative to workers with no restrictions, workers with all four restrictions have 4-17% higher earnings (see the middle panel of Figure 2 and columns 1-3 of Table 3), but relative to workers with only an NDA, workers with all four restrictions have 3-7% lower earnings (see the right panel of Figure 2 and columns 4-6 of Table 3). The p -values for tests of each difference are reported in Table 3.

4.3.1 Selection into Restriction Use and Alternative Explanations

Given that the results above reflect conditional correlations, it is natural to wonder if selection into restriction adoption drives the results.¹³ We assess the potential role of selection in two ways. First, we consider whether selection into the use of any restriction can explain the potentially confusing finding that workers with all four restrictions appear to have higher earnings than those with no restrictions, but lower earnings than those with only an NDA. Second, we consider several selection-related stories and see if the implications of those stories hold in our data.

Our premise is that comparisons between workers with some restrictions and workers with no restrictions might be more highly selected relative to comparisons between workers with some, but different sets of restrictions. For example, our prior analyses showed that workers in jobs with access to valuable information like trade secrets and client lists were more likely to be bound by all four restrictions or only an NDA, and *less likely* to be bound by no restrictions. If workers with

¹³ Indeed, selection affects every study of NCA use that seeks to test hypotheses. Prior research has not found credible instruments that alter firms’ restriction adoption choices but do not affect wages through any other channels. While studies try to avoid this problem by examining changes in state NCA *policies*, our results above and those of the prior literature make clear that NCA enforceability and NCA use are not the same (Starr et al. 2020, Prescott and Starr 2022). Relatedly, we do not have panel data to study policy changes.

access to more valuable information (including potentially unobserved access) are also more highly compensated, then it may not be surprising that workers with only NDAs or all four restrictions earn more than those with no restrictions. So, if there is selection into the use of *any* restrictions, then the comparison between all four restrictions and only an NDA will net out this selection—since some restrictions are used in both cases—while the comparison to no restrictions will be biased by this selection effect. Hence, the former comparison will be less biased than the latter (note though that the former comparison will still not net out any selection unique to the use of all four restrictions). In Appendix B, we formally document these ideas using Monte Carlo simulations.¹⁴

To examine the potential for unobservable selection to bias certain comparisons, we use the method developed by Oster (2019). The idea underlying this test is that while we cannot include controls we never observe, we can learn about selection on unobservables from models where we don't use controls and models where we include them. The differences in the point estimates and the R^2 between these models determine the key diagnostic statistic, referred to as δ . If, as controls are added, the R^2 rises dramatically, and the point estimate stays the same, the results are less likely to be driven by selection on unobservables, since there will be less residual variation in the dependent variable to overturn the result. Alternatively, if the R^2 doesn't change much or the point estimate falls dramatically when controls are added, then we should have less confidence that the results are robust to selection on unobservables. Specifically, $\delta=1$ suggests selection on unobservables would have to be equally strong as selection on observables to overturn the results, while in the case $\delta > 1$, then selection on unobservables would have to be stronger than selection on observables.

We report δ in Table 3, for both the comparison of workers with all four restrictions to workers with none, and the comparison between workers with all four restrictions and workers with

¹⁴ To see this, suppose that firms first choose whether they want to use an NDA, and if they do so then they choose randomly between only an NDA and all four restrictions. In this extreme situation, a comparison between all four restrictions and only an NDA will yield an unbiased estimate, while the comparisons to no restrictions will be biased. In the more realistic scenario that there is some selection into restriction use, but it is not random whether firms use only an NDA versus all four restrictions (as our analysis of access to valuable resources suggests), differencing between all four restrictions and only an NDA will still be less biased for the true effect relative to no restrictions, because it is differencing out some selection.

only an NDA. We find that $\delta = 0.676$ for the comparison of all four restrictions to no restrictions, while $\delta = 2.047$ for the all four versus only an NDA comparison.¹⁵ Thus, as expected, the comparison between all four restrictions and only an NDA seems more robust to selection on unobservables than a comparison between all four restrictions and none. One can see this clearly in the change in the R^2 and the coefficients between models with no controls and models with all the controls. Relative to no restrictions, the coefficient on all four restrictions falls from 0.159 to 0.044—a rather large drop—while the R^2 rises from 0.021 to 0.827. Meanwhile, the coefficient on all four restrictions in the comparison to only an NDA falls from -0.076 to -0.053 , a much smaller drop. This result also suggests that selection on unobservables would need to be more than twice as large as selection on observables to overturn the direction of the All vs. Only NDA point estimate.

In Appendix C, we consider the plausibility of several other selection mechanisms. These include whether individuals with higher ability or bargaining power are more likely to bargain for fewer restrictions, or whether firms target these restrictions to workers with low-wage growth or low mobility. We find no evidence that these channels drive our results.

4.3.2. Heterogeneity by Bargaining Power

Our previous analyses suggest that workers bound by all four restrictions versus workers bound by only an NDA have lower earnings on average, and that these differentials are not explained by several selection stories. We next turn to the question of how these results differ for workers with, versus without bargaining power. We consider two proxies for bargaining power. First, we look at heterogeneity for top managers versus non-top managers (an individual-level variable in our data), given that top managers are more likely to be represented by legal counsel during job negotiations (Rajgopal et al. 2012). Second, we leverage the fact that workers in certain jobs are more likely to bargain over their wages. In particular, we aggregate a question on the National Longitudinal Survey of Youth in 1997 (NLSY97) which asks whether employees negotiated over their wages to the occupation-industry level (2-digit SOC by 2-digit NAICS). We then merge

¹⁵ Per Oster (2019), we set the maximum R^2 to the lesser of 1 or 30% higher than the R^2 in the most saturated model. The δ term is calculated using a comparison between a model with no controls and the most saturated model.

this into our data and refer to below-median occupation-industry cells as “low-bargaining.”

To study heterogeneous earnings effects related to restriction adoption and bargaining power, we add the main effect of our bargaining power proxy and interact it with the combinations of restrictions. Thus, the model looks as follows:

$$\begin{aligned}
 Y_{ijoks} = & \beta_0 + \beta_1 All_i + \beta_2 OnlyNDA_i + \beta_3 Other_i + \beta_3 BP_i \\
 & + \beta_4 All_i * BP_i + \beta_5 OnlyNDA_i * BP_i + \beta_6 Other_i * BP_i \\
 & + \gamma X_{ij} + \lambda_s + \delta_o + \xi_k + \alpha_j + e_{ijoks}
 \end{aligned} \tag{2}$$

where BP_i refers to a given proxy for bargaining power. One must be careful to consider the base category when interpreting these coefficients. For example, in the above specification β_1 refers to the average difference in log earnings between those who are bound by all four restrictions and those who are bound by none, among those with $BP_i = 0$. In contrast, β_4 estimates how the All vs. None log earnings differential differs between those with $BP_i = 1$ and those with $BP_i = 0$.

To help simplify the relevant comparisons, the left panel of Figure 3 takes the results from estimating model (2), where “no restrictions” is the omitted category, and reports the marginal effects of the main combinations of restrictions, separately for $BP_i = 0$ and $BP_i = 1$. The right panel of Figure 3 replicates this analysis but changes the default comparison to “only an NDA.” In Panel A of Figure 3, we estimate model (2) using top managers as our proxy for bargaining power. In Panel B, we re-estimate the model with wage bargaining in a job as our proxy for bargaining power. See Table A11 for the underlying estimates of model (2).

Across these proxies for bargaining power, the results are markedly similar. Relative to non-top-managers with only an NDA, non-top-managers with all four restrictions have 8% lower earnings; for those in low-bargaining power jobs, the same comparison is -12.2% ($1 - e^{(-0.13)}$). In contrast, for those with high bargaining power, workers seem to be weakly better off with all four restrictions relative to none or only an NDA. Across specifications, those with more bargaining power are better off when bound by all four restrictions versus only by an NDA, relative to the same difference for those with less bargaining power.

4.3.3. Evidence on Mechanisms from the Firm-Level Survey

In this section we consider three potential mechanisms that might underlie the negative earnings differential between workers with all four restrictions and only an NDA. Drawing from the idea that all four restrictions are more likely to isolate the worker from the external market, we might naturally expect that firms using all four restrictions experience less turnover and face less pressure to give workers raises. The combination of reduced wage growth and increased retention suggests that over time workers are likely to experience earnings losses, especially if they are not compensated upfront (due to e.g., low bargaining power) for such ex-post losses—which would be consistent with the individual-level results. An alternative mechanism is that workers reduce their effort and productivity under these restrictions (Garmaise 2011). While the individual-level data does not include any proxies for retention, raises, or productivity, the firm-level data does. We briefly explore these outcomes using the firm-level data, estimating models like the individual-level analyses above. We cannot use firm fixed effects, however since we have only a single observation per firm.

In columns (1) and (2) of Table A12, we examine firms' willingness to raise wages using a firm-level question about whether the firm intends to increase base pay (84% of the sample indicated that they would). It shows that firms that use all four restrictions are 5.5 percentage points (6.5% of the mean) less likely to increase base pay relative to firms that use only an NDA (p -value 0.062). Taken together with the results in the individual survey, these results support the idea that the use of all four restrictions allows firms to appropriate more value both by decreasing the earnings *levels* of average employees (Table 3) and suppressing wage *growth* by not offering raises.

To examine employee retention, we leverage a question asking the extent to which the firm agreed with the statement: "Employee retention is a major concern for our company." We coded this as a dummy equal to one if the firm agreed or strongly agreed, which 60% did as a baseline. Columns (3)-(4) in Table A12 show the results. When we include control variables, relative to firms that adopt only an NDA, firms that adopt all four restrictions are 7.7 percentage points (13% of the mean) less likely to perceive retention as a major problem (p -value 0.082).

Lastly, to consider possible productivity mechanisms, we leverage a question in the firm-level survey about training and examine if firms that adopt all restrictions are also more likely to spend

one month or more on training their new hires (66.6% report that they are). The estimates in columns (5) and (6) of Table A12 suggest that firms that use all four restrictions provide, on average, *more* training than firms that use only an NDA, but the estimates are relatively imprecise (p -value of 0.18). Thus, there is no strong evidence in our data that the adoption of all four restrictions is associated with a decrease in employee training. Nonetheless, we cannot rule out that employee productivity does not decline through other channels (e.g., reduced motivation).

5. Discussion

This study takes a question-driven approach towards understanding whether and when firms (co-)adopt four employment restrictions that limit the transferability of valuable firm resources, and how such adoption relates to value appropriation by firms and employees (Coff 1997, 1999; Molloy and Barney, 2015; Sevchenko et al. 2021). In this section, we describe the contributions of our results and the many new avenues of inquiry that they open.

5.1 Baseline Restriction Adoption

Our baseline analysis of the (joint) adoption of these restrictions suggests that we have focused most of our academic efforts on employment restrictions that are the least common—and which may be eliminated in the US if the Federal Trade Commission’s proposed NCA ban takes effect. This finding, and the fact that firms tend to co-adopt these restrictions with only NDAs standing alone, has several substantive implications for prior and future research. First, if NCAs are banned, we need to expand our inquiries into the other restrictions and the resources they protect (e.g., clients, coworkers, information). Second, we should be careful when interpreting prior observational studies of e.g., only NCAs, since those estimates likely reflect the set of jointly adopted restrictions relative to a weighted average of potentially heterogeneous comparison groups. A related avenue for future research is that there may be other management practices that are also co-adopted, such as IP assignment agreements or arbitration agreements, which may similarly color the interpretation of our results.

Second, our findings strongly suggest that firms perceive complementarities between NCAs and the other restrictions since they are frequently co-adopted. It is an open theoretical question,

however, where such complementarities might come from. One natural hypothesis is that lawyers take a “belt and suspenders” approach to resource protection. That is, if one restriction is unable to perfectly protect a certain resource, then the other restrictions may be able to help in the event that a restriction fails. This is obviously not true of all firms, however, since some firms adopt only an NDA, and some adopt none. What explains this discrepancy is an open question for future research.

Future research may also build on our joint adoption analyses to consider how these individual restrictions work in tandem with other firm-level protection mechanisms such as patents, secrecy, or complementary capabilities. Research questions might include how the adoption of employment restrictions differs depending on the source of competitive advantage for the firm, and whether individual restrictions and firm-level protection mechanisms are substitutes or complements. Such analyses may also help us understand why some firms do not use certain restrictions (e.g., perhaps they do not face the risk of resource outflows or have other mechanisms in place to mitigate such risks) and what the typical negotiation process over these restrictions entails. Lastly, we may ask how firms deal with the curse of dimensionality associated with protection mechanisms. With one restriction, there are only two choices (adopt or not adopt). With four, there are 16. When combined with other possible protection mechanisms, the number of combinations explodes. Thus, there are likely to be simplifying mechanisms at work. “Boilerplating” is likely to be one of them (Choi et al. 2017, Lobel 2021), but are there others and how much explanatory power do they have?

5.2 Factors that shape restriction adoption

Our second contribution moves towards understanding when and why firms deploy certain key sets of restrictions. As expected, we find that firms are more likely to adopt all four restrictions and only an NDA when the worker has access to more valuable information. However, this variable has relatively low explanatory power. This raises an important avenue for future research: Why do firms adopt certain restrictions for the entire workforce versus for only a few workers? Is it that some firms find the other restrictions unfair? That those restrictions make it harder to recruit?

In addition, our analysis of the legal enforceability of NCAs and IDD raises some important

new questions. Consistent with some prior work on NCAs (Shi 2022), we find some evidence of substitution away from NCAs and towards other sets of restrictions when NCAs are less enforceable. This suggests that bans on NCAs may have more muted effects, as firms substitute towards similar protection mechanisms. More surprisingly, even though IDD adoption allows firms to effectively apply NCAs without having workers agree to them, we find that firms are marginally more likely to use all four restrictions when the state has adopted the IDD, not less. One possible explanation for this IDD result is that, perhaps in order to have the IDD applied in court in a given case, the firm actually needs to show that it is using NCAs and related restrictions to convince the court that they are protecting secrets via other means. This was the case in *Hydrofarm vs. Orendorff* (2008), where the Franklin County Court of Appeals suggested that the IDD may only be deployed where the employee has an NCA. If this is right, then the fact that favorable IDD rulings are associated with an increased likelihood of all four restrictions suggests that results from prior studies of IDD adoption may partly be driven by firms adopting all four restrictions. Ultimately, we need future research with longitudinal data on restriction use as well as variation in the adoption of the IDD to sort these out.

In addition to the factors studied above, future research may build a more refined conceptual model and study other industry, state, firm, or individual characteristics which explain the individual and joint adoption of restrictions. One may wonder, for example, how restriction adoption relates to the underlying competitive environment, risk of spillovers, and need for complementary assets. In addition, we have only studied NCA enforceability, but policies that ban or limit NSAs, NRAs, or NDAs may have differential effects. Combining litigation data on these restrictions with state policy shocks (as in Hiraiwa et al. 2022 and Marx 2022) may be especially revealing.

5.3 Restriction Adoption and Value Capture

Our third contribution is to uncover that workers with all four restrictions have lower earnings than those with only an NDA, but more than those with no restrictions. Our selection tests reveal that the comparison to no restrictions is more likely to be driven by selection on unobservables, while the comparison between all four restrictions and only an NDA is less

susceptible to unobserved selection. We further show that these effects are driven by non-managers and workers with low-bargaining power and find evidence that part of the mechanism likely runs through firms holding on to workers longer and reducing the likelihood of a raise. If right, then our work suggests these restrictions can help firms appropriate value from non-managers and the average worker (relative to only an NDA). This finding contradicts efficient contracting theories (Rubin and Shedd 1981, Grossman & Hart 1986, Friedman 1991, Williamson 1975), suggesting that these theories need modification when applied to non-managers or workers with low bargaining power. Taken together, these results are consistent with the thesis that employment restrictions both limit resource outflows and increase firms' value appropriation from non-managerial, low bargaining power employees.

These findings also seemingly contradict prior studies of NCA use, which find that NCAs are positively related to wages (Lavetti et al. 2020; Starr, Prescott, and Bishara 2021; Rothstein and Starr 2021; Kini et al. 2020; Shi 2022). However, since those studies do not possess information on the other restrictions (or even firm fixed effects in most cases), we may wonder, if we only had data on a single restriction, as in the prior literature, whether our results might differ from those above. In Table 4, we present “naïve” regressions examining one restriction at a time—*as if we did not have data on the others*. Just as in the previous studies of NCA use, we find that each individual restriction is unconditionally positively related to earnings, with the NCA and NDA coefficients remaining positive even when including controls and firm fixed effects. In no specification do we observe precise negative estimates, as in our main results.

What explains the discrepancy between these naïve, positive estimates and the negative estimates found earlier between workers with all four restrictions and workers with only an NDA? One explanation for the positive, naïve wage differentials is that there are competing selection and treatment effects which we cannot sort out with just one restriction. For example, based on our joint adoption analyses, the naïve NCA estimate reflects a comparison between employees bound by all four restrictions and (mostly) a weighted average of employees bound by only an NDA or employees not bound by any restrictions. In this case, there may be negative earnings effects from all

four restrictions but positive selection effects into the use of any restrictions. With multiple restrictions we can (partially) disentangle this form of selection by changing the comparison group to those with only an NDA, but we cannot do this with data on just one restriction. If there is positive selection into restriction use, as our analyses suggest, then the positive, naïve NCA-wage relationship estimated here and in prior work is likely driven by selection.

These findings are important because they suggest selection as one possible way to reconcile the directionally discordant findings between studies of NCA use and NCA enforceability (Starr 2021). If we take as given the more plausibly causal negative effects of NCA enforceability estimated in the prior literature, then it is difficult to reconcile those negative wage estimates with the positive NCA-specific estimates presented here and in the literature. Indeed, if NCAs do increase wages, and if the enforceability of NCAs both increases the use of NCAs and positively moderates the NCA-wage relationship, then the only way that NCA enforceability could be negatively associated with earnings is if there are substantial negative spillovers (Starr et al. 2019). A more plausible explanation, however, is that NCAs actually do reduce earnings on average, but that prior studies of NCA use have not been sufficiently able to separate this negative treatment effect from the effect of positive selection into NCAs. Thus, by finding that a less selected comparison—between all four restrictions and only an NDA—result in negative earnings estimates, we suggest a potentially more likely resolution to the sign discrepancy between studies of NCA use and NCA enforceability.¹⁶

5.4 Future Directions

We conclude by sketching out several additional directions for future research. Building from our appropriation results, if it is right that adopting all four restrictions protects valuable resources, enables firms to capture value from the average worker, and increases retention, then why are not all firms adopting such practices? Potential explanations include that firms vary in their benefits from such restrictions or are unaware of these benefits, that perhaps employees are dissuaded from joining firms using all such restrictions, or that unobserved employee effort falls

¹⁶ Note that to fully reconcile these results would require studying decomposing how changes in state NCA policy affect the use of NCAs, the moderating effect of NCAs on wages, and the spillovers to those without NCAs. We think this is a fruitful avenue for future research as data becomes available.

commensurately with the adoption of these restrictions. Another explanation emerging from the legal literature is that such restrictions may be boilerplate, and that their adoption or reconsideration may not respond to market or economic forces as we might otherwise expect, as in Choi et al. (2017).

Another important direction for future research is to consider the impact of the mass use of these restrictions, similar to Starr et al. (2019). For example, does the use of these restrictions by one or multiple firms make hiring more difficult for other firms? How do the potential external effects of these restrictions affect employee mobility, wages, productivity, investments, profitability, and M&A and alliance activity (Younge, Tong, Fleming 2015)? In a different vein, these restrictions appear to take otherwise fungible resources and tie them to the firm, creating a sort of “contract-induced firm-specificity.” Then, is their effect akin to other forms of specificity (e.g., asset-specificity) studied in transactions costs theory (Cuypers et al. 2021)? For instance, how do they affect the direction and mode of corporate diversification? (Silverman, 1999; 2002 Ch. 6). As noted above, another way to study these patterns is to look at litigation activity, as done in the patent context (Ganco et al. 2009). What litigation strategies do firms use and what are the implications for firms and the market?

Lastly, our bundling results are relevant for researchers, policymakers, and practitioners concerned about the efficacy of individual restrictions or sets of restrictions. For example, a common argument for banning NCAs is that other restrictions can protect firms without so bluntly restricting employee mobility (Silverman 2020, Federal Trade Commission 2023). Examining this argument with observational data is challenging, however, because it is rare to observe all three restrictions without NCAs. Indeed, analyses of these comparisons in our data are underpowered and yield imprecise results. Accordingly, (quasi-) experimental research designs, albeit removed from reality, may offer a path for estimating the causal effects of (sets of) individual restrictions, where treatments and counterfactuals can be properly specified and powered. Such experimental work may also address how effective the restrictions are in protecting the firm’s competitive advantage, knowledge, and relational resources, whether certain sets of restrictions are more effective than

others, and why.

In conclusion, using a descriptive, question-driven approach, we have documented several novel and important facts regarding the use of four employment restrictions and their association with value appropriation from workers. These facts answer some questions but raise many others. We have outlined some of those questions here, but many others certainly remain. Finding and answering them, we believe, will be a productive line of inquiry.

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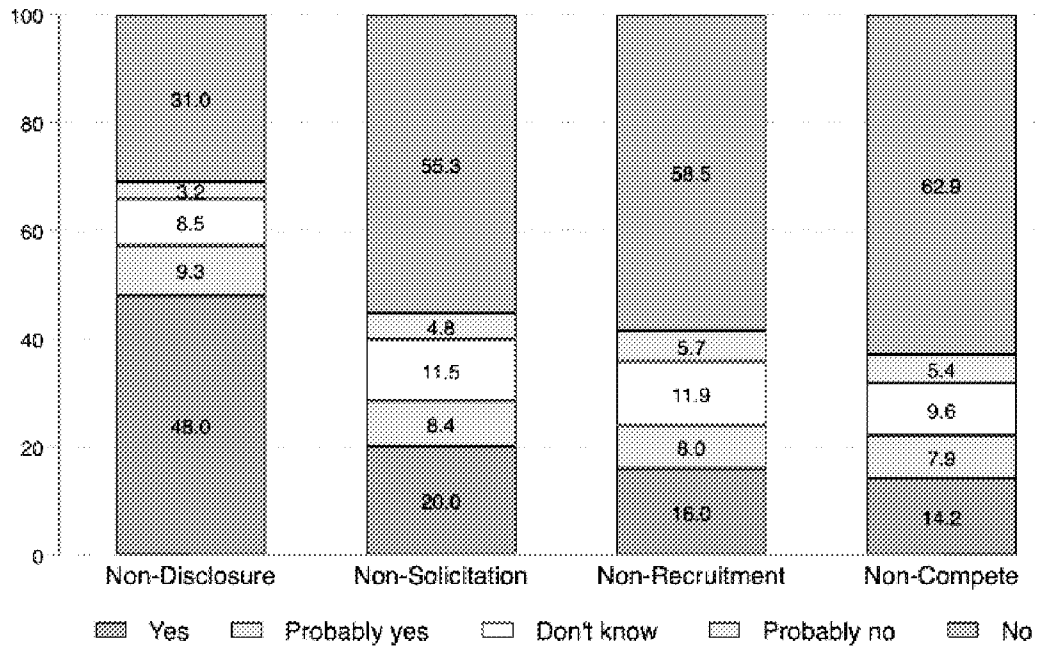
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Figure 1. Incidence of Postemployment Restrictions
 Panel A. Individual-Level Survey Data



Results are from the weighted sample.

Panel B. Firm-Level Survey Data

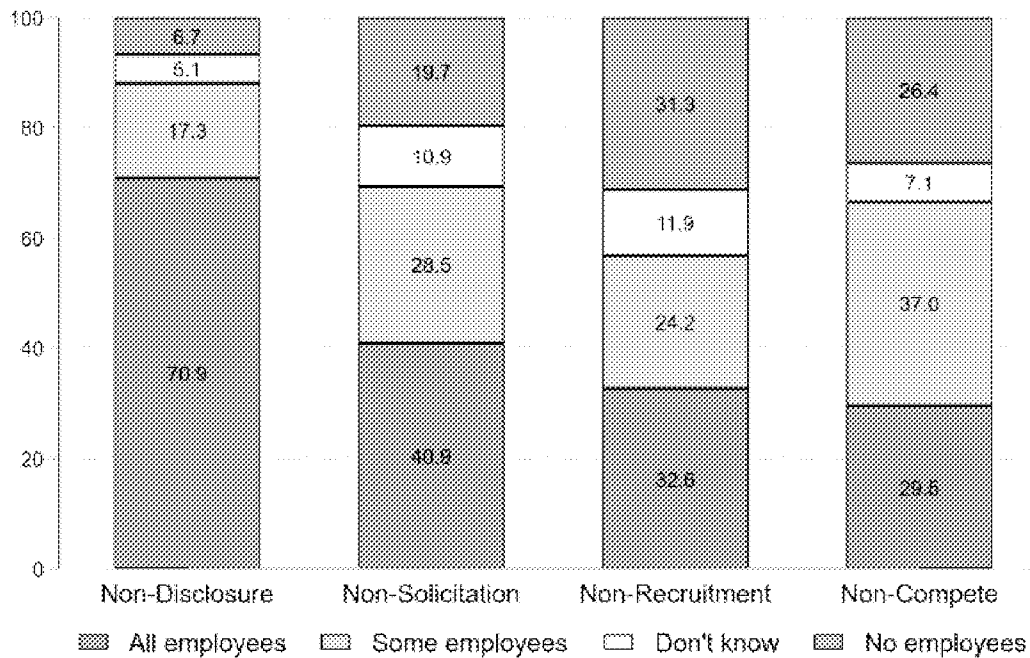
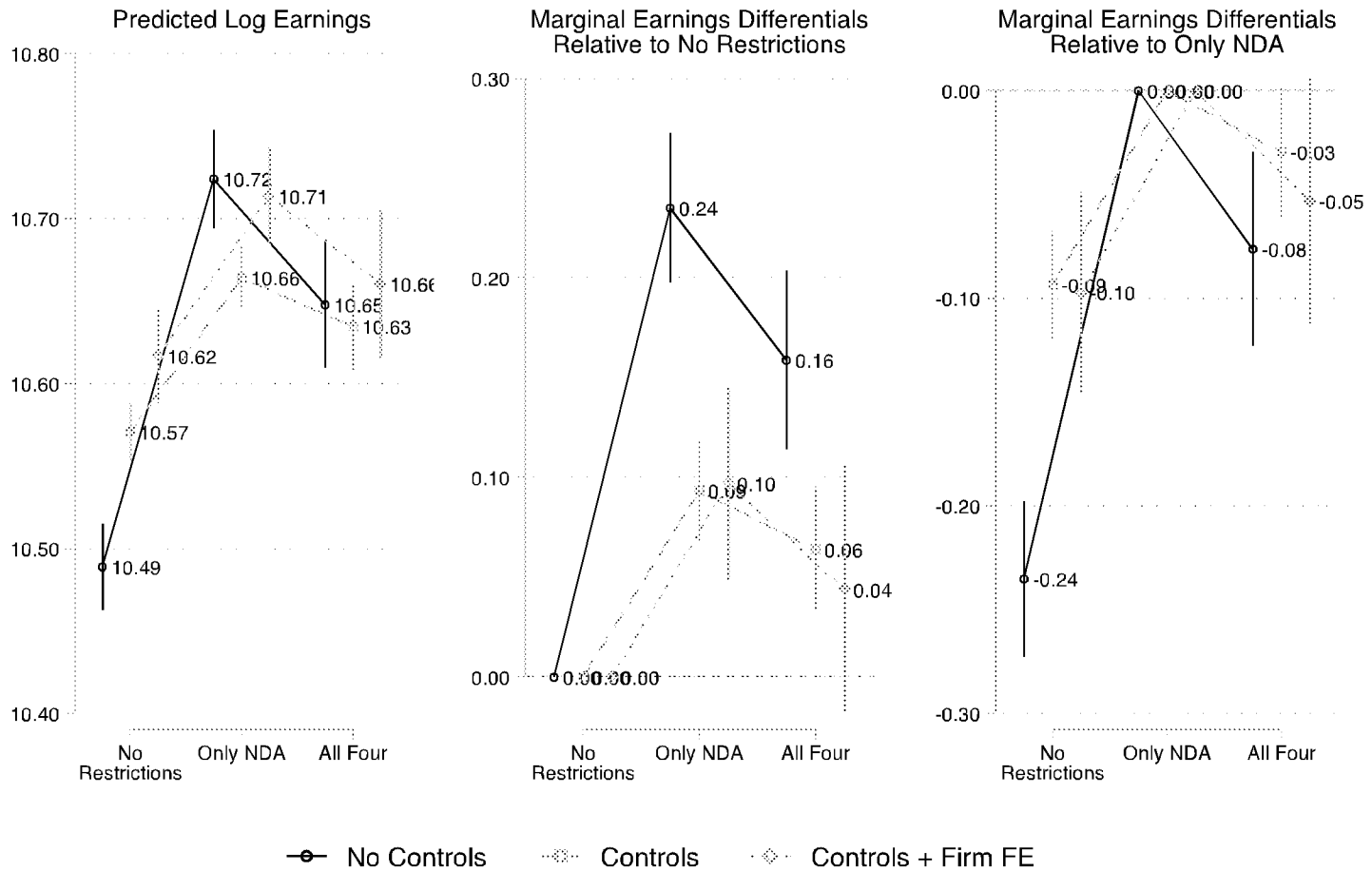
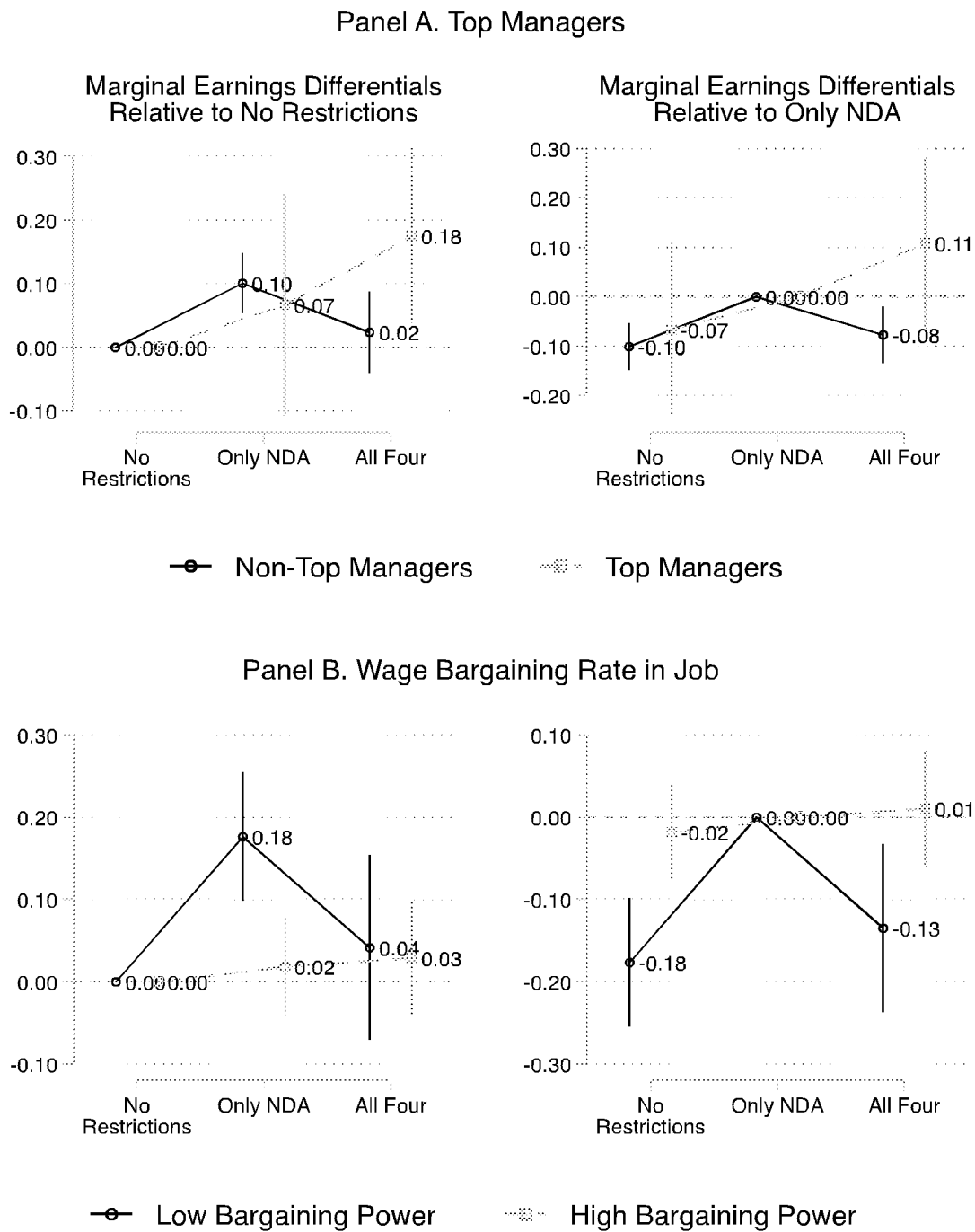


Figure 2. Main Earnings Results



Note: These results reflect the estimates from Table 3. Controls include age, gender, class of employee, log(firm size), as well as occupation, industry, and state fixed effects. Standard errors are clustered by firm. The left panel shows expected log earnings, holding other covariates at their means. The middle and left panels examine marginal effects, changing the reference group from no restrictions to only an NDA. The middle panel shows the log earnings differential between no restrictions and all four, as well as no restrictions and only an NDA, as in columns (1)-(3) of Table 3. The right panel shows the log earnings differential between workers with only an NDA and those with all four restrictions as well as the differential between workers with only an NDA and those with no restrictions, as in columns (4)-(6) of Table 3.

Figure 3. Heterogeneity in Earnings Results by Bargaining Power



Note: The model underlying this figure includes individual-level controls and firm fixed effects, corresponding to even columns of Table A11. The left panel focuses on comparisons to workers with no restrictions, while the right panel focuses on comparisons to workers with only an NDA.

Table 1. Joint Distribution of Restrictions

Combination of restrictions: (NDA, NSA, NRA, NCA)	Category	Individual-Level Data		
		Data		Firm-Level Data
		(1)	(2)	(3)
		1(Adopt)=Yes or Probably yes	1(Adopt)=All employees	1(Adopt)= All or some employees
(0,0,0,0)	None	38.4	22.2	5.2
(1,0,0,0)	Only NDA	25.9	25.7	10.9
(0,1,0,0)		0.3	1	0.2
(0,0,1,0)		0.1	0.5	0.1
(0,0,0,1)*		0.6	0.7	0.9
(0,1,1,0)		0.3	0.7	0.1
(0,1,0,1)*		0.2	0.3	0.7
(0,0,1,1)*		0.1	0	0
(0,1,1,1)*	Other	0.2	0.1	0.2
(1,1,0,0)		3.1	4.5	3.2
(1,0,1,0)		1.6	1.6	0.5
(1,0,0,1)*		2	3	3.8
(1,1,0,1)*		2.6	5	10
(1,0,1,1)*		0.5	0.5	1.2
(1,1,1,0)		6.2	11.5	7.8
(1,1,1,1)*	All Four	18	22.7	55.2
Total		100.0	100.0	100.0

Notes: In column (1), adoption of each restriction includes those who indicate they agreed or probably agreed. In column (2), adoption of each restriction is equal to 1 if the firm uses that provision for all employees. Column (3) considers firm-level adoption as 1 if the firm uses that provision for or all or some employees. 'Don't know' responses are omitted. * denotes combinations that include NCAs.

Table 2. Restriction Adoption by Resource Value and Top Manager Status

Dependent Variable:	(1) 1(None)	(2) 1(Only NDA)	(3) 1(Other)	(4) 1(All)
<i>Panel A. Top Manager Status and Access to Valuable Resources</i>				
P(Work w/clients)* P(Client info)*P(Secrets)	-0.514 (0.054)	0.149 (0.036)	0.162 (0.027)	0.203 (0.029)
Top Manager	-0.045 (0.013)	0.006 (0.011)	0.021 (0.009)	0.018 (0.010)
P-values from test of relative risk ratio $P(\text{All}) / P(\text{None}) = P(\text{Only NDA}) / P(\text{None})$ for:				
P(Work w/clients)* P(Client info)*P(Secrets)				0.013
Top Manager				0.308
<i>Panel B. NCA enforceability and Inevitable Disclosure Doctrine</i>				
NCA non-enforceability	-0.013 (0.002)	0.011 (0.003)	0.007 (0.002)	-0.005 (0.002)
Favorable IDD	-0.015 (0.011)	-0.003 (0.010)	0.006 (0.006)	0.011 (0.006)
Against IDD	-0.005 (0.009)	0.000 (0.009)	0.003 (0.006)	0.003 (0.008)
P-values from test of relative risk ratio $P(\text{All}) / P(\text{None}) = P(\text{Only NDA}) / P(\text{None})$ for:				
NCA non-enforceable				0.002
Favorable IDD				0.228
Against IDD				0.836

Notes: The results are from a multinomial logit model, where the dependent variable is categories for the four mutually exclusive combinations of restrictions {None, Only NDA, Other, All Four}. The estimates have been converted into average marginal effects such that each coefficient can be interpreted as a percentage point increase for a one-unit increase in the independent variable. Since an increase in the likelihood of being in one category must be offset with a decrease in another, each row must add up to 0. The NCA non-enforceability is based on the 2009 NCA enforceability measure from Starr (2019b), calculated as: (NCA enforceability / s.d.) * (-1). Panel A is based on 27,476 observations while Panel B is based on 27,804 observations. Panel A includes controls for age, gender, the class of employee, log firm size, and state FEs, while Panel B includes age, gender, the class of employee, log firm size, industry FEs and occupation FEs. Standard errors are clustered at the firm level in Panel A and at the state level in Panel B.

Table 3. Log Annual Earnings and Main Combinations of Restrictions

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Annual Earnings)	Base Category: No Restrictions			Base Category: Only NDA		
All Four	0.159 (0.023)	0.064 (0.016)	0.044 (0.032)	-0.076 (0.024)	-0.030 (0.016)	-0.053 (0.030)
Only an NDA	0.235 (0.019)	0.093 (0.013)	0.097 (0.025)			
Others	0.236 (0.023)	0.078 (0.015)	0.052 (0.032)	0.001 (0.024)	-0.016 (0.016)	-0.046 (0.033)
No Restrictions				-0.235 (0.019)	-0.093 (0.013)	-0.097 (0.025)
Constant	10.489 (0.013)	9.815 (0.052)	10.159 (0.156)	10.724 (0.015)	9.909 (0.054)	10.256 (0.159)
Observations	27,804	27,804	27,804	27,804	27,804	27,804
R-squared	0.021	0.510	0.827	0.021	0.510	0.827
<i>P</i> -values (All Four v. Base Category)	< 0.001	< 0.001	0.166	0.001	0.070	0.078
δ (All Four v. Base Category)			0.676			2.047
Controls	No	Yes	Yes	No	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes

Note: Controls include age, gender, class of employee, log(firm size), occupation FEs, industry FEs, state FEs. Note that in the model with firm fixed effects, all firms with just one observation in the data are dropped. Standard errors in parentheses, clustered by firm.

Table 4. Ln(Annual Earnings) and Individual Restrictions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent Variable: Log(Annual Earnings)												
NCA	0.082 (0.008)	0.043 (0.013)	0.021 (0.023)									
NDA				0.140 (0.007)	0.078 (0.011)	0.064 (0.021)						
NSA							0.047 (0.007)	0.020 (0.012)	-0.020 (0.024)			
NRA										0.038 (0.008)	0.006 (0.012)	-0.031 (0.027)
Constant	10.81 (0.005)	9.85 (0.052)	10.20 (0.159)	10.74 (0.006)	9.82 (0.052)	10.17 (0.158)	10.82 (0.005)	9.85 (0.052)	10.21 (0.159)	10.82 (0.005)	9.86 (0.052)	10.21 (0.158)
Obs.	27,804	27,804	27,804	27,804	27,804	27,804	27,804	27,804	27,804	27,804	27,804	27,804
R-squared	0.004	0.508	0.826	0.015	0.510	0.826	0.002	0.507	0.826	0.001	0.507	0.826
P-values	< 0.001	0.001	0.341	< 0.001	< 0.001	0.003	< 0.001	0.091	0.411	< 0.001	0.648	0.244
Controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes

Note: These models analyze as if we have data only on that restriction, and compare those who have signed that restriction to those who have not signed, irrespective of any other restrictions they may have signed. So, for instance, columns (1)-(3) compare those who have signed NCAs with those who have not signed NCAs. NDA, NCA, NSA and NRA are dummy variables, which are equal to 1 if the employee has signed that restriction. Controls include age, gender, class of employee, log(firm size), occupation Fes, industry Fes, and state Fes. Standard errors in parentheses, clustered by firm.

Online Appendix A

Figure A1. Employee-Level Survey Postemployment Restriction Questions

Sometimes employers try to restrict what employees can do after they leave.

In your current job did you agree that if you leave your employer you will:

Not join or start a competitor (non-compete)

- click to select -

Not solicit former clients (non-solicitation of clients)

- click to select -

Not solicit former co-workers (non-poaching of co-workers)

- click to select -

Not share your former employer's confidential information (non-disclosure agreement)

- click to select -

- click to select -

Yes, I definitely agreed

I'm not sure, but I probably agreed

Probably did not agree

No, I definitely did not agree

I have no idea if I agreed or not

Figure A2. Firm-Level Survey Postemployment Restriction Questions

25. Which employees at your organization are subject to non-compete agreements (Prohibited from joining or starting a competing organization)?

	All employees	Some employees	No employees	Don't Know
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Which employees at your organization are subject to each of the following?

	All employees	Some employees	No employees	Don't Know
Non-solicitation of clients (Prohibited from leaving and soliciting former clients)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-poaching of co-workers (Prohibited from leaving and soliciting coworkers to join you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-disclosure (Prohibited from leaving and sharing confidential information)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Table A1. Description of the Four Postemployment Restrictions

Restriction	Prohibited action	Capital Protected	Willingness of court to enforce	Typical difficulty in proving violation	Typical duration in time	Typical Geographic scope
Non-compete agreement (NCA)	Move to or start a direct competitor	Firm, employee, and jointly developed capital	Low	Low	Six months – two years	Narrow
Non-solicitation agreement (NSA)	Solicit former clients or vendors after leaving a company	Client relationships	Moderate	Low–High	Six months – two years	Broad
Non-recruitment agreement (NRA)	Recruit former co-employees after leaving a company	Coworker relationships	Moderate	Low–High	Six months – two years	Broad
Non-disclosure agreement (NDA)	Share confidential information learned at the employer	Firm informational capital	High	Low–High	Indefinite	Broad

Notes: While most NCAs have some geographic restrictions (Starr et al. 2021), NSAs, NRAs, and NDAs may simply restrict the behavior at issue, without a geographic scope condition. It can be difficult to prove a violation of NSAs, NRAs, and NDAs restrictions if the employee is clandestine in their behavior.

Table A2: Comparison of non-missing and missing sample in employment restrictions

Variable	Non-missing	Missing	Non-missing sample – Missing	P-value
	sample	sample	sample Difference	
Age	37.320 (11.077)	37.506 (10.935)	-0.186 (0.369)	0.616
1(Female)	0.507 (0.500)	0.493 (0.500)	0.014 (0.011)	0.207
Annual Income	57,721 (36,097)	57,722 (37,086)	-0.941 (541)	0.999
1(Non-profit employee)	0.109 (0.312)	0.104 (0.305)	0.006 (0.005)	0.291
N	33,637	2,346		

Notes: The table shows the distributions of demographic characteristics in our sample data missing and non-missing in any of the four employment restrictions. Standard deviations (first two columns) and robust standard errors clustered at the state level (last column) are in parentheses.

Table A3: PayScale Individual Survey and 2017 American Community Survey

Variable	PayScale		ACS	PayScale – ACS Difference			
	Unweighted	Weighted		Unweighted	P-value	Weighted	P-value
Age	37.320 (11.077)	39.728 (12.880)	39.741 (12.986)	-2.421 (0.139)	< 0.001	-0.013 (0.118)	0.915
1(Female)	0.507 (0.500)	0.463 (0.499)	0.463 (0.499)	0.044 (0.006)	< 0.001	0.000 (0.006)	1.000
Annual Income	57,721 (36,097)	50,943 (40,055)	51,696 (61,280)	6,025 (508)	< 0.001	-753 (612)	0.225
1(Non-profit employee)	0.109 (0.312)	0.086 (0.280)	0.086 (0.280)	0.023* (0.005)	< 0.001	0.000 (0.004)	0.996
N	33,637	33,637	956,992				

Notes: The table shows the distributions of demographic characteristics in our sample data (both weighted and unweighted) and in data from the 2017 American Community Survey. The weights used in our samples are raking weights. Standard deviations (first three columns) and robust standard errors clustered at the state level (last two columns) are in parentheses.

Table A4. Job Characteristics of Survey-Taker in Firm-Level Payscale Survey

Panel A. Job Level			Panel B. Job Function		
	N	%		N	%
C-Level	250	13.5	Compensation	83	4.48
Vice President	161	8.69	Consultant	39	2.1
Director	427	23.1	Executive (COO, CEO, etc.)	238	12.8
Manager	678	36.6	Finance/Accounting	122	6.58
Individual Contributor	336	18.1	Human Resources	1,015	54.8
Total	1,852	100	Marketing	18	0.97
			Operations	175	9.44
			Sales	33	1.78
			Technology	37	2
			Other	94	5.07
			Total	1,854	100

Notes: This table shows the job level and the job function of the individuals at the firm who took the Payscale Firm-Level Survey. The overall number of observations is slightly different because the individuals were not required to answer these questions.

Table A5. Comparison of Payscale Firm Data to Compustat and County Business Patterns

	Payscale	2017 County Business Patterns	Compustat
1-99 emp.	52.62	98.12	20.01
100-749 emp.	30.46	1.65	20.02
750-4,999 emp.	10.35	0.19	39.68
5,000 or more emp.	6.58	0.04	20.29
Total	100	100	100

Notes: This table shows the firm size distribution in the United States in 2017 comparing between the Payscale firm-level data, the 2017 County Business Patterns data from the US Census Bureau, and Compustat (which covers publicly traded companies).

Table A6. Pairwise and Joint Adoption of Restrictions

Individual-Level Survey						Firm-Level Survey (Adoption=All employees)					
Panel A. Pairwise Restriction Adoption						Panel C: Pairwise Restriction Adoption					
Contract type	Unconditional probability	Probability conditional on:				Contract type	Unconditional probability	Probability conditional on:			
		NDA	NSA	NRA	NCA			NDA	NSA	NRA	NCA
Non-disclosure	59.9	-	96.7	97.5	95.6	Non-disclosure	74.6	-	95.6	96.7	97.0
Non-solicitation	31.0	50.1	-	91.7	87.3	Non-solicitation	45.8	58.7	-	93.0	87.2
Non-recruitment	26.9	43.9	79.7	-	77.7	Non-recruitment	37.6	48.8	76.4	-	72.4
Non-compete	24.2	38.6	68.0	69.7	-	Non-compete	32.2	41.8	61.3	61.9	-

Panel B. Adopting Three Restrictions Conditional on the Other						Panel D. Adopting Three Restrictions Conditional on the Other					
1(Other three restrictions)	Probability conditional on:				1(Other three restrictions)	Probability conditional on:					
	NDA	NSA	NRA	NCA		NDA	NSA	NRA	NCA		
	30.1	58.2	67.0	74.7		30.4	49.5	60.3	70.5		

Notes: In Panel A and B, the adoption of each restrictive covenant includes those who indicate they agreed or probably agreed. Panel C and D in the firm-level survey define adoption based on whether the firm uses the restriction for all employees. “Don’t know” responses are omitted in all panels. Panel B and D indicates the likelihood of having three other restrictions conditional on a particular single restriction (e.g., the likelihood of having an NSA, NRA, and NCA conditional on an NDA)

Table A7. Which restrictions are used alone, or with the three others?

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: 1(Only bound by a single restriction)								
	Panel A. Individual-Level Survey				Panel B. Firm-Level Survey			
NDA	0.417 (0.006)				0.296 (0.023)			
NCA		-0.330 (0.005)				-0.388 (0.019)		
NSA			-0.386 (0.005)				-0.493 (0.02)	
NRA				-0.365 (0.005)				-0.444 (0.018)
<i>P-values from cross-model tests, comparing to NDA coefficient.</i>								
		0.000	0.000	0.000		0.000	0.000	0.000
R ²	0.241	0.14	0.196	0.172	0.126	0.201	0.323	0.26

Dependent Variable: 1(Bound by three other restrictions)								
	Panel C. Individual-Level Survey				Panel D. Firm-Level Survey			
NDA	0.295 (0.005)				0.273 (0.016)			
NCA		0.663 (0.007)				0.511 (0.025)		
NSA			0.576 (0.007)				0.474 (0.02)	
NRA				0.628 (0.008)				0.508 (0.023)
<i>P-values from cross-model tests, comparing to NCA coefficient.</i>								
	0.000		0.000	0.000	0.000		0.031	0.829
R ²	0.177	0.465	0.484	0.506	0.17	0.334	0.378	0.376

Notes: Each regression in the individual-level data includes 27,804 observations, while each regression in the firm-level data contains 1,525 observations. Adoption in the firm-level regressions refers to adopting for all employees. In the individual-level data, controls include age, gender, the class of employee, log(firm size), state FE, industry FE by occupation FE; standard errors are clustered by firm. In the firm-level data, controls include firm size (four categories: 1-99 employees, 100-749 employees, 750-4,999 employees, and 5,000 or more employees), industry FEs, and state FEs; robust standard errors reported in parentheses.

Table A8. Sets of Restrictions by Demographic Characteristics in the Employee-Level Data

	(1)	(2)	(3)	(4)
	P(None)	P(Only NDA)	P(Other)	P(All)
1(Male)	38.8	24.5	18.7	18.0
1(Female)	37.8	27.6	16.5	18.0
1(<Median Age)	38.1	23.1	18.2	20.6
1(≥Median Age)	38.6	27.8	17.4	16.3
1(<Median Income)	43.2	23.4	15.7	17.6
1(≥Median Income)	31.4	29.4	20.6	18.7
1(For Profit)	37.8	25.1	18.2	18.8
1(Not for Profit)	44.1	34.0	12.5	9.4
1(<Median firm size)	42.3	23.6	16.4	17.7
1(≥Median firm size)	34.2	28.3	19.0	18.4
1({wwc, ac ,ts} = {1,1,1})	32.2	25.6	21.4	20.9
1({wwc, ac ,ts} ≠ {1,1,1})	41.2	26.0	16.1	16.7
1(Top manager)	31.5	28.8	20.5	19.3
1(Not top manager)	39.1	25.6	17.4	17.9
1(NCA non-enforceable)	33.7	28.1	20.3	17.8
1(NCA enforceable)	38.9	25.6	17.4	18.1
1(Favorable IDD)	37.4	25.1	18.2	19.4
1(Against IDD)	37.3	26.4	18.3	18
1(No IDD)	39.2	25.8	17.3	17.7

Notes: This table presents the adoption patterns of the potential bundles of four restrictions by basic demographic characteristics in the individual-level Payscale data. Each row adds to 100. “Don’t know” responses are omitted. “wwc” is an indicator for working directly with clients; “ac” is an indicator for having access to client information (i.e., regardless of whether one works directly with client); “ts” is an indicator for the employee having knowledge of or access to company trade secrets. The client and trade secret variables are aggregated from the individual data in Starr, Prescott, and Bishara (2021), merged into the Payscale data at the two-digit NAICS and two-digit SOC level, and then dichotomized by the median. Top management is chief executives, vice presidents, or directors. Not-top management is individual contributors or managers/supervisors. NCA non-enforceable states include California, North Dakota, and Oklahoma. IDD determines whether a firm can (in states with Favorable IDD) or cannot (in states with Against IDD) prohibit workers from disclosing trade secrets when departing, following Castellaneta et al. (2016).

Table A9. Distribution of Restrictions by Occupation and Industry

Panel A: Incidence by Industry	NDA	NSA	NRA	NCA
Agriculture, Hunting	54.7	23.8	18.0	20.8
Mining, Extraction	63.5	26.4	26.4	21.5
Utilities	67.0	26.2	22.9	23.9
Construction	46.1	24.9	21.2	15.6
Manufacturing	60.5	29.5	24.2	28.7
Wholesale Trade	53.0	27.2	23.5	27.3
Retail Trade	49.9	22.2	20.8	17.6
Transportation, Warehousing	52.5	25.2	22.2	21.4
Information	65.1	33.2	25.8	27.0
Finance, Insurance	68.5	36.7	29.2	22.2
Real Estate	51.4	25.5	24.9	15.9
Prof., Scientific, Technical	69.2	39.7	31.3	30.9
Management of Companies	65.1	23.2	19.7	23.2
Admin, Support, Waste Man.	59.8	35.4	27.5	27.3
Health Care, Social Assistance	55.9	24.2	20.5	15.2
Arts, Entertainment, Rec.	52.1	19.8	21.1	12.7
Accommodation, Food Services	44.1	19.5	19.3	17.2
Other Services	47.6	23.3	20.7	18.5
Panel B: Incidence by Occupations	NDA	NSA	NRA	NCA
Management	62.8	29.8	25.2	25.4
Business and Financial Operations	64.0	30.0	24.4	22.3
Computer and Mathematical	72.8	37.9	31.1	32.7
Architecture and Engineering	61.7	26.7	22.2	24.0
Life, Physical, and Social Science	64.2	30.3	22.4	25.2
Community and Social Services	50.3	28.2	22.1	8.0
Legal	61.5	25.4	21.3	11.7
Education, Training, and Library	55.7	21.3	19.7	13.7
Arts, Design, Entertainment, Sports, Media	57.4	33.0	27.4	25.5
Healthcare Practitioners and Technical	54.5	23.5	19.3	15.4
Healthcare Support	55.7	30.4	24.4	15.4
Protective Service	55.9	24.4	18.5	16.7
Food Preparation and Serving Related	39.5	22.6	20.7	16.9
Building and Grounds Cleaning Maintenance	44.6	23.6	22.7	18.6
Personal Care and Service	55.3	33.0	27.3	22.8
Sales and Related	54.0	30.8	26.4	26.2
Office and Administrative Support	56.8	27.1	23.0	20.3
Construction and Extraction	37.8	25.0	20.2	13.6
Installation, Maintenance, and Repair	44.3	24.4	22.2	17.6
Production	45.5	22.0	19.4	18.1
Transportation and Material Moving	42.0	25.2	21.8	19.7

Notes: This table shows the incidence of non-disclosure agreements (NDAs), non-solicitation agreements (NSAs), non-recruitment agreements (NRAs), and non-compete agreements (NCAs) measures are calculated from the 2017 Individual-Level Payscale data. An individual is recorded as agreeing to one of these restrictions if they definitely or probably agreed.

Table A10. Restriction Adoption by NCA Enforceability and IDD in Firm-Level Survey

	(1)	(2)	(3)	(4)
Dependent Variable:	1(None)	1(Only NDA)	1(Other)	1(All)
NCA non-enforceable	-0.023 (0.011)	0.033 (0.009)	-0.005 (0.007)	-0.005 (0.009)
Favorable IDD	-0.042 (0.020)	-0.045 (0.032)	0.042 (0.033)	0.046 (0.023)
Against IDD	-0.005 (0.028)	-0.044 (0.025)	0.033 (0.024)	0.015 (0.029)
Unconditional probability of adoption	0.222	0.257	0.294	0.227
<i>P</i> -values from test of relative risk ratio $P(\text{All}) / P(\text{None}) = P(\text{Only NDA}) / P(\text{None})$ for:				
NCA non-enforceable				0.009
Favorable IDD				0.035
Against IDD				0.014

Notes: The results are from a multinomial logit model, where the dependent variable are the four mutually exclusive combinations of restrictions {None, Only NDA, Other, All Four}. The estimates have been converted into average marginal effects such that each coefficient can be interpreted as a percentage point increase for a one-unit increase in the independent variable. Since an increase in the likelihood of being in one category must be offset with a decrease in another, each row must add up to 0. The result is based on 1,525 observations. The controls include firm size and industry. Standard errors are clustered at the state level.

Table A11. Heterogeneity in Restriction-Earnings Relationship by Bargaining Power

Base Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A. Heterogeneity for Top Managers				Panel B. Heterogeneity by Wage Bargaining Rate			
	No Restrictions		Only an NDA		No Restrictions		Only an NDA	
All Four	0.127 (0.023)	0.024 (0.033)	-0.096 (0.024)	-0.077 (0.029)	0.029 (0.033)	0.042 (0.058)	-0.129 (0.036)	-0.135 (0.052)
Only NDA	0.223 (0.019)	0.101 (0.024)			0.158 (0.027)	0.176 (0.040)		
Others	0.197 (0.023)	0.047 (0.034)	-0.026 (0.024)	-0.054 (0.034)	0.106 (0.033)	0.047 (0.053)	-0.052 (0.036)	-0.129 (0.058)
No Restrictions			-0.223 (0.019)	-0.101 (0.024)			-0.158 (0.027)	-0.176 (0.040)
Top Manager (TM)	0.826 (0.040)	0.359 (0.049)	0.720 (0.045)	0.324 (0.083)				
Only NDA*TM	-0.106 (0.060)	-0.034 (0.089)						
Others*TM	0.104 (0.051)	-0.001 (0.083)	0.210 (0.056)	0.033 (0.110)				
All Four*TM	0.113 (0.060)	0.151 (0.073)	0.219 (0.059)	0.186 (0.088)				
No Restrictions*TM			0.106 (0.060)	0.034 (0.089)				
Bargaining Power (BP)					0.525 (0.025)	0.110 (0.044)	0.601 (0.028)	-0.048 (0.045)
Only NDA*BP					0.076 (0.037)	-0.158 (0.049)		
Others*BP					0.117 (0.043)	-0.027 (0.061)	0.041 (0.045)	0.131 (0.063)
All Four*BP					0.132 (0.045)	-0.013 (0.070)	0.056 (0.046)	0.145 (0.061)
No Restrictions*BP							-0.076 (0.037)	0.158 (0.049)
Constant	10.423 (0.013)	10.112 (0.155)	10.646 (0.015)	10.213 (0.157)	10.268 (0.017)	10.154 (0.217)	10.425 (0.022)	10.330 (0.220)
Observations	27,804	27,804	27,804	27,804	25,114	25,114	25,114	25,114
R-squared	0.135	0.833	0.135	0.833	0.179	0.828	0.179	0.828
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Firm FE	No	Yes	No	Yes	No	Yes	No	Yes

Notes: Controls include age, gender, class of employee, log(firm size), occupation FEs, industry FEs, and state FEs. Standard errors in parentheses, clustered by firm.

Table A12. Firm-level Outcomes (Retention, Base Pay Increases, Training)

Dependent Variable:	(1) 1(Firm intends to increase base pay)	(2)	(3) 1(Retention is a major concern)	(4)	(5) 1(New hire training over one month)	(6)
<i>Baseline Omitted Category: Only NDA</i>						
All Four	-0.065 (0.028)	-0.055 (0.029)	-0.086 (0.042)	-0.077 (0.044)	0.041 (0.035)	0.048 (0.036)
None	-0.018 (0.027)	-0.024 (0.028)	-0.072 (0.043)	-0.071 (0.045)	-0.019 (0.036)	-0.012 (0.037)
Others	-0.060 (0.026)	-0.050 (0.026)	-0.011 (0.039)	-0.014 (0.040)	-0.011 (0.033)	-0.018 (0.034)
Constant	0.877 (0.018)	0.672 (0.178)	0.641 (0.028)	0.826 (0.183)	0.665 (0.024)	0.672 (0.193)
Observations	1,347	1,347	1,099	1,099	1,500	1,500
R-squared	0.006	0.093	0.006	0.092	0.002	0.062
<i>P</i> -values for All Four v. Only NDA	0.021	0.062	0.040	0.082	0.236	0.184
Controls	No	Yes	No	Yes	No	Yes
Mean of DV	0.84	0.84	0.60	0.60	0.67	0.67

Note: In columns (1)-(2), the variable of new hire training is 1 if 'the typical employees spend one month or more in training when they are initially hired', and 0 otherwise. In columns (3)-(4), the variable of firms' intention to increase base pay is 1 if a respondent answers yes for 'do you plan to give base pay increases in 2017?', and 0 otherwise. In columns (5)-(6), the dependent variable of retention concern is 1 if a respondent agrees or strongly agrees that 'employee retention is a major concern for its company', and 0 otherwise. Controls include firm size (four categories), industry FEs, state FEs. Robust standard errors in parentheses.

Online Appendix B. Differencing between All vs. Only NDA to Address Selection

In this appendix we provide a more formal econometric framework and Monte Carlo analyses for why, when considering the effects of ironcladding, those bound by Only an NDA make a more suitable control group than those bound by no restrictions.

Suppose that there is just one unobserved variable w ,¹⁷ and that the choice of bundle is constrained to three options {Nothing, NDA, All}, where we will use NDA for shorthand to refer to “Only NDA” so that the options are mutually exclusive. Also suppose that the data generating process for y is:¹⁸

$$(1) \quad y_i = \beta_0 + \beta_1 All_i + \beta_2 NDA_i + \beta_3 w_i + \epsilon_i$$

where ϵ_i is uncorrelated with All_i , NDA_i , and w_i . However, because we cannot observe w_i , the model we estimate is: $y_i = \alpha_0 + \alpha_1 All_i + \alpha_2 NDA_i + e_i$, where $e_i = \beta_3 w_i + \epsilon_i$. Estimating this equation via ordinary least squares,¹⁹ the bias in $\widehat{\alpha}_1$ (comparing All to None) takes the form:

$$(2) \quad Bias_{\widehat{\alpha}_1} = E[\widehat{\alpha}_1] - \beta_1 = \frac{\beta_3(p_{NDA}(1 - p_{NDA})cov(All, w) + p_{NDA}p_{All}cov(NDA, w))}{p_{NDA}p_{All}(1 - p_{All} - p_{NDA})}$$

where $Probability(NDA) = p_{NDA}$ and $Probability(All) = p_{All}$, and we’ve incorporated the fact that {Nothing, NDA, All} are drawn from a multinomial distribution.²⁰ A symmetric expression reflects the bias in $\widehat{\alpha}_2$ (comparing only NDA to None):

$$(3) \quad Bias_{\widehat{\alpha}_2} = E[\widehat{\alpha}_2] - \beta_2 = \frac{\beta_3(p_{All}(1 - p_{All})cov(NDA, w) + p_{NDA}p_{All}cov(All, w))}{p_{NDA}p_{All}(1 - p_{All} - p_{NDA})}$$

In both cases, $cov(NDA, w) \neq 0$ and $cov(w, All) \neq 0$ cause bias in the estimate as long as $\beta_3 \neq 0$ (that is, the omitted variable actually influences the outcome). Further, if $\beta_3 > 0$, $cov(NDA, w) > 0$, and $cov(w, All) > 0$ then both $\widehat{\alpha}_1$ and $\widehat{\alpha}_2$ will be biased upwards.

The core assumption we consider is that omitted variables could covary to similar degrees with the choice to adopt only an NDA or All four restrictions. If anything, it seems natural that the choice to adopt all restrictions is more strongly related to unobservables than the choice to adopt only an NDA. For example, if w reflects the unobserved value of firm assets, then it seems natural that firms with more (unobservably) valuable assets would be more likely to use all restrictions. This implies that $cov(All, w) \geq cov(NDA, w) \geq 0$.

Under this assumption, we examine the conditions under which the absolute value of the bias in the comparison between All vs. Only NDA is lower than the bias from the All vs. None comparison. That is, under what conditions will $|Bias_{\widehat{\alpha}_1 - \widehat{\alpha}_2}| < |Bias_{\widehat{\alpha}_1}|$?²¹ Leveraging equations (2) and (3), assuming that $cov(All, w) \geq cov(NDA, w) \geq 0$, and incorporating that in the data $p_{NDA} > p_{All}$ it is straightforward to show that the All vs. Only NDA comparison is less biased than the All vs. None comparison (i.e., that $|Bias_{\widehat{\alpha}_1 - \widehat{\alpha}_2}| < |Bias_{\widehat{\alpha}_1}|$).²² The intuition is that under these assumptions the All vs. None comparison will be more biased than the Only NDA vs. None

¹⁷ It is straightforward to extend this to a vector of unobservables, as in Oster 2017.

¹⁸ Using the Frisch-Waugh-Lovell theorem it is straightforward to extend our results to models with other covariates.

¹⁹ If $y_i = \alpha_0 + \alpha_1 x_i + \alpha_2 z_i + e_i$, OLS yields $\widehat{\alpha}_1 = \frac{cov(x, y)var(z) - cov(z, y)cov(x, z)}{var(x)var(z) - cov(x, z)^2}$. The estimate for $\widehat{\alpha}_2$ is symmetric.

²⁰ This implies that $var(All) = p_{All}(1 - p_{All})$ and that $cov(All, NDA) = -p_{All}p_{NDA}$.

²¹ Note that $|Bias_{\widehat{\alpha}_1 - \widehat{\alpha}_2}| = |Bias_{\widehat{\alpha}_1} - Bias_{\widehat{\alpha}_2}| = |(\widehat{\alpha}_1 - \alpha_1) - (\widehat{\alpha}_2 - \alpha_2)|$.

²² Simplification of the algebra leads to the condition that $|Bias_{\widehat{\alpha}_1 - \widehat{\alpha}_2}| < |Bias_{\widehat{\alpha}_1}|$ when $\frac{cov(w, All)}{cov(w, NDA)} > \frac{p_{All}}{p_{NDA}}$, which is true based on the observed data and the assumption that $cov(w, All) > cov(w, NDA)$.

comparison, but that since both are biased in the same direction differencing between them reduces the size of the bias for All vs. Only NDA.²³

We demonstrate this fact via Monte Carlo simulations. We model the first stage relationship between w and the bundle choices directly using a latent variable framework. Let $b^* = w + u$, where u and w are independent normal random variables with mean zero and variance of one; b^* is an unobserved latent index that determines the bundling patterns based on the following cutoff rules: the firm adopts “None” if $b^* \leq b_{none}^*$, “Only NDA” if $b_{nda}^* \geq b^* > b_{none}^*$, and “All” if $b^* > b_{nda}^*$. This structure necessarily implies that $cov(All, w) \geq cov(NDA, w)$ because when w is larger there will be a greater chance that $b^* > b_{nda}^*$.

Define $G(b^*)$ as the cumulative distribution of b^* . Then $p_{none} = G(b_{none}^*)$, $p_{nda} = G(b_{nda}^*) - G(b_{none}^*)$ and $p_{All} = 1 - G(b_{nda}^*)$. When we simulate this distribution we define the thresholds b_{nda}^* and b_{none}^* by requiring the overall distribution of bundles to match distribution observed in the data, thereby fixing p_{none} , p_{All} , and p_{NDA} at their sample levels.

The second stage data generating process is $y = 1 - 4All - NDA + 5w + \epsilon$ where $\epsilon \sim N(0,1)$. However, since we cannot observe w the model we estimate is $y = \alpha_0 + \alpha_1 All + \alpha_2 NDA + e$. Note that we are assuming that the “All” bundle has a stronger negative effect than the “Only NDA” bundle, but that the omitted variable is going to bias estimates of $\widehat{\alpha}_1$ and $\widehat{\alpha}_2$ upward because $cov(w, All) \geq 0$, $cov(w, NDA) \geq 0$, and $cov(w, y) \geq 0$.

Since we are holding fixed the proportion in each bundle,²⁴ the only way to vary the extent of selection on unobservables across these bundles is to vary the extent to which b^* is driven by changes in w versus changes in u . Intuitively, when variation in u explains all the variation in b^* then the bundle choice is effectively random and our estimates will be unbiased since $cov(w, All) = cov(w, NDA) = 0$. However, when variation in w explains all the variation in b^* then the bundling choice is driven entirely by unobservables and our estimates will be seriously biased. The key result, however, is that even in the face of pure selection on unobservables, our differencing approach will mitigate the bias from omitted variables to at least some extent. Moreover, when the result flips signs as a result of this differencing framework it is because the treatment effect has now overpowered the selection effect.

We simulate this data generation process 100 times, drawing 1000 observations each time, and then repeat the process varying the variance of u such that the proportion of variance in b^* explained by variance in w is $\{0\%, 33\%, 66\%, 100\%\}$. Figure B1 displays the estimates of our three comparisons (All vs. None, Only NDA vs. None, and All vs. Only NDA) while Figure B2 shows the bias for the three separate comparisons (i.e., comparing the estimate to the true causal effect), for varying degrees of selection on unobservables. The top row of Figures B1 and B2 show that when choices are effectively random, we recover unbiased causal effects on average. However, when

²³ A numerical example may help clarify the logic. Suppose that the causal effect of All vs. None is 3 and that the causal effect of Only NDA vs. None is 1, such that causal effect of All vs. Only NDA is 2. Suppose further that under selection on unobservables the Only NDA vs. None estimate is positively biased by 3 units to 4, while the All vs. None estimate is positively biased by 5 units to 8. As a result the All vs. Only NDA estimate becomes 4 (=8-4), which makes it biased by 2 units, which is lower than bias in the All vs. None coefficient (5). This finding holds true as long as there is some upward bias in the Only NDA vs. None comparison (assuming again that Only NDA will be less biased upward than All). No bias in the All vs. No NDA comparison is differenced out when the Only NDA vs. None actually estimates the causal effect.

²⁴ That is, $cov(All, w)$ is not independent of p_{All} because $cov(All, w) = (E[w|All = 1] - E[w|All = 0])p_{All}(1 - p_{All})$ by definition.

bundle choices are driven entirely by unobserved factors (in the bottom row), we can see that the “All vs. None” estimate is the most biased (with these parameters we estimate a coefficient of 7, on average, which is 11 units more than the true causal effect), while the Only NDA vs. None estimate is less biased (upward by 6 units), and the least biased estimate is All vs. Only NDA (biased upwards by 5 units). Indeed, Figure B2 shows that for all levels of selection on unobservables, the All vs. Only NDA comparison is the least biased of these comparisons.

In addition, Figure B1 highlights a second key result related to sign switching which derives from the fact that selection causes upward bias in these estimates when in fact the causal effects are negative. When selection on unobservables is sufficiently strong, even though the treatment effects of All and Only NDA are negative, the selection effect overwhelms the treatment effect such that the resulting estimates (including All vs. Only NDA) are all positive. We see this in Figure B1 when the variance of the latent term explained by the omitted variable is 66% or higher. In contrast, when there is no selection, then all estimates are negative and unbiased. However, for moderate amounts of selection, even though the All vs. None and Only NDA vs. None comparisons are both biased upwards to the point where they are positive, because the All vs. Only NDA differences out *additional* selection the All vs. Only NDA comparison can be negative. This is what we see in Figure B1 when the proportion of variance explained by the omitted variable is 33%. From an econometric perspective, in these moderate ranges of selection, the treatment effect is becoming sufficiently strong relative to the selection effect such that the sign reverses. This finding is important because it is precisely what we find in the case of individual wages, which suggests that the true effect of All vs. Only NDA and All vs. None is even lower than what we estimate (since there is still positive selection remaining).

Figure B1. Estimates from varying selection on unobservables

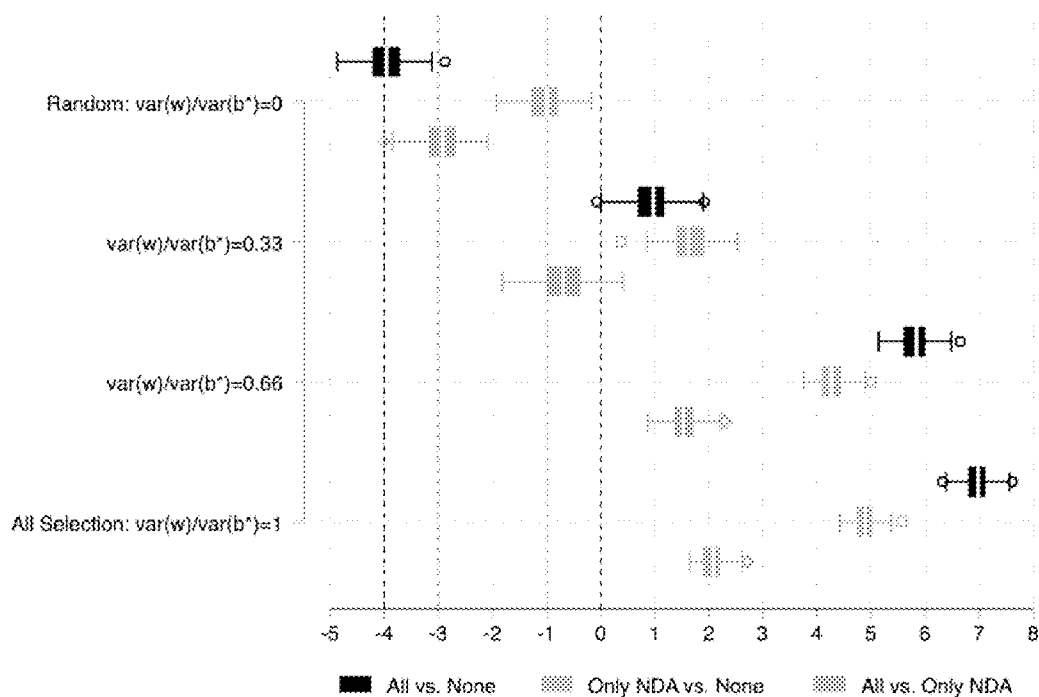
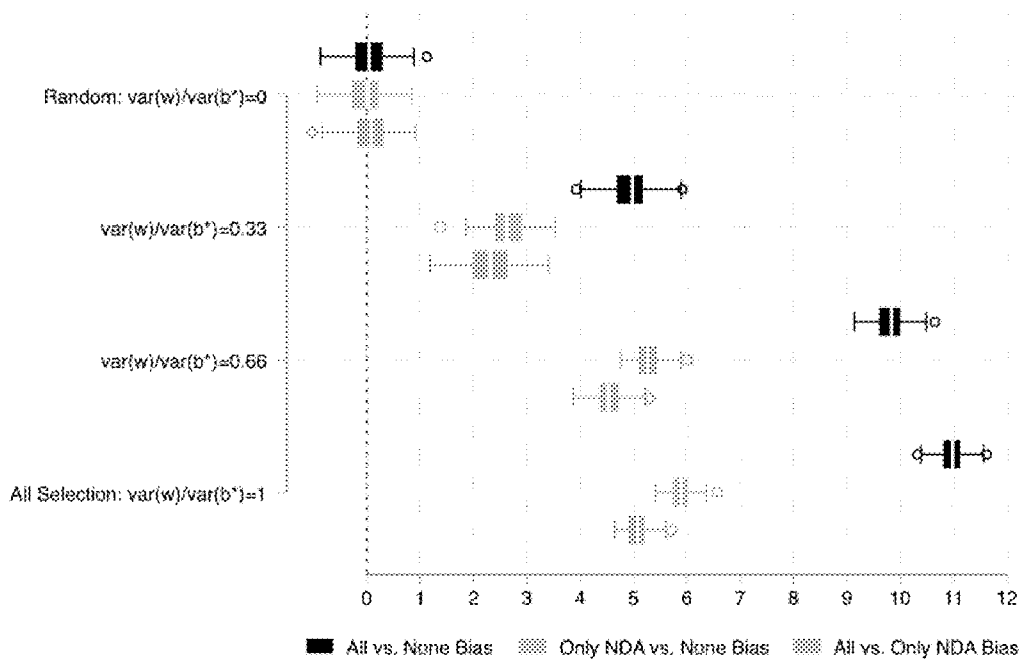


Figure B2. Difference in bias from three comparisons under selection on unobservables



Online Appendix C. Additional Selection Analyses

In this section we consider several potential selection stories that might plausibly underly our results. One may naturally be concerned about cross-firm differences driving the observed wage patterns—it may be, for example, that firms that only need NDAs are higher quality firms, and that higher quality firms pay more. We can rule out all such stories because our results hold both for within-firm and cross-firm comparisons. However, there is still selection within firms regarding which workers have which combination of restrictions.

A natural form of selection is that individuals with high ability or bargaining power may be more likely to bargain for fewer restrictions, thus causing employees with only an NDA to have higher wages than those with all four. In Appendix Table C1, we use data from the National Longitudinal Survey of Youth 1997, which has a measure of ability, an indicator for whether the individual bargained over wages, and data on NCAs (Rothstein and Starr 2021). While this data does not have information on other restrictions aside from NCAs, since NCAs are most often found with the three other restrictions, then if this selection story is right, we should see that employees with higher ability and more bargaining power are *less* likely to be bound by an NCA. We find no evidence that this is the case.

A variant of this explanation is that firms target all four restrictions to employees in jobs that already have low wage growth and low mobility risk (where workers may be more willing to agree to such restrictions). Using data on wage growth and mobility risk at the job-level from the Current Population Survey (CPS) (Flood et al. 2020),²⁵ Appendix Table C2 shows that both wage growth and mobility rate have, if any, positive associations with all four restrictions, in contrast to this story.

²⁵ We calculate mean annual wage growth between year t and $t+1$ for each occupation-industry in year t , and similarly the likelihood of monthly job-to-job mobility. To calculate these measures, we limit the CPS to employees aged 18–70 in the private for-profit and non-profit sectors between 2000 and 2018. For the wage analysis, we limited our sample to employees who are working full time. We merge these measures with our employee-level survey by occupation-industry.

Table C1. Wage Bargaining, Ability, and the use of NCAs

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	1(Agreed to NCA)								
1(Bargain over wages)	0.073 (0.018)		0.063 (0.018)	0.053 (0.018)		0.052 (0.018)	0.020 (0.018)		0.020 (0.018)
Ability Decile		0.012 (0.003)	0.011 (0.003)		0.003 (0.003)	0.002 (0.003)		-0.004 (0.004)	-0.004 (0.004)
Constant	0.156 (0.010)	0.111 (0.017)	0.098 (0.017)	0.131 (0.019)	0.137 (0.022)	0.125 (0.022)	-0.788 (0.169)	-0.724 (0.170)	-0.750 (0.172)
Observations	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523
R-squared	0.008	0.008	0.014	0.030	0.026	0.030	0.111	0.110	0.111
Demographic controls	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Job Controls	No	No	No	No	No	No	Yes	Yes	Yes

Notes: This table examines how wage bargaining and individual ability relate to NCA use, leveraging data from the NLSY97. The “ability” measure is the individual’s decile score on the Air Forces Qualification Test (AFQT). Demographic controls include indicators for education level, race, and gender. Job controls include the class of the worker, whether they were employed at the interview, occupation fixed effects, industry fixed effects, and indicators for various tasks including whether they frequently work with others, read documents of at least 11 pages, use math to solve problems once a day, solve problems once a day, supervise or manage others with at least half their time, spend more than half their time on physical tasks, and work on repetitive tasks more than half the time.

Table C2. Wage Growth and Mobility Rate

	(1)	(2)	(3)
Dependent Variable: All four restrictions (base: only NDA)			
Wage growth	0.008 (0.005)	0.009 (0.005)	0.013 (0.013)
Mobility rate	0.061 (0.016)	0.039 (0.015)	0.038 (0.038)
Constant	0.296 (0.034)	0.522 (0.066)	0.510 (0.143)
Observations	12,830	12,830	12,830
R-squared	0.006	0.041	0.596
Controls	No	Yes	Yes
Firm FE	No	No	Yes

Note: The sample includes employees with all four restrictions or only an NDA. The dependent variable is a dummy for having all four restrictions (the baseline is only an NDA). Controls include age, gender, class of employee, log firm size, state FEs. Standard errors clustered at occupation-industry level.

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8(a) Business Development program

Federal contracting and training program for experienced small business owners who are socially and economically disadvantaged.

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Important updates about the 8(a) program

Program overview

Sections 7(j)(10) and 8(a) of the Small Business Act (15 U.S.C. §§ 636(j)(10) and 637(a)) authorizes the U.S. Small Business Administration (SBA) to establish a business development program, which is known as the 8(a) Business Development program. The 8(a) program is a robust nine-year program created to help firms owned and controlled by socially and economically disadvantaged individuals.

Businesses that participate in the program receive training and technical assistance designed to strengthen their ability to compete effectively in the American economy. Also eligible to participate in the 8(a) program are small businesses owned by Alaska Native corporations, Community Development Corporations, Indian tribes, and Native Hawaiian organizations. Small business development is accomplished by providing various forms of management, technical, financial, and procurement assistance.

SBA partners with federal agencies to promote maximum utilization of 8(a) program participants to ensure equitable access to contracting opportunities in the federal marketplace. Once certified, 8(a) program participants are eligible to receive federal contracting preferences and receive training and technical assistance designed to strengthen their ability to compete effectively in the American economy.

Program benefits

The 8(a) program can be a valuable tool for experienced socially and economically disadvantaged small business owners, who have already been in business for at least two years or more, and are interested in expanding their footprint in the federal marketplace. The 8(a) program offers unique and valuable business assistance. The 8(a) certification does not guarantee contract awards but it is a dynamic tool to pursue and capture new opportunity from the government.

Certified firms in the 8(a) program can:

- Efficiently compete and receive [set-aside and sole-source contracts](#)
- Receive one-on-one business development assistance for their nine-year term from dedicated Business Opportunity Specialists focused on helping firms grow and accomplish their business objectives
- Pursue opportunity for mentorship from experienced and technically capable firms through the SBA Mentor-Protégé program
- Connect with procurement and compliance experts who understand regulations in the context of business growth, finance, and government contracting
- Pursue joint ventures with established businesses to increase capacity
- Qualify to receive federal surplus property on a priority basis
- Receive free training from SBA's Empower to Grow program

The 8(a) certification qualifies your business as eligible to compete for the program's sole-source and competitive set-aside contracts. The government authorizes sole-source contracts to 8(a) participants for up to \$7 million for acquisitions assigned manufacturing [North American Industry Classification System \(NAICS\)](#) codes and \$4.5 million for all other acquisitions. Entity-owned 8(a) program participants are eligible for sole-source contracts above these thresholds, but the Department of Defense requires approval of a formal justification if the 8(a) sole-source contract exceeds \$100 million; all other federal agencies require approval for sole-source 8(a) contract actions that exceed \$25 million.

8(a) program participants are eligible to compete for contract awards under other socio-economic programs or small business set-asides they qualify for.

Program qualifications

To qualify for the 8(a) program, businesses must meet the following eligibility criteria:

- Be a [small business](#)
- Not have previously participated in the 8(a) program
- Be at least 51% owned and controlled by U.S. citizens who are socially and economically disadvantaged
- Have a personal net worth of \$850 thousand or less, adjusted gross income of \$400 thousand or less, and assets totaling \$6.5 million or less
- Demonstrate good character
- Demonstrate the potential for success such as having been in business for two years

8(a) certification lasts for a maximum of nine years. The first four years are considered a development stage and the last five years are considered a transitional stage. Continuation in the program is dependent on staying in compliance with program requirements.

The federal government fully defines who qualifies for the 8(a) program — including what counts as being socially and economically disadvantaged — in [Title 13 Part 124 of the Code of Federal Regulations](#).

Apply to get certified as an 8(a) small business

Participation in the 8(a) program is one-time-only for firms and individuals with the exception of entity-owned firms. Alaska Native corporations, Tribal-owned Native Hawaiian organizations, and Community Development Corporations may have multiple 8(a) firms. Some firms may be eligible for the 8(a) program, but they may not be ready to contract with the federal government.

Businesses interested in applying for 8(a) certification can get a preliminary assessment of whether it is right for them by going to [SBA Certify](#) and filling out the eligibility questionnaire.

Before you can participate in the 8(a) program you must be certified by SBA.

Applications are processed electronically. Visit the application website at certify.sba.gov to access checklist tools, training, and information that provide guidance prior to applying.

Review the [Application Tips for Success Guide](#) and meet with your local SBA District Office or an APEX Accelerator (formerly Procurement Technical Assistance Center) counselor to help determine if you're ready to apply and prepare.

To apply for the 8(a) program, follow these steps:

1. Identify your primary [NAICS code\(s\)](#).
2. Register your business in the [System for Award Management \(SAM\)](#).
3. [Apply for 8\(a\) certification](#).

Visit the [Knowledge Base](#) to find helpful resources, including the application guide, to assist with gathering necessary documentation as well as completing and submitting the application.

If your application is determined incomplete, SBA will notify you in writing through certify.sba.gov. Once SBA has determined the application is complete, SBA has 90 days to process the application and render a decision. Once certified, your profile in SAM and [Dynamic Small Business Search](#) will show your approval date and exit date for the 8(a) program.

Maintain eligibility and certification

8(a) program participants are responsible for maintaining continuing eligibility in the program. Each program participant shall certify, on an annual basis, that it meets statutory and regulatory requirements. As part of an annual review, each participant must annually submit specific information to their servicing SBA District Office. Refer to the [Annual Review Checklist](#) to learn more about responsibilities for maintaining 8(a) certification.



Is your business SBA certified?

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Need help?

If you have questions about applying to the 8(a) Business Development program, [contact your local SBA office.](#)

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Do firms value court enforceability of noncompete agreements? A revealed preference approach[#]

Takuya Hiraiwa¹, Michael Lipsitz³, Evan Starr¹

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Abstract

We study whether firms value court enforceability of their workers' noncompete agreements (NCAs), leveraging a 2020 Washington law that made NCAs unenforceable for workers earning less than a threshold of \$100k per year (indexed to inflation), covering approximately 79% of Washington workers. If firms value the ability to enforce NCAs in court, then they should be willing to give just-below threshold workers small raises to reach the threshold, resulting in excess mass at or just above the threshold and missing mass below. Using administrative data from Washington and a variety of difference-in-differences approaches, we find no evidence of such bunching, even in industries where NCAs are common and where efficiency arguments are the most plausible. Data from a survey of Washington employment attorneys suggests that firms do not value the ability to enforce NCAs for near-threshold workers because they rarely need to go to court to enforce NCAs and because firms can use other, related restrictions instead of relying on NCAs. Lastly, we find no evidence that banning NCAs for workers below the 79th earnings percentile destroyed value among publicly traded firms.

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¹ Takuya Hiraiwa and Evan Starr are at the University of Maryland, Robert H. Smith School of Business. Corresponding author, Evan Starr: estarr@umd.edu

³ Federal Trade Commission; mlipsitz@ftc.gov

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1. Introduction

Whether and how to regulate employment restrictions which prohibit departing workers from joining or starting competing firms—known as non-compete agreements (NCAs)—has been the subject of vigorous historic and recent debate (Blake 1960, Treasury 2016, 2022, White House 2016, Shi 2022). On one side, advocates for regulation argue that NCAs harm workers, firms, and society by restraining trade in labor and product markets, while the other side points to the potential benefits that might arise from the freedom to contract and the potential for NCAs to increase productivity by resolving hold-up problems (Rubin and Shedd 1981, Barnett and Sichelman 2020, Starr et al. 2019). Historically, most state courts have balanced these competing arguments with a reasonableness test, weighing the harm done by the NCA to the worker and society against the extent to which the firm values the protection provided by the NCA (Bishara 2011).

A recent outpouring of evidence and public scrutiny about the deleterious effects of NCAs on *low-wage workers*, however, has led several states to ban “low-wage” NCAs, with active consideration in many more (Beck 2022). The argument for such bans is that low-wage NCAs are unfair: low-wage workers typically do not benefit from the investments that firms use to justify NCAs, often do not review their NCA, and may be unable to afford legal protection to defend against even frivolous NCA lawsuits (Krueger and Posner 2018). Recent research corroborates these concerns, and highlights that they may also be relevant for high-wage workers: NCAs appear in every corner of the labor market (Colvin and Shierholz 2019), are rarely reviewed or bargained over (Starr et al. 2021), and restricting both low-wage and high-wage NCAs increases wages and mobility (Lipsitz and Starr 2022, Johnson et al. 2022, Balasubramanian et al. 2020, Garmaise 2011, Young 2022).

While this evidence suggests NCAs harm many workers, no prior work has examined the extent to which firms value NCA enforceability itself—though some have studied firm investment responses to NCA enforceability (Starr 2019, Jeffers 2021, Johnson et al. 2023). Some scholars suggest that for low-wage workers there is likely little value to firms from NCA enforceability (Hardaway 2016), but it is not clear how far up the earnings scale this argument goes (Aydinliyim 2020). Indeed, classic hold-up arguments suggest that at high earning levels, where workers have access to valuable

trade secrets, firms should value NCA enforceability. In this paper, we find that firms do not value court enforceability of NCAs, even for relatively high-earning workers.

Our approach to studying whether firms value the ability to enforce NCAs relies on the passage of state “low-wage” NCA bans, where policymakers have grappled with the questions of which workers’ NCAs are unfair, and where the classic arguments justifying NCA enforcement might outweigh the costs, if at all. In practice, policymakers have chosen NCA enforceability thresholds ranging from \$13 per hour to \$150k per year. We focus on a 2020 policy in the state of Washington that prohibited NCAs for workers earning below \$100k per year (indexed to inflation), the highest such threshold at the time. The ban covers 79% of workers in Washington, of whom 26% are estimated to be bound by NCAs.¹ Given the discontinuity in NCA enforceability at the earnings threshold, we expect that if firms value the ability to enforce NCAs in court, they will give marginal workers earning just under the threshold a small raise to meet the threshold. Such bunching has been shown in the context of the minimum wage (Cengiz et al., 2019) and overtime regulations (Quach, 2022), indicating that firms are willing to adjust earnings to meet legal earnings thresholds. In our context, “bunching” at the threshold (and, under some assumptions, missing mass below) is a revealed preference measure of whether firms value court enforceability of NCAs.²

Using administrative data from Washington and a variety of difference-in-differences estimators, we find no evidence of excess mass just above the earnings threshold, and little to no evidence of missing mass below the threshold—including in industries where NCAs are most frequently used. To discern between interpretations of this evidence, we analyze data from a survey of employment attorneys in Washington about the 2020 law. The average employment attorney expects that 17% of their corporate clients will raise the wages of just-below-threshold employees. The most common

¹ See <https://dqydj.com/income-percentile-by-state-calculator/> for income percentiles in Washington. Using data from Starr et al. (2021) and Balasubramanian et al. (2022), we estimate that 26.4% and 25.1% of workers in Washington with earnings below \$100,000 were bound by NCAs in 2014 and 2017, respectively.

² While commonly used to study the impact of tax policies (Kleven 2016) and labor policies (Garicano et al. 2016), earnings thresholds have been used by Young (2021) in the context of NCAs to ensure the appropriateness of a difference-in-differences design comparing workers above an earnings threshold to below. However, Young (2021) does not consider potential bunching at threshold as a revealed preference measure of firm value.

answers for why firms would not raise wages are that they do not expect to need to enforce NCAs in court for such employees and because they have other tools to protect their resources.

Lastly, we note that while firms may not find it worthwhile to raise the pay of near-threshold workers, this does not necessarily mean that the NCA ban does not hurt firms. For example, approximately 30% of firms use NCAs for all workers (Colvin and Shierholz 2019, Balasubramanian et al. 2021), and they may rely on NCA enforceability for *all* of their workers. Thus, while such firms may not give marginal workers a raise, they may nevertheless lose value after Washington’s NCA ban. Alternatively, by banning NCAs for most workers, Washington firms may increase in value if worker-firm match quality improves. We thus follow Younge and Marx (2016) and study how, among publicly traded firms, forward-looking measures of firm value change following the NCA ban. We find no evidence that firm value in Washington fell after “low-wage” NCAs were banned.

Together, these results suggest that firms do not value the ability to enforce NCAs in court for workers earning at the 79th percentile, and that banning NCAs for all workers below the threshold does not destroy firm value. Combined with evidence that the Washington NCA ban increased earnings and mobility (in line with prior research; see Lipsitz and Starr 2022, Balasubramanian et al. 2022, Garmaise 2011, Johnson et al. 2022), the findings suggest that bans on NCAs up to (and potentially beyond) the 79th earnings percentile are justifiable.

In addition, our results seem at odds with efficient contracting theories. Efficient contracting theories imply that firms would only use NCAs when they increase productivity (Rubin and Shedd 1981), and that court enforceability serves as a backstop for investments based on such promises. If NCAs increase productivity, then on the margin firms should be willing to pay to use them. Our results indicate, however, that firms are not willing to pay to use *enforceable* NCAs. This finding suggests that for workers proximate to the earnings threshold, either NCA *use* was inefficient (e.g. did not increase productivity) or that NCA *enforceability* did not further increase productivity.

2. Contextual Background

While many states have passed low-wage NCA bans in the law few years (Beck 2022), we focus on Washington’s 2020 law, which banned NCAs for workers earning under \$100k per year (indexed

to inflation), because the timing allows for a substantial post period, the threshold is relatively high, and because similar laws are not retroactive or apply wage thresholds that are hard to match to the data. In this section, we discuss NCA enforcement in Washington and this 2020 law.

Prior to 2020, Washington’s NCA enforcement policy was typical of most states: a reasonableness test balanced the protection desired by the firm to support a legitimate business interest against the harm done to the worker and the public (see *Emerick v. Cardiac Study Center Inc. PS*, No. 72834-2-I Wash. Ct. App. Aug. 24, 2015). On May 8, 2019, Governor Inslee signed HB 1450 into law, which prohibited NCAs for certain workers. The law went into effect on January 1, 2020.³

For our purposes, the law has two key provisions. First, the law stipulates that “A noncompetition covenant is void and unenforceable against an employee ... (b) unless the employee’s earnings from the party seeking enforcement, when annualized, exceed one hundred thousand dollars per year.” That is, a worker’s NCA with a given employer is void and unenforceable if the employer pays the worker less than or equal to \$100k per year. The law further defines earnings as wages, tips, and other compensation—based on box 1 of the employee’s US Internal Revenue Services W-2 form.⁴ The law also stipulates that the earnings threshold should be changed each calendar year to account for inflation (using the August-to-August year-over-year growth in the CPI for Urban Wage Earners and Clerical Workers—the CPI-W), with the Washington State Department of Labor and Industries announcing the threshold for the next calendar year on September 30 of the prior year. Accordingly, the 2020 threshold was \$100k, the 2021 threshold was \$101,390, the 2022 threshold was \$107,301.04, and the 2023 threshold was \$116,593.18. These thresholds allow us to precisely identify, for each year, where bunching would occur if employers adjusted earnings to ensure their NCAs are not per se unenforceable. The second key provision is that the law is explicitly retroactive (see RCW 49.62.100). Nearly all laws of this variety only apply to contracts agreed to after the law comes into effect, but the Washington law is clear that it applies to all existing contracts, with one exception granted when a lawsuit related to a given noncompete has been filed *before* January 1, 2020.

³ See <https://app.leg.wa.gov/RCW/default.aspx?cite=49.62> for the text of the law.

⁴ See https://www.irs.gov/instructions/iw2w3#en_US_2022_publink1000308337 for what is included in Box 1.

The law contains other provisions, as well, including a damages provision, voiding NCAs that require out of state adjudication or which contract around the rights provided to workers within the law, early notice and consideration requirements, and a maximum duration of 18 months. The law was passed in conjunction with a pay transparency bill, making it difficult in general to isolate the effects of the low-wage ban. However, the simultaneous passage of the pay transparency law does not invalidate any bunching around the earnings threshold, because the pay transparency law was not tied to a specific earnings level.

One practical issue which could threaten clear identification in our empirical specifications is anticipation of the bill's passage and implementation of the threshold. However, development of the bill was quick, beginning in early 2019. In our empirical specifications, we use comparisons not just to 2019 (which may be polluted by anticipation effects), but also to prior years which, given the bill's history, would not be subject to that critique. In the bill's first reading on January 22, 2019, the bill contained a proposed wage threshold of three times the state's average annual wage, further alleviating anticipation concerns.⁵ In the revised bill on February 21, 2019, the threshold had fallen to two times the state's average annual wage. In the third iteration of the bill on March 12, 2019, the threshold solidified to \$100,000 and passed the House and Senate by April 17, 2019. Given the changes in the threshold, one might wonder how the \$100k threshold was chosen. Media reports suggest Amazon lobbied to have the threshold lowered to \$100k, exempting many of their Seattle-based employees.⁶ Reports of the law's approval were widely noted in the media and practitioner blogs.⁷

To provide some prima-facie evidence of the effects of the Washington law, Figure 1 shows the time series of NCA-related court filings in Washington from the Courthouse News Service (as in Marx 2021), which covers filings in many (though not all) courthouses in Washington. To generate this dataset, we used a Boolean search for filings containing the phrases “noncompetition”, “non-

⁵ See <https://app.leg.wa.gov/bills/summary?BillNumber=1450&Year=2019&initiative=#minorityMajorityPopup> for the legislative history of the bill. See <https://lawfilesexternal.leg.wa.gov/biennium/2019-20/Pdf/Bills/House%20Bills/1450.pdf#page=1> for the first Draft bill.

⁶ See <https://apnews.com/article/technology-business-washington-seattle-wa-state-wire-5c01ffdd9fbb48639fc43bc376f501e4>.

⁷ For example, a well-known noncompete blog discussed the law a day after the law's passage: <https://faircompetitionlaw.com/2019/05/09/washington-state-overhauls-its-noncompete-law/>.

competition”, “not to compete”, “noncompete”, “non-compete”, “restrictive covenant” or “postemployment restraint.” We then manually read through short summaries of the complaints to code them based on whether they were an enforcement action for the violation of an NCA, a lawsuit designed to void NCAs, or something else. Cases regarding other issues related to NCAs (e.g., sale of a business) were excluded from this analysis.

While the overall number of filings per year in the covered courthouses is on a slight downward trend, this trend masks underlying heterogeneity in the types of filings. The average number of filings to enforce violations of NCAs fell from 10.2 per year before the law to 2.7 after the law, while the number of filings to invalidate NCAs rose from 3 per year before the law to 6 afterward.⁸ Summaries of the filings reveal that several of them which sought to invalidate NCAs noted specifically that the employee earned less than \$100k per year.

Figure 1 also shows a rise in cases in 2019, 60% of which are filed in the three months before the law came into effect. Thus, at least a few employers initiated proceedings prior to the deadline on January 1, 2020, likely with the goal of adjudicating existing alleged violations under the prior law; whether this is because those workers earned under \$100k, were governed by an out-of-state choice of law provision, or ran afoul of any other new details of the law is unclear.

3. Bunching as a Revealed Preference Indicator for Valuing the Ability to Enforce NCAs

Firms may theoretically derive several benefits from the ability to enforce NCAs (Rubin and Shedd 1981, Posner et al. 2004). Because NCAs prohibit departing employees from joining competitors (often within geographic and temporal limits), they may incentivize the firm to develop and share valuable information with workers, resulting in higher productivity. In theory, court enforceability of NCAs provides a backstop to hold workers to their promises, and thus provides firms with appropriate incentives to invest. While this is the classical, pro-competitive justification for enforcing NCAs (see Blake 1960 for a review), there may be ancillary benefits to the firm as well, such as increased

⁸ To set a baseline, note that there are approximately 1,200 NCA-related decisions every year per Westlaw (see <https://faircompetitionlaw.com/2022/04/01/new-trade-secret-and-noncompete-case-growth-graph-updated-april-1-2022-no-not-a-joke/>). Conversations with employment attorneys reveal, however, that the vast majority of potential cases either settle or are resolved via letters before they might even reach the filing stage.

monopsony power (Krueger and Posner 2018) or increased product market power (Lipsitz and Tremblay 2021, Hausman and Lavetti 2021). Indeed, research has also found that the ability to enforce NCAs reduces wages (Garmaise 2011, Starr 2019, Balasubramanian et al. 2022, Lipsitz and Starr 2022, Johnson et al. 2022) and spinouts (Starr et al. 2018), and increases retention (Marx et al. 2009), investment (Jeffers 2021, Conti 2014), and firm value (Younge and Marx 2016).

If firms are aware of the value that they derive from the ability to enforce NCAs for workers earning near the threshold, then the discontinuity created by the law in the NCA enforceability-earnings relationship should create incentives for bunching behavior. We document this idea with a formal model in Section 3.1. The intuition is that bunching is driven by the fact that for workers just below the threshold, a tiny increase in compensation will result in a discontinuous increase in the firm's ability to enforce an NCA in court. We depict this pattern visually in Figure 2. The left graph plots the likelihood an NCA would be enforced by the court, both before and after the threshold comes into effect. The right graph shows how firms would adjust wages in response to the law: just-below-threshold employees would receive a small wage increase to get them to the threshold, resulting in excess mass at or just above the threshold level and missing mass just below.

Bunching at the threshold has been examined in response to minimum wage regulation (Cengiz et al., 2019), where the threshold is particularly binding, but also in response to earnings thresholds governing overtime coverage (Quach, 2022), which more closely mirrors our setting. Notably, in both settings, bunching at the threshold was identified, indicating that firms are able and willing to change compensation practices in order to satisfy legal minimums.

3.1 A Model of Earnings Bunching under Threshold-Based NCA Regulation

For firms, the first order question associated with the legal earnings minimum is whether or not to satisfy that minimum in order to use NCAs. Fundamentally, this question involves a tradeoff between the cost of giving a raise to workers who would otherwise be below the threshold versus the benefit to the firm of using an NCA. Note that technically we could differentiate between NCAs and their enforceability: we pursue this extension in Appendix A, and focus first on the choice to use an NCA or not in light of an earnings threshold. In this section, we construct a model which embodies

this tradeoff, making two contributions to our understanding of bunching in the context of a legal earnings minimum. First, we show that additional mass that bunches above the threshold is a stronger indicator of firm responses than missing mass below the threshold. Second, we develop a way to estimate the maximum value that firms attribute to the ability to enforce NCAs in court.

Consider a firm choosing to offer a contract to a prospective employee, characterized by a wage and, possibly, an NCA. With no limitations on NCAs, a simple model of a firm's decision is:

$$\begin{aligned} & \max_{w, NCA} p - w + NCA * V_f \\ & \text{subject to } w - NCA * V_w \geq \theta \end{aligned}$$

where w is the wage paid by the firm to the worker, NCA is equal to 1 if the worker-firm pair use an NCA and 0 otherwise, p is the productivity of the worker (which accrues to the firm), V_f and V_w are the value of an NCA to the firm and the cost of an NCA to the worker, respectively, and θ represents the outside option of the worker (e.g., the value of turning down the job offer and waiting for another to arrive). In words, this optimization problem shows how the firm chooses a contract to maximize profit, subject to the worker's participation constraint.

Assuming that productivity is high enough to justify an employment relationship, part of the solution to this problem is that a firm uses an NCA whenever $V_f > V_w$, doesn't whenever $V_w > V_f$, and is indifferent when they are equal. This solution is simply a reflection of the Coase theorem: whenever the firm values an NCA more than the worker, the firm will compensate the worker appropriately, and both parties will (weakly) benefit. The wage, w , is then set to satisfy the worker's participation constraint: $w = \theta$ when no NCA is used, and $w = \theta + V_w$ when an NCA is used.

Now, consider a modified problem where the wage must be set high enough to satisfy a legal earnings threshold if an NCA is to be enforceable in court. This problem is the same as above, with the following added constraint:

$$w \geq \lambda \text{ if } NCA = 1$$

where λ represents the statutory minimum for enforceability of an NCA. In this case, if $\theta + V_w > \lambda$ (i.e., the participation constraint requires greater pay than the statutory minimum when an NCA is used),

then the problem does not change, since the statutory constraint does not bind. Similarly, the problem does not change when an NCA is inefficient (when $V_w > V_f$). However, when $V_f > V_w$ but the optimal wage is less than the threshold ($\theta + V_w < \lambda$), the firm must choose between paying a worker $w = \lambda$ to use an NCA and paying $w = \theta$ and not using an NCA. The firm will opt to use an NCA and pay $w = \lambda$ whenever $V_f - \lambda > -\theta$ (i.e., when using an NCA and paying the statutory minimum generates more profit than not using an NCA and paying the worker their outside option).

Suppose that an econometrician (who cannot observe *NCA*) observes a firm paying its workers $w < \lambda$ prior to implementation of the statutory minimum. This theory suggests that one of three things may occur. First, if the worker has $NCA=0$ prior to the statutory minimum, then no change will occur. Second, if $NCA=1$ prior to the statutory minimum and $V_f - \lambda > -\theta$, then the firm will continue to use an NCA, and will pay $w = \lambda$. Third, if $NCA=1$ prior to the statutory minimum and $V_f - \lambda < -\theta$, the firm will drop its NCA and pay $w = \theta$, which is less than the original wage of $w = \theta + V_w$. In other words, the wage may stay the same, increase, or decrease.

In practice, wage and productivity dispersion, as well as differences in the value of NCAs, suggest that there may be differences in the optimal strategy across firms. However, unequivocally, mass that is reallocated at or above the threshold (i.e., firms paying $w = \lambda$) is evidence that firms value NCAs: that is, that $V_f > \lambda - \theta > 0$ for some firms. Conversely, a lack of excess mass at or above the threshold indicates that there are no firms for which $V_f - \lambda > -\theta$. Since $w = \theta + V_w$ prior to the statutory minimum, this is equivalent to saying that there were no firms paying within $V_f - V_w$ of the minimum, λ . Therefore, if pre-implementation data indicates employees being paid just below λ , this means that $V_f - V_w$ (which we refer to as *net firm value*) for those firms is near zero.

While excess mass at or above the threshold unambiguously indicates firm value, missing mass below the threshold does not. Missing mass may imply that workers are being paid more for continued use of NCAs. However, it may also mean that firms are dropping NCAs and decreasing wages for those workers (i.e., setting $NCA = 0$ and $w = \theta$ instead of $NCA = 1$ and $w = \theta + V_w$). Or, it may be that mass closer to the threshold is reallocated downwards (by firms who opt to move to $NCA = 0$ and $w = \theta$), filling in mass vacated by firms opting to move to $NCA = 1$ and $w = \lambda$.

In summary, the first implication of our model is that excess mass above the threshold unambiguously demonstrates firm value of NCAs, and a lack of excess mass unambiguously demonstrates a lack of firm value of NCAs for firms which would otherwise pay close to the threshold. On the other hand, missing mass (or a lack of missing mass) may or may not demonstrate that firms value NCAs. Two institutional details in our setting mitigate some of the concerns associated with the ambiguity surrounding missing mass below the threshold. First, NCAs do not appear to come with compensating differentials when those NCAs are not salient to workers before joining (Starr et al. 2021, Cowgill et al. 2024). Thus, workers would have no premium to lose due to the implementation of the statutory minimum. Second, wages tend to be slow to adjust downwards, which would again suggest that any missing mass is due to upward, not downward, adjustments.

Two additional points related to the model are worth making. First, the empirical literature has found the existence of so-called *in terrorem* effects of NCAs (Starr, Prescott, and Bishara 2020). This means that NCAs which are unenforceable (such as those signed in WA after 2020 by workers earning under the threshold) may still influence mobility decisions of workers. Notably, WA not only prohibits enforceability of NCAs for workers under the threshold; it also prohibits *use* of NCAs, which may limit *in terrorem* effects in our context.⁹ However, we show in Appendix A that adding *in terrorem* effects into our model does not change the qualitative findings, though it naturally diminishes the pool of workers who are candidates to bunch above the earnings threshold.

Second, in our model it is not possible for NCAs to create earnings losses. This is at odds with the empirical literature on NCAs. The most natural way to incorporate the possibility that NCAs can hold wages down is by allowing the outside option to adjust in response to the NCA (or its enforceability), perhaps with some stochastic element. This would reflect the idea that workers with NCAs have reduced outside options ex post because they cannot move within their industry (as modeled in Johnson et al., 2023). Because we are focused on bunching around the threshold, we omit the added complexity this raises, and instead emphasize that the benefits of NCAs associated with protection of

⁹ Several class action suits have been filed by employees to nullify NCAs, suggesting that the prohibition on use of NCAs has some bite, in practice. For example, per the Court House News Service data, one attorney—Tim Emery—filed six class actions to invalidate NCAs between January 2022 and May 2022.

sensitive information activate discontinuously at the threshold. We note, however, that the potential for firms to reap value from NCAs via their ability to constrain wages for workers just above the threshold—insofar as it keeps workers earnings relatively constant with respect to the business cycle (Johnson et al., 2023)—is mitigated by the fact that (at least in this case) the threshold inflation-adjusts. Thus, any observed bunching at the threshold would likely be driven by something other than keeping wages low, such as the ability to protect trade secrets.

3.2 Back-of-the-Envelope Calculations for Bounding the Extent of Firm Value

Given the possibility that missing mass is not indicative of firm value, in the majority of this paper we primarily focus on whether there exists *any* bunching, and thus *any* value to firms for enforcing NCAs for workers making \$100k. However, if wages are not adjusted downwards and missing mass is therefore indicative of firm value of NCAs, a more precise quantification of firm value may be calculated. Intuitively, there is some marginal wage which reflects the wage at which the firm is indifferent between raising the wage to the threshold level and not being able to enforce the worker's NCA, revealing the firm's net value. As a back-of-the-envelope benchmark, we sketch in this section how we estimate the distribution of net firm value that is consistent with our estimates. See Appendix B for a complete description.

We assume a uniform distribution of net firm value of the ability to enforce NCAs between 0 and a maximum of m , and abstract away from the many complications arising from selection into and out of NCAs. Given m , the empirical distribution of earnings, estimates of the use of NCAs, and assuming firms can offer individualized wage increases for workers with NCAs to reach the threshold (e.g., via discretionary end of year bonuses), we determine the extent to which we should see excess mass above the threshold. For example, if $m = \$1,500$, then in 2020 we should see a 14% increase in workers earning just above the threshold.

The second step is to determine whether we can detect such an increase. While it may be natural to use power calculations to perform this exercise, because our administrative data (described in Section 4) contains the universe of workers whose earnings are reported for purposes of unemployment insurance, there is no *sampling* uncertainty in the estimates we present. There is another source

of uncertainty, however. If employers responded to the policy by increasing the earnings of NCA-bound workers just below the threshold, but workers without NCAs just above the threshold received earnings decreases, then our approach may not be able to detect excess mass on net. While this may be unlikely—especially in light of downward nominal wage rigidity—it is, of course, possible. To benchmark the estimates in the paper, we generate predictions of the necessary magnitude of this phenomenon to assess the plausibility of our own estimates, and the possibility that the true value of the ability to enforce NCAs to employers is greater than our baseline estimates.

In order to do so, for a given distribution of the net value of NCAs to, we calculate the expected excess mass among workers with NCAs (the 14% in the example above) as well as the percentage of workers without NCAs whose wages would have had to fall from above the threshold to below in order to observe (net) excess mass equal to each estimate we produce. These calculations for 2020 are summarized in Figure B1, assuming that zero excess mass is observed (which is broadly what we find in this paper). The figure indicates that if $m = \$1,500$ then to fully offset the increase of 14% in the just-above threshold workers, we would need approximately 19% of those without NCAs to exit the bin in order to observe zero bunching.

In what follows, we benchmark our estimates of bunching in bins just above the threshold using this methodology. We report maximum net firm values of NCAs implied by the empirically estimated bunching rates.¹⁰ Additionally, we discuss the magnitude of bin exit necessary to explain observed bunching, and contextualize it using the observed distribution of exits in the historical data.

4. Data

The primary dataset on employee earnings that we use was provided by the Employment Security Division (ESD) of Washington State for the years 2001 to 2021. For privacy reasons, the ESD was not able to provide us with granular worker-level data. Instead, we received counts within earnings bins by calendar year, as well as identical datasets separated out by two-digit NAICS industries. We briefly describe how the dataset was constructed.

¹⁰ The calculation for this procedure is described in Appendix B.

The construction of the dataset begins with the universe of quarterly employer-employee UI records in the private sector,¹¹ which cover gross wages in a manner similar to the annual W-2 form (see Appendix C for a detailed comparison of W-2 and UI data). This dataset is collapsed to the annual level, where employer-employee relationships in which the employee was not paid by the employer in each of the four quarters of the calendar year are dropped. Thus, we only consider full-calendar year employer-employee relationships, and the dataset covers all such employment relationships in the private sector in Washington from 2001 to 2021. By focusing on calendar year, employer-specific earnings, we align with the timeline established in the law, which updates the thresholds annually, and we avoid issues regarding how to annualize payments if a worker leaves before year end.¹²

In each of our analyses we use nominal earnings. This ensures a direct correspondence between our data and the law, and further allows us to cleanly identify round number bunching in nominal terms, which may confound our estimates. Since the threshold increases from \$100,000 in 2020 to \$101,390 in 2021, we define bins of size \$1,390, including the lower but not the upper limit, such that the bin just above the 2020 threshold is \$100,000-101,389.99, while the bin just above the threshold in 2021 is \$101,390-102,779.99.¹³

5. Results

¹¹ Local and federal government workers were not included in the main dataset.

¹² One implication of conditioning on full-calendar year employment is that we can only estimate the value of the ability to enforce NCAs for workers who have stayed the full year. However, because firms do not know when a given worker will leave, it is not obvious how selecting on full-year stayers may bias any point estimates.

¹³ The law technically prohibits NCAs for workers making exactly the threshold (e.g., \$100,000.00 in 2020)—a fact confirmed by Matthew Ehrlich of the Washington State Department of Labor & Industries (L&I) in private correspondence. In that same correspondence, however, Ehrlich also acknowledged that the language on their website and public outreach related to the law created ambiguities surrounding the enforceability of NCAs for workers earning exactly the threshold amount. For example, the website describing the threshold (<http://www.lni.wa.gov/workers-rights/workplace-policies/Non-Compete-Agreements>) notes that (emphasis ours) “If an employee or independent contractor has earnings **less than the threshold** specified under the law, the non-compete agreements [sic] is considered void and unenforceable under RCW 49.62.” Due to these ambiguities, the conservative approach is to include the lower value—the threshold itself—in the bucket defining “above-the-threshold” earnings. This is because, if firms misinterpret the law, they may erroneously bunch *exactly at* the threshold, bunching which would not be identified if the bucket defining above-the-threshold earnings did not include the threshold itself. In practice, we expect this distinction to matter little; indeed, Ehrlich told us that no member of the public had approached the Washington State Department of Labor and Industries with this specific issue. Additionally, data provided by the Employment Security Department of Washington State indicates that few individuals earned amounts at exactly the thresholds: just 73 workers earned exactly \$100,000.00 in 2020, and just 2 workers earned exactly \$101,390.00 in 2021.

We begin our primary investigation by visually examining the extent of bunching in the number of workers in earnings bins around the threshold, before and after the law came into effect, as shown in Figure 3. In 2020, there is a slightly larger number of workers earning just over \$100k relative to surrounding bins. However, this pattern is found in each year—including in 2021 when those earning \$100k are *below* the threshold of \$101,390—and is likely due to bunching in earnings at \$100k (we will refer to this as “round-number bunching”). Similarly, while there are relatively fewer workers earning just below \$100k in 2020, that is also true in every other year. Finally, in 2021, there is no spike in earnings just above the \$101,390 threshold. Therefore, the figure shows little evidence of bunching overall, beyond what appears to be round number bunching.

We augment visual inspection of Figure 3 with more rigorous statistical tests. The key challenge is to identify an appropriate counterfactual, which will allow us to net out bunching in the data which is not due to the policy itself (i.e., the observed bunching due to round numbers). We describe and implement three approaches to estimate this counterfactual. The first approach is typically applied in bunching analyses (Kleven & Waseem, 2013; Kleven 2016): we fit a parametric model to the observed earnings distribution in a given year, omitting the potential manipulation area, and then impute the counterfactual density in the manipulation area using the parametric model. Second, as a robustness check to this first approach, we estimate a similar model designed to detect discontinuities in distributions with discrete variables (Frandsen 2017). The third approach estimates counterfactual earnings distributions using earnings bins far enough above the threshold to be unaffected by the policy, allowing for estimation of difference-in-differences and event study models.

5.1 Tests Using Cross-Sectional Distribution to Parametrically Estimate Counterfactual

We first construct counterfactual groups by parametrically fitting a distribution to the observed earnings distribution in years during which the policy is in effect. Our primary approach—typically used in analysis of tax notches, developed by Kleven and Waseem, 2013, hereafter KW—employs parametric assumptions on the observed cross-sectional earnings distribution, excluding the potential manipulation region, and then compares mass at the potential bunching point to what the parametrically estimated counterfactual distribution predicts.

To implement the KW approach, we first fit a quartic model to the observed (binned) earnings distribution (running from a lower bound of \$49,960 to an upper bound of \$150,039.99, the smallest set of bins including \$50,000 to \$150,000), excluding bins close to the threshold. Each observation is an earnings bin of width \$1,390 in the focal year. The estimating equation is:

$$y_b = \beta_0 + \sum_{i=1}^4 \beta_i s_b^i + \varepsilon_b,$$

where y_b is the percentage of workers in bin b , s_b is the midpoint of the earnings contained in the bin, β_i is the coefficient on the term of the quartic of order i , and ε_b is the error term. We omit five bins in total: the bin just above the threshold, and the two bins above and below that.

Figure 4 displays the observed distribution with the counterfactual distribution superimposed for both 2020 and 2021. Overall, the quartic fits the distribution well, and there is little visual evidence of bunching. In 2020, the observed mass in the bin just above the threshold is slightly greater than that of the counterfactual distribution, and the observed mass in the bin just below the threshold is slightly less than that of the counterfactual distribution. The reverse happens in 2021. While the observed deviations from the counterfactual distribution provide limited evidence of bunching due to the policy in 2020, the deviations in 2021 provide evidence against bunching. One possible explanation for this reversal is, as noted, six-figure round number bunching at \$100k.

The challenge with this approach, therefore, is that a smooth parametric estimate of the earnings distribution in a given year is unable to capture the (positive or negative) bunching which would occur even in the absence of the policy. However, nominal round number bunching should occur in every year, not just those after the policy is passed. We therefore use a difference-in-differences approach to take advantage of prior years of data. Denoting by $f(b)$ the observed probability mass function over earnings bins b , and $f^c(b)$ the estimated counterfactual probability mass function, the approach is as follows:

1. Estimate the counterfactual distribution over earnings bins, $f^c(b)$, for each year from 2001 to 2021, using the KW approach described above.

2. For each bin b and for each year y , calculate $\Delta_{y,b} = (f(b) - f^c(b))/f(b)$ as the difference between the observed and estimated counterfactual densities, as a percentage of the density in the bin.
3. For the treatment bins in 2020, calculate $\Delta_{2020,b} - \Delta_{y,b}$ for counterfactual year y . Repeat for the treatment bins in 2021.

This approach allows us to take advantage of the relatively smooth cross-sectional distributions (and strong parametric fit), while still comparing the aberrations from that distribution to aberrations in a counterfactual distribution which cannot be due to the policy (i.e., in prior years). The DiD estimates for the bins just above and below the threshold are displayed in Figure 5, with each year in our data separately serving as the counterfactual year to illustrate the full distribution of treatment effects, rather than just the average. The average DiD estimates (averaging over pre-2020 control years, e.g., $\Delta_{2020,b} - \bar{\Delta}_b$) are provided in Panel A of Table 1, and indicated as a dashed red line in each panel of Figure 5. The interpretation of each estimate is the difference, across years, in the percentage difference between the observed distribution and the counterfactual distribution.¹⁴ For both 2020 and 2021, the bins just above the threshold (Panels A and C) have a negative estimate when compared with most years, as well as on average, indicating that the mass above and beyond that estimated in the counterfactual distribution in 2020 and 2021 is less than the comparable mass above and beyond that estimated for most counterfactual distributions in control years. This is evidence, therefore, that bunching at the threshold in 2020 and 2021 is negligible or even negative, taking into account natural bunching which occurs in the data absent the policy.

In Table 1 and Figure 5 we also show identical DiD estimates for the bins just below the threshold in 2020 and 2021 (Panels B and D). In 2020, the first evidence of bunching emerges, though it is minimal: for most years, the DiD estimate is negative, as is the mean. This indicates that there is missing mass below the threshold in 2020. However, the effect is relatively small: the mean DiD estimate is -0.012 percentage points. Compared with a mass in that bin in 2020 of 1.15% of the

¹⁴ If the observed distribution in the treated year is 10% greater than its counterfactual, and the observed distribution in the control year is 4% greater than its counterfactual, then the DiD estimate is $0.10 - 0.04 = 0.06$.

distribution, this corresponds to a $(0.012/1.15=)$ 1.04% loss in mass, which could be due to a small minority of workers' earnings being increased above the threshold (though a lack of evidence of excess mass above the threshold likely rules this out). In 2021, the below-threshold estimates are also inconsistent with bunching: in most cases, the DiD estimate is positive, as is the mean estimate.

One concern with the KW approach is that, since our dataset is binned, we lack the power to estimate a precise counterfactual earnings distribution. For this reason, borrowing from the literature on regression discontinuity designs, we pursue a similar approach to estimating the extent of bunching that is specifically designed for discrete running variables. We discuss the implementation and results of this test in Appendix D, since the results generally confirm the findings of the KW analysis.

5.1.1 Benchmarking the KW Estimates

Overall, Section 5.1 demonstrates that, using methods employing parametrically estimated counterfactual distributions based on annual cross-sections, there is an absence of bunching associated with the legal earnings thresholds in Washington. We now return to the back-of-the-envelope calculation presented in Section 3.2 in order to contextualize this result.

As noted in Section 3.2, the necessary net percentage of individuals receiving earnings reductions in order to observe zero bunching (when firms are indeed increasing pay for workers near the threshold) is depicted in Figure B1. The magnitudes of these percentages seem implausible on their face: for example, for a maximal firm value of \$1,500, nearly 19% of individuals would need to exit the bin just above the threshold in order to observe zero bunching. To more rigorously contextualize these percentages, we compare them to pre-2020 year-over-year net percentage change in the count of workers in each of the two above-threshold bins in all time periods in our sample. These net percentage changes represent plausible estimates of how many workers exit the above-threshold bin in the years in which the policy is in place, forming a basis for comparison for the numbers in Figure 5.

The largest decrease in the percentage of workers in one of the above-threshold bins is 2.9% (the \$101,390-102,779.99 bin in 2012). Only one other change is a decrease (2.2%—the \$100,000-101,389.99 bin in 2012), and all other changes are *increases*, in contrast to the necessary changes in order to observe zero bunching with positive firm value of NCAs. The average change across all time

periods in the two bins is a 7.4% *increase*, and the maximum is a 20.8% increase, with 10 out of 36 changes being increases in excess of 10%. It is clear, therefore, that the decreases in Figure B1—which are conservatively estimated—are implausibly large, compared with the empirical distribution. For example, the aforementioned net percentage change of just under 19% would require a net percentage decrease in the number of workers earning in the just-above-threshold bin that is 6.6 times as large as the *largest* decrease observed in the data in prior years.

While most of the bunching point estimates in just-above-threshold bins in Figure 5 are negative, and may conservatively be assumed to be zero, we may even more conservatively suppose that the true estimate of additional mass is closer to the few estimated increases when comparing to select counterfactual years. In Figure 5, the upper bound of such estimates is 2.87% (using 2004 as a control year for the \$100k-\$101,390 bin). If this value represents the *true* increase in mass, then using the approach outlined in this section, we estimate the upper bound on the distribution of firm values to be \$233, with an average valuation of \$116.50. In other words, even using the most extreme estimate from Section 5.1 (which notably shows little evidence of bunching otherwise), we estimate that firms do not value the ability to enforce NCAs at an amount any greater than \$233.

5.2 Difference-in-Differences Analyses using Trends in Control Groups

One critique of the approaches in Section 5.1 is that, while they leverage differences over time to allow for round number bunching, it is possible that they conceal bunching because they do not exploit counterfactual *trends*. Thus, in this section, we construct counterfactuals using intertemporal trends, which allows us to perform difference-in-differences and event-study analyses.

In Figure 6, we visualize two possible trend-based counterfactuals, which motivate the statistical tests presented in this section. In Panel A, we calculate the trend in the number of workers in each earnings bin between 2017 and 2019, and project the counts in those bins into 2020 and 2021, assuming that growth would have continued at the average pre-2020 rate. In Panel B, instead of extrapolating based on pre-trends, we display the trends from a series of control bins—earnings that are sufficiently high above the threshold (from \$109,730–\$151,429) that we would not expect them to be affected by any bunching behavior or the ban on NCAs below the threshold. Since higher earnings

bins have fewer workers, we normalize the number of workers in each bin by dividing by the number of workers in the same bin in 2019. Thus, a value of 1.1 for a given bin in a given year means that the number of workers is 10% higher than it was in 2019.

If firms value the ability to enforce NCAs for workers making just under the thresholds, then the series corresponding to the \$100k-\$101,389.99 bin would jump up in 2020, and fall in 2021 (as workers are pushed over then under the threshold), the \$98,610-\$99,999 bin should drop in 2020 and then stay somewhat low in 2021, while the \$101,390-\$102,779 bin should rise in both 2020 and 2021. Although there is suggestive evidence of bunching according only to the \$98,610-\$99,999 bin, taken together the plots in Figure 6 do not demonstrate evidence consistent with bunching, as the other two bins do not follow these patterns.

Panel B shows the same trends for 29 control earnings bins (those well above the earnings threshold), which avoids confounding due to the COVID 19 pandemic. In all cases, the trends in the number of workers in the earnings bins just above or just below the threshold (relative to 2019) behave well within the range of the control bins—consistent with no bunching related to the policy.

To formalize the intuition of the analysis in Panel B, we estimate difference-in-differences and event study models which effectively compare excess and missing mass in bins near the threshold to bins at relatively unaffected parts of the distribution. Formally, the model we estimate is:

$$\ln(emp_{b,y}) = \beta Treated_{b,y} + \alpha_y + \gamma_b + \varepsilon_{b,y},$$

Where $emp_{b,y}$ is the employment count in bin b in year y ; $Treated_{b,y}$ takes a value of 1 for the focal bin in the focal year, and zero otherwise; α_y and γ_b are year and bin fixed effects, respectively, and $\varepsilon_{b,y}$ is the error term. The coefficient of interest is β , whose interpretation is the (approximate) percent increase in employment in the cell associated with exposure to the treatment (i.e., the focal bin being potentially affected by the policy change). We estimate this model on four separate samples, corresponding to four separate treatment variables based on the year and bins just above or just below the threshold: first, where $Treated_{b,y}$ is equal to 1 for the \$100,000-\$101,389.99 bin in 2020; second, the \$101,390-\$102,779.99 bin in 2021; third, the \$98,610-\$99,999.99 in 2020; and fourth, the \$100,000-\$101,389.99 bin in 2021. For each treatment variable, the corresponding sample includes only the

focal treatment bin and control bins (bins from \$109,730–\$151,429), and includes the years 2001-2020 when the focal year is 2020, and the years 2001-2019 plus 2021 when the focal year is 2021. This approach yields the cleanest estimates which avoid any possibility of confounded treatment, though estimates including the whole sample for each estimate are similar.

We note that issues associated with the use of two-way fixed effects models in difference-in-difference designs do not apply to our setting, which has a binary treatment at one point in time (Goodman-Bacon 2021, Callaway and Sant’Anna 2021, de Chaisemartin and d’Haultefeuille 2020). On the other hand, clustering at the level of treatment, or not clustering at all, in difference-in-difference models with few treated clusters (as is the case here, where only one cluster is treated in each model), yields biased estimates of the coefficient’s standard error (Donald and Lang 2007, Mackinnon and Webb 2018, Ferman and Pinto 2019). In light of these issues, we use randomization inference procedures to estimate the extent to which our estimates differ from estimates that would result from pretending each *control* bin was treated in the years before or when the policy came into effect (Mackinnon and Webb 2020).¹⁵ We thus construct a one-sided p-value corresponding to the portion of that empirical distribution which lies above (for treated groups above the threshold, where employer response would dictate positive bunching) or below (for treated groups below the threshold, where employer response would dictate negative bunching) our point estimate.

Panel A of Table 2 displays the results of the difference in differences models. Since all the estimated effects are negative, bunching is ruled out, according to this test, for bins just above the threshold: only the estimates for bins just below the threshold are possibly consistent with bunching. Figure 7 shows the distribution of estimates under the randomization inference procedure (also summarized in Table 2). The one-sided p-values are all larger than 0.22, suggesting that the observed effects are well within the range of what we would observe normally among the control bins in the

¹⁵ Specifically, we limit our sample only to control bins. We define treatment by assigning a random bin as treated in a random year. If the random year is 2020, we drop 2021, and if the random year is 2021, then we drop 2020 to align with our empirical approach. If the random year is before 2020, then we only include observations in that year or before. We then estimate our benchmark difference-in-differences approach using the other control bins as the control group. To construct the full empirical distribution of estimates under the null of no bunching, we iteratively define treatment across control bins and years, repeating the estimation procedure each time.

pre-treatment and treated years.¹⁶ Taken together, this evidence does not support that there is bunching around the thresholds. We note, also, that since zero bunching is observed in the just-above-threshold bins, the maximal firm value (as calculated in the back-of-the-envelope approach outlined in Section 3.2) is also zero.

Finally, we examine the dynamic effects associated with each bin by extending the difference in differences analysis to an event study. The results from three separate regressions (for each of the three possibly affected bins) are displayed in Figure 8, where the base year is 2019. In these specifications, the plotted intervals come from the empirical placebo distribution of estimates in which we limit our sample only to the control bins, iteratively pretending each control bin was treated, and then taking the 2.5th percentile and the 97.5th percentile of this empirical placebo distribution. Thus, an estimate within this range indicates that the estimate is similar to what we would get by random chance, based on the empirical placebo distribution.¹⁷ Reassuringly, the trends prior to implementation of the policy are relatively flat, suggesting that the difference in difference estimates are not biased by nonparallel pre-trends. Additionally, the dynamics of each of the three series suggest that the policy did not have an impact on bunching behavior: the series corresponding to the \$100,000-101,389.99 bin and the series for the \$98,610-99,999.99 bin follow largely the same trajectory in 2020, where they should diverge. Similarly, in 2021, the \$101,390-102,779.99 bin should rise more than the \$100,000-101,389.99 and \$98,610-99,999.99 bins, but they all fall together, and the fall in the \$101,390-102,779.99 bin is actually the largest. In each case, the estimates fall well within the empirical placebo distributions, as well. Therefore, the event study plot is overall inconsistent with employer modification of earnings to reach the new threshold.

5.3 Heterogeneity by Industry

¹⁶ An alternative randomization inference procedure for these DiD coefficients is to compare bins around the threshold to the control bins *before* the policy took place, so as to avoid any potential contamination in the post-treatment period. We do this by limiting the data to 2014-2019, and randomly assigning a treated bin between \$80k and \$120k. We then do the same DiD analysis by comparing only this treated bin against our control bins. This results in p-values in 2020 of 0.42 and 0.57 for the above and below-threshold comparisons, respectively, and p-values in 2021 of 0.97 and 0.17; all substantively similar to our approach above.

¹⁷ The results are robust to using the wild-cluster bootstrap to estimate confidence intervals (Mackinnon and Webb, 2018).

The results presented thus far show that there is little to no bunching behavior in the overall earnings distribution, suggesting that employers did not respond to the implementation of the earnings threshold by increasing workers' pay to just above that threshold. However, the overall estimates may mask bunching which occurs for subsets of the workforce for which NCAs may be particularly important—for example where trade secrets or other valuable information are common. Therefore, in this section, we deconstruct the earnings distribution by industry (the only dimension along which we have access to detailed earnings information) and repeat the tests for bunching. We also test whether bunching behavior is greater for workers who work in industries in which they are most likely to have an NCA (according to data from Starr et al., 2021).

Panel B of Table 1 presents the difference-in-differences estimates of bunching, broken out by two-digit NAICS industries, which are estimated using the KW construction of a counterfactual distribution. Each estimate is the average of the difference-in-differences coefficients calculated for each control year (i.e., 2001-2019), corresponding to the dashed red lines in Figure 3. As in the baseline estimates, each number represents the difference in differences of the percentage deviation of the observed distribution from the estimated counterfactual distribution, across years. If employers are increasing workers' earnings to move them above the threshold from just below the threshold, we would expect to see positive coefficients in each of the columns "above" the threshold, and negative coefficients in each of the columns "below" the threshold—i.e., positive, negative, positive, negative, read from left to right. This is the case for only one of the nineteen industries (Transportation and Warehousing). In most cases, the coefficients do not exceed 5 percentage points, even when they individually align with the theoretical predictions. The corresponding estimated maximum net firm values of the ability to enforce NCAs in court (calculated using the method outlined in Section 3.2) are reported in Table B1, Columns 1 and 3, with negative point estimates resulting in maximum firm values of zero. In no industry does this value exceed \$3,000, and it only exceeds \$1,000 for 4 out of 38 industry-year combinations.

In Figure 9, we plot the estimated coefficients for each of the four year-bin combinations against estimates of NCA prevalence, taken from Starr et al., (2021). The size of each point represents

the count of workers in the focal industry-earnings bin-year, and the plotted best fit line is weighted by that employment count. The prevalence estimates indicate the percentage of surveyed workers, in each industry, reporting that they were currently bound by an NCA. In industries in which NCA prevalence is high, we would expect more dramatic bunching behavior. Therefore, if employers are changing earnings to accommodate the threshold, we should observe a positive relationship between coefficients and prevalence for bins above the threshold, and a negative relationship for bins below the threshold. For the bins just above the threshold, the relationship is effectively flat (or, if anything, negative), indicating no relationship between NCA prevalence and the estimated bunching behavior above the threshold. For the two bins just below the threshold, there is a slight negative relationship, indicating that industries which use NCAs at a higher rate lost slightly more jobs in bins just below the threshold than in industries which use NCAs at a lower rate.¹⁸

We also replicate our analysis using a control group of well-above threshold earnings bins, broken out by industry. The overall DiD estimates by industry are shown in Table 2, Panel B, with randomization inference, one-sided p-values shown in parentheses. In no industry do we observe DiD estimates that are both statistically significant and fully consistent with bunching. Table B1, Columns 2 and 4, report the corresponding maximum net firm value estimates, which are all again under \$3,000 and only exceed \$1,000 in 5 out of 38 industry-year combinations. In Figure 10, we generally see that industries with higher NCA incidence appear somewhat more likely to experience bunching above the threshold, but this is true for bins below the threshold, as well. Figure 11 shows the event-study plots for each industry, analogous to Figure 8. Again, in no industry do we observe patterns that are fully

¹⁸ Table D1 and Figure D2 depict analogous splits for Frandsen p-values. We evaluate p-values at the average level of k estimated in the rest of the sample (i.e., the values corresponding to the dashed red lines, estimated on an industry specific basis). Only one p-value, across all industries, both years, and all four bins, is significant at even the 10% level ($p=0.042$ in the Information industry for the bin just below the threshold in 2020). The other three p-values for that industry are 0.382, 0.981, and 0.736, respectively. Only one other p-value is significant at even the 20% level. Figure D2 demonstrates the p-values plotted against NCA incidence. Plotted points in red indicate that the estimate in question lies *below* the average of the two adjacent bins: in other words, if there is bunching, it is negative bunching in that bin. If employers were adjusting earnings due to the policy, we would expect bins just below the threshold to have p-values mostly in red, and those above to have p-values mostly (or all) in black, especially as NCA incidence increases. Comparatively, this is not the case. Therefore, with one minor exception, the Frandsen p-values broken out by industry do nothing to suggest that employers in any industry are adjusting earnings to meet the threshold.

consistent with bunching behavior, and in nearly all cases the results are well within the range of what we would expect to find simply due to random chance, based on the randomization inference distributions. The two industries closest to bunching are Wholesale Trade and Information. In Wholesale Trade, for example, we see a dip in the bin just below the threshold in 2020, and a rise in the bin just above the threshold in 2021; however, none of the estimates are statistically distinguishable from the empirical distribution based on randomization inference. In Information, we see a divergence in trends between those above and below threshold in 2020, though we also observe a fall in the bin just above the threshold in 2021.

Taken together, even in technical industries where NCAs are common, we fail to find any compelling evidence of bunching, though some patterns are partially consistent.

6. Why Is There No Bunching?

There are many potential reasons why we might not observe any bunching in the prior analysis. In this section we review several potential concerns and then turn to a survey of employment attorneys in Washington to provide reasons for a lack of bunching.

One reason that we might not find evidence of bunching is that we have low power to detect it. However, our sample covers the near universe of workers in Washington in this time period, including approximately 20,000 individuals earning within \$1,390 below the threshold, when grouping 2020 and 2021 together. Estimates from Starr et al. (2021) suggest that approximately 7,000 of these workers are bound by NCAs, implying that low power is unlikely to drive our results.

An alternative concern is that we see no effect because of measurement error. That is, the threshold is based on W-2 earnings, instead of the UI-based measure of earnings in our data. In Appendix C we provide a complete overview of UI versus W-2 earnings definitions. These definitions are largely similar, and indeed, recent research by Bee et al. (2023) finds that UI and W-2 records are within 1% of each other more than two-thirds of the time, and that the direction of the error would nevertheless allow us to identify bunching based on W-2 measures..

Another potential reason for no bunching is that the NCA ban in Washington did not actually affect labor market dynamics. To rule out this possibility, we test whether the policy in Washington

impacted outcomes others have shown to be affected by NCA policy: earnings and mobility. We describe our approach in detail in Appendix E, which follows Lipsitz and Starr (2022) who examine a similar policy in Oregon in 2008. We find that the Washington ban increased earnings for workers in high-NCA-use industries by 8% and increased turnover by 4%, which we interpret as evidence that the NCA ban had meaningful effects on the Washington labor market, similar in size to those estimated in prior studies.

There are several other potential stories and mechanisms that might lead to no bunching. For example, our estimates may be biased towards zero because lawyers or firms may simply be unaware of the law. To bolster the analysis above and to provide direct evidence on why we might not observe firms giving marginal workers raises to meet the earnings threshold in the Washington NCA law, in the rest of this section, we analyze survey data from Washington employment attorneys.

The survey, conducted independently by Starr, Hiraiwa, and Beck in summer 2022, was sent to members of the Labor and Employment section of the Washington State Bar Association.¹⁹ The survey focused on attorneys who at any point between 2019 and 2021 reported providing legal advice to “corporate clients operating in the state of Washington about employee compensation, employment agreements, trade secrets, or other aspects of employment law”. Out of 130 responses to the survey, 94 satisfied these criteria, though there was some attrition through the survey. Although the overall number of attorneys may be somewhat small, the collective experience of the 58 attorneys who made it to the end of the survey reflects experiences with, conservatively, 899 firms, and likely far more.²⁰

¹⁹ Evan Starr joined the Washington State Bar Association to run the survey. Russell Beck is a leading employment law attorney with Beck Reed and Riden, who regularly advises clients on issues related to NCAs. He regularly posts on these issues on his blog <https://faircompetitionlaw.com/>. Michael Lipsitz was not involved in the development or implementation of this survey. The survey was not run on his behalf or on behalf of the Federal Trade Commission, nor did the agency or any member of the agency endorse or otherwise sponsor the survey. The survey was conducted independently by Evan Starr, Takuya Hiraiwa, and Russell Beck. The data collected from the survey was shared with the authors of this paper and analyzed herein. Feedback on the survey was provided by several employment attorneys and experts on NCAs, including Stewart Schwab, Terri Gerstein, Jane Flanagan, Rachel Arnov-Richman, Orly Lobel, Matt Marx, and Matt Johnson.

²⁰ A question at the end of the survey asked, “Between 2019 and 2021, approximately how many companies did you advise on employee compensation or employment agreements?” Of the 58 attorneys who answered this question, 0 responded “0,” 17 responded “1-5,” 9 responded “6-10,” 11 responded “11-20,” 7 responded “21-40,” and 14 responded “More than 40.” Taking the minimum from each bin and multiplying it by the number who selected that bin gives the conservative number of firms represented by the survey: $17*1 + 9*6 + 11*11 + 7*21 + 14*40 = 899$.

The survey focused on the knowledge and advice of attorneys and responses of the firms they advised, to NCAs generally, and specifically to the Washington state earnings threshold.

Multiple questions in the survey sought to measure potential bunching behavior, as summarized in Table 3. We focus on the middle column, which represents attorneys who reported that at least one of their clients uses NCAs with workers who earn approximately \$100k, though we report results from the full sample of employment attorneys and from the sample of employment attorneys who both have clients who use NCAs with workers earning about \$100k and advise more than 10 clients. Among the focal group of attorneys, 61.5% reported advising at least one client of the option to pay their workers above the threshold in order to make their NCAs enforceable. Regardless of whether they gave such advice, 36% of these attorneys report that at least one of their clients increased compensation to meet the applicable thresholds, with an additional 46% reporting that they did not know whether any clients did. However, this relatively large fraction of attorneys hides a relatively low count of businesses: the median attorney predicted that only 10% of their clients would increase compensation to meet applicable thresholds in 2022, while the average predicted 17%. Therefore, while a relatively high number of attorneys appear to be advising clients of the option to increase compensation to reach the threshold, and many attorneys appear to be having success with *some* clients, the vast majority of attorneys predict that few of their clients would actually do so.

Thus, a crucial question is why employment attorneys believe that most firms would not raise compensation to meet the new threshold. To answer this question, we analyze data from a question which asked attorneys directly why companies might not raise compensation to meet the thresholds established in the law. The answers are shown in Table 4, sorted in descending order of the prevalence with which they were selected. The answers reveal that companies, by and large, do not appear to value the use or enforceability of NCAs, especially above and beyond other tools which may be used to protect their legitimate business interests. The top three answers are especially revealing: the first (selected by 62% of attorneys with clients using NCAs for workers earning around \$100k) indicates that “the company did not expect to enforce” NCAs for workers at the threshold. The second (selected by 51% of the aforementioned group of attorneys) indicates that “the company did not use or

need” NCAs for workers near the threshold. Third, 49% of attorneys in the focal group also noted that other tools that may be used to protect business interests left the marginal value of NCAs low.

The survey data also help us shed light on several alternative explanations. For example, one might be concerned that lawyers were simply unaware of the law (or did not advise clients of its consequences). Data from the survey reveal that 92.5% of the surveyed attorneys report that they were aware of the law by the time it came into effect in 2020, and only 8% or less reported that lack of information about the law was why firms did not give marginal workers raises to reach the threshold (Table 4). Another alternative explanation regards “optimization” frictions (Kleven 2016). For example, adjusting compensation bands to meet annually updating thresholds may be costly, requiring coordination between lawyers and compensation decisionmakers. Discretionary end of year bonuses may mitigate this concern to some degree and other research (e.g., Quach 2022) suggests that firms do adjust earnings to thresholds. Nevertheless, there is some evidence that the regular updating of the thresholds is seen as too costly for employers: 38% of lawyers suggested that bunching wouldn’t occur because of the costs of updating salaries to meet the new threshold. However, only 8.1% of attorneys perceived that the lack of bunching was due to communication difficulties between the lawyers and decisionmakers regarding compensation (Table 4).

6.1 Discussion of Mechanisms

The evidence above suggest that firms do not generally value the ability to enforce NCAs in court for workers making \$100k per year. There are many mechanisms that likely underlie this null effect, but the main two appear to be that firms do not generally need to go to court to enforce an NCA for workers making \$100k, and that they have other tools to protect their interests. In this section we consider the plausibility of these two mechanisms.

The first mechanism—that firms don’t actually need to go to court to enforce NCAs for workers making \$100k—may not be all that surprising in light of prior literature. Lavan (2000), for example, finds that high-skill workers tend to make up the majority of NCA cases with *decisions*. One possible explanation for this finding is that most cases involving low-wage workers settle, a fact that

is bolstered by employment lawyers estimating that more than 90% of NCA-related cases are settled.²¹ This does not imply, however, that firms are necessarily dropping NCAs for low-wage workers after the Washington law. Though not unanimous, some prior research finds that NCAs are used in similar measure regardless of their enforceability (Colvin and Shierholz 2019, Starr et al. 2021, Rothstein and Starr 2022, Balasubramanian et al. 2022), and that unenforceable NCAs can exert chilling effects on worker mobility regardless of their enforceability (Starr et al. 2020)—in part because workers tend to assume that NCAs are enforceable, even when they are not (Prescott and Starr 2022). Thus, while the law established an enforceability threshold, it is possible that despite penalties included in the law, firms simply continued using (newly) unenforceable NCAs and enforced them informally outside of the courtroom. As a result, in most cases the firm may not require the court to actually render a judgement of enforceability.

To provide evidence of this idea specifically in this context, we reached out to Tim Emery, who has been working in this area of employment law for a decade, and who filed six class action lawsuits to annul NCAs in Washington in 2022 (related to e.g., line cooks, flooring installation, and installing cabinetry).²² Mr. Emery highlighted that many firms are still having low-wage employees sign NCAs routinely, noting that these firms have the perspective that “as you long as you don’t enforce it in court, you haven’t violated the statute.”²³

The second mechanism—that firms have other tools to protect valuable information, such as non-disclosure agreements, non-solicitation agreements, and trade secret law—also seems plausible. Firms are already adopting these employment terms alongside NCAs (Balasubramanian et al. 2021), and trade secret cases in California (where NCAs are unenforceable) are common (Beck 2017). Accordingly, the marginal value of being able to enforce an NCA for a worker making \$100k in light of

²¹ This estimate is based on private correspondence with Russell Beck of Beck Reed Riden, and is the same as the estimate agreed upon by several employment lawyers discussing hiring issues related to noncompete agreements in the Spilling Secrets Podcast by Epstein Becker Green (See “Hiring From a Competitor? Don’t Get Sued” available at <https://www.ebglaw.com/spilling-secrets-podcast-series/>).

²² See <https://www.emeryreddy.com/attorneys/timothy-w-emery/>. Class actions filed were found in our analysis of the Court House News data underlying Figure 1.

²³ Based on private conversations with Mr. Emery, who gave us permission to use this quote.

the other tools that firms have may be minimal. Indeed, policymakers often make this point when arguing for banning NCAs (Silverman 2021).

7. How does banning low-wage NCAs affect firm value?

While a firm may not increase wages to pay for enforceable NCAs at the 79th percentile, this does not necessarily imply that firms are not still hurt by a ban on NCAs. For example, consider a firm that uses NCAs with all workers, which includes approximately 30% of firms (Colvin and Shierholz 2019, Balasubramanian et al. 2021), in order to protect its investments. Such a firm may not be willing to pay only workers earning just below the threshold a little more to enforce their NCAs, since workers earning far below the threshold may still appropriate the value of firm investments. As a result, such a firm may forego new investment opportunities without enforceable NCAs, leading to reduced firm value. Alternatively, by banning NCAs for most workers the Washington law also reduced hiring costs for all firms (Starr et al. 2019), potentially improving match quality between workers and firms (Shi 2022).

To examine how Washington's NCA ban affected firm value, we follow Younge and Marx (2016) and ask how firm value of publicly traded firms headquartered in Washington changes after the NCA law is passed. We consider two forward looking measures of firm value, Tobin's q and Annual Stock Returns and perform a triple differences analysis. The triple difference model compares how firm value changes for Washington-headquartered firms in high vs. low NCA incidence industries (first difference), before vs. after the law (second difference), relative to the same differences in other states (third difference). We privilege this triple difference model because the within-state differencing between high-NCA and low-NCA industries differences out at state-specific policy shocks (due to e.g., COVID or the pay transparency law). A detailed account of the methodology, as well as a detailed description of the results, is contained in Appendix F. Our results suggest that the ban on NCAs for workers making under the 79th percentile did not destroy value for Washington firms—if anything it appears to rise. These results do not necessarily invalidate those found in Younge and Marx (2016)—that NCA enforceability in Michigan increased firm value. Our results suggest, however, that this value either came from workers earning more than \$100k, or that there were other institutional or structural

differences between their setting and ours (e.g., the Michigan reforms that repealed the NCA law also included other antitrust regulations; see Marx et al. 2009).

8. Discussion and Conclusion

This study considers whether firms give workers small raises in order to have a chance to use the courts to enforce NCAs for workers at approximately the 79th percentile of the earnings distribution. Even in industries in which NCAs may plausibly have the most value to companies (e.g., professional services, manufacturing), we see no consistent evidence of bunching. An attorney survey suggests that the key reasons for a lack of bunching are that firms do not expect to need to enforce such agreements in court and that firms have other tools to protect their interests. We also find no evidence that banning NCAs for workers under the threshold reduced average firm value.

Taking into account the numerous policy debates across the US related to “low-wage” NCAs, and given the harm that enforcing NCAs can cause to both low-wage and high-wage workers (Krueger and Posner 2018, Lipsitz and Starr 2021, Young 2021, Balasubramanian et al. 2022, Garmaise 2011), these findings suggest that states determined to set a low-wage NCA threshold can consider relatively high thresholds, since the harms which impact workers and other actors are not likely offset by benefits which accrue to firms. Precisely how high of a threshold policymakers could set before firms begin to value NCA enforceability is an open question.

These findings raise numerous important questions and directions for future research. For example, in efficient contracting models NCAs only arise when they are mutually beneficial to workers and firms, typically by encouraging investment and the sharing of valuable information through the resolution of a hold-up problem. Court enforceability then serves to hold workers to their promises and thus support investments that depend on those promises. If this account is accurate, then firms using NCAs with near-threshold workers should value court enforceability, especially where productivity depends on important investments and resource sharing within the firm, such as professional, scientific, and technical services. However, even here we find no compelling evidence that firms are willing to pay for enforceable NCAs for workers at the 79th earnings percentile.

Thus, our results suggest that some core element of the efficient contracting model is inaccurate. The prime candidate explanation that emerges from our analysis is that, despite firm protestations to the contrary, they do not value or need enforceable NCAs for workers proximate to the threshold, either because they do not expect to enforce them in court (though they may continue to enforce them informally) or because they have alternative tools to protect their interests. Thus, informal enforcement and the use of related contract provisions appear to act as substitutes for the legal enforceability of NCAs. Our results therefore push towards new directions for research, including emphasizing the role of substitute tools that are available to firms. Nearly all the empirical economic research on restrictive covenants has focused on NCAs and NCA enforceability, with the exception of Balasubramanian et al. (2021), Sockin et al. (2022), and Cowgill et al. (2024). If states begin to ban NCAs, however, and firms substitute towards similar restrictions, then future research needs to better consider the effects of this suite of available protection devices.

Finally, our results suggest a potential puzzle within the literature. If court enforceability of NCAs results in reduced turnover and wage bills, as many studies suggest (Starr 2019, Lipsitz and Starr 2022, Balasubramanian et al. 2020, Johnson et al. 2022, Young 2021) as well as protection of valuable resources (Starr 2019, Jeffers 2021), then why are firms *not* willing to make small payments to have the ability to enforce NCAs in court for workers proximate to the threshold? There are several possible resolutions to this puzzle. The first possibility is that the benefits of NCA enforceability do not necessarily accrue to those using NCAs. As noted earlier, enforcing NCAs imposes hiring costs on all firms in the market, making it costlier to open and fill vacancies. Indeed, two studies (Johnson et al., 2022; Starr et al., 2019) have found that enforcing NCAs reduces wages, job offers, and employee mobility—even for those without NCAs or those in neighboring states. As a result, enforcing NCAs may limit turnover and wage bills for all firms in the market; testing this hypothesis requires incorporating changes in the enforceability of NCAs with actual data on the use of NCAs.

Another possible explanation is that firms may not realize that court enforceability of low-wage NCAs gives them value. If firms are unaware of these benefits—perhaps because most cases of NCAs in which enforcement is sought are brought against high-earning managerial, technical, or sales

employees (Seaman 2020, LaVan 2000)—then they may see value for very high-wage workers, but not for workers making \$100k per year. This behavioral theory seems possible; until recently researchers themselves had not quantified the wage, retention, and financial value to firms from being able to enforce NCAs (Balasubramanian et al. 2022, Starr 2019, Younge and Marx 2016, Johnson et al. 2022). Examining this explanation requires a more behavioral approach, gauging the knowledge and perceptions of the management team making compensation decisions.

Unfortunately, data limitations prevent us from directly testing these hypotheses. We leave this puzzle as an avenue for future research.

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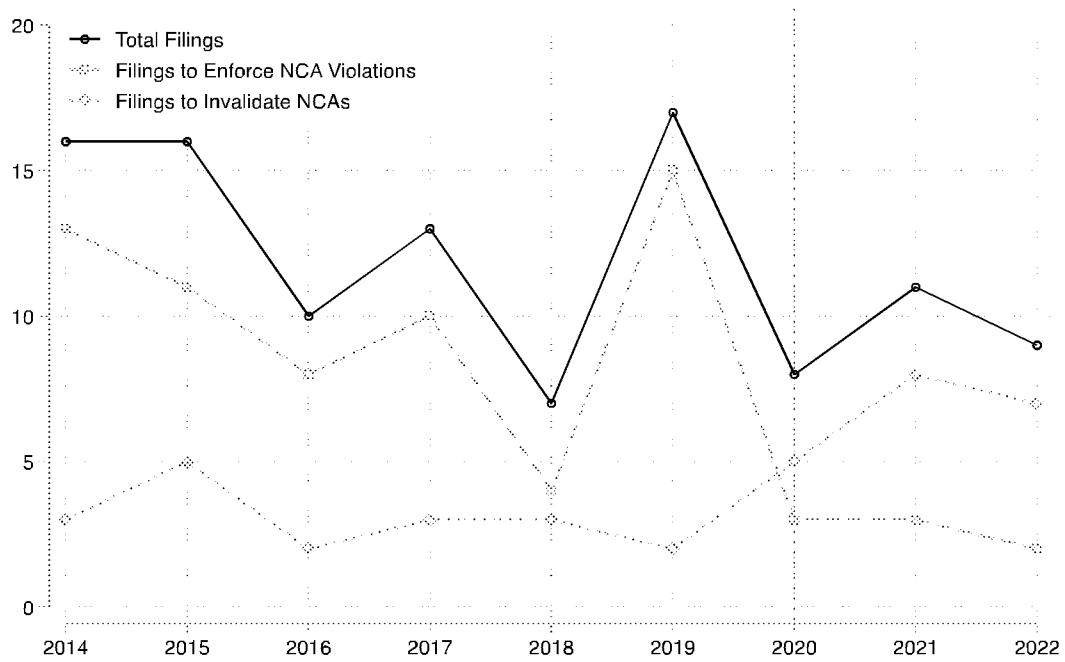
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Figures and Tables

Figure 1. Number of Filings Related to NCAs in Covered Washington Courts



Source: courthousenews.com. Includes filings from January 1, 2014 to June 17, 2022.

Notes: This figure shows a count of filings in the state of Washington from the Court House News Service. The filings were gathered via a Boolean Search using the terms “noncompetition” or “non-competition” or “not to compete” or “noncompete” or “non-compete” or “restrictive covenant” or “postemployment restraint.” All subsequent filings were then reviewed manually and classified as an enforcement action for an individual violating an NCA or an action to invalidate and NCA. Other filings, e.g., those related to NCAs in the context of a sale of business, were discarded. Note that the Court House News Service does not cover all courthouses in Washington.

Figure 2. Bunching from Discontinuity in NCA Enforceability-Earnings Relationship

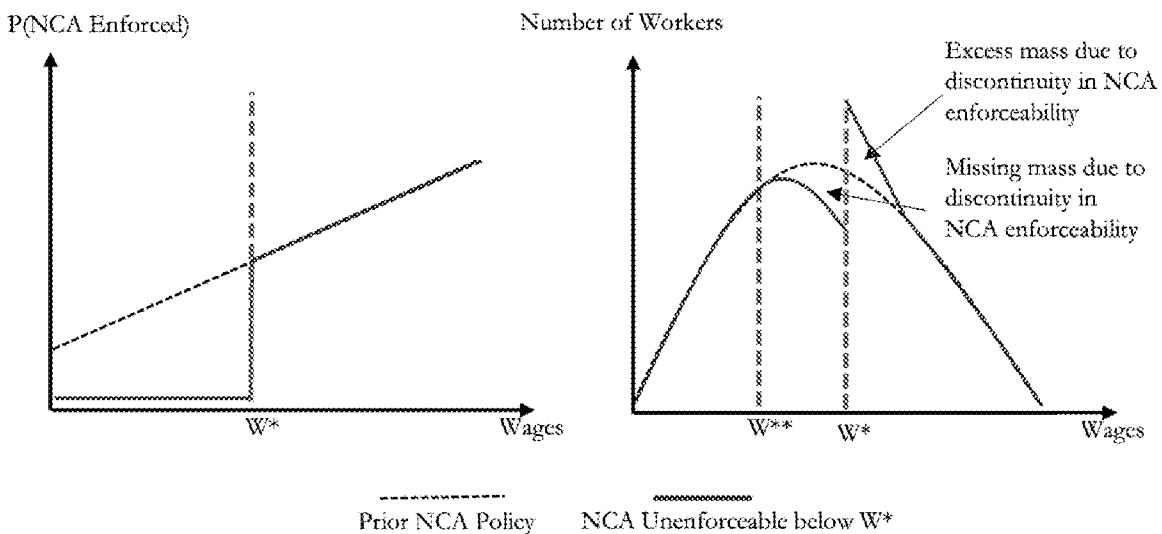
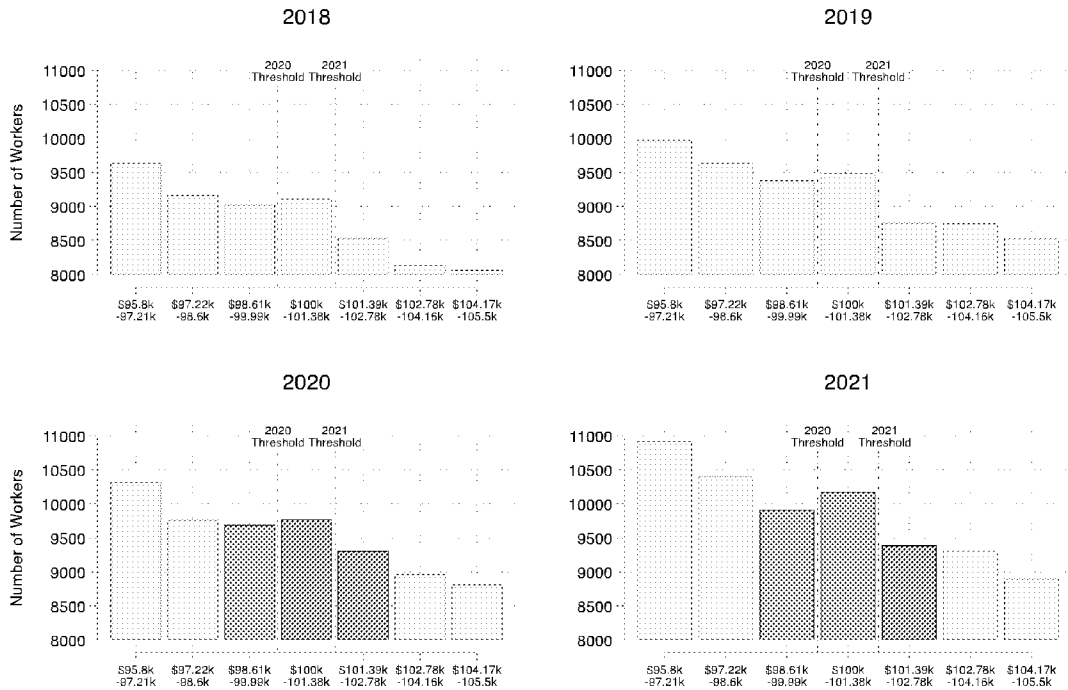
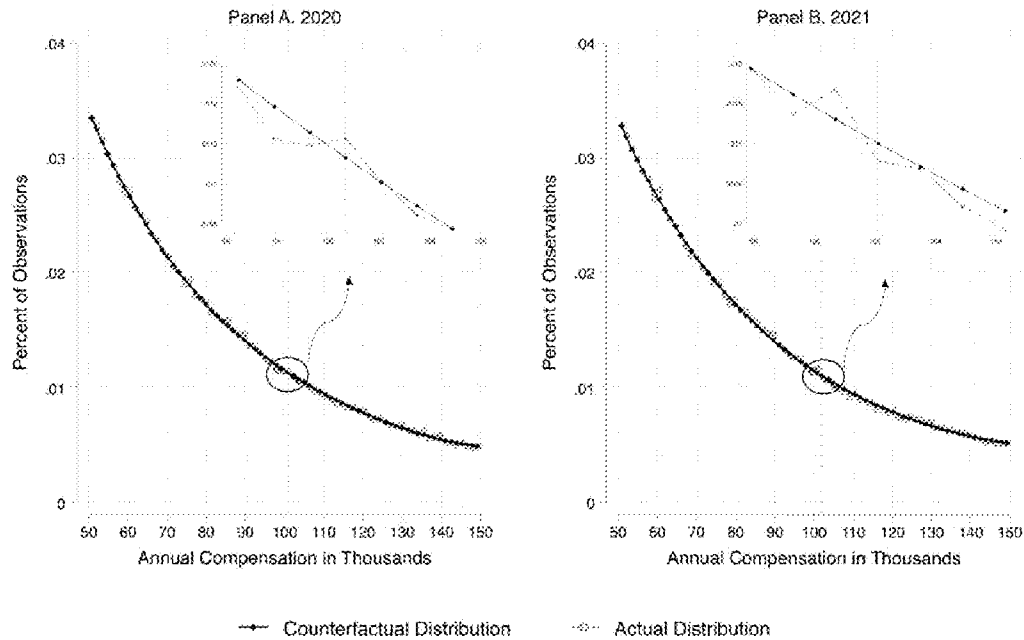


Figure 3. Number of Workers by Nominal, Annual Earnings in Thousands (in \$1.39k bins)



Note: The y-axis is the count of workers in each bin, and the x-axis is labeled based on the minimum of each earnings bin. The threshold was \$100k in 2020 and \$101,390 in 2021.

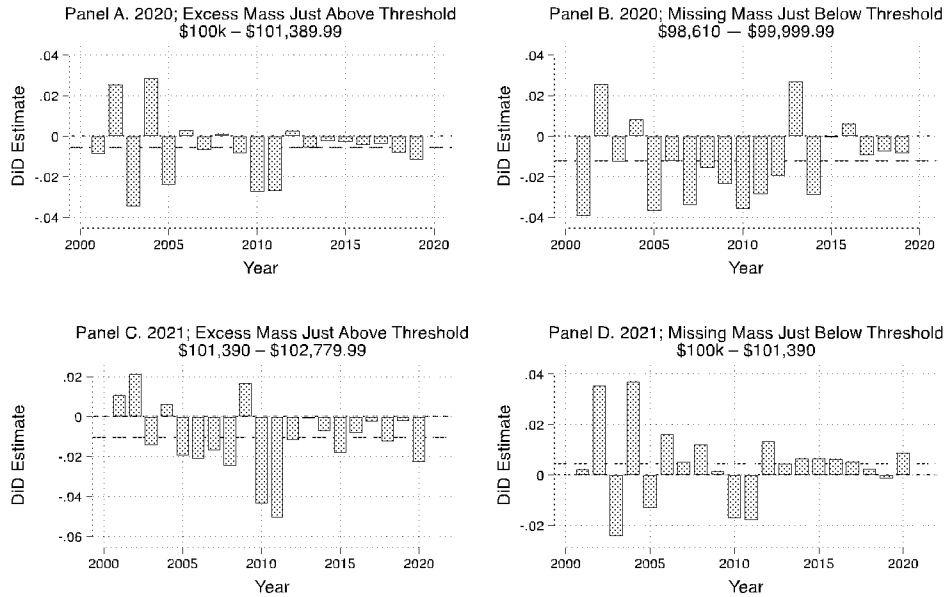
Figure 4. Observed versus Parametrically Fitted Earnings Distribution



Sources: Administrative Washington Data. In 2020, the threshold was \$100,000, and it increased to \$101,390 in 2021.

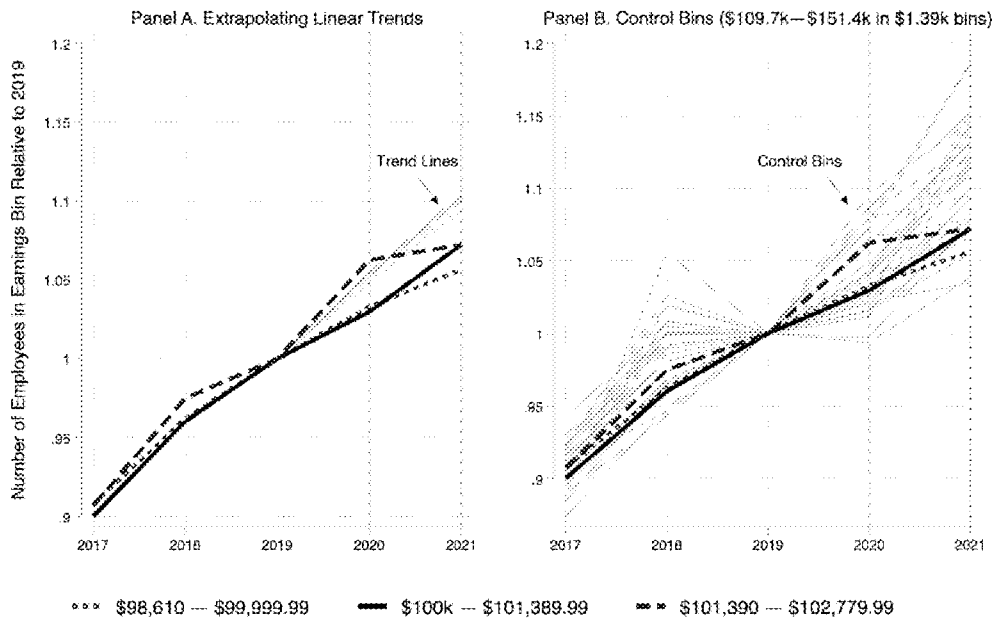
Note: The figure plots the percent of observations in each point, marked by the midpoint of the bin, alongside the KW counterfactual distribution estimated using all the data outside the 5 colored bins.

Figure 5. Difference-in-Differences using Parametrically Estimated Counterfactual Distributions



Notes: This figure shows the results KW difference-in-differences approach, comparing the differential earnings in each bin just above or below the threshold in the treated years (as marked) to the same difference in prior years. The red-dashed line is the average difference-in-difference effect.

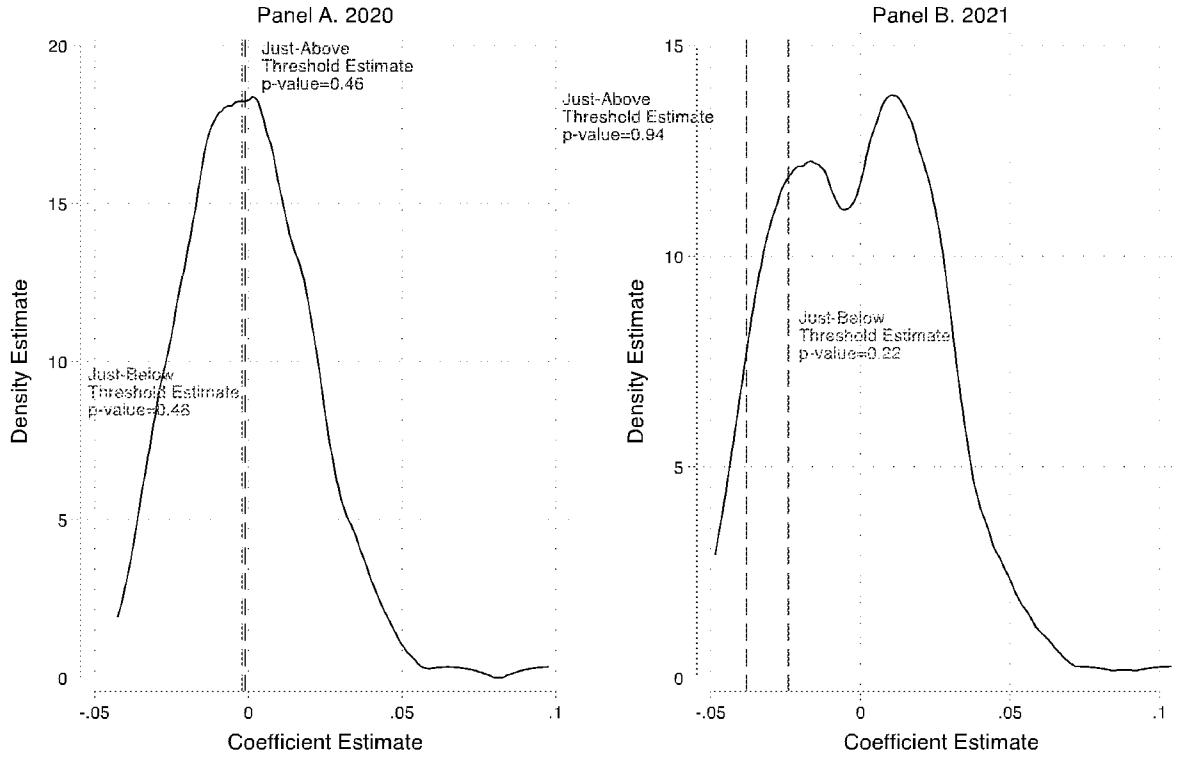
Figure 6. Trends in Number of Workers by Nominal, Annual Earnings Bin Relative to 2019



Source: Administrative Washington Data. In 2020, the threshold was \$100,000, and it increased to \$101,390 in 2021.

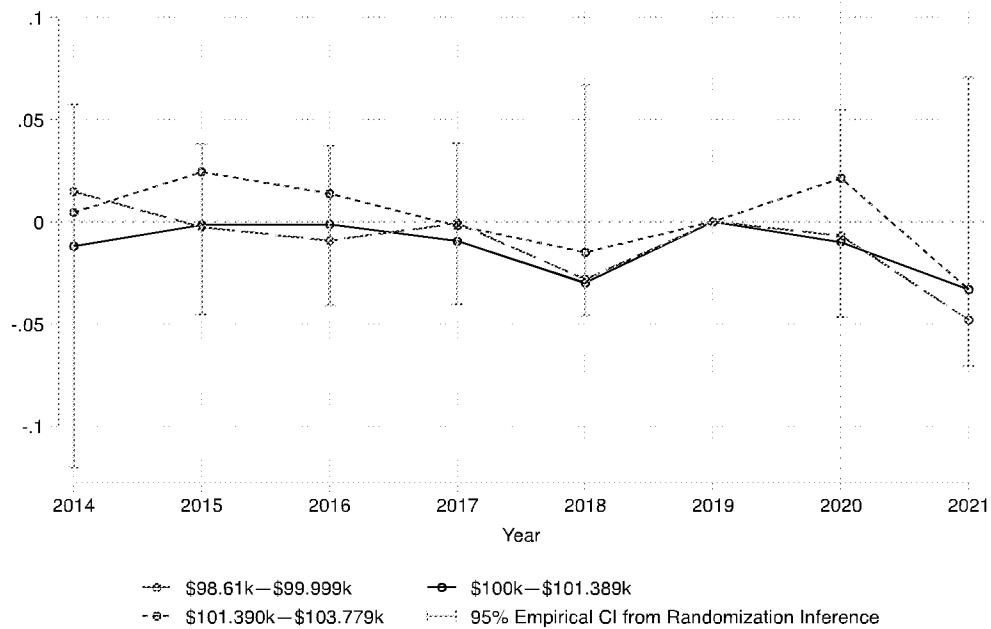
Notes: The figures show the trends of counts in bins just above or below the thresholds in 2020 and 2021, relative to the pre-existing trends (Panel A) or bins further above the threshold (Panel B).

Figure 7. Randomization Inference on Difference in Difference Coefficients



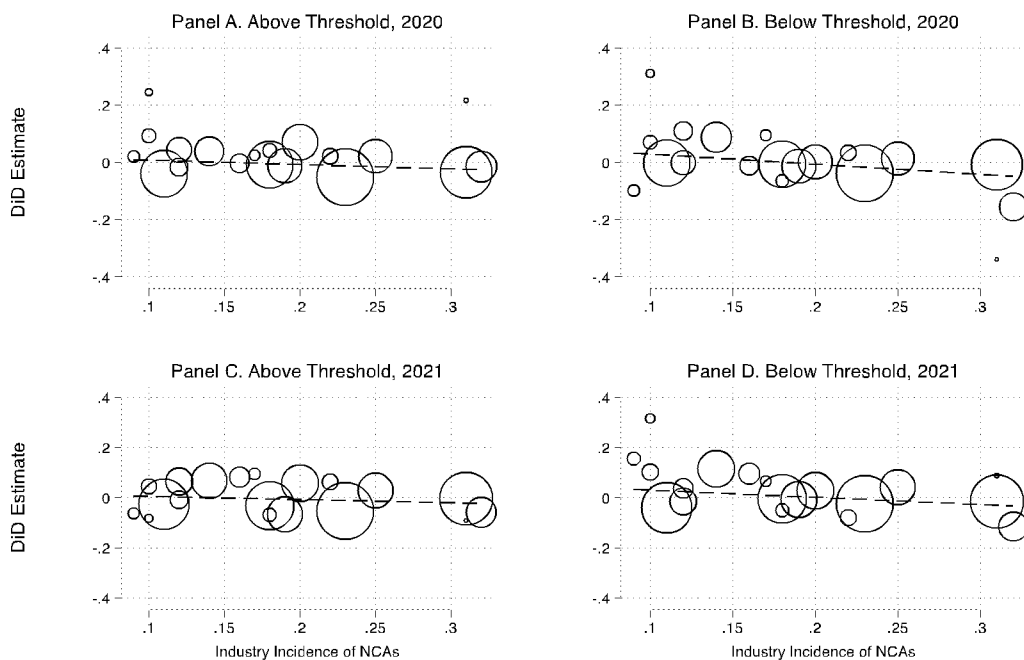
Notes: This figure shows the randomization inference procedure for the difference-in-difference estimates in Table 2. control bins. We define treatment by assigning a random bin as treated in a random year. If the random year is 2020, we drop 2021, and if the random year is 2021, then we drop 2020 to align with our empirical approach. If the random year is before 2020, then we only include observations in that year or before. We then estimate our benchmark difference-in-differences approach using the other control bins as the control group. To construct the full empirical distribution of estimates under the null of no bunching, we iteratively define treatment across control bins and years, repeating the estimation procedure each time.

Figure 8. Event Study Estimates with Randomization Inference Confidence Intervals



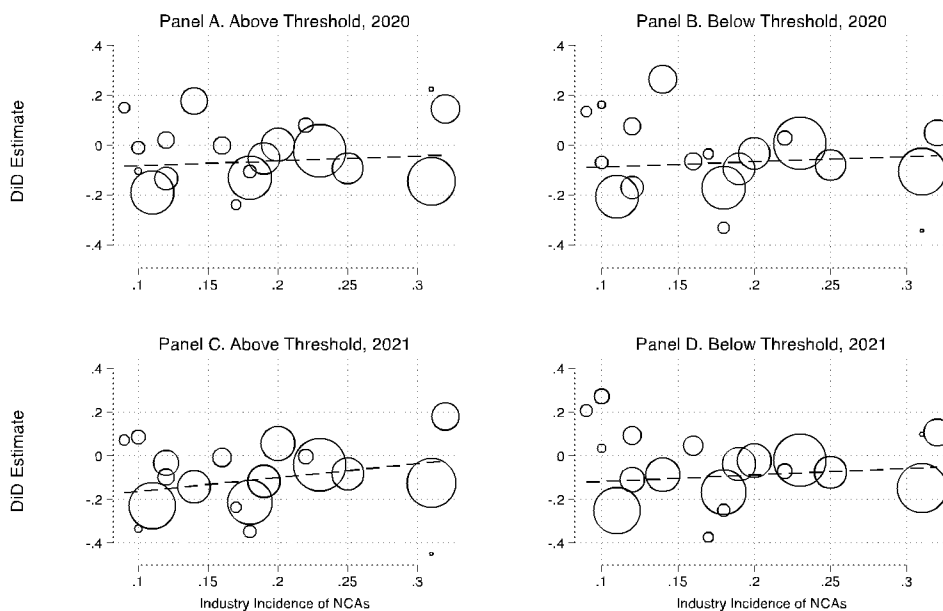
Note: We do not report asymptotic confidence intervals because they are biased with only one treated cluster (Ferman and Pinto 2019). The gray confidence intervals are the 2.5th and 97.5th percentiles of the placebo, randomization inference distribution. This distribution is constructed by dropping the treated bin, and iteratively pretending a control bin is treated. The gray confidence intervals thus reflect estimates we would achieve if a random control bin were treated.

Figure 9. KW Difference in Differences Estimates and NCA Prevalence, by Industry



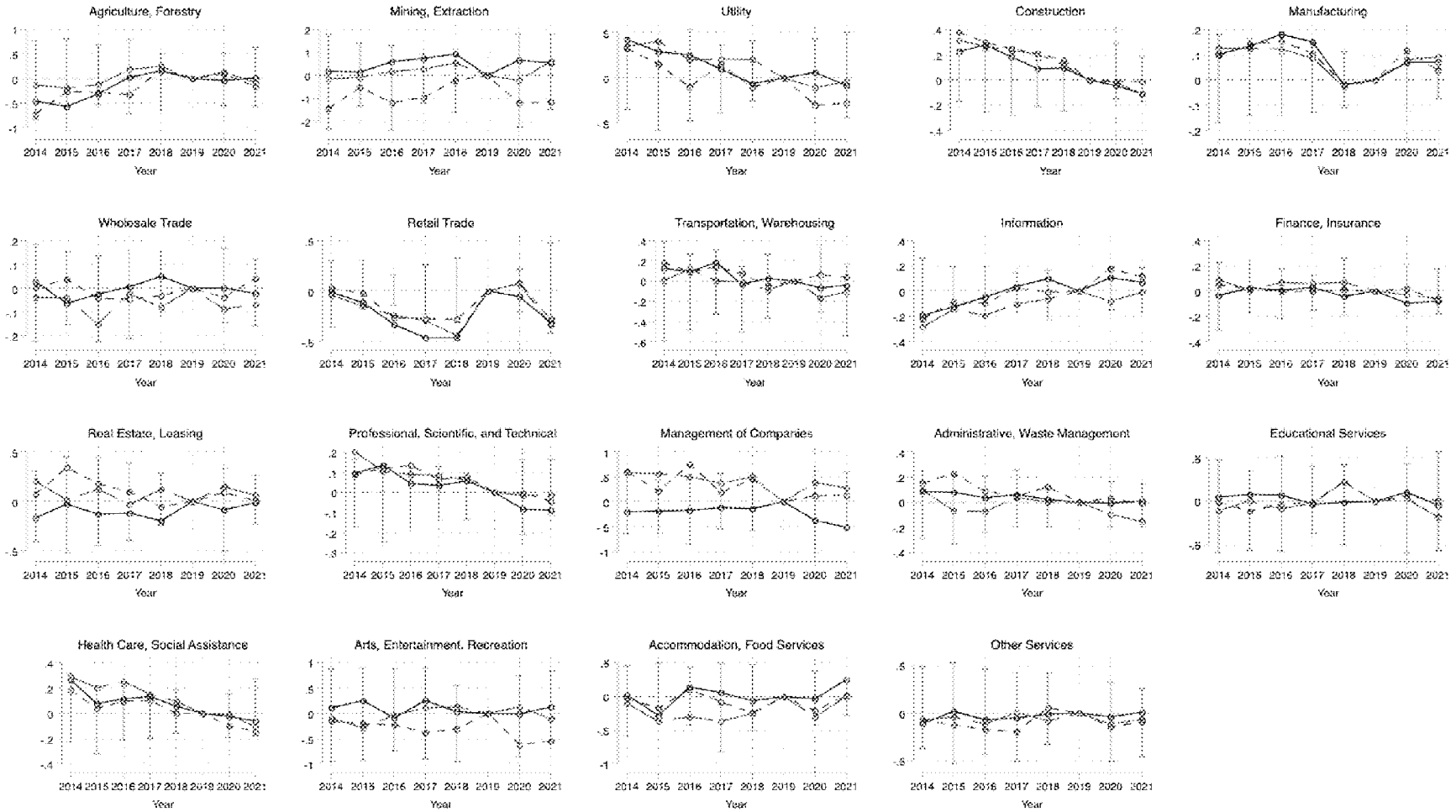
Notes: This figure plots the industry estimates from Table 1 Panel B according to the NCA incidence of the industry (per Starr 2021), with each industry weighted according to its employment count.

Figure 10. Control Group DiD Estimates by NCA Industry Prevalence



Notes: This figure plots the industry estimates from Table 2 Panel B according to the NCA incidence of the industry (per Starr 2021), with each industry weighted according to its employment count.

Figure 11. Event Study by Industry (Reference Year 2019)



○—○ \$98.61k—\$99.999k

●—● \$100k—\$101.389k

○—○ \$101.390k—\$103.779k

⋯ 95% Empirical CI from Randomization Inference

Table 1. Average Difference-in-Differences Estimates using KW Approach

	(1)	(2)	(3)	(4)
	Focal Year 2020		Focal Year 2021	
	Above Threshold	Below Threshold	Above Threshold	Below Threshold
	\$100-101.389k	\$98.61-100K	\$101.39-102.78K	\$100-101.39K
<i>Panel A. Overall Estimates</i>				
Overall	-0.006	-0.012	-0.011	0.004
<i>Panel B. Estimates by Industry</i>				
Agriculture, Forestry, Hunting	0.021	-0.098	-0.062	0.156
Mining, Quarrying, Gas Extraction	0.217	-0.338	-0.092	0.089
Utilities	0.042	-0.064	-0.068	-0.050
Construction	-0.039	-0.002	-0.026	-0.040
Manufacturing	-0.051	-0.038	-0.053	-0.024
Wholesale Trade	0.071	0.002	0.058	0.028
Retail Trade	0.039	0.088	0.068	0.115
Transportation, Warehousing	0.044	-0.001	0.065	-0.015
Information	-0.014	-0.155	-0.058	-0.115
Finance and Insurance	0.022	0.014	0.029	0.042
Real Estate, Rental, Leasing	-0.016	0.11	-0.008	0.037
Prof., Scientific, Technical Services	-0.034	-0.008	-0.004	-0.015
Management of Companies	0.025	0.095	0.095	0.066
Administrative, Waste Management	-0.011	-0.013	-0.066	-0.007
Educational Services	0.022	0.034	0.063	-0.080
Health Care and Social Assistance	-0.008	-0.006	-0.032	-0.005
Arts, Entertainment, and Recreation	0.246	0.311	-0.082	0.316
Accommodation and Food Services	0.093	0.071	0.045	0.102
Other Services	-0.003	-0.011	0.082	0.096

Notes: Each estimate is constructed in several steps. First, for each industry, a quartic polynomial is fit to the distribution of earnings within the year, omitting the focal bin in the column header and the two bins on either side of it, and then the estimated polynomial is interpolated across the omitted bins. Second, for each focal bin in a given year and industry, we take the difference between the observed and counterfactual probabilities. Third, for each focal year and industry, we subtract from the observed difference between the actual and counterfactual outcomes the average of the same difference for all years prior to treatment (2001–2019).

Table 2. Difference-in-Differences Estimates Using Control Group Approach

	(1)	(2)	(3)	(4)
	Focal Year 2020		Focal Year 2021	
	Above Threshold \$100-101.389k	Below Threshold \$98.61-100k	Above Threshold \$101.39-102.78k	Below Threshold \$100-101.39k
<i>Panel A. Overall Estimates</i>				
Overall	-0.001 (0.46)	-0.002 (0.48)	-0.038 (0.94)	-0.024 (0.22)
<i>Panel B. Estimates by Industry</i>				
Agriculture, Forestry, Hunting	0.15 (0.30)	0.14 (0.69)	0.07 (0.36)	0.21 (0.77)
Mining, Quarrying, Gas Extraction	0.22 (0.28)	-0.34 (0.21)	-0.45 (0.81)	0.10 (0.63)
Utilities	-0.11 (0.77)	-0.33 (0.04)	-0.35 (0.97)	-0.25 (0.07)
Construction	-0.19 (0.98)	-0.21 (0.01)	-0.23 (1.00)	-0.25 (0.00)
Manufacturing	-0.02 (0.71)	0.01 (0.63)	-0.04 (0.80)	-0.02 (0.31)
Wholesale Trade	0.00 (0.42)	-0.03 (0.27)	0.06 (0.18)	-0.02 (0.32)
Retail Trade	0.18 (0.05)	0.26 (1.00)	-0.14 (0.87)	-0.09 (0.21)
Transportation, Warehousing	-0.13 (0.88)	-0.17 (0.06)	-0.03 (0.68)	-0.11 (0.17)
Information	0.15 (0.01)	0.05 (0.78)	0.18 (0.00)	0.11 (0.91)
Finance and Insurance	-0.09 (0.89)	-0.08 (0.13)	-0.08 (0.88)	-0.08 (0.14)
Real Estate, Rental, Leasing	0.02 (0.37)	0.08 (0.73)	-0.10 (0.80)	0.09 (0.77)
Prof., Scientific, Technical Services	-0.14 (1.00)	-0.11 (0.02)	-0.13 (1.00)	-0.15 (0.00)
Management of Companies	-0.24 (0.88)	-0.04 (0.37)	-0.24 (0.88)	-0.37 (0.05)
Administrative, Waste Management	-0.05 (0.78)	-0.09 (0.13)	-0.12 (0.93)	-0.04 (0.31)
Educational Services	0.08 (0.33)	0.03 (0.60)	0.00 (0.60)	-0.07 (0.32)
Health Care and Social Assistance	-0.13 (0.95)	-0.17 (0.03)	-0.21 (1.00)	-0.17 (0.01)
Arts, Entertainment, and Recreation	-0.10 (0.68)	0.16 (0.72)	-0.34 (0.87)	0.03 (0.61)
Accommodation and Food Services	-0.01 (0.59)	-0.07 (0.31)	0.09 (0.27)	0.27 (0.94)
Other Services	0.00 (0.53)	-0.06 (0.28)	-0.01 (0.55)	0.05 (0.70)

Notes: One-sided randomization inference p-values in parentheses. Control group includes 29 bins ranging from \$109,730 to \$150,040.

Table 3. Do Lawyers Report that their Clients Bunch at \$100k?

	(1)	(2)	(3)
Sample:	All Attorneys	At least one client uses NCAs with workers earning ~ \$100k	At least one client that NCAs with workers earning ~ \$100k, and advises more than 10 clients
<i>Panel A. Between 2019 and 2021, did you advise any corporate clients of the option to increase the compensation of any just-below-threshold employees to reach the applicable threshold for enforcing noncompetes?</i>			
Yes	37.3%	61.5%	61.5%
Observations	75	39	26
<i>Panel B. Regardless of whether you advised them of this option, did any of your corporate clients increase the compensation of any just-below-threshold employees to reach the applicable threshold for enforcing noncompetes in either 2020 or 2021?</i>			
Yes	21.33	35.9	46.15
No	25.33	17.95	15.38
Don't Know	53.33	46.15	38.46
Observations	75	39	26
<i>Panel C. By the end of 2022, approximately what percent of your corporate clients do you predict will have increased the compensation of just-below-threshold employees to reach the threshold for 2022 (\$107,301.04)?</i>			
25th Percentile	1%	5%	5%
50th Percentile	8.50%	10%	10%
75th Percentile	20%	28%	28%
Mean	14.2%	17.49%	17.19%
Observations	66	37	26

Table 4. Why Not Give Just-Below-Threshold Workers a Raise?

	(1)	(2)	(3)
Sample:	All attorneys	At least one client uses NCAs with workers earning ~ \$100k	At least one client uses NCAs with workers earning ~ \$100k, and advises more than 10 clients
<i>Survey Question: Based on your experience between 2019 and 2021, why might companies not increase the compensation of just-below-threshold employees to the applicable threshold for enforcing noncompetes? Select all reasons that apply.</i>			
The company did not expect to enforce noncompetes for employees earning at the approximate threshold level	56.06%	62.16%	69.2%
The company did not use or need noncompetes for employees with earnings at the approximate threshold	54.55%	51.35%	61.5%
The company used other tools to protect its legitimate interests and so didn't place a high value on court enforceability of noncompetes for employees at the approximate threshold level	39.39%	48.65%	53.8%
The company did not perceive any benefits to ability to enforce noncompetes for workers at the approximate earnings threshold*	37.50%	39.13%	50.0%
Giving every employee near the threshold a raise to get them to each new annual threshold was too complicated or expensive	27.27%	37.84%	38.5%
It would have put the company at a recruiting disadvantage to use and potentially enforce noncompetes for workers at the approximate earnings threshold	16.67%	21.62%	26.9%
The company was not advised (e.g., by their legal counsel) to raise wages to reach the new threshold	13.64%	10.81%	15.4%
It would have reduced morale to use and potentially enforce noncompetes for workers at the approximate earnings threshold.	21.21%	10.81%	11.5%
The company was not aware of the new noncompete law	19.70%	13.51%	7.7%
Other reason	7.58%	8.11%	7.7%
The decisionmakers regarding compensation did not coordinate with, or did not agree with, those knowledgeable of the earnings threshold	10.61%	8.11%	3.8%
None of these reasons apply	7.58%	5.41%	3.8%
Observations	66	37	26

Note: The numbers reflect the percent of observations that selected a given reason. * only has 48 responses in column (1), 23 in column (2), and 16 in column (3) because the question was added partway through the survey.

Online Appendix

Appendix A. Theoretical framework with *in terrorem* effects

One relevant dynamic surrounding NCAs is the existence of *in terrorem* effects. The literature has identified that, even in the absence of legal enforceability, having an NCA may impact workers' willingness to change jobs in violation of their NCA (Starr et al., 2020, Prescott and Starr 2023). If *in terrorem* effects are as big as the effects of enforceable NCAs, then the law would have no bite: worker/firm pairs with unenforceable NCAs would act identically to worker/firm pairs with enforceable NCAs. On the other hand, a substantial literature has identified many impacts of NCA enforceability on workers (Johnson et al., 2022; Balasubramanian et al., 2022; Lipsitz and Starr, 2022; Johnson and Lipsitz, 2022), suggesting that *in terrorem* effects are not absolute, and firms rely on court enforceability as a legal backstop.

In the remainder of this section, we modify the model to address the impact of *in terrorem* effects and their possible influence on the predictions of our model. First, we omit the binding wage constraint ($w \leq \lambda$) and allow firms to use NCAs, even below the legal threshold. In lieu of a binding wage constraint, we introduce modifications to the firm's profit function and the worker's participation constraint that reflect that *in terrorem* effects are likely not as large as the effects of enforceable NCAs. In particular, we assume that a firm using an unenforceable NCA receives a value of $V_f - \phi_f$, instead of V_f , and a worker bound by an unenforceable NCA pays a penalty of $V_w - \phi_w$, instead of V_w . One way to interpret these modifications is probabilistically: if there is some exogenous probability (ρ) that a worker finds out their NCA is unenforceable, which renders its value and cost equal to zero, then $\phi_f = \rho * V_f$, and $\phi_w = \rho * V_w$.

The firm's problem with no legal earnings threshold is identical to our baseline model. However, with an earnings threshold, λ , the problem becomes:

$$\begin{aligned} & \max_{w, NCA} p - w + NCA * (V_f - \phi_f \mathbb{I}(w < \lambda)) \\ & \text{subject to } w - NCA * (V_w - \phi_w \mathbb{I}(w < \lambda)) \geq \theta \end{aligned}$$

where $\mathbb{I}(w < \lambda)$ is the indicator function, which takes a value of 1 when $w < \lambda$ and 0 otherwise.

Leaving, for now, the question of pinning down w precisely, the firm has three effective choices: (a) $NCA=0$; (b) $NCA=1$ and $w < \lambda$; and (c) $NCA=1$ and $w \geq \lambda$. To solve the firm's problem, we consider these choices sequentially.

Under (a), whenever the firm chooses $NCA=0$, the remaining optimization problem is

$$\begin{aligned} & \max_w p - w \\ & \text{subject to } w \geq \theta \end{aligned}$$

The firm therefore chooses $w = \theta$ in this case, resulting in net profit of $\Pi_a \equiv p - \theta$.

Under (b), the problem simplifies to:

$$\begin{aligned} & \max_{w < \lambda} p - w + (V_f - \phi_f) \\ & \text{subject to } w - (V_w - \phi_w) \geq \theta \end{aligned}$$

Note that, if $V_w + \theta - \phi_w \geq \lambda$, the firm has no way to satisfy the participation constraint with $NCA=1$ and $w < \lambda$, and (b) is therefore not a choice under that parameterization. However, if $V_w + \theta - \phi_w < \lambda$, the firm may set $NCA=1$ and $w = V_w + \theta - \phi_w < \lambda$, resulting in net profit of $\Pi_b \equiv p + (V_f - \phi_f) - (V_w - \phi_w) - \theta$.

Finally, under (c), the firm's problem is:

$$\begin{aligned} & \max_{w \geq \lambda} p - w + V_f \\ & \text{subject to } w - V_w \geq \theta \end{aligned}$$

Here, there are two possibilities. First, possibility (i): if $V_w + \theta < \lambda$, the participation constraint will not bind whenever $w \geq \lambda$, so the firm will set $NCA=1$ and $w = \lambda$. Profit is $\Pi_{c(i)} \equiv p - \lambda + V_f$.

Second, possibility (ii): if $V_w + \theta \geq \lambda$, the participation constraint binds, and the firm sets $NCA=1$ and $w = V_w + \theta \geq \lambda$. Profit is $\Pi_{c(ii)} \equiv p - (V_w + \theta) + V_f$.

Given profits under each of the three choices, the firm simply selects the greatest of the three.

This choice is contingent on model parameters, leading to three cases:

$$1. V_w + \theta \geq V_w + \theta - \phi_w \geq \lambda$$

$$2. V_w + \theta \geq \lambda > V_w + \theta - \phi_w$$

$$3. \lambda > V_w + \theta \geq V_w + \theta - \phi_w$$

Under Case 1, choice (b) is ruled out (as shown above). Therefore, the firm compares Π_a and $\Pi_{c(ii)}$ (since $V_w + \theta \geq \lambda$), choosing (a) whenever $V_w > V_f$, and (c) otherwise.

Under Case 2, choice (b) is an option, so the firm compares Π_a , Π_b , and $\Pi_{c(ii)}$. The firm choose (a) whenever $V_w > V_f$ and $V_w - \phi_w > V_f - \phi_f$; (b) whenever $V_w - \phi_w \leq V_f - \phi_f$ and $\phi_w > \phi_f$; and (c) whenever $V_f \geq V_w$ and $\phi_f \geq \phi_w$.

Finally, under Case 3, the firm compares Π_a , Π_b , and $\Pi_{c(i)}$. The firm chooses (a) whenever $\lambda > V_f + \theta$ and $V_w - \phi_w > V_f - \phi_f$; (b) whenever $V_w - \phi_w \leq V_f - \phi_f$ and $\theta + V_w - \phi_w < \lambda - \phi_f$; and (c) whenever $V_f + \theta > \lambda$ and $\lambda - \phi_f < \theta + V_w - \phi_w$.

How do these cases compare with the choices of the firm prior to implementation of the threshold, which indicates the extent of bunching? Recall that with no earnings threshold, the firm will choose $NCA = 1$ and $w = V_w + \theta$ if and only if $V_f > V_w$, and $NCA = 0$ and $w = \theta$ otherwise. Under Case 1, the choice of NCA and w are identical with and without a threshold, and there is therefore no impact on bunching behavior.

Under Case 2, if the firm chooses (a) or (b), there will be no bunching of earnings, since earnings will be below the threshold with either choice. If the firm chooses (c), earnings will be above

the threshold, but will be identical to earnings for a worker with $NCA=1$ with no threshold, and there will be no bunching.

Finally, under Case 3, choices (a) and (b) continue to produce no bunching. However, if the firm chooses (c), earnings will bunch at the threshold. Therefore, the conditions which produce bunching are: $\lambda > V_w + \theta$, $\lambda < V_f + \theta$, and $\lambda < V_w - \phi_w + \phi_f + \theta$. In practice, the first condition certainly holds at some firms: $V_w + \theta$ is the wage with $NCA=1$ with no threshold, so observation of use of NCAs for workers earning less than \$100k prior to implementation of the threshold demonstrates this fact.

The other two conditions generate predictions quite similar to our baseline model, with some nuance. Substituting, the second condition is equivalent to $V_f - V_w > \lambda - w^*$, where w^* represents the wage paid to workers with NCAs in the absence of a threshold: the identical condition to our baseline model. The third condition simplifies similarly as $\phi_f - \phi_w > \lambda - w^*$. Since $\phi_f - \phi_w$ represents the net value of *enforceability* of an NCA (rather than use of the NCA), this condition says that the net value of enforceability of an NCA must be greater than the difference between the threshold and the pre-threshold earnings level.

Therefore, while the existence of *in terrorem* effects may diminish the pool of workers whose earnings would likely bunch above the threshold (since some firms will use NCAs below the threshold), this extension generates a similar but slightly nuanced prediction as compared with the baseline model: excess mass above the threshold unambiguously demonstrates net firm value of NCAs *and their enforceability*, while a lack of excess mass unambiguously demonstrates a lack of firm value of NCAs *or a lack of net firm value of enforceability of NCAs* for firms which would otherwise pay close to the threshold.

Appendix B. Technical Details of Bounds on Extent of Firm Value

The procedure for constructing Figure B1, which forms a baseline against which to evaluate the lack of bunching discovered in this paper, is as follows, using the data described in Section 4.

Using 2019 as the reference year (the year prior to implementation of the policy), we first isolate each bin whose lower bound is within about \$5,000 of the \$100,000 threshold (the lowest bin has lower bound \$94,996). We generate a smoothed distribution of workers by fitting a line based on the empirical counts of workers in each bin and the median earnings level in each bin.²⁴

Using the continuous distribution of workers, as well as the assumed (uniform) distribution of net firm values, from \$0 to the values on the horizontal axis of Figure B1 (\$100 to \$5,000), we calculate the count of workers whose earnings are less than the firm's value away from the threshold. The formula for this calculation in 2020 is:

$$\gamma(m) \equiv \int_{100,000-m}^{100,000} (\beta_0 + \beta_1 w) \left(\frac{w - (100,000 - m)}{m} \right) dw$$

Here, $\beta_0 + \beta_1 w$ represents the linear prediction of the mass function for workers at wage w , and m is the maximum firm value of NCAs under consideration. We then multiply this value by the estimated percent of workers earning under \$100,000 in Washington in 2014 with NCAs (26.4%).²⁵ Next, we divide this numerical excess mass by the mass in the \$100,000-101,389.99 bin in 2019 to generate the prediction of the percentage excess mass in the just-above-threshold bin. Finally, we find the percentage of workers without NCAs whose earnings would have to change to compensate for excess mass of that size by taking the predicted numerical excess mass and dividing by the percentage of workers without NCAs (100%-26.4%=73.6%) times the count of workers in the \$100,000-101,389.99 bin in 2019.

Formally:

²⁴ For the purposes of this exercise, we were given access to bins which were ten times more granular (width \$139) than our baseline bin size. Conducting a similar regression using bins of size \$1390 generates nearly identical results. For the broader purposes in the paper, our data access was limited to bins of size \$1390.

²⁵ Data from Starr et al. (2021) and Balasubramanian et al. (2022) estimate that 26.4% and 25.1% of workers in Washington with earnings below \$100,000 are bound by NCAs in 2014 and 2017, respectively. The incidence of NCAs at \$100,000 is closer to 33% in both datasets, but due to power issues we use the more conservative estimate.

$$\text{Predicted Excess Mass}(m) = \frac{\gamma(m)\lambda}{n}$$

$$\text{Necessary Percentage Decrease}(m) = \frac{\gamma(m)\lambda}{(1-\lambda)n}$$

Here, m represents the maximum of the assumed uniform distribution of firm value, n is the count of workers in the \$100,000-\$101,390 bin in 2019, and λ is the predicted probability that workers have NCAs (26.4%).

In order to construct the estimates of the maximum net firm value required to generate bunching that we observe in the empirical component of this paper, we simply invert this procedure (and for simplicity assume that there is no confounding by workers without NCAs falling out of the bin). In other words, we find m such that $\text{Predicted Excess Mass}(m) = \Phi$, where Φ is the empirical estimate of the excess mass above the threshold (i.e., the point on the x-axis in Figure B1 that corresponds to the grey dashed line, given an estimate of bunching on the y-axis). We note that that uniqueness of such an m is guaranteed, since the derivative of $\text{Predicted Excess Mass}(m)$ is always positive:

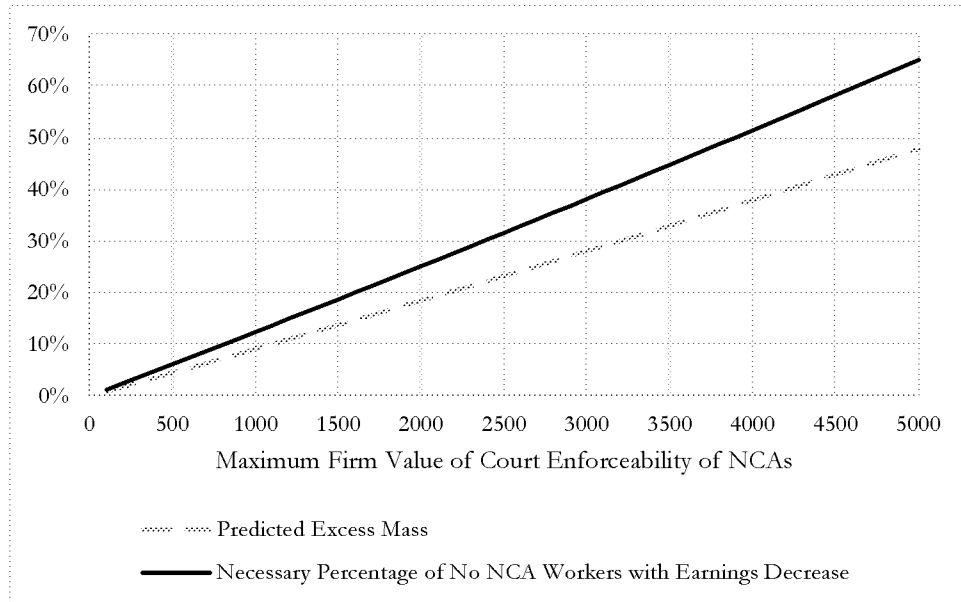
$$\frac{d(\text{Predicted Excess Mass}(m))}{dm} = \frac{\lambda}{n}\gamma'(m),$$

And

$$\gamma'(m) = \int_{100,000-m}^{100,000} (\beta_0 + \beta_1 w) \frac{100,000 - w}{m^2} dw > 0$$

where $\gamma'(m)$ is calculated using the Leibniz rule and simplified, and the final inequality follows because $w \leq 100,000$ inside the integral due to the upper bound of integration being 100,000, and $\beta_0 + \beta_1 w > 0, \forall w$.

Figure B1. Excess Mass and Earnings Decreases Necessary to Observe Zero Bunching in 2020



Notes: This figure considers how much excess mass we would expect, for a given maximum firm value of NCA enforceability (the dashed gray line). It also considers the extent to which workers without NCAs would have to have earnings losses in order for us to observe no bunching behavior (the black line). The calculations underlying this figure are described in Appendix B.

Table B1. Maximum Net Firm Value Estimates using KW and DiD Approaches, by Industry

	(1)	(2)	(3)	(4)
	Focal Year 2020, \$100-101.389k		Focal Year 2021, \$101.39-102.78K	
	KW	DiD	KW	DiD
Agriculture, Forestry, Hunting	231	1626	0	766
Mining, Quarrying, Gas Extraction	2334	2365	0	0
Utilities	462	0	0	0
Construction	0	0	0	0
Manufacturing	0	0	0	0
Wholesale Trade	777	0	636	658
Retail Trade	429	1945	745	0
Transportation, Warehousing	483	0	712	0
Information	0	1626	0	1945
Finance and Insurance	242	0	319	0
Real Estate, Rental, Leasing	0	220	0	0
Prof., Scientific, Technical Services	0	0	0	0
Management of Companies	275	0	1037	0
Administrative, Waste Management	0	0	0	0
Educational Services	242	875	690	0
Health Care and Social Assistance	0	0	0	0
Arts, Entertainment, and Recreation	2637	0	0	0
Accommodation and Food Services	1015	0	494	983
Other Services	0	0	897	0

Notes: Each estimate reports the maximum net firm value using the back-of-the-envelope calculation discussed in Section 3.2, according to the relevant estimates in Tables 1 and 2. Note that a maximum net firm value of zero is reported when the relevant estimate is negative.

Appendix C. Discussion of W-2 versus UI Earnings Measurement

One potential source of measurement error arises from Washington's law being defined in terms of earnings reported in Box 1 of an employee's W-2 (W-2 earnings), whereas our data relies on earnings reported by firms for unemployment insurance (UI earnings). In this Appendix we describe exactly what W-2 earnings includes versus what is covered in UI earnings. We then report evidence from Bee et al. (2023) that despite differences in coverage, for at least 2/3 of workers W-2 and UI reports are within 1 percent of each other, and that when discrepancies exist they are directionally asymmetric such that we would still be able to identify bunching.

W-2 earnings include the following, according to the IRS²⁶:

1. Total wages, bonuses (including signing bonuses), prizes, and awards paid to employees during the year.
2. Total noncash payments, including certain fringe benefits.
3. Total tips reported by the employee to the employer (not allocated tips).
4. Certain employee business expense reimbursements.
5. The cost of accident and health insurance premiums for 2%-or-more shareholder-employees paid by an S corporation.
6. Taxable benefits from a section 125 (cafeteria) plan if the employee chooses cash.
7. Employee contributions to an Archer MSA.
8. Employer contributions to an Archer MSA if includible in the income of the employee.
9. Employer contributions for qualified long-term care services to the extent that such coverage is provided through a flexible spending or similar arrangement.
10. Taxable cost of group-term life insurance in excess of \$50,000.
11. Unless excludable under Educational assistance programs, payments for non-job-related education expenses or for payments under a nonaccountable plan.
12. The amount includible as wages because you paid your employee's share of social security and Medicare taxes (or railroad retirement taxes, if applicable). If you also paid your employee's income tax withholding, treat the grossed-up amount of that withholding as supplemental wages and report those wages in boxes 1, 3, 5, and 7. (Use box 14 if railroad retirement taxes apply.) No exceptions to this treatment apply to household or agricultural wages.

²⁶ The following list is copied, with some edits for brevity, from https://www.irs.gov/instructions/iw2w3#en_US_2022_publink1000308337.

13. Designated Roth contributions made under a section 401(k) plan, a section 403(b) salary reduction agreement, or a governmental section 457(b) plan.
14. Distributions to an employee or former employee from an NQDC plan (including a rabbi trust) or a nongovernmental section 457(b) plan.
15. Amounts includible in income under section 457(f) because the amounts are no longer subject to a substantial risk of forfeiture.
16. Payments to statutory employees who are subject to social security and Medicare taxes but not subject to federal income tax withholding must be shown in box 1 as other compensation.
17. Cost of current insurance protection under a compensatory split-dollar life insurance arrangement.
18. Employee contributions to a health savings account (HSA).
19. Employer contributions to an HSA if includible in the income of the employee.
20. Amounts includible in income under section 409A from an NQDC because the amounts are no longer subject to a substantial risk of forfeiture and were not previously included in income.
21. Nonqualified moving expenses and expense reimbursements.
22. Payments made to former employees while they are on active duty in the U.S. Armed Forces or other uniformed services.
23. All other compensation, including certain scholarship and fellowship grants. Other compensation includes taxable amounts that you paid to your employee from which federal income tax was not withheld. You may show other compensation on a separate Form W-2.

UI earnings, which are captured via Form 5208B in Box 38 by employers, are defined as follows²⁷:

1. Salary, commissions, bonuses and value of gifts before deductions.
2. Compensation paid in lieu of cash.
3. Tips that are reported for federal income tax purposes.
4. Vacation and holiday pay.
5. Unsegregated expense allowances.
6. Severance pay or pay in lieu of notice.

²⁷ The following list is copied from <https://esdorchardstorage.blob.core.windows.net/esdwa/Default/ESDWAGOV/employer-Taxes/ESD-Employer-Tax-Handbook-1.pdf>.

7. An employee's entire gross pay if he or she shares the cost of a 401(K) or cafeteria plan through salary reduction.

8. Meals and lodging – if you require an employee to eat and live on site and the total value of meals and lodging is 25 percent or more of total compensation (value plus salary).

Qualitatively, many of the differences in the two formulas above likely affect a very small portion of employees, suggesting concerns over mismeasurement are minor. In general, however, discrepancies in the numerical value of earnings according to each of these sources may introduce classical measurement error (which could render our estimates imprecise) or non-classical measurement error, which could bias our estimates. The direction of that bias is important. If UI earnings tend to exceed W-2 earnings, then any true bunching in W-2 earnings would be detectable as bunching in UI earnings. For example, if firms do bunch at \$100k in terms of W-2 earnings in 2020, and UI earnings are greater than W-2 earnings, then we would observe excess mass at some point above \$100k in terms of UI earnings. On the other hand, if UI earnings tend to be lower than W-2 earnings, our estimates may find no bunching when there is indeed bunching. For example, bunching in W-2 earnings exactly at a cutoff of \$100k would generate a portion of earnings that appear to be just *below* the cutoff according to UI earnings data.

Luckily, empirical measurement of these discrepancies has been undertaken by the Census Bureau, which provides a data-driven way to analyze the likely extent of measurement error, as well as its direction. In particular, Table A1 of Bee et al. (2023) examines differences between LEHD (a dataset based on UI records) and W-2 earnings at the national level in 2019. Reassuringly, Bee et al. (2023) finds that LEHD (UI) earnings are only lower than W-2 earnings in 8.7% of cases. Additionally, in the majority of cases, LEHD (UI) earnings are equal to or less than 1% greater than W-2 earnings (66.9% of cases). Due to the bin width we observe (\$1,390, which is greater than 1% of the cutoff in all cases), any bunching which occurs at the threshold (as measured by W-2 earnings) would fall into the bin just above the threshold, even if UI earnings were 1% greater than W-2 earnings. Therefore, even with some degree of mismeasurement between W-2 and UI earnings, it is highly likely that our method would detect bunching.

Appendix D. Frandsen’s (2017) Manipulation Test for Discrete Running Variables

In this Appendix, we discuss another approach to using the cross-sectional distribution to estimate the extent of bunching in earnings data. In the regression discontinuity design context, researchers may be concerned that manipulation of the running variable around the threshold of interest may undermine the identifying assumption for the method (that assignment to either side of the threshold is as good as random). Beginning with McCrary (2008), researchers have complemented RDD studies with a test which examines whether there is a discontinuity on either side of the threshold, which may be indicative of such manipulation (Cattaneo et al. 2019). Frandsen (2017) updated this method to accommodate discrete variables. Like the KW approach outlined in Section 5.1, McCrary’s and Frandsen’s approaches assume that the distribution is smooth at and near the threshold and assess whether deviations from a smooth approximation are large enough to be suggestive of manipulation (which in our context could take the form of employers selectively increasing earnings above the threshold). One key difference between the KW and Frandsen approaches is from where in the distribution the counterfactual estimates are derived. In the KW approach, we impute the whole manipulation region based on data from outside the manipulation region. In the Frandsen approach, we are using data only within the manipulation region to identify discontinuities precisely at the cutoff. In this way, the Frandsen approach complements the KW approach by leveraging complementary variation in the cross-sectional distribution to construct the counterfactual.

In order to implement Frandsen’s (2017) test, the researcher must select a curvature parameter, k , which “determines the maximal degree of nonlinearity in the pmf that is still considered to be compatible with no manipulation” (Frandsen 2017). This is an important choice: when $k=0$ (which indicates a linear approximation near the threshold, i.e., no curvature), the test is most likely to reject the null hypothesis of no manipulation, since deviations from linearity are considered to be evidence of manipulation. On the other hand, when k is quite high, the test is more likely to fail to reject the null, since deviations are not considered to be evidence of manipulation, so long as they lie within bounds which are relatively loose, since they are defined by functions with high degrees of curvature.

Unfortunately, there is no available analytical method which optimally selects k . Frandsen (2017) suggests possible bounds based on common distributions (e.g., the normal distribution). However, because we have earlier years of data before any thresholds were in place, we may use the earnings distribution in years prior to implementation of the policy to estimate a range of values for k . Following Frandsen (2017), for each year from 2001 to 2019, we calculate:

$$k_y = \left| \frac{f(t^+) - 2f(t) + f(t^-)}{f(t^+) + f(t^-)} \right|,$$

where, $f_y(\cdot)$ represents the probability mass function of the (discrete) earnings distribution in year y , t represents potential threshold bins in the focal year (e.g., \$100k in 2020 and \$101,390 in 2021), and t^+ and t^- represent bins above and below the threshold, respectively. Because theory suggests bunching just above *and* just below the threshold, we choose t^+ and t^- to be two bins above and two bins below the focal bin of interest (as opposed to just above or below the focal bin). We then define k_{max} and k_{min} as the maximum and minimum values of k_y between 2001 and 2019.

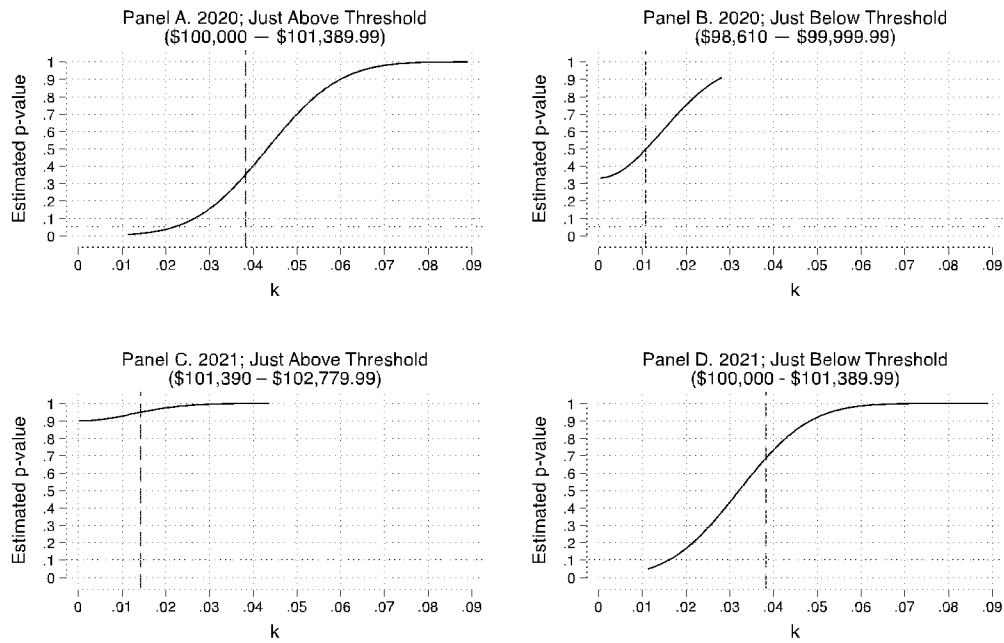
To perform the tests in our threshold years (2020 and 2021), we then iterate across different potential values of k , ranging between k_{min} and k_{max} . The existence of round number bunching, in this case, is taken into account by the test: if round number bunching is more drastic, then the curvature embedded in the calculated values of k for prior years will be more drastic. The extent of manipulation in 2020 and 2021 will then be effectively “compared” to the prior years, in the sense that the parameter values of k take into account those prior years’ curvatures.

Table D1, Panel A reports the p-values associated with Frandsen’s discrete density test for the average k , while Panel A of Figure D1 plots the p-values associated with Frandsen’s discrete density test, evaluated across the range of values of k defined by lower and upper bounds k_{min} and k_{max} . The red dashed line indicates the mean value of k calculated across the years 2001-2019. While at the lowest value of k the estimated p-values are below 10%, at the mean value of k the p-value is 35.5%, well above levels conventionally considered “statistically significant.” In Panel B we repeat this procedure, this time testing for a discontinuity at the bin lying just below the threshold in 2020. At the lowest value of k calculated, the estimated p-value (0.33) is quite large. At the mean level of k

calculated in prior years, the relevant p-value is 0.50. Panel C and D repeat this analysis for 2021, again looking just above and just below the threshold. In 2021, the p-value on whether there is a discontinuity just above the threshold for the minimum level of k is 0.90, and 0.95 at the mean; below the threshold the p-value is 0.049 for the minimum k , but 0.69 for the mean k . Taken together, while some of the results are statistically significant at the lowest levels of curvature observed in prior years, at the typical curvature levels none of the results show any evidence of a discontinuity above or below the threshold.

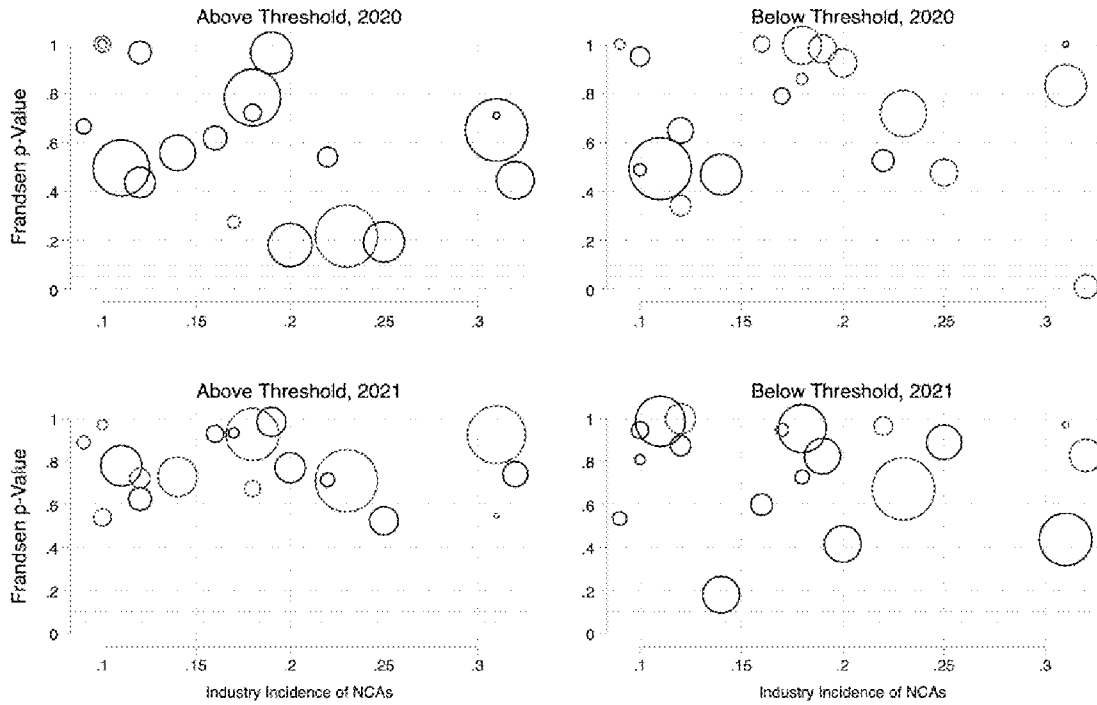
Panel B of Table D1 repeats this analysis across industries, for the average level of curvature observed in prior years. Only one of the estimates shows a discontinuity: in the Information industry in 2020 below the threshold in the discrete density for the average levels of curvature observed in prior years. Figure D2 plots these p-values against NCA incidence, with red circles indicating a negative drop in the density and black circles indicating a positive increase. No clear increasing or decreasing patterns with NCA incidence are apparent.

Figure D1. Results of Frandsen (2017) Test for Manipulation



Note: Implementing the Frandsen (2017) procedure requires picking two bins equidistant from the threshold (one above, and one below) from which to estimate whether there is manipulation at the threshold. Given that theory would predict discontinuities both immediately above and immediately below the threshold, to implement this test we select the bins that are two bins above and two bins below the threshold.

Figure D2. Frandsen p Values (Calculated at mean estimated k for each industry), by industry



Note: This figure plots the industry-specific p-values by industry-NCA incidence, calculated with the Frandsen approach, setting the curvature parameter k at the industry-mean. Note that red circles indicate a decrease in the density and black circles indicate an increase.

Table D1. P-values from Test of Discontinuity from Frandsen (2017)

	(1)	(2)	(3)	(4)
	Focal Year 2020		Focal Year 2021	
	Above Threshold	Below Threshold	Above Threshold	Below Threshold
	\$100-101.389k	\$98.61-100k	\$101.39-102.78k	\$100-101.39k
<i>Panel A. Overall Estimates</i>				
Overall	0.36	0.50	0.95	0.69
<i>Panel B. Estimates by Industry</i>				
Agriculture, Forestry, Hunting	0.67	1.00	0.89	0.54
Mining, Quarrying, Gas Extraction	0.71	1.00	0.55	0.97
Utilities	0.72	0.86	0.67	0.73
Construction	0.50	0.49	0.78	0.99
Manufacturing	0.22	0.72	0.71	0.67
Wholesale Trade	0.18	0.92	0.77	0.42
Retail Trade	0.56	0.47	0.73	0.18
Transportation and Warehousing	0.44	0.34	0.63	1.00
Information	0.45	0.01	0.74	0.83
Finance and Insurance	0.19	0.48	0.52	0.89
Real Estate and Rental and Leasing	0.97	0.65	0.72	0.87
Professional, Scientific, Technical	0.65	0.83	0.93	0.44
Management of Companies	0.28	0.79	0.93	0.95
Administrative, Waste Management	0.96	0.98	0.99	0.83
Educational Services	0.54	0.53	0.71	0.97
Health Care and Social Assistance	0.78	1.00	0.93	0.95
Arts, Entertainment, and Recreation	1.00	0.49	0.97	0.81
Accommodation and Food Services	1.00	0.95	0.54	0.95
Other Services	0.62	1.00	0.93	0.60

Notes: P-values reported overall and by industry, for the mean value of k according to the procedure developed in Frandsen (2017). We use 2 bins above and below the focal bin for the test, given the double discontinuity in the distribution anticipated by theory (just below and just above the threshold).

Appendix E. Did Washington’s NCA Ban Affect Job Mobility and Earnings?

To examine whether Washington’s NCA ban affected wages and mobility, we broadly follow the approach in Lipsitz and Starr (2022), who estimated a similar model following Oregon’s low-wage NCA ban. We use earnings and mobility data from the QWI. The QWI is based on UI records, covering the near-universe of workers, making it largely comparable to the main dataset used in this paper. We use data aggregated data at the state-quarter-industry (2-digit NAICS) level and measure the turnover rate and average monthly earnings.

We use a triple-differences design as our main specification for a few reasons. First, due to the simultaneous passage of pay-transparency law and the possibility of state-specific COVID-specific shocks, we need to compare industries within-Washington to net out the common effects of any time-varying, state-specific shocks. To do so, following Lipsitz and Starr (2022), we define high-use industries as those with NCA use rates greater than the national average, according to Starr et al. (2021). However, given that industries in Washington may have differentially trended because of COVID, we use Census-region-year-industry fixed effects to compare to regional neighbors. This leaves us with a comparison within Washington between high-use and low-use NCA industries, after versus before the 2020 law, relative to the same difference in Washington’s neighboring states. Formally, the regression equation is:

$$Y_{s,t,n} = \beta D_{s,t,n} + \alpha_{r(s),t,n} + \gamma_{s,t} + \delta_{s,n} + \varepsilon_{s,t,n}$$

$Y_{s,t,n}$ represents the outcome of interest (log average monthly earnings or the turnover rate) at the state (s) by year (t) by two-digit NAICS (n) level, β is the coefficient of interest on $D_{s,t,n}$, which is an indicator for observations that are post-2020 in high-NCA-use industries in Washington. $\alpha_{r(s),t,n}$ is a Census region by year by two-digit NAICS fixed effect, $\gamma_{s,t}$ is a state by year fixed effect, $\delta_{s,n}$ is a state by two-digit NAICS fixed effect, and $\varepsilon_{s,t,n}$ is the error term. We weight observations by employment and cluster standard errors at the state level. Table E1 provides the results.

Table E1. QWI, Earnings and Turnover

	(1)	(2)
	Log(Monthly Earnings)	Turnover
WA*Post*High-NCA-Use	0.0822*** (0.0108)	0.0012** (0.0005)
Observations	12,286	12,286
R-squared	0.9990	0.9936
DV mean	19.04	0.0293
% Effect Relative to Mean	8.6%	4.1%

*** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered by state. Reported coefficients for triple difference model.

Appendix F. Does Banning Low-Wage NCAs Reduce Firm Value?

In this Appendix, we describe the analysis of the impact of Washington’s NCA ban on firm valuation and performance. The goal is to assess whether and how forward-looking measures of firm value change after Washington banned NCAs for workers below the 79th percentile (as opposed to the prior analysis which measured whether firms value the ability to enforce NCAs workers proximate to the threshold). To examine this question, we use annual accounting data from Compustat from 2014 to 2021. We use Tobin’s q and annual stock returns as proxies for firm value. For each firm-year, we calculate Tobin’s q as the sum of the market value of common stock and the book value of total assets, net of the book value of common equity, all divided by the book value of total assets. To ensure that our sample is focused on the most relevant observations and that estimates are not driven by outliers, in constructing the sample, we apply the criteria used in Jeffers (2024). We first exclude firm-year observations with more than 100% growth in sales or assets to avoid bias from mergers or acquisitions. We also remove financial and regulated industries and exclude observations with missing stock market data (firms that are not yet public). We drop observations with less than 1 million in assets. In each analysis, we drop observations with missing values, and winsorize them at the top and bottom 2.5% level since they can take extreme values.

One challenge is that since the NCA law in Washington was passed alongside a pay-transparency law and that 2020 and 2021 are years with state-specific COVID policies, a comparison to control states may confound the average effect of the NCA policy. To address this concern, we deploy a triple difference approach and exploit the fact that the NCA-law should have had stronger effects in industries in which NCAs are more common, while other state-specific shocks should not. Accordingly, we leverage NCA prevalence across industries from Starr et al. (2021). Formally, we estimate

$$P_{i,y} = \beta \cdot Post_y \times WA \times HighNCA_{k(i)} + F + \varepsilon$$

Where $P_{i,y}$ is each firm value measure of firm i in year y , $Post_y$ is an indicator of whether year y is post-2020, $HighNCA_{k(i)}$ is an indicator for high NCA prevalence (more than 18%, the median value)

for industry k , to which firm i belongs²⁸; F is the set of fully saturated fixed effects that includes year, state, industry, firm, year-by-state, year-by-industry, and state-by-industry fixed effects. We two-way cluster the standard errors by industry and state. We also report dynamic results from an event-study model:

$$P_{i,y} = \sum_{j \neq 2019} \beta_j \cdot 1[y = j] \times WA \times HighNCA_{k(i)} + F + \varepsilon,$$

Figure F1 plots the coefficients β_j and the confidence intervals (CIs) for each year. If anything, Tobin's q is higher after the law comes into effect in industries where NCAs are more frequently used in Washington, the opposite of what we would expect if investors valued the protections of NCA enforceability for workers earning below the threshold. We obtain a similar result for the average effect in the first column of Table F1. For annual stock returns, positive effects are less than Tobin's Q both for event study estimates in Figure F1 and average effects in the second column of Table F1. Overall, we do not find any evidence that banning NCAs for workers earning below the threshold destroyed firm value. These findings, especially related to Tobin's q , are opposite those of Younge and Marx (2016), who found that investors value NCA enforceability.

We recommend caution in interpreting the estimates, for three primary reasons: first, Compustat uses the location of a firm's headquarters rather than its production or research facilities. Insofar as the effects of the Washington law may be more important for rank-and-file workers, the geographic measures in Compustat do not necessarily reflect the geographic distribution of workers on the ground, which may cause substantial imprecision in the estimates. Second, the standard errors may be incorrect because there is only one treated state. Third, the timing of the law coincided largely with the onset of the COVID-19 pandemic. While we do not find reason to believe that this would affect our baseline estimates (since the within-state differencing should mitigate this effect), it is possible that high-NCA use firms in Washington were differentially affected by the pandemic.

²⁸ We also use the continuous measure for NCA prevalence, but the results are robust to it.

Figure F3. Triple-Differences Event Study Estimates

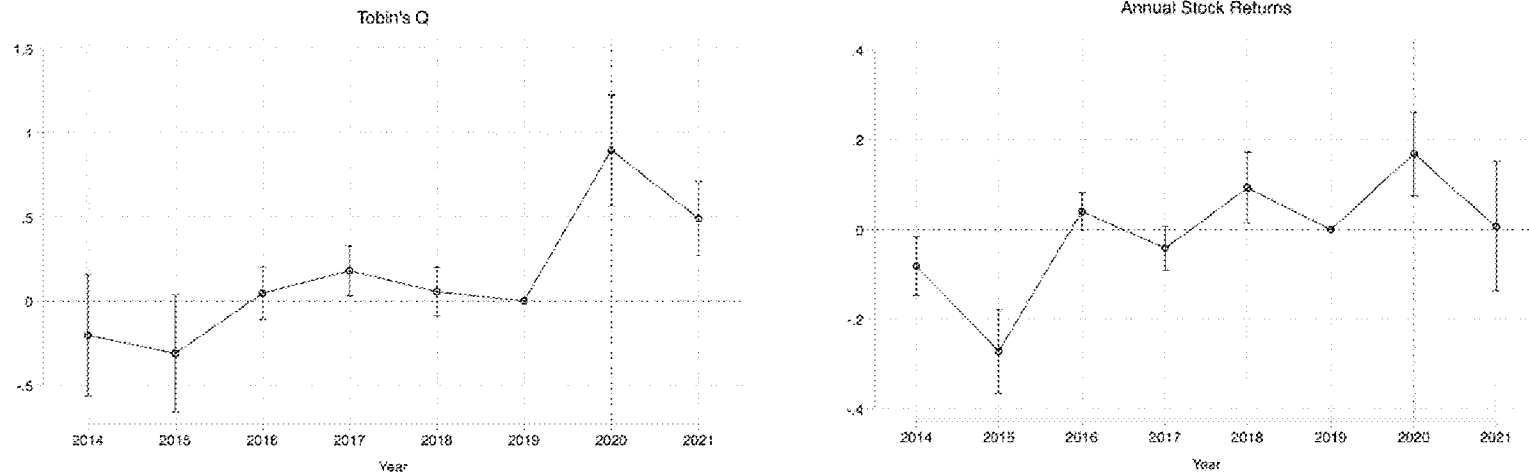


Table F1. Average Effects on Firm Values and Performances

	Tobin's Q	Annual Stock Returns
Post*WA*HighNCA	0.723 [0.423, 1.023]	0.127 [0.099, 0.155]
Observations	12,117 (2,255)	11,444 (2,099)
# Treated	73 (16)	66 (14)
DV Mean	2.197	0.069
Effect Size	0.397 x SD	0.251 x SD
Adjusted R ²	0.779	0.117

Note: The figure plots the event study coefficients for Tobin's Q and annual stock returns, marked by the points, alongside the 95% confidence intervals clustered by states and industries. The table reports triple-differences estimates and 95% confidence intervals (in brackets). We also report the number of firm-year observations and unique firms (in parenthesis), as well as treated firm-year observations and, in parenthesis, unique firms in industries with high NCAs and in Washington.

**Can You Keep a Secret?
Banning Noncompetes Does Not Increase Trade Secret Litigation**

Brad N Greenwood
George Mason University

Bruce Kobayashi
George Mason University

Evan Starr
University of Maryland

March 24, 2024

Abstract

As bans on noncompete agreements (NCAs) become more frequent, commentators are increasingly concerned that costly trade secret litigation will rise. The logic underlying this claim is that bans on NCAs will spur worker mobility, resulting in more secret sharing, and thus opportunities for trade secret litigation. We test this claim leveraging the many state-level NCA bans for high- and low-wage workers, alongside data from Westlaw and the Courthouse News Service on trade secret filings. We find that the number of trade secret claims filed falls in the long run after NCAs are banned, even as mobility rises. This long-term drop in the number of filed trade secret claims is not driven by a decline in dual NCA and trade secret filings. It is also not driven by a decline in reliance on trade secrecy by firms. Instead, it appears firms rely *more* on trade secrets after NCAs are banned. Finally, we find that endorsing the inevitable disclosure doctrine causes a rise in both NCA and trade secret claims. Taken in sum, this evidence suggests that NCA and trade secret litigation are complements, and not substitute approaches to protecting valuable firm knowledge.

Key Words: *Noncompete Agreements, Trade Secrets, Litigation, Inevitable Disclosure Doctrine, Courthouse News, Westlaw, Difference in Differences, Misappropriation*

1. Introduction

The debate over how to regulate noncompete agreements (NCAs)—employment restrictions that prohibit departing workers from joining or starting a competing firm—has reached a crescendo. Since 2015, a dozen states have passed statutes that ban NCAs for low and high-wage workers, and in January of 2023 the Federal Trade Commission (FTC) issued a Notice of Proposed Rulemaking which, if adopted as a final rule, would make the use and enforcement of NCAs an unfair method of competition; effectively banning their use nationwide with limited exceptions.¹ These bans draw on evidence that NCAs i) stymie wages, ii) limit employee mobility, and iii) harm innovation (Balasubramanian et al. 2022, Balasubramanian et al. 2023, Johnson et al. 2020, Marx 2022, Starr et al. 2018a), and do so unnecessarily when firms have more tailored tools at their disposal to protect their legitimate interests (e.g., the use trade secret law to deter departing employees from taking a firm’s valuable information to a competitor).

A core tension in this debate is whether workers with access to trade secrets should be *allowed* to have reasonable NCAs. Before 2008, all but three states allowed enforcement of reasonable NCAs that protect the legitimate interests of an employer and are narrowly tailored to protecting those interests, such as the firm’s trade secrets.² Moreover, the recent state statutes tend to ban NCAs for workers below an earnings threshold, permitting reasonable NCAs for the highest-wage workers.³ However, the FTC’s proposed federal ban, as well as Minnesota’s complete NCA ban which took effect January 2024, make no such distinctions between these types of workers.

These subtleties in the differences across the current and proposed regimes have not gone unnoticed. Indeed, critics of the FTC’s rulemaking emphasize that a ban on NCAs which does not attempt to differentiate between reasonable and unreasonable use could undermine its effectiveness

¹ See <https://faircompetitionlaw.com/2023/12/27/noncompete-law-changes-since-2011/>.

² See, e.g., Uniform Restrictive Employment Agreement Act at 3.

³ Id. at 4.

(Kobayashi 2020). Moreover, these critics contend that such a blunt approach will likely affect firms' efforts to protect trade secrets and confidential information, resulting in reduced investments in workers or in the development of trade secrets (Meese 2022, Starr 2019). Indeed, practitioners who litigate NCA and trade secret cases have conjectured that, absent the ability to exploit NCAs as a prophylactic tool to protect firm interests, workers will be more likely to leave for competitors, will share more trade secrets, and firms will be forced to resort to more costly trade secret litigation.⁴ As evidence, these practitioners point to the fact that trade secret litigation in California—where NCAs have been unenforceable since 1872 (Gilson 1999)—is elevated.⁵ While seemingly compelling, this *post hoc ergo propter hoc* style argument should be viewed skeptically. There are many reasons why trade secret litigation in California might be higher aside from its NCA policy. Moreover, as the FTC highlighted in its proposed rule,⁶ no prior research has examined whether banning NCAs causes firms to substitute towards trade secret litigation.

This paper fills that gap. In doing so, we examine whether banning NCAs causes trade secret filings to rise. Data are drawn from two sources: Westlaw, which offers data on trade secret filings between 1995 to 2023, and the Courthouse News Service, which tracks filings between 2003 and 2023. To identify any effect, we leverage a staggered-adoption difference-in-differences approach, wherein we cast states adopting NCA bans as treatment and non/not-yet-adopting states as control.

In contrast to the arguments put forward by practitioners, we find that after NCAs are

⁴ See [here](#).

⁵As one prominent noncompete lawyer, Russell Beck, notes [here](#), “Specifically, I have believed that without a meaningful ability to enforce noncompetes in California, litigation over the (unlawful) transfer of technology (i.e., trade secrets) would be the focus and therefore partially supplant noncompete litigation.”

⁶ Specifically, the FTC's writes in their proposed rule on p.3530 “The proposed rule would likely reduce litigation costs associated with non-compete clauses, since there would be little to no uncertainty that the vast majority of those clauses are prohibited. However, it is also possible that costs associated with trade secret claims or other post-employment restrictions, such as non-disclosure agreements or non-solicitation agreements, would increase. The Commission is not aware of any evidence indicating the magnitude of the change in litigation costs associated with any of these claims, and it is therefore not clear whether the net impact on litigation costs would be a benefit or a cost of the proposed rule. The Commission seeks comment on the impact the rule would have on litigation costs.” See the full text [here](#).

banned, trade secret litigation falls. For example, a long difference-in-differences model (which drops the adjustment period of 3 years after the NCA ban) suggests a 40% drop over the baseline. Results indicate that this is especially true when NCA bans focus on high-wage workers, as opposed to bans which only cover low wage workers. As expected, we also find that NCA bans cause NCA filings to fall and turnover and wages to rise. In sum, these results suggest that, despite turnover rising after NCAs are banned, trade secret litigation, measured by the number of filed cases, nevertheless falls.

These seemingly counterintuitive results raise the question of why the results manifest. Several candidate explanations exist. First, dual filing. Under a typical enforcement regime, it is plausible that trade secret claims are simply tacked onto NCA claims, but would not be made absent an NCA claim.⁷ Thus, after NCAs are banned—and NCA claims fall—trade secret claims would also fall. An analysis of filings with both trade secret and NCA claims rejects this hypothesis. Instead, after NCAs are banned, dual filings remain largely stable, while solo trade secret filings begin to fall. Second, firms might substitute away from relying on trade secrets, thereby limiting the ability of employees to depart the firm with protected secrets. However, results indicate the opposite. Using data from Glaeser (2018), which reviews whether publicly traded companies discuss the trade secrets in their 10-K filings, we find that after NCAs are banned, affected firms rely *more* on trade secrets, not less.

Finally, to test the idea that trade secret and NCA litigation are complements and not substitutes from a different perspective, we explore a second shock to trade secret protections—endorsement of the inevitable disclosure doctrine (IDD). Intuitively, this doctrine is the antipode of an NCA ban as it strengthens trade secret protections. This is because it allows plaintiffs to prohibit an employee from moving to a competitor on the basis that they would *inevitably disclose* trade

⁷ See, e.g., Landes (1994), Helland & Klick (2013).

secrets.⁸ Using the same difference-in-differences approach, findings indicate that adopting IDD increases both trade secret and NCA filings. This further suggests that NCA litigation and trade secret litigation are complements.

These findings make several substantive contributions to our understanding of NCAs. The first is to the ongoing policy debate. Thus far, noncompete advocates have decried potential bans under the theory that such policies will result in increased secret misappropriation and costly trade secret litigation. We find no evidence that this is the case. Instead, results suggest that NCA bans, and specifically high-wage bans, cause trade secret filings to fall in the long-run, despite turnover rising. This suggests that NCA and trade secret litigation appear to be complements rather than substitutes. Our subsequent investigation of IDD endorsement bolsters this view.

Second, we reject several plausible theories about why trade secret litigation does not rise when NCAs are banned (e.g. dual filing, substitution away from trade secrecy). And while we are unable to precisely isolate the reason why, numerous candidates with welfare implications exist. For example, if NCA bans caused firms to shift to stricter internal information controls, then the reduction in trade secret litigation may arise from fewer individuals having access to valuable trade secrets in the first place. The increase in reliance on trade secrets in our analysis of 10-K filings opens the door to such a possibility. If this is correct, then our results characterize a core policy tradeoff related to external mobility barriers and internal information sharing. Chiefly, while workers have more freedom to move, they may add less value to the company by being less informed of secret information. Alternatively, trade secret litigation might fall if poaching firms become better at hiding misappropriation, or if firms fear that suing over trade secret sharing might shut off information flows that they benefit from. In both cases, secret sharing across firms nevertheless rises

⁸ Note that we exclusive consider endorsement of IDD by courts as treatment. This choice is also deliberate as rejection of IDD results in a maintenance of the *status quo*.

following NCA bans, which may have follow-on implications for recombinative innovation as new ideas are merged and improved upon.

Finally, an important remaining question is how our results might generalize when the NCA ban is total—as in the case of the FTC’s proposed rule and in the state of Minnesota. Results suggest that trade secret litigation may still fall, although it remains possible that the results differ for the highest earners (e.g., executives) who have access to the firm’s most valuable trade secrets

2. Related Literature

To motivate and contextualize the approach and contribution of this study, we begin by reviewing the literature on NCAs and trade secrets.

2.1. Noncompete Agreements

Restrictive employment covenants generally encompass four different types of agreements:

agreements not to i) compete with a former employer, ii) solicit business from former customers, iii) recruit employees from a former employer, or iv) disclose a former employer’s private information.

And while each is important, we focus on agreements not to compete, or NCAs. Prior scholarship on such agreements can generally be broken down into three distinct, but related, streams of literature. These include, literature discussing their general prevalence and use in the market, work examining their effect on firms and markets, and research examining their effect on workers.

The intuition behind an NCA is at root Coasian. By restricting an employee’s mobility to competitors, the firm is incentivized to invest in the employee and subsequently pay them superior wages (Meese 2022, Rubin and Shedd 1981). And while numerous scholars have attempted to analytically derive the optimal NCA policies for an efficient social planner (Shi 2023), received wisdom generally suggests that NCAs are nearly ubiquitous. Surveys suggest their use is common among both high skilled (Starr et al. 2021) and low skilled workers (Boeri et al. 2023, Johnson and Lipsitz 2022), despite low skill workers being less likely to have information about a firm’s competitively enhancing private information (Johnson and Lipsitz 2022). Indeed, recent surveys

suggests that approximately 20% of American workers are bound by NCAs (Balasubramanian et al. 2023), few will bargain with an employer after being presented with an NCA (Cowgill et al. 2024), and a third of such NCAs are presented post hiring (when the *de novo* employee has substantially lower bargaining power) (Starr et al. 2021). Even more strikingly, a non-trivial portion of American workers believe NCAs are enforceable in their state, regardless of where they live and the actual enforceability within that jurisdiction (Prescott and Starr 2021). As a result of this relatively bleak outlook, it should come as no surprise that legal scholars have argued NCAs not only stifle mobility and innovation (Garrison and Wendt 2008), but should be construed as a 13th Amendment violation (Hardaway 2015).

Empirical scholarship has also examined the effect on workers themselves, chiefly in the form of wages and mobility. Received research also paints a bleak picture of the effects of NCAs. Work examining technology workers, for example, indicates that in the “average enforceability” state, such workers have had 8% fewer jobs and 4.6% lower cumulative earnings (Balasubramanian et al. 2022). This general depressive effect on wages and mobility appears pervasive (Balasubramanian et al. 2023), appearing for executive level employees (Garmaise 2011), inventors (Marx 2011), low wage workers (Lipsitz and Starr 2022), and even physicians (Lavetti et al. 2020). And perhaps unsurprisingly, scholarship indicates that these deleterious effects generally accrue to those with lower bargaining power (Balasubramanian et al. 2023), such as those with more narrow skills (Marx et al. 2009) and social outgroups (Johnson et al. 2020). The literature further shows that NCAs limit rivalrous entry into the market (Marx 2022, Marx and Fleming 2012, Starr et al. 2018a), and push workers away from high enforcement regions and towards jurisdictions that will not subsequently restrict their movement (Marx et al. 2015).

For our purposes, questions about how NCA enforceability affect firm investment and innovation are perhaps most germane. This is because trade secrets loom large among the

protectable interests used to justify NCAs, and thus creates incentives to invest in developing such secrets in the first place. Here, the literature paints a more nuanced picture. Several recent studies suggest that state enforcement of NCAs reduces innovation (Johnson et al. 2023, Rockall and Reinmuth 2023), while others find that productivity falls (Anand et al. 2018). In a field experiment, Cowgill et al. (2024) find evidence that non-disclosure agreements are similarly effective in limiting the sharing of trade secrets. On the other hand, prior research also finds that increased NCA enforceability can result in firms investing more in worker training (Starr 2019, Starr et al. 2018b) and in particular riskier investments (Conti 2014).

2.2. Trade Secrets

There is also a small but growing literature on trade secrets themselves, some of which relates to the inevitable disclosure doctrine, which we discuss in the later sections of this work. Formally, a trade secret is defined by the Uniform Trade Secrets Act (UTSA) as “information” (broadly defined) “from which an individual or organization derives economic value and is generally not known to other persons.” Section 757 of the Restatement of Torts indicates six factors which should be weighed when determining if something is a trade secret:

- The extent to which the information is known outside the claimant's business
- The extent to which it is known by employees and others involved in the business
- The extent of measures taken by the claimant to guard the secrecy of the information
- The value of the information to the business and its competitors
- The amount of effort or money expended by the business in developing the information
- The ease or difficulty with which the information could be properly acquired or duplicated by others

Persons can thus be found liable of violating trade secret law if they willfully misappropriate such information for economic gain. In the interest of space, we refer the interested reader to Rowe (2009), Klitzke (1980), and Hrdy and Lemley (2021) for a discussion of the legal considerations underpinning trade secrets and their relationship with other forms of intellectual property.

Empirical investigations of trade secret laws have primarily focused on the implications for

investment and innovation,⁹ although the primary empirical treatment which is considered is state level ratification of the Uniform Trade Secrets Act (UTSA).¹⁰ The arguments underpinning this research similarly revolve around the increased protections firms have when safeguarding their intellectual property. Indeed, scholarship has broadly demonstrated that such protections increase R&D expenditures and patenting (Png 2017a, 2017b), stimulate economic growth in industries where information leakage is high (Suzuki 2015), and increase the value of firms reliant on trade secrets (Castellaneta et al. 2017). Interestingly, this work also suggests that geographic isolation can strongly moderate such effects (Contigiani and Testoni 2023), underscoring the importance of not only legal frictions, but physical frictions, in a firm's ability to capitalize on such protections.

2.3. Costs of NCA and Trade Secret Litigation

It is also important to emphasize the relative costs of these different forms of litigation (i.e. filing suit based on a violation of the DTSA/UTSA as opposed to violation of an NCA). While filing suit to prevent a former employee from taking on a new position under the auspices of an NCA is a relatively simple procedural matter (because the only legal assessment is violation of the contract), filing suit under the auspices of trade secret protection is far more complicated (Sandeen and Rowe 2016, Seaman 2020). As a result, the costs associated with the litigation, for both the defendant and the plaintiff, skyrocket; in turn creating significant deadweight loss. It should therefore come as no surprise that practitioners have expressed deep concern at the prospect of blanket NCA bans, citing California as a “crucible” of excessive and costly trade secret litigation.^{11,12}

⁹ It bears note that a small amount of prior work has also examined the impact on claims prevalence (Levine and Seaman 2018), foreign direct investment (Klein 2022), and the release of information in 10-K filings (Li et al 2018).

¹⁰ As discussed below, the UTSA was proposed by the Uniform Law Commission in 1979 to create common definitions and legal standards for trade secrets across states. It has been adopted by 48 states and the District of Columbia.

¹¹ <https://www.bloomberglaw.com/external/document/X4LFEAH4000000/employment-professional-perspective-unintended-consequences-of-b>

¹² <https://www.propertycasualty360.com/2023/06/29/banning-noncompete-agreements-will-radically-reshape-trade-secret-risks/?slreturn=20230612110240>

3. Does banning NCAs increase trade secret litigation?

3.1. Baseline proposition

Claims that banning NCAs will result in increased trade secret litigation have been the primary justification for pushing back against proposed NCA bans. For example, in 2023 the New York State Assembly passed a complete ban on NCAs. However, letters to Governor Hochul from trade secret lawyers warned that “The elimination of noncompetes will lead to a significant increase in the likelihood that trade secrets will be unlawfully taken to a competitor.”¹³ And that “... a noncompete ban will result in a substantial increase in trade secret litigation as a substitute for noncompete enforcement litigation (as occurs in California). Such litigation is more costly, more time-intensive (for employees, companies, courts, and lawyers), and less predictable. As a result, substituting trade secret litigation for noncompete litigation harms both workers and companies, and benefits primarily only the lawyers.” In December 2023, Governor Hochul vetoed the bill. Given the prominence of this proposition in the current debate, it forms our baseline hypothesis.

This proposition seems *ex ante* plausible. The elimination of the NCA will likely increase employee mobility (Garmaise 2011, Lipsitz and Starr 2022, Marx et al. 2009), as well as rivalrous entry in the form of *de novo* entrants to the markets and employee spinouts (Marx 2022). In turn, employees, who are likely to stay in their respective fields because they are not constrained by the NCA (Marx 2011, Starr et al. 2020), will have more opportunities to disclose valuable trade secrets to a competitor. Thus, the opportunity for more costly trade secret litigation rises.

3.2. Filing Data and Data on NCA Bans

To empirically investigate the effect of NCA bans and on trade secret litigation we build a novel dataset drawing on docket searches from the Westlaw legal repository and the Courthouse News Service (CNS). To create a set of filings that include both NCA and trade secret claims, we use search terms sourced from a well-known American law firm which specializes in NCA and trade

¹³ See <https://faircompetitionlaw.com/wp-content/uploads/2023/07/NY-20230705-Letter-from-Russell-Beck-to-Governor-Kathleen-Hochul-re-Proposed-Noncompete-Ban-CONFIRMED-FINAL.pdf>

secret litigation and research.¹⁴ Filings at the appellate level are omitted to avoid double counting. Both sets of cases include filings at the state and federal level. The Westlaw data covers filings from 1995 to 2023, while the CNS data covers filings from 2003 to 2023. From this data, we use two primary dependent variables. Our main dependent variable is the number of trade secret cases filed in a given state-year. We also examine the number of NCA cases in a state-year. Figure A1 shows the time trends in these data. These trends reveal that the CNS data appears to undercount trade secret filings, while the Westlaw data appears to undercount NCA filings (particularly at the state level). While we report parallel analyses for both datasets, due to these differences in coverage we emphasize the Westlaw data for the trade secret results and the CNS data for NCA results.

Data on NCA bans are drawn from the public 50 State Noncompete Chart maintained by Beck Reed Riden, LLP.¹⁵ It should be noted that, unlike the ban proposed by the FTC, NCA bans in the US are not comprehensive bans. Instead, as summarized in Table 1, they often only ban the use of NCAs for certain workers, e.g., low-wage workers that are unlikely to have access to their employer's trade secrets (allowing firms to enforce NCAs against employees more likely to possess the firm's trade secrets). The Commonwealth of Virginia, for example, banned the use of NCAs for workers making less than \$62,500 a year. Washington banned the use of NCAs for workers making less than \$100,000 a year. Similar bans at similar or higher income levels come from Colorado,, Oregon, and Washington DC. Other bans, such as those in Maine and New Hampshire, connected the ban to the federal poverty level, eliminating the use of NCAs for those making less than 200% of that threshold. Still others tie it to hourly wages. This note is important because while one would expect a reduction in NCA litigation stemming from the enactment of a ban, we do not anticipate a complete elimination of litigation.¹⁶ Further, unlike the approach contained in the proposed FTC

¹⁴ These terms are covered by an NDA.

¹⁵ <https://beckreedriden.com/50-state-noncompete-chart-2/>

¹⁶ Note also that as the 2020 NCA ban for the District of Columbia went into effect in December of 2020, we code the

ban, with the exception of the state of Washington (as studied in Hiraiwa et al. 2024), these state laws are generally not retroactive. Rather, they tend to apply only to new contracts, suggesting that any observed effects should appear with a lag as workers enter into new contracts.

Our main independent variable is an indicator for whether a state banned NCAs for any workers in a given state-year. We subsequently break these bans into low-wage bans and high-wage bans. These are delineated in Table 1. The high-wage bans are those which set an earnings threshold (below which NCAs are banned) at \$100,000 or higher, or who are high-tech workers. Note that these high-wage bans cover most workers. For example, the Washington ban in 2020 at \$100,000 covered approximately 80% of all workers in Washington. All others are “low-wage” NCA bans.

3.3. Estimation Strategy

To estimate the effect of noncompete bans on trade secret complaints, we use the staggered differences in differences approach proposed by Callaway and Sant’Anna (2020). The model uses only as control states those who have either never or not yet banned NCAs. Given the instability in difference-in-differences designs with logs when the outcomes are heterogeneously distributed across groups (McConnell 2023), we keep the dependent variable in levels. Standard errors are clustered by state. We also examine the effect of low-wage and high-wage NCA bans separately.

Before discussing any results, it bears note that the identifying assumption of the difference-in-differences design is that the control groups trend in the same way that the treated groups trend were they untreated; i.e., “parallel trends.” As NCA bans are not assigned at random, because legislators might be responding local stimuli when making the decision to ban NCAs, potentially causing treated groups to trend differentially before the ban. Accordingly, we examine such trends using standard event-study models, using the year before treatment as the reference year (Roth 2024)

3.4. Validating the NCA Bans

Before we pursue our primary analysis, we first validate our empirical approach by documenting

first year of treatment as 2021.

patterns we might expect either logically or based on the prior literature. In particular, prior work consistently shows that when noncompetes are enforceable worker mobility and wages fall (Balasubramanian et al. 2022, Johnson et al. 2020, Lipsitz and Starr 2022, Marx et al. 2009). To this end, we use data from the Quarterly Workforce Indicators, which is derived from employee W-2 data, covering 2003 to 2023. These data include information on employee turnover and monthly earnings for the universe of workers in a given state-year. We thus deploy our primary empirical specification with average quarterly turnover and log average monthly earnings serving as our DVs. Results are in Table 2, with the corresponding event-studies in Figure 1 Panels A and B. Four different models are presented, which account for the lagged nature of the bans. We do so because such bans almost exclusively apply to new contracts. In doing so, we drop the adjustment periods of various lengths post-treatment. Consistent with prior literature, results indicate that turnover rises following NCA bans (approximately 4%) and that log earnings rise (approximately 2.7%), when allowing for a 7-year adjustment period.

In Panel C of Table 2, we consider how banning NCAs affects litigation over NCAs. As expected, we find that short-run filings are unchanged, but that NCA filings do fall considerably in the middle and longer run. Table A1 repeats these analyses for low-wage and high-wage NCA bans, and finds, reassuringly, that the effects are driven mostly by high-wage NCA bans, as opposed to low ones. This is likely because they cover many more workers with access to a firm's valuable information. The event-studies for low- and high-wage bans in Figure A2 show similar patterns.

3.5. Trade Secret Filings

Results of the trade secrets estimations are in Figure 2 and Table 3. Recall, these estimations draw on data from Westlaw. Both show a relatively flat pre-trend, followed by a slow decline in trade secret cases over time. After 7 years, the overall average treatment effect is roughly 10 fewer trade secret filings per state-year in Westlaw, and roughly 6.4 fewer cases in the Courthouse News Service. These findings suggest that, even though banning NCAs causes turnover to rise, trade secret litigation is

nevertheless becoming less frequent. Figure A3 investigates heterogeneity across high- and low-wage NCA bans, with Table A2 showing the corresponding estimates. As expected, the negative effect of NCA bans on trade secret litigation is driven by high-wage bans, whereas the effect for low-wage NCA bans is more muted. The relatively muted effect on trade secret litigation for low-wage bans suggests that use of low-wage thresholds is consistent with such bans successfully targeting NCAs that do not involve a firm's legitimate interest in protection of trade secrets.

4. Potential Explanations

While the core proposition outlined by practitioners—that trade secret litigation will rise if NCAs are banned—does not seem to hold, these initial findings give us little insights into why prior theory has gone awry or what sort of theory might feasibly explain these results. In this section we consider two possibilities, both of which have been raised in our conversations with employment and trade secret attorneys.

4.1. Dual Filing Behavior

The first possibility is dual filing. As explained to the researchers by one attorney, trade secret litigation is expensive, but will often get tacked onto an existing noncompete claim. It is easy to see why. If an employee leaves and takes a job at a competitor, and there is some preliminary evidence that the employee may have taken protected information with them, then both claims can likely be made. Thus, a single filing with both a noncompete and a trade secret claim could exploit the complementarities between the NCA and trade secret claims. Such an approach would also exploit economies of scale in litigation. However, if noncompetes are banned, such that there is no way to file suit for violating the NCA, then the difficulty and cost associated with pursuing a stand-alone trade secret claim may result in no claim being filed. This may be especially true for lower-wage employees who have little access to valuable information. Thus, under this view, banning NCAs would likely reduce trade secret claims by reducing dual filing behavior.

We test this proposition by calculating whether a given trade secret filing has claims for both

trade secrets and NCAs, or whether it is only one a trade secret claim. Figure 3 provides the corresponding event-studies for i) only trade secrets and ii) dual filings with both NCA and trade secret claims, while Table 4 provides average estimates. As the event-studies show, the drop in trade secret litigation comes entirely from solo trade secret filings, with no observable effect in dual claims. Thus, this theory, while plausible, seems to have little explanatory power.

4.2. Substitution Away from Trade Secrets

A second possibility is that firms rely less on trade secrets after NCAs are banned. Because trade secrets are less protected by NCAs, the firm may resort to other forms of protection (e.g., patenting, as suggested by Barnett and Sichelman (2020)). To examine the extent to which firms rely on trade secrets, we use data from Glaeser (2018), subsequently updated to 2023. In doing so, we examine any change in the degree to which firms rely on trade secrets, as measured by whether they are mentioned in their 10-K filings. Glaeser (2018) validates this measure by showing that mentioning trade secrets in 10-K filings correlates with trade secret litigation outcomes, as well as redactions in 10-K filings consistent with concerns about the disclosure of proprietary information.¹⁷

To study how NCA bans correlate with reliance on trade secrecy, we downloaded data on publicly traded companies from Compustat and merged it with the data from Glaeser (2018). We then employ our same empirical strategy, this time with firm fixed effects. The company's headquarters is used to determine if an NCA ban applies to the firm. The dependent variable is set to 1 if the firm lists any trade secrets in their 10-K filing, 0 otherwise. Standard errors are still clustered by state. Approximately half of firms indicate the use of trade secrets in their 10-K filings. Results are in Table 5 (average treatment effect) and Figure 4 (event study plots). Both reveal that after NCAs are banned, reliance on trade secrets is largely unchanged in the short run. However, over the medium and long-term, reliance on trade secrets actually increases, not decreases. Figure A4

¹⁷ We are grateful to Stephen Glaeser for updating his data to 2023 and sharing it with us.

shows that this increase is largely driven by high-wage NCA bans. Thus, substitution away from trade secrets does not seem capable of explaining the observed decline in trade secret litigation.

5. A Reverse Shock: Inevitable Disclosure Doctrine

The prior analysis suggests that banning NCAs reduces both NCA litigation and trade secret litigation. All else equal, this suggests that these forms of litigation are complements, not substitutes. To bolster the idea that trade secret and NCA litigation are complements, we subject our data to a reverse shock to trade secret protections: the endorsement of the Inevitable Disclosure Doctrine (IDD). This doctrine allows courts to prevent an employee from taking a job with a new employer on the basis that they will inevitably disclose trade secrets to that new employer. IDD endorsement thus makes it easier for firms to make trade secret claims because it does not require proving misappropriation per se. The question then is how it relates to NCA filings. In what follows, we describe how IDD works, prior research on IDD, and then examine how state IDD adoption relates to NCA and trade secret filings.

5.1. Background

Unlike NCAs, which are signed between an individual and a firm, IDD is more general and applies to all workers within a jurisdiction. While the notion of disclosure “inevitability” has been discussed by courts for decades, IDD principally emerged as a result of the 7th Circuit’s Decision in *PepsiCo v Redmond*.¹⁸ The intuition is simple: under IDD a court may prevent an employee from taking a position with a new employer, even absent an NCA, using a three-pronged test (Harris 2000). The employee must: i) have access to a secret which is economically valuable, ii) will inevitably disclose that secret at their new employer, and iii) that disclosure will cause irreparable harm to the original employer. And while legal scholars have highlighted issues with the inconsistent enforcement of IDD, primarily based on its broad and uncertain nature, it has been endorsed in several states

¹⁸ *PepsiCo, Inc. v. Redmond*, 54 F.3d 1262 (7th Cir. 1995). In *PepsiCo*, Defendant Redmond was barred from taking a position in the beverage division of the Quaker Oats Company (the owner of Gatorade and Snapple) due to his knowledge of PepsiCo’s trade secrets in pricing, marketing, and distributing various beverages.

(Lowry 1988). Subsequent scholarship has gone on to examine the effects of IDD in several ways. These include, but are not limited to, effects on innovation, firm management, and workers.

Regarding innovation, the core argument is that IDD will increase protections for valuable secrets. As a result, firms and inventors will allocate resources towards these protected assets, and away from more public forms of protections like patents. Empirical assessments lend credence to this line of thought. Castellaneta et al. (2016), for example, show that enactment of IDD significantly increases VC funding in local areas, particularly in areas where patents are less prevalent (i.e., where firms are more reliant on secrets) and where NCAs are less enforceable. Contigiani et al. (2018) corroborate these findings, demonstrating that once firms enjoy IDD protection they allocate resources away from traditional intellectual property protections like patents, instead favoring secrets which have no natural timeline (recall that patents expire after twenty years). Scholarship has gone on to show that IDD recognition can also push firms to increase corporate acquisitions, specifically in industries with high human capital intensity, as the intellectual capital they are purchasing has fewer outside options for departure (Chen et al. 2021).

Accounting and finance scholars have also demonstrated the effect IDD can have on the financial management of the firm. In this work, researchers have principally argued that IDD permits the firm to withhold data more easily, thereby minimizing the degree of disclosure overall. Empirical scholarship supports this claim, demonstrating spikes in tax avoidance (Ding et al. 2021, Li et al. 2022) and more aggressive earnings management (Gao et al. 2018). These accrue especially to the benefit of firms which rely on trade secrets (Gao et al. 2022). Indeed, these effects have bled outside the boundary of the firm and into the competitive market, with IDD adoption yielding greater stock price synchronicity across competitors (Kim et al. 2021), and IDD rejection stimulating investments in corporate social responsibility (Flammer and Kacperczyk 2019). Workers themselves have similarly been influenced, with the adoption of IDD materially decreasing worker mobility (Png

and Samila 2015) and changing capital-labor ratios (Kannan et al. 2022).

5.2. Theoretical Expectations

As IDD endorsement makes it easier for firms to make trade secret claims (because under the IDD the firm only needs to prove access to a trade secret, that disclosure of the secret would cause irreparable harm, and that such disclosure is inevitable), we expect that following IDD endorsement trade secret filings will rise. Ex ante, it is not obvious how this strengthening of trade secret protections should relate to NCA filings. If firms rely on IDD instead of NCAs, then NCA filings may go down. This is because if firms seek to protect their trade secrets through IDD (perhaps because they do not want to ask their workers to sign NCAs), then they may not need to use or enforce NCAs to protect their trade secrets. Alternatively, if this extra protection spurs firms to also adopt or enforce NCAs as a protection tool then NCA filings may rise. This might occur if, for example, courts require NCAs to justify using the IDD to protect trade secrets.

5.3. Empirical Analysis

Data on IDD endorsements is drawn from Judge Simon's decision in *Phoseon Technology v Heathcote*.¹⁹ We draw on this source, as opposed to the more common schedule from Castellaneta et al. (2016), for two reasons. First, the timeline for treatments is longer (extending into 2019), thereby permitting an extended sample. Second, and equally important, the analysis was conducted by a sitting federal judge for the US District Court of Oregon, thereby adding credibility to the assessments.²⁰ It should be noted that we do not consider rejection of IDD in any jurisdiction, only endorsement. This is deliberate. To the extent that *rejection* of IDD results in no material change to the underpinning legal regime within a state (unless it had previously adopted IDD), because it is a rejection, it should have no demonstrable effect. Note also, owing to the date of the *Phoesen* decision, the IDD analysis is

¹⁹ *Phoseon Technology, INC. v. Heathcote*, No. 3: 19-cv-2081-SI (D. Or. Dec. 27, 2019).

²⁰ This reasoning is not to cast aspersions on the quality of the analysis conducted by Castellaneta et al (2016), only to suggest that a sitting federal judge, and their clerks, have significantly more legal expertise. The treatments are almost perfectly overlapping.

limited to 2019. The treatment schedule is in Table 1.

Given the staggered nature of IDD endorsement, we leverage an identical staggered adoption approach as in our main analysis. The exception is that we use the IDD endorsement as our treatment. Due to the fact that the CNS data begins in 2003 the pre-trends for the IDD analysis are truncated. In contrast, our Westlaw sample goes back to 1995. Results are in Table 6, with the corresponding event-studies in Figure 5. If protecting trade secrets more causes firms to substitute away from NCAs, then we should see a fall in NCA filings.

In contrast, Table 6 indicates that after IDD endorsement both NCA and trade secret filings appear to rise, though the trade secret rise is less pronounced in the Westlaw data than it is in the CNS data. The event-studies reveal relatively parallel pre-trends, followed by a rise in filings after IDD endorsement (again, with the exception of the trade secret filings in the Westlaw data, which has a much more modest increase). These results further bolster the claim that trade secret litigation and NCA litigation are complementary.

The reasons for this complementarity may be different than the in the case of NCA bans. For example, some courts have expressed reticence at using the IDD to prevent workers from joining a competitor when an NCA is not present. Such was the case in *Hydrofarm vs. Orendorff*,²¹ where the Franklin County Court of Appeals wrote “The trial court erred as a matter of law when it adopted the magistrate's decision because no court in Ohio that has applied the inevitable disclosure doctrine has held that an employer can enjoin its former employee from working for a competitor absent a non-compete agreement between the parties.” If many courts hold this view, then a natural reason that NCA litigation rises following IDD endorsement is that more firms begin to use NCAs in the first place. Indeed, this argumentation is in line with the findings of Balasubramanian et al. (2023), who find that IDD is positively associated with the use of restrictive covenants.

²¹ *Hydrofarm, Inc. v. Orendorff*, 905 N.E.2d 658, 180 Ohio App. 3d 339, 2008 Ohio 6819 (Ct. App. 2008).

6. Discussion

The argument that banning NCAs will cause costly trade secret litigation to spike is front and center in the debate over NCAs. In this study we put this claim to the test. Strikingly, we find no evidence that banning NCAs increases trade secret litigation. Rather, over the long run trade secret litigation appears to fall, even as turnover continues to rise. Thus, our results reject these common claims in the public record, and undermine the speculation that noncompete and trade secret litigation are substitutes. Instead, results of our investigation of NCA bans and the adoption of the Inevitable Disclosure Doctrine suggest that trade secret and noncompete litigation are complements.

6.1. Future Work

This study also offers fruitful directions for future work. In particular, while we find that substitutions away from trade secrecy and dual filing are unlikely to explain the long-term decline in trade secret litigation following an NCA ban, future work should consider alternative means by which these effects may manifest. Two broad mechanisms seem plausible: i) substitution to other protection mechanisms that are more effective than NCAs, and ii) changes in the ability or taste for litigation. Both will require separate data to test so we leave them to future scholars.

For example, it is plausible that firms are changing their internal procedures. Following the passage of NCA bans, the public record suggests that employment and trade secret attorneys regularly blast out e-mails to clients describing the steps they should take to ensure trade secrets are protected.²² These usually include steps to identify trade secrets within the company, examine how they are currently protected, and then the means to update those protections. Only a small fraction of these steps revolve around contracting. Rather, most involve physical security, electronic security, and company policies/routines to ensure that only relevant workers have appropriate access. Of those that do involve contracting, emphasis is given to procedures for employee departure and

²² See, for example, <https://faircompetitionlaw.com/2023/12/04/a-primer-and-checklist-for-protecting-trade-secrets-and-other-legitimate-business-interests/>.

ensuring employees are aware of their ongoing confidentiality obligations.²³ To the extent that bans on NCAs may push firms to revisit their trade secret protection protocols, this could feasibly explain the decline in trade secret litigation. Thus, insofar as a ban on NCAs incentivizes firms to change their procedures regarding who has access to trade secrets, the means by which workers access them, or their exit interview protocols reminding departing workers of their ongoing obligations, a decline in litigation might be expected. Future work should investigate such dynamics.

Another possibility is that after banning NCAs, poaching firms become more effective in concealing the act of trade secret misappropriation, making it more difficult for the source firm to either detect or prove a violation of trade secret law. For example, several employment and trade secret attorneys advise departing workers on how to leave as a “good leaver”.²⁴ In short, the goal is to minimize the chances of having a claim filed against them. While such practices may make it less likely that a worker will take information, it may also increase the difficulty to successfully win a claim against workers who follow such practices even when they do share trade secrets. Future work might consider how workers change their behavior in a post NCA ban regime.

Finally, it is possible that firms benefit from the rise in cross-firm knowledge flows. If this is the case, firms might be more reticent to engage in costly trade secret litigation because such actions might result in a costly tit-for-tat equilibrium with other firms that shuts off such flows. In this scenario, if firms perceive the information that they gain to be more important than the information that they lose, then it is possible to sustain an equilibrium in which firms either cooperatively or non-cooperatively agree not to file suit for trade secret violations. To the extent that testing such a hypothesis requires data that we do not possess, we leave open which of these explanations (or others) are responsible for the decline in trade secret litigation after NCAs are banned.

²³ See p.24 of <https://faircompetitionlaw.com/wp-content/uploads/2023/12/BBR-20231203-A-primer-and-checklist-for-protecting-trade-secrets-and-other-legitimate-business-interests-for-Distribution.pdf>

²⁴ See, for example, “The Exit Plan: Being a Good Leaver”.

6.2. Limitations

Other limitations bear note. First, the NCA bans we study are state-level bans that do not cover the highest-earning workers, who presumably have access to the most valuable trade secrets. While these high-wage bans do cover most workers (e.g., 80% of workers are covered by Washington's 2020 ban), and these high-wage bans do drive our results, it is possible that the highest earners operate differently from those covered by these bans. As a result, and while we do not have any reason to think this is the case, our results may not generalize to policies that completely ban NCAs.

Second, given the scope of the legal proceedings, we are compelled to rely on an algorithmic search to uncover the individual complaints. While the search terms used are sourced from well-known and active participants in trade secret litigation, it is possible that some cases have been missed. This is notably true as coverage in both Westlaw and the Courthouse News Service are known to be incomplete, and not all registers are included in either. Still, as long as cases are not missing in a way that is correlated with the treatment, the results should be unbiased. Similarly, while our results are robust across Westlaw and Courthouse News, these services seem to offer different coverage, suggesting that some registers are missing in one that the other is catching.

Third, it bears repeating that we are unable to provide confirmatory evidence of the mechanism underpinning why banning NCAs reduces trade secret litigation in the long run. We can reject two natural theories: that firms substitute away from trade secrecy altogether or that noncompete litigation serves as a basis for filing a trade secret claim in the first place. Without data capable of testing alternate theories, we leave any such determination to future scholarship.

7. Conclusion

In this work, we examined the relationship between the banning of noncompete agreements and subsequent trade secret litigation in American courts. Strikingly, and pushing back on received wisdom from practitioners, results suggest banning NCAs had a significant chilling effect on trade secret litigation. These effects persist in the long term, and are primarily driven by bans on NCAs for

high wage workers. Such a finding is novel, as it suggests trade secret and noncompete litigation are complementary means by which firms protect valuable information, rather than substitutes. We hope this work serves as a call for continued interest in the nuanced relationship between various forms of litigation by firms to protect private information.

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Table 1: Treatment Schedule

State	IDD Endorsement Year	NCA Ban Year	NCA Ban Coverage	“High-Wage NCA Ban”?
AR	1999			
CO		2022	<\$112,500	Yes
CT	1997			
DC		2022	<\$150,000	Yes
DE	2006			
FL	1960			
HI		2015	High-Tech	Yes
IL	1995	2017	<\$13/hr	No
IN	1994			
IA	2002			
MA		2018	FLSA Non-Exempt	No
MD		2019	<\$15/hr	No
ME		2019	<400% poverty level	No
MN	1996			
MO	2000			
NC	1996			
NH		2019	<200% Federal minimum wage	No
NV		2021	Hourly worker	No
NJ	2005			
NY	2006			
OH	2000			
OR		2008	<Median Earnings Family of 4	Yes
PA	2010			
RI		2019	<250% poverty level	No
TX	1993			
UT	1998			
VA		2020	Weekly earnings < State average	No
WA	1997	2020	<\$100,000	Yes

Notes: This table describe the NCA ban adoption states and years and who is covered by each ban. High wage NCA bans are indicated in the right column. Column 2 shows the year a state endorsed the inevitable disclosure doctrine.

Table 2. Turnover, Wages, NCA filings and NCA Bans

	(1)	(2)	(3)	(4)
		Adjustment Period		
<i>Panel A. Turnover Rates</i>	None	3 Years	5 Years	7 Years
ATT of NCA Ban	0.0015** (0.001)	0.0032*** (0.001)	0.0035*** (0.001)	0.0041*** (0.001)
Mean of DV	0.099	0.099	0.099	0.099
Observations	991	949	942	938
		Adjustment Period		
<i>Panel B. Ln(Mean Monthly Earnings)</i>	None	3 Years	5 Years	7 Years
ATT of NCA Ban	0.017*** (0.004)	0.020*** (0.005)	0.026*** (0.007)	0.027*** (0.009)
Mean of DV	8.31	8.29	8.29	8.29
Observations	1042	995	983	978
		Adjustment Period		
<i>Panel C. Number of NCA Filings in CNS</i>	None	3 Years	5 Years	7 Years
ATT of NCA Ban	-2.501 (1.863)	-4.971 (3.275)	-8.116** (4.106)	-10.71*** (3.145)
Mean of DV	15.44	15.70	15.80	15.84
Observations	1071	1024	1012	1007

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. Data from Panel A and B are from the Quarterly Workforce Indicators. Data from Panel C and D are from Courthouse News Service.

Table 3. How do Trade Secret Filings relate to NCA Bans

	(1)	(2)	(3)	(4)
<i>Panel A. All NCA Bans in Westlaw</i>				
		Adjustment Period		
	None	3 Years	5 Years	7 Years
ATT of NCA Ban	-2.475 (1.976)	-5.867* (3.364)	-8.802*** (2.787)	-9.487*** (3.298)
Mean of DV	14.76	14.85	14.84	14.87
Observations	1,020	978	971	967
<i>Panel B. All NCA Bans in CNS Data</i>				
		Adjustment Period		
	None	3 Years	5 Years	7 Years
ATT of NCA Ban	-1.753 (1.561)	-2.787 (3.081)	-4.771 (3.496)	-6.428* (3.439)
Mean of DV	5.83	5.85	5.82	5.81
Observations	1071	1,024	1012	1007

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups.

Table 4. Dual NCA and Trade Secret and Solo Trade Secret Filing Behavior

	(1)	(2)	(3)	(4)
	Dual Trade Secret and NCA Filings		Solo Trade Secret Filings	
	Adjustment Period			
	None	7 Years	None	7 Years
<i>Panel A. All NCA Bans in Westlaw</i>				
ATT of NCA Ban	0.459 (0.801)	-0.078 (0.589)	-2.918* (1.625)	-9.409*** (3.075)
Mean of DV	3.24	3.25	11.52	11.63
Observations	1,020	967	1,020	967
<i>Panel B. All NCA Bans in CNS Data</i>				
	Dual Trade Secret and NCA Filings		Solo Trade Secret Filings	
	Adjustment Period			
	None	7 Years	None	7 Years
ATT of NCA Ban	-0.109 (0.140)	-0.241* (0.146)	-1.912 (1.593)	-7.207* (4.050)
Mean of DV	0.26	0.26	6.49	6.51
Observations	1,071	1,007	919	858

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. Columns (1) and (2) examine as a dependent variable the count of filings that had both trade secret and NCA claims. Columns (3) and (4) examine the count of filings with only a trade secret claim as the dependent variable. Panel A examines filings from Westlaw, while Panel B examines filing from the Courthouse News Service data.

Table 5. Reliance on Trade Secrets Following NCA Bans

	(1)	(2)	(3)	(4)
		Adjustment Period		
<i>Panel A. Overall</i>	None	3 Years	5 Years	7 Years
ATT of NCA Ban	-0.00641 (0.00800)	0.000707 (0.0136)	0.0384** (0.0161)	0.0610*** (0.0132)
Mean of DV	0.51	0.50	0.50	0.50
Observations	114,855	111,148	110,330	110,230

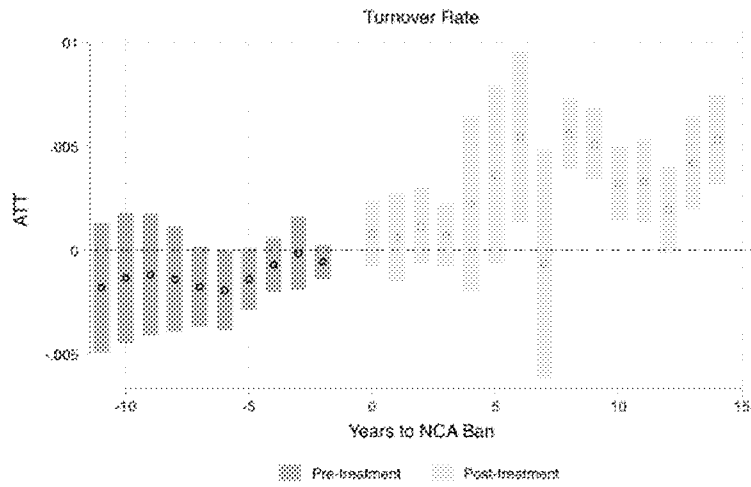
Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. Data is from Compustat, merged with Glaeser (2019) measure of trade secrets appearing in 10-K filings. The model includes firm fixed effects and year fixed effects.

Table 6. NCA and Trade Secret Filings and IDD Endorsement

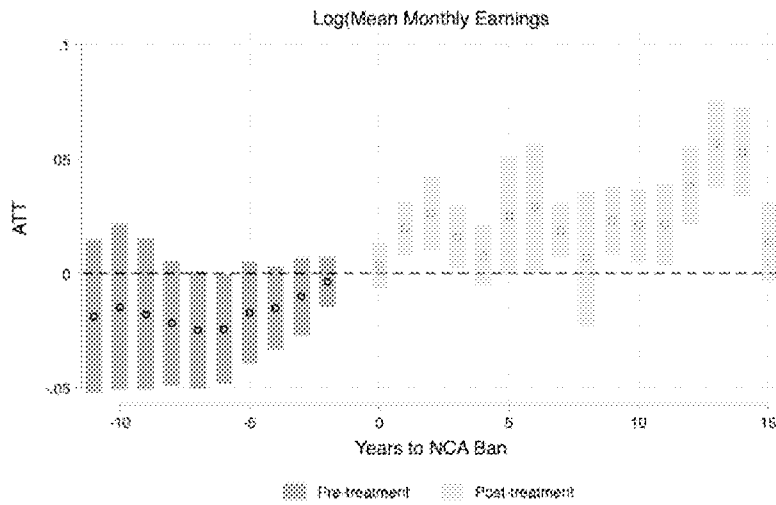
	(1)	(2)	(3)	(4)
	Courthouse News Data		Westlaw Data	
	NCA	Trade Secrets	NCA	Trade Secrets
ATT of IDD Endorsement	11.44* (6.010)	4.227** (1.841)	4.014*** (1.257)	1.162 (2.763)
Mean of DV	11.93	4.16	7.49	9.91
Observations	867	867	1,275	1,275

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. The Courthouse News data starts in 2003, whereas the Westlaw data starts in 1995. All data is limited to before 2019.

Figure 1. How does Turnover and Earnings and NCA Filings change after NCA bans
 Panel A. Turnover Rates



Panel B. Earnings



Panel C. NCA Filings in Courthouse News

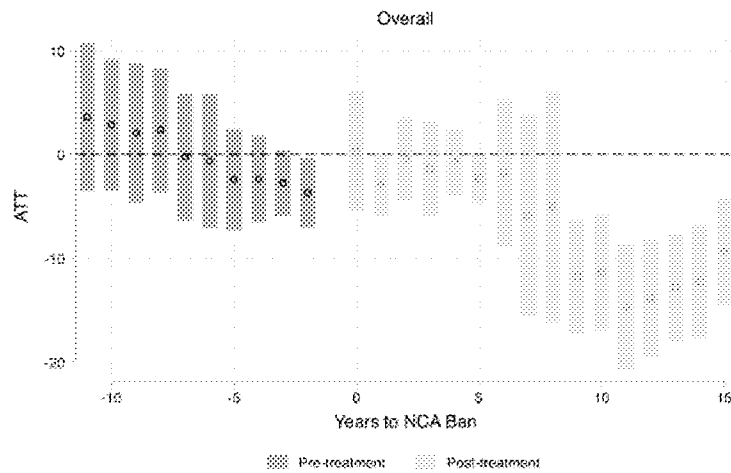
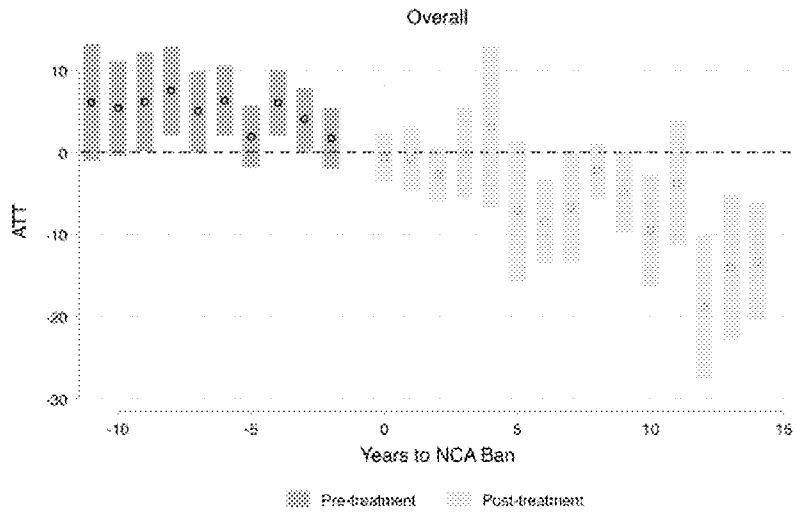


Figure 2. NCA Bans and Trade Secret Filings

Panel A. Trade Secret Filings in Westlaw Data



Panel B. Trade Secret Filings Courthouse News Service

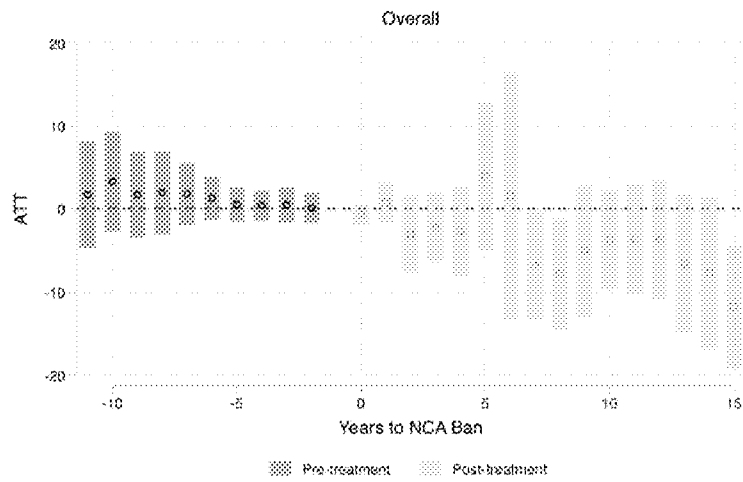
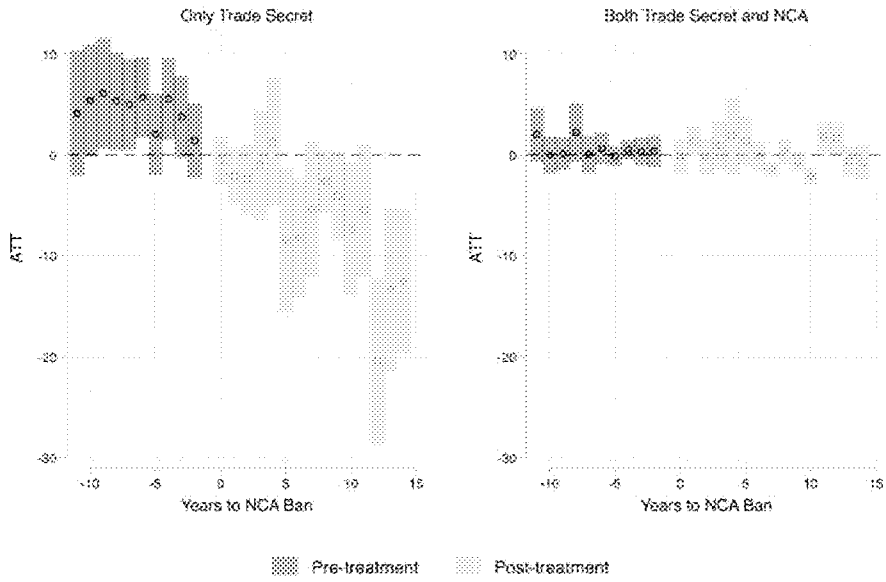


Figure 3. Dual Filing Behavior

Panel A. Westlaw Data



Panel B. Courthouse News Data

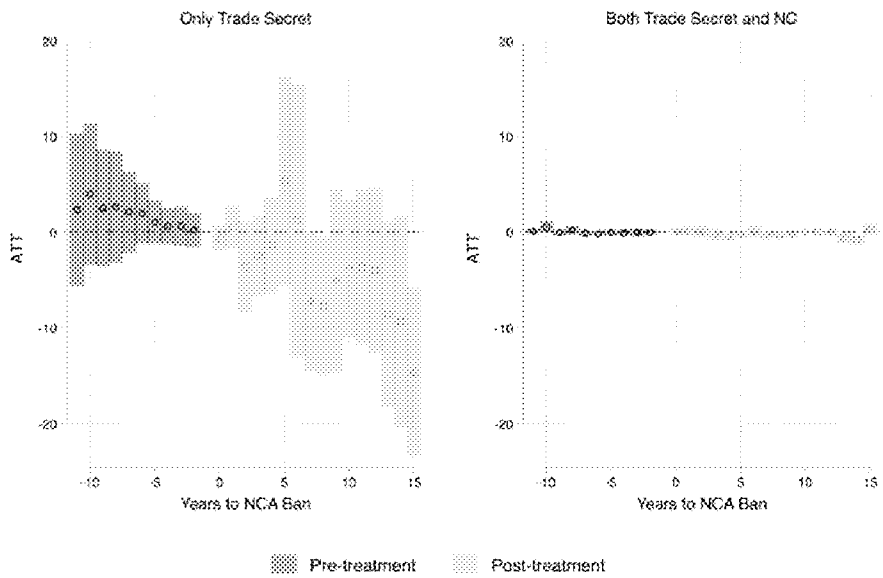


Figure 4. Reliance on Trade Secrets

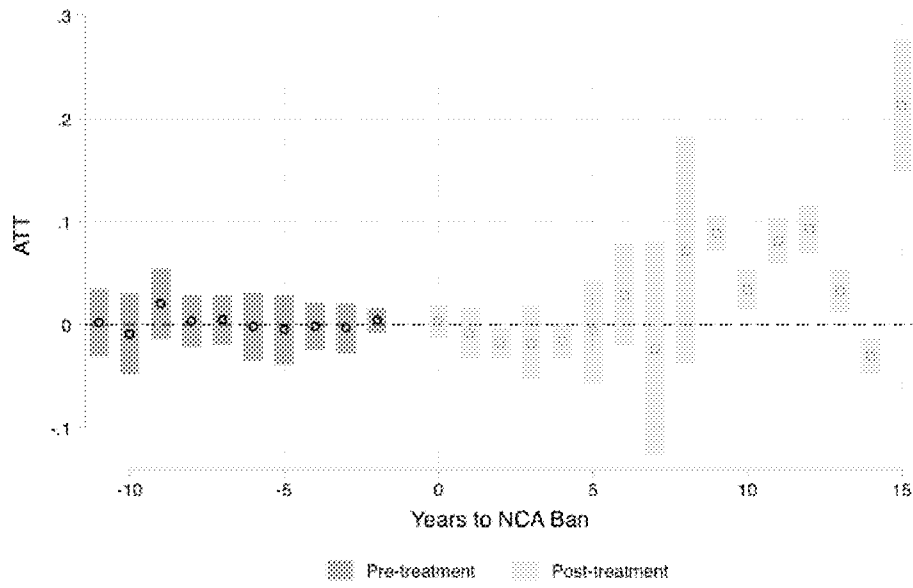
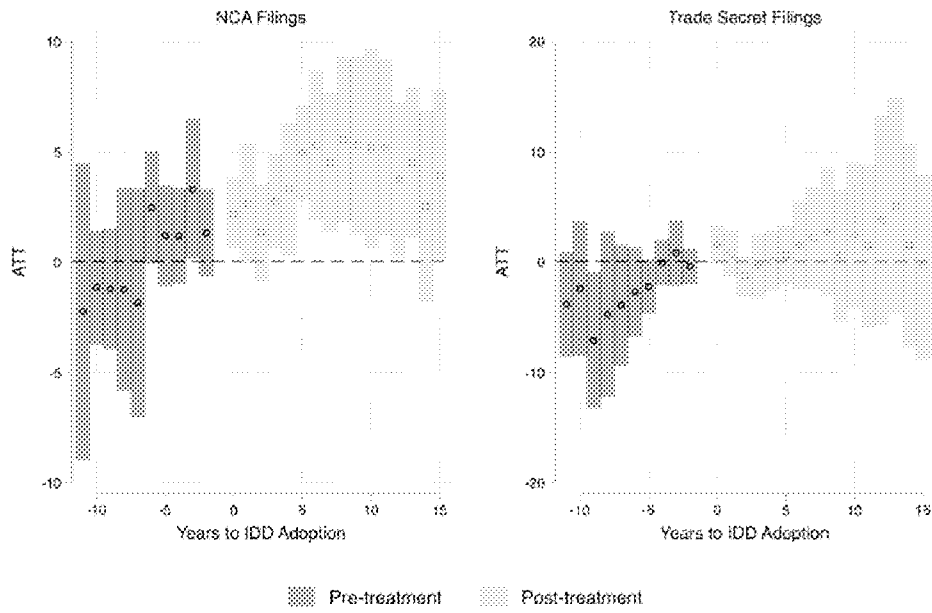
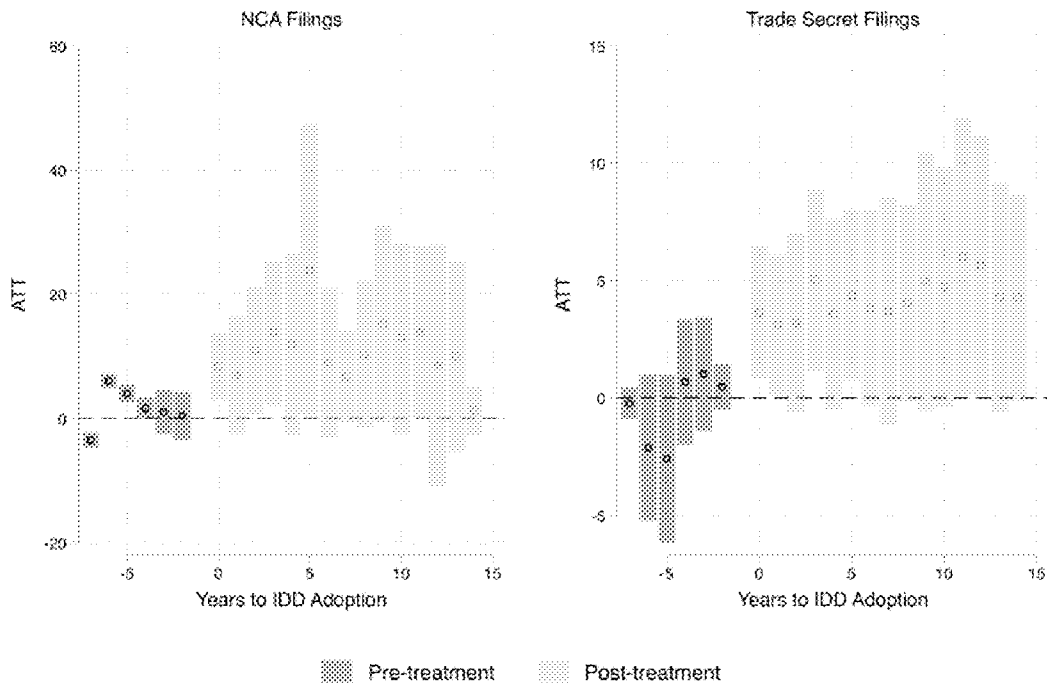


Figure 5. IDD Endorsement and NCA and Trade Secret Filings
 Panel A. Data from Westlaw



Panel B. Data from the Courthouse News Service



Appendix

Table A1. High- and Low-Wage NCA Bans and NCA Filings in the Courthouse News Service data

	(1)	(2)	(3)	(4)
<i>Panel A. Low-Wage NCA Bans</i>				
		Adjustment Period		
	None	3 Years	5 Years	7 Years
ATT of NCA Ban	0.366 (2.061)	-0.250 (2.164)		
Mean of DV	12.88	12.88		
Observations	945	945		
<i>Panel B. High-Wage NCA Bans</i>				
		Adjustment Period		
	None	3 Years	5 Years	7 Years
ATT of NCA Ban	-4.968** (2.462)	-6.812* (3.941)	-8.569** (4.322)	-11.12*** (3.301)
Mean of DV	16.50	16.64	16.70	16.75
Observations	924	904	898	893

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. The earliest low-wage ban is in 2017, so the 5 and 7-year adjustment periods are not identified for the low-wage bans in Panel A.

Table A2. High and Low-Wage NCA Bans and Trade Secret Filings

	(1)	(2)	(3)	(4)
<i>Panel A. High-Wage NCA Bans in Westlaw</i>				
	None	Adjustment Period		
		3 Years	5 Years	7 Years
ATT of NCA Ban	-3.786 (2.902)	-6.599* (3.467)	-8.986*** (2.950)	-9.747*** (3.499)
Mean of DV	15.98	15.95	15.94	15.99
Observations	880	863	857	853
<i>Panel B. Low-Wage NCA Bans in Westlaw</i>				
	None	Adjustment Period		
		3 Years	5 Years	7 Years
ATT of NCA Ban	-1.087 (1.693)	4.526** (2.053)		
Mean of DV	14.76	14.85	14.84	14.87
Observations	1,020	978	971	967
<i>Panel C. High-Wage NCA Bans in CNS Data</i>				
	None	Adjustment Period		
		3 Years	5 Years	7 Years
ATT of NCA Ban	-1.571 (2.073)	-2.525 (3.980)	-4.843 (3.638)	-6.514* (3.643)
Mean of DV	6.49	6.51	6.49	6.48
Observations	924	904	898	893
<i>Panel D. Low-Wage NCA Bans in CNS Data</i>				
	None	Adjustment Period		
		3 Years	5 Years	7 Years
ATT of NCA Ban	-2.012 (2.259)	-3.825 (3.825)		
Mean of DV	6.09	6.12		
Observations	945	918		

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses, clustered by state. Estimation is performed using the approach in Callaway Sant'Anna (2021) where all not-yet-treated states are used as control groups. Panels A and B include data from Westlaw, while Panels C and D consider filings from the Courthouse News Service.

Figure A1. Trends in NCA and Trade Secret Filings

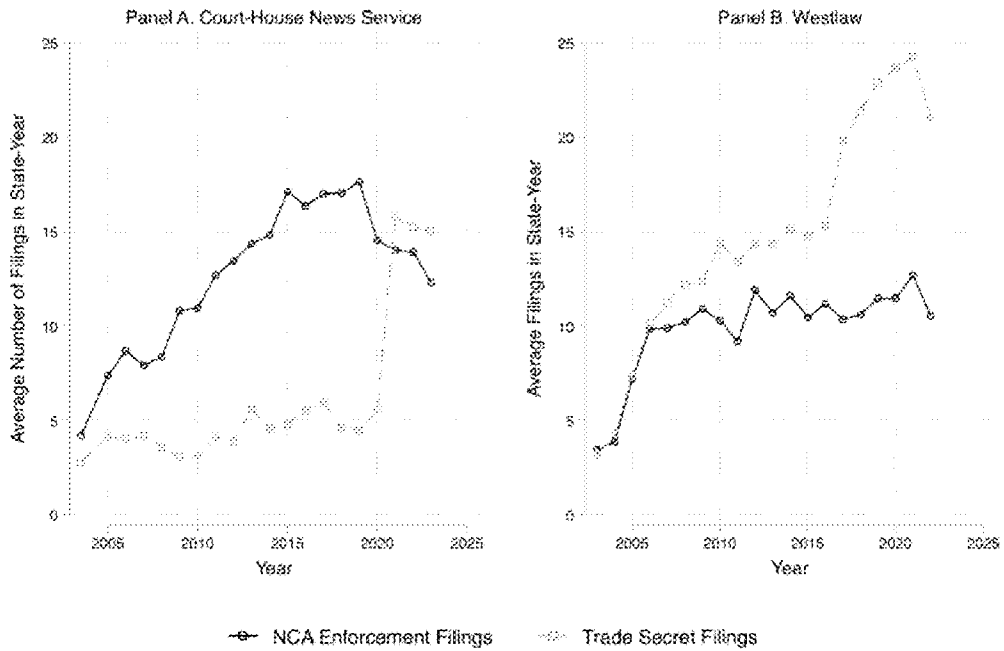


Figure A2. High- and Low-Wage NCA Bans and NCA Filings in Courthouse News Service Data

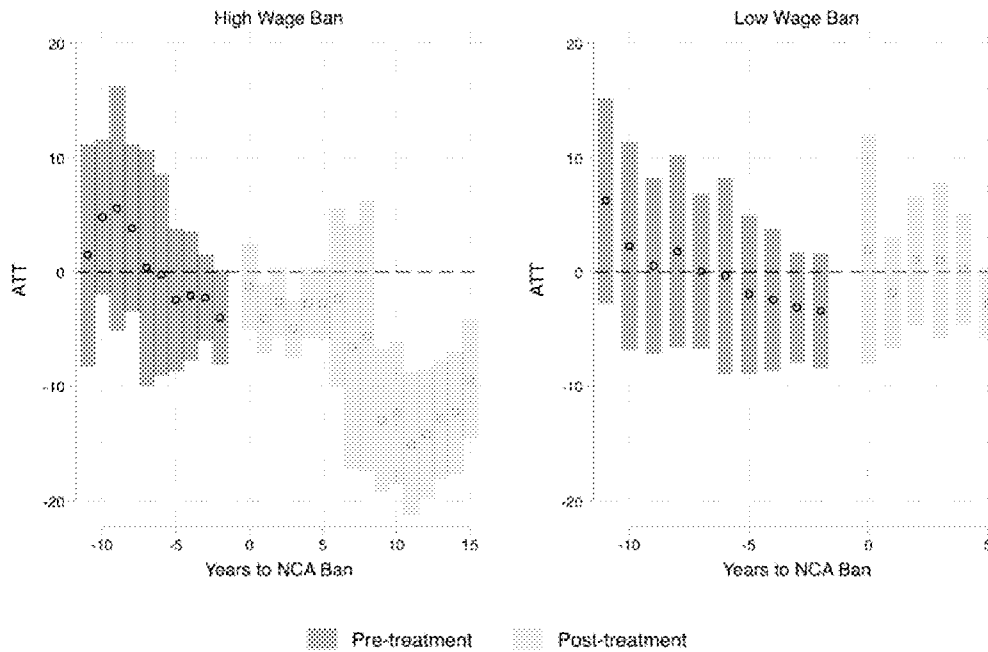
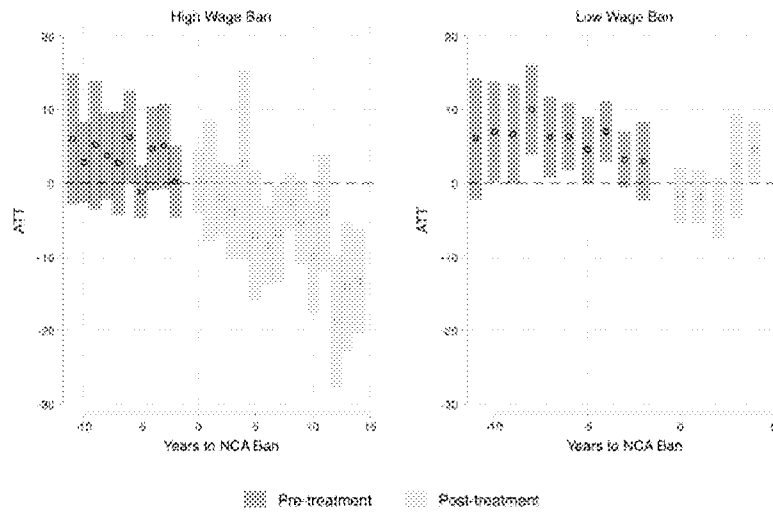


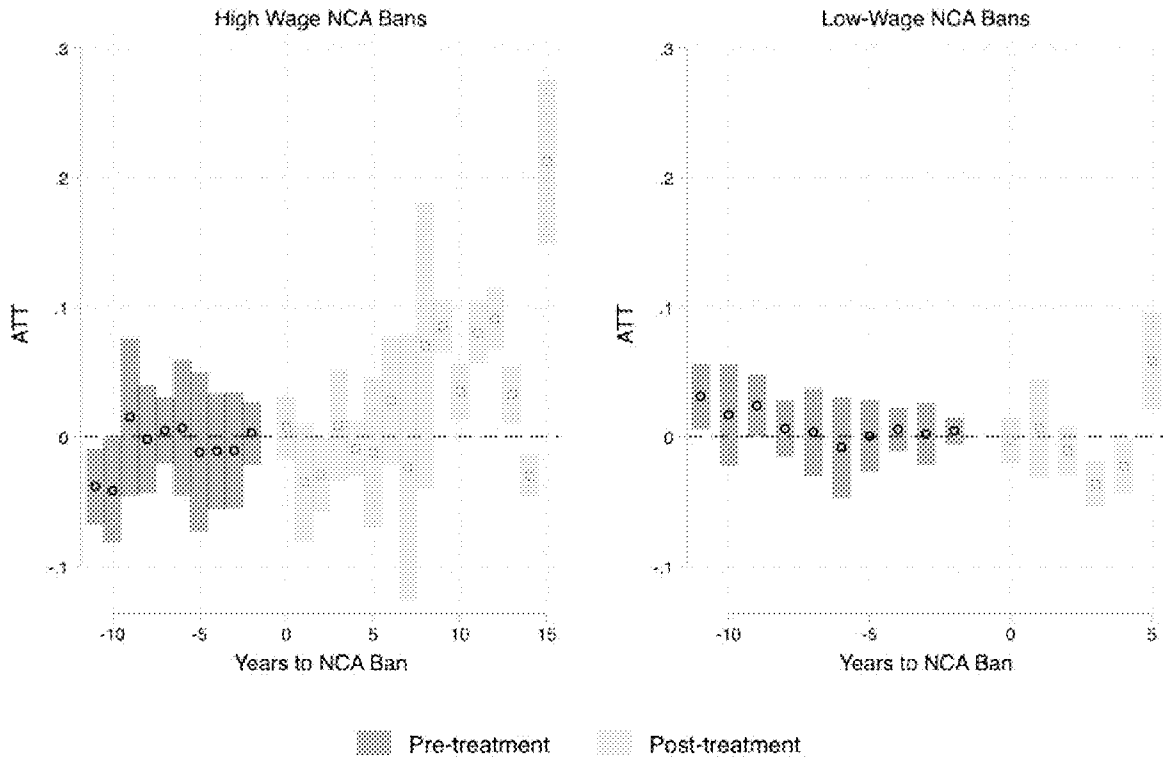
Figure A3. High- and Low-Wage NCA Bans and Trade Secret Filings
Panel A. Westlaw Data



Panel B. Courthouse News Data



Figure A4. Reliance on Trade Secrets by High and Low-Wage NCA Bans



Releases > Employment Situation > Release Tables > Current Employment Statistics
 (Establishment Data) > Table B-2. Average weekly hours and overtime of all employees
 on private nonfarm payrolls by industry sector, Seasonally adjusted

Table B-2. Average weekly hours and overtime of all employees on private nonfarm payrolls by industry sector, Seasonally adjusted:

Average Weekly Hours

		<input type="button" value="Add to Data List"/>	<input type="button" value="Add to Graph"/>	<input type="button" value="Expand All"/>	<input type="button" value="Collapse All"/>		
		<input type="checkbox"/>	Mar 2006	Dec 2023	Jan 2024	Feb 2024	Mar 2024
							Hours
<input type="checkbox"/>	Name		Mar 2024	Feb 2024	Mar 2023		
<input type="checkbox"/>	Total private.....		34.4	34.3	34.4		
<input type="checkbox"/>	Goods-producing.....		39.9	39.7	39.9		
<input type="checkbox"/>	Mining and logging.....		45.4	45.1	45.7		
<input type="checkbox"/>	Construction.....		39.3	38.9	38.9		
<input type="checkbox"/>	Manufacturing.....		40.0	40.0	40.2		
<input type="checkbox"/>	Durable goods.....		40.5	40.5	40.7		
<input type="checkbox"/>	Nondurable goods.....		39.2	39.1	39.5		
<input type="checkbox"/>	Private service-providing.....		33.3	33.3	33.4		
<input type="checkbox"/>	Trade, transportation, and utilities.....		34.0	33.9	34.0		
<input type="checkbox"/>	Wholesale trade.....		39.1	39.1	38.8		
<input type="checkbox"/>	Retail trade.....		29.8	29.8	30.1		
<input type="checkbox"/>	Transportation and warehousing.....		38.4	38.0	38.2		
<input type="checkbox"/>	Utilities.....		42.1	42.1	42.4		
<input type="checkbox"/>	Information.....		36.5	36.4	36.4		
<input type="checkbox"/>	Financial activities.....		37.6	37.5	37.4		
<input type="checkbox"/>	Professional and business services.....		36.5	36.4	36.5		
<input type="checkbox"/>	Education and health services.....		33.2	33.3	33.4		
<input type="checkbox"/>	Leisure and hospitality.....		25.5	25.6	25.4		
<input type="checkbox"/>	Other services.....		32.3	32.3	32.2		

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Summary of Covenants Not To Compete:
A Global Perspective

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ALABAMA

This chapter was prepared by the law firm of Powell Goldstein Frazer & Murphy LLP and updated in August, 2009 by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact any of the following attorneys:

James R. Burdett

Partner, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4893
Facsimile: 202.344.8300
jrburdett@Venable.com

Kyle D. Petaja

Associate, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4457
Facsimile: 202.344.8300
kpetaja@Venable.com

ALABAMA

I. STATUTORY CRITERIA FOR NON-COMPETE AGREEMENTS

Section 8-1-1 of the Alabama Code governs the enforceability of contracts in restraint of trade, including covenants not-to-compete and non-solicitation agreements. See ALA. CODE § 8-1-1 (1975); *Sevier Ins. Agency, Inc. v. Willis Corroon Corp.*, 711 So.2d 995, 998 (Ala. 1998) (“[T]he classification of an agreement either as a covenant not-to-compete or as a nonsolicitation agreement is not determinative of the question whether the particular agreement is valid or invalid under the provisions of § 8-1-1.”). Section 8-1-1(a) states that “[e]very contract by which anyone is restrained from exercising a lawful profession, trade, or business of any kind otherwise than is provided by this section is to that extent void.”

The statute sets forth two exceptions to this general voidance of all contracts in restraint of trade. Section 8-1-1(b) permits certain contracts in restraint of trade in the context of an employer-employee relationship, or in the context of the sale of a business’s good will. Section 8-1-1(b) provides that “[o]ne who sells the good will of a business may agree with the buyer and one who is employed as an agent, servant or employee may agree with his employer to refrain from carrying on or engaging in a similar business and from soliciting old customers of such employer within a specified county, city, or part thereof so long as the buyer, or any person deriving title to the good will from him, or employer carries on a like business therein.”

Section 8-1-1(c) permits agreements among partners, upon or in anticipation of a dissolution of the partnership, “that none of them will carry on a similar business within the same county, city or town, or within a specified part thereof, where the partnership business has been transacted.”

II. LEADING CASE LAW

Alabama courts have repeatedly held that § 8-1-1 expresses the public policy of the state disfavoring non-compete agreements. See *Clark Substations, LLC v. Ware*, 838 So.2d 360, 363 (Ala. 2002); *Pitney Bowes, Inc. v. Berney Office Solutions*, 823 So.2d 659, 662 (Ala. 2001). Such agreements are disfavored “because they tend not only to deprive the public of efficient service, but tend to impoverish the individual.” See *Robinson v. Computer Servicenters, Inc.*, 346 So.2d 940, 943 (Ala. 1977). Therefore, a non-compete agreement is void unless it falls within the limited exceptions set forth in § 8-1-1. See *Clark*, 838 So.2d at 363. The person or entity seeking to enforce a non-compete agreement has the burden of showing that the agreement is not void under § 8-1-1. See *id.*

To the extent a contract restrains the practice of a lawful profession, it is void under § 8- 1-1(a) as against public policy. See *Anniston Urologic Associates, P. C. v. Kline*, 689 So.2d 54, 56 (Ala. 1997) (affirming the voidance of a physician's non-compete agreement); *Pierce v. Hand, Arendall, Bedsole, Greaves & Johnston*, 678 So.2d 765 (Ala. 1996) (affirming the voidance of a lawyer's non-compete agreement); *Friddle v. Raymond*, 575 So.2d 1038 (Ala. 1991) (affirming the voidance of a veterinarian's non-compete agreement); *Cherry, Bekaert & Holland v. Brown*, 582 So.2d 502 (Ala. 1991) (affirming voidance of an accountant's non-compete agreement); *Salisbury v. Semple*, 565 So.2d 234 (Ala. 1990) (affirming the voidance of an ophthalmologist's non-compete agreement). Non-compete agreements governing professionals do not fall under the statutory exception contained in § 8-1-1(b) because that subsection only pertains to a "business," to an "agent, servant, or employee," or to soliciting old "customers" of a former "employer." *Odess v. Taylor*, 211 So.2d 805, 811 (Ala. 1968). Further, § 8-1-1(c) has been interpreted as applying only to nonprofessional partnerships. See *Hoppe v. Preferred Risk Mut. Ins. Co.*, 470 So.2d 1161, 1163 (Ala. 1985).

III. ELEMENTS OF ENFORCEABILITY

A. Agreements Arising in an Employment Context

In order for a non-compete covenant in an employment contract to be upheld under § 8- 1-1(b), an employer must show that: (1) the employer has a protectable interest; (2) the restriction is reasonably related to that interest; (3) the restriction is reasonable in time and place; and (4) the restriction imposes no undue hardship. *DeVoe v. Cheatham*, 413 So.2d 1141 (Ala. 1982); *Nationwide Mut. Ins. Co. v Cornutt*, 907 F.2d 1085 (11th Cir. 1990). A party must present affirmative evidence showing that the agreement is valid under the circumstances of the case. *Jones v. Wedgworth Pest Control, Inc.*, 763 So.2d 261 (Ala.Civ.App. 2000). Justification for covenants not-to-compete generally must be on the ground that the employer has a legitimate interest in restraining the employee from appropriating valuable trade information and customer relationships to which he has had access in the course of his employment. See *Sheffield v. Stoudenmire*, 553 So.2d 125, 126 (Ala. 1989).

1. Protectable interests: In order to have a protectable interest, the employer must possess "a substantial right in its business sufficiently unique to warrant the type of protection contemplated by [a] noncompetition agreement." *Cullman Broadcasting Co. v. Bosley*, 373 So.2d 830, 836 (Ala. 1979). Protectable interests include, but are not limited to: valuable customer relationships and goodwill that have been established by the defendant as an employee of the plaintiff and confidential information, such as trade secrets and confidential business practices. *Ormco Corp. v. Johns*,

2003 WL 2007816, *6 (Ala. 2003). If an employee is in a position to gain confidential information, access to secret lists, or to develop a close relationship with clients, the employer may have a protectable interest in preventing that employee from competing. *DeVoe*, 413 So.2d at 1143. This is particularly so in fields where the acquisition and protection of customer lists and a regular clientele are of crucial importance. *Nationwide*, 907 F.2d at 1087 (citing *Daniel v. Trade Winds Travel, Inc.*, 532 So.2d 653, 654 (Ala.Civ.App. 1988)).

A protectable interest can also arise from the employer's investment in its employee in terms of time, resources and responsibility. *Nationwide*, 907 F.2d at 1088; see also *Ex Parte Caribe, U.S.A., Inc.*, 702 So.2d 1234, 1236 (Ala. 1997) (holding that information was confidential, proprietary and protectable because of the need for expertise, time, money, or a substantial combination of these resources to assemble it).

A simple labor skill, without more, is simply not enough to give an employer a substantial protectable right unique in his business. To hold otherwise would place an undue burden on the ordinary laborer and prevent him or her from supporting his or her family. *DeVoe*, 413 So.2d at 1143.

2. Geographic Territory Restrictions: The territory of a covenant not-to-compete may properly include part of Alabama, all of Alabama or more territory than the state of Alabama, depending on the circumstances. *James S. Kemper & Co. Southeast, Inc. v. Cox & Associates, Inc.*, 434 So.2d 1380, 1385 (Ala. 1983) (citing *Parker v. EBSCO Industries, Inc.*, 209 So.2d 383 (Ala.1968)). In determining the question as to reasonableness of territorial limitations, "the court will consider the nature and extent of the trade or business, the situation of the parties, and all the other circumstances." *Parker*, 209 So.2d at 388.
3. Time Limitations: Alabama courts have generally held that covenants not-to-compete for two years are reasonable. See *Unisource Worldwide, Inc. v. South Central Alabama Supply, LLC*, 199 F.Supp.2d 1194, 1205 (M.D. Ala. 2001) (citing *Kemper*, 434 So.2d at 1384). At least one Alabama court has upheld a covenant not-to-compete for five years, see *Slay v. Hess*, 41 So.2d 582 (Ala. 1949); however, the reasonableness of such a restriction depends on the facts of each case. See *Mason Corp. v. Kennedy*, 244 So.2d 585, 590 (Ala. 1971).

4. Undue Hardship: When assessing hardship, courts may examine the former employee's age, marital or parental status, financial obligations, or lack of training in other areas. See *Sheffield*, 553 So.2d at 127 (finding undue hardship where a covenant purported to restrain a 50-year-old married former employee, with significant financial obligations, from competing within 50 miles of his former employer for 5 years); *Birmingham Television Corp. v. DeRamus*, 502 So.2d 761, 764 (Ala. Civ. App. 1986) (finding undue hardship where a covenant purported to restrain a 25-year-old former employee, who had recently been married, from employment as a television time salesman in or around Birmingham for a period of 6 months). In analyzing the hardship factor, the courts may consider "the injury which may result to the public from restraining the breach of the covenant in the loss of the employee's service and skill and the danger of his becoming a charge on the public." *Hill v. Rice*, 67 So.2d 789, 794 (1953).
5. Scope of Activity Restrained: Employees "cannot be prevented from plying their trades by blanket post-employment restraints." *Chavers v. Copy Products Co., Inc.*, of Mobile, 519 So.2d 942, 945 (Ala. 1988) (voiding covenant not-to-compete where the effect of the covenant blanketly forbid a copier technician from working in any capacity in the copier service industry in a wide geographical area). Moreover, an employer may only enforce post-employment restraints so long as the employer carries on a like business. See *ISS Intern. Service Systems, Inc. v. Alabama Motor Exp., Inc.*, 686 So.2d 1184, 1189 (Ala.Civ.App. 1996) (affirming trial court's finding that employees' activities did not violate a non-solicitation covenant where the former employer had ceased its operations and sold all of its customer contracts).

Section 8-1-1 was intended to address all restraints of trade, both reasonable and unreasonable, and both partial and total. See *Sevier*, 711 So.2d at 999. Therefore, § 8-1-1 voids all contracts, including non-compete and non-solicitation agreements, unless the contract meets one of the exceptions contained in §§ 8-1-1(b) or 8-1-1(c). See *id.*

6. Consideration: Continued employment, including at-will employment, is sufficient consideration for a non-competition agreement. See *Corson v. Universal Door Systems, Inc.*, 596 So.2d 565, 568 (Ala. 1991); *Daughtry v. Capital Gas Co., Inc.*, 229 So.2d 480 (Ala. 1969); *Clark v. Liberty National Life Insurance Co.*, 592 So.2d 564 (Ala. 1992); *Condelles v. Alabama Telecasters, Inc.*,

530 So.2d 201, 204 (Ala. 1988). A covenant need not be signed at the beginning of employment in order to be enforceable, Daughtry, 229 So.2d at 481-483, but an employer/employee relationship must exist at the time the agreement is executed. See *Pitney Bowes*, 823 So.2d at 662.

Section 8-1-1 presupposes non-compete agreements are supported by consideration. See *Pitney Bowes*, 823 So.2d at 662. According to the Alabama Supreme Court, the Legislature would not need to adopt a statute to void non-compete agreements that were not supported by consideration, as they would be unenforceable for lack of consideration even without the statute. *Id.*

7. Judicial Modification: When an agreement in restraint of trade contains unreasonable limitations, the court may strike the unreasonable restriction from the agreement, or the court can enforce the contract within its reasonable limits. See *Kershaw v. Knox Kershaw, Inc.*, 523 So.2d 351, 359 (Ala. 1988); *Cullman*, 373 So.2d at 835 (“An agreement in restraint of trade may be divisible. An unreasonable limitation or restriction may be stricken....”). See *Corson*, 596 So.2d at 569 (affirming the courts ability to reform a non-solicitation covenant with geographic scope of several states to non-solicitation of any customers of the employer); *Nationwide*, 907 F.2d at 1088 (citation omitted) (modifying restriction on soliciting former employer’s policyholders to soliciting those who were agent’s personal customers). But see *Chavers*, 519 So.2d at 942 (holding a restriction within a radius of 75 miles for two years void since it would pose undue hardship on the former employee).

Where a court chooses to enforce a contract within its reasonable limits, it may do so by granting an injunction restraining the respondent from competing for a reasonable time and within a reasonable area. See *Mason*, 244 So.2d at 590 (“We hold that a court of equity has the power to enforce a contract against competition although the territory or period stipulated may be unreasonable, by granting an injunction restraining the respondent from competing for a reasonable time and within a reasonable area.”).

The terms of non-compete agreements will be construed in connection with attendant circumstances, and, though there is no expression in its terms of the territory embraced, the extent of such territory may be inferred from such circumstances. See *Parker*, 209 So.2d at 387 (citing *Moore & Handley v. Towers*, 6 So. 41 (Ala. 1889)). The same has also been held with respect to the time of its

operation when not expressed. See *Parker*, 209 So.2d at 387 (citing *Smith v. Webb*, 58 So. 913 (Ala. 1912)).

B. Agreements Ancillary to the Sale of Business

In order for a non-compete agreement ancillary to the sale of a business to be upheld under § 8-1-1(b), the seller must show: (1) a “sale,” (2) a sale of good will, (3) that the covenant is restricted as to territory; and (4) that the buyer is carrying on a like business. *Kershaw*, 523 So.2d at 357.

1. **Sale:** The transfer or exchange of stock in a merger constitutes a “sale.” *Kershaw*, 523 So.2d at 357. The party bound by the non-compete agreement must constitute a “seller” for purposes of the application of § 8-1-1(b). See *Livingston v. Dobbs*, 559 So.2d 569 (Ala. 1990) (holding that a wife who, as part of divorce settlement, received the balance due on the purchase price for a business was not a “seller”).
2. **Sale of Good Will:** A sale may constitute a “sale of good will” even where good will was not specified as an asset in the sale so long as good will was “incident to and inherent in” the business itself. *Kershaw*, 523 So.2d at 358. Covenants not-to-compete that are designed to protect the goodwill of a business being sold imply a sale of goodwill. See *Gilmore Ford, Inc. v. Turner*, 599 So.2d 29, 31 (Ala. 1992). No implied covenant not-to-compete arises from a sale of a professional business and its good will. See *Joseph v. Hopkins*, 158 So.2d 660, 665 (Ala. 1963).
3. **Territorial Restriction:** Covenants not-to-compete ancillary to the sale of a business must be limited as to the territory they are intended to cover, or they cannot be supported. But in determining the territorial restriction, a court is not limited to the express terms of the contract. Courts may look to “all the circumstances surrounding the parties, and attendant upon the transaction, and from a consideration of these circumstances, in connection with the expressions of the undertaking, they will first construe the contract, and then proceed to pass upon its reasonableness as thus construed.” *Moore & Handley*, 6 So. at 42-43. The territorial restriction contained in the non-compete agreement must not be ambiguous or overly broad. See *Kershaw*, 523 So.2d at 359 (holding that a covenant prohibiting a seller of a business from competition in any county or province of the U.S. or Canada where the buyer shall in the future do business in the next 5 years was overly broad and enforcing the non-compete agreement only to the

extent that it prohibited competition in the areas where the buyer had done business prior to the date of the covenant).

IV. SUMMARIZATION OF ALABAMA LAW WITH REGARD TO THE USE OF CONFIDENTIAL INFORMATION

As with confidential information sought to be protected by a non-compete or nondisclosure covenant, confidential information must be “the subject of efforts that are reasonable under the circumstances to maintain its secrecy” in order to obtain the protections of the Alabama Trade Secret Act. See ALA. CODE § 8-27-2(1)(e). The burden is on the party asserting trade secret protection to show that reasonable steps were taken to protect secrecy. See *Allied Supply Co. v. Brown*, 585 So.2d 33, 36 (Ala. 1991). Certain types of customer lists may constitute trade secrets, including those that contain specific information about customers, e.g. their buying habits, so long as the information was treated by the claimant as secret. See *Public Sys. v. Towry*, 587 So.2d 969, 973 (Ala. 1991). The lists must be more than a list of readily ascertainable potential clients. See, e.g., *Birmingham Television*, 502 So.2d 761.

The Alabama Trade Secret Act defines a “trade secret” as “information that: (a) is used or intended for use in a trade or business; (b) is included or embodied in a formula, pattern, compilation, computer software, drawing, device, method, technique, or process; (c) is not publicly known and is not generally known in the trade or business of the person asserting that it is a trade secret; (d) cannot be readily ascertained or derived from publicly available information; (e) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy; and (f) has significant economic value.” ALA. CODE § 8-27-2.

ALASKA

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Soo Cho

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
scho@fenwick.com

ALASKA

I. JUDICIAL STATEMENT OF THE LAW:

There is no state statute that governs the enforceability of covenants not to compete. However, case law indicates that where such a covenant is drafted in good faith and is reasonable, it will be upheld.

II. PARAMETERS OF THE ENFORCEABILITY TEST:

Factors used to determine enforceability include: (1) absence or presence of limitations as to time and space; (2) whether the employee represents the sole contact with the customer; (3) whether the employee is possessed with confidential information or trade secrets; (4) whether the covenant seeks to eliminate competition which would be unfair to the employer or merely seeks to eliminate ordinary competition; (5) whether the covenant seeks to stifle the inherent skill and experience of the employee; (6) whether the benefit to the employer is disproportional to the detriment to the employee; (7) whether the covenant operates as a bar to the employee's sole means of support; (8) whether the employee's talent which the employer seeks to suppress was actually developed during the period of employment; and (9) whether the forbidden employment is merely incidental to the main employment. *Data Mgmt. v. Greene*, 757 P.2d 62, 65 (Alaska 1988).

III. GENERAL COMMENTS:

- A. Protectable Interests:** Employers have protectable interests in customer lists. *Metcalfe Invs., Inc. v. Garrison*, 919 P.2d 1356, 1361 (Alaska 1996). However, if a covenant not to contact former customers would lead to a bar on practicing an individual's specialty, then the covenant is unreasonable. *Id.* Employers also have an interest in confidential information. *Id.* However, if the employee did not have access to confidential information, then a covenant not to contact former employees will also be unreasonable. *Id.*
- B. Scope and Breath:** One case has found that a covenant with no geographic or durational limit was held to be enforceable. *Id.* A 2- year covenant not to perform services for past or present clients has also been upheld. *Wirum & Cash, Architects v. Cash*, 837 P.2d 692, 710-11 (Alaska 1992). However, a 5 year state-wide covenant was deemed unenforceable. *Data Mgmt. v. Greene*, 757 F.2d 62, 3 IER Cases 796 (Alaska 1988). When no durational limits exist, Alaska courts will allow customer restrictions to substitute for geographic terms for certain type of activity covenants. *Metcalfe Invs., Inc.*, 919 P.2d at 1361.

- C. Modification:** If a covenant not to compete is overbroad, the court will reasonably alter its language to render the covenant enforceable as long as the covenant was drafted in good faith. *Data Management*, 757 P.2d at 796. Alaska courts have specifically rejected the “blue pencil” approach in favor of a “reasonable alteration” approach. *Id.* at 797. But practically, the reasonable alteration approach seems to have the same or a very similar effect as the blue pencil approach.
- D. Consideration:** The signing of a covenant not to compete at the inception of the employment relationship appears to provide sufficient consideration to support a covenant not to compete, however, the issue has not been directly addressed. *Id.* at 796.
- E. Will a choice of law provision in a contract be followed?** While Alaska has not directly addressed this issue in a covenant not to compete case, Alaska has adopted the “most significant relationship” test in tort cases as well as contract cases. See *M.O. Ehredt v. De-Havilland Aircraft Co. of Canada, Ltd.*, 705 P.2d 446, 453 (Alaska 1985); *Palmer G. Lewis Co. v. Arco Chemical Co.*, 904 P.2d 1221, 1227 & n.14 (Alaska 1995).
- F. Trade Secrets Defined:** A trade secret is defined as: information that (a) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. A.S. 45.50.940 (3).

ARIZONA

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Sandra L. M. Riley

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
sriley@fenwick.com

ARIZONA

I. STATEMENT OF THE LAW:

Reasonable covenants not to compete will be enforced if they are “no broader than necessary to protect the employer’s interest.” *Valley Med. Specialists v. Farber*, 982 P.2d 1277, 1283 (Ariz. 1999).

[I]n Arizona . . . a restrictive covenant in an employment agreement, that the employee will not compete within a reasonably limited time and space, is valid and enforceable by injunction where the restraint does not exceed that reasonably necessary for protection of the employer’s business, is not unreasonably restrictive upon right of the employee and does not contravene public policy. . . . [T]he covenant must fall within the requirements of a valid contract, and it must be incident or ancillary to an otherwise legally enforceable contract.

American Credit Bureau v. Carter, 462 P.2d 838, 840 (Ariz. Ct. Ap. 1969) (citing *Lassen v. Benton*, 345 P.2d 37, modified, 347 P.2d 1012 (Ariz. 1959)).

II. PARAMETERS OF THE “REASONABLENESS” TEST:

A. Ancillary to an employment contract:

“Reasonableness is a fact-intensive inquiry that depends on the totality of the circumstances.” *Valley Med. Specialists*, 982 P.2d at 1283. Where the restraint exceeds the employer’s legitimate interest, or where hardship on the employee or likely injury to the public outweigh the interest, the restraint will be found unreasonable and will not be enforced. *Id.* “Covenants not to compete are disfavored and thus are strictly construed against employers.” *Hilb, Rogal and Hamilton Co. of Ariz., Inc. v. McKinney*, 946 P.2d 464, 467 (Ariz. Ct. App. 1997) (citing *Bryceland v. Northey*, 772 P.2d 36, 39 (Ariz. Ct. App. 1989) and *Amex Distrib. Co., Inc. v. Mascari*, 724 P.2d 596, 600 (Ariz. Ct. App. 1986)).

Examples:

1. *Amex Distrib. Co.*, 724 P.2d 596, 605 (36-month restriction on use of customer information unreasonable and unenforceable). “When the restraint is for the purpose of protecting customer relationships, its duration is reasonable only if it is no longer than necessary for the employer to put a new man on the job and for the new

employee to have a reasonable opportunity to demonstrate his effectiveness.” *Id.* at 604 (internal citation and quotation omitted).

2. *Bed Mart, Inc. v. Kelley*, 45 P.3d 1219 (Ariz. Ct. App. 2002) (upholding 6-month restriction within Phoenix Metropolitan area on solicitation of any customer for which the sale of competing product accounted for more than 50% of its revenue).
3. *Bryceland*, 772 P.2d at 39 (refusing to enforce two-year restriction on providing disk jockey services to any client within 50 miles of Phoenix or any of the employee’s job locations).
4. *Lessner Dental Labs. V. Kidney*, 492 P.2d 39, 40-42 (Ariz. Ct. App. 1971) (refusing to enforce two-year restriction on dental technician prohibiting her from engaging in services related to or sales of dental prosthetics and related devices within Pima County).
5. *Olliver/Pilcher Ins., Inc. v. Daniels*, 715 P.2d 1218, 1220 (Ariz. 1986) (refusing to enforce two-year, statewide covenant requiring insurance salesman to pay portion of commissions earned from business with former employer’s customers to former employer as overbroad and unreasonably impacting employee’s right to work in chosen profession).
6. *Liss v. Exel Transp. Servs.*, No. CIV-04-2001-PHX-SMM, 2007 U.S. Dist. LEXIS 20555 at *23-24 (D. Ariz. Mar. 21, 2007) (covenant restricting employee from “directly or indirectly engaging in any work associated with motor freight transportation services for three years, regardless of where the business is located” was unreasonably broad and placed unreasonable hardship upon plaintiff, “essentially banishing” employee from the industry for three years).

B. Ancillary to the sale of a business:

“Courts are more lenient in enforcing [restrictive] covenants given in relation to the sales of businesses because of the need to ensure that goodwill is effectively transferred.” *Valley Med. Specialists v. Farber*, 950 P.2d 1184 (Ct. App. 1997), rev’d on other grounds, 982 P.2d 1277 (Ariz. 1999). “Where limited as to time and space, the covenant is ordinarily valid unless it is to refrain from all business whatsoever.” *Gann v. Morris*, 59 P.2d 43, 44 (Ariz. Ct. App. 1979).

Gann, 59 P.2d at 44-45 (upholding 10-year covenant not to engage in silk

screening or lettering shop business within 100 miles of Tucson in connect with sale of business).

III. GENERAL COMMENTS:

A. Protectable interests: “A covenant not to compete is invalid unless it protects some legitimate interest beyond the employer’s desire to protect itself from competition.” *Valley Med. Specialists*, 982 P.2d at 1281 (1999). Legitimate interests include:

1. “[T]o prevent competitive use, for a time, of information or relationships which pertain peculiarly to the employer and which the employee acquired in the course of that employment.” *Valley Med. Specialists*, 982 P.2d at 1281 (internal quotation and citation omitted).
2. “[M]aintaining customer relationships when an employee leaves.” *Bryceland*, 772 P.2d at 40; see also *Bed Mart v. Kelley*, 202 Ariz. 370, 372, 45 P.3d 1219, 1221 (Ct. App. 2002) (“An employer may also have a legitimate interest in having a ‘reasonable amount of time to overcome the former employee’s loss, usually by hiring a replacement and giving that replacement time to establish a working relationship.’”)
3. Retaining customer base, protecting confidential vendor and customer lists; and preserving goodwill with agents, vendors, and customers. *Liss*, 2007 U.S. Dist. LEXIS 20555 at *23.
4. Referral sources. *Valley Med. Specialists*, 982 P.2d at 1284.

B. Limits on protectable interests:

1. A covenant not to compete aimed simply at eliminating competition *per se* will not be enforced. *Amex Distrib. Co.*, 724 P.2d at 604.
2. A former employer cannot seek to restrict a former employee from using skills acquired “on the job,” and, depending on the circumstances, may not restrict former employees from accepting employment with potential (as opposed to actual) customers. *Bryceland*, 772 F.2d at 40. See also *Amex Distrib. Co.*, 724 P.2d at 603-04 (expressing doubt as to reasonableness of covenant applied to “customers other than those with which [the employee] did business, or concerning which he acquired significant customer information”). See also *Lessner*, 492 P.2d at 42.

3. *Hilb, Rogal and Hamilton*, 946 P.2d at 467 (no protectable interest in restricting contact with customer that terminated its business prior to former employee's solicitation of customer).
- C. Anti-piracy or "hands-off" nonsolicitation agreements distinguished:** An anti-piracy agreement is a covenant that "restricts the terminated employee from soliciting customers of his former employer or making use of confidential information from his previous employment." *Olliver/Pilcher*, 715 P.2d at 1219. Such agreements are less restrictive on employees and the market generally; thus, they are ordinary not found unreasonable or oppressive. *Id.* at 1219-20; see also *Hilb, Rogal and Hamilton*, 946 P.2d at 467; *Alpha Tax Servs., Inc. v. Stuart*, 761 P.2d 1073, 1075 (App. 1988). Thus, even a statewide restrictive covenant was upheld where it was "designed to prevent former employees from using information learned during their employment to divert or to steal customers from the former employer." *Alpha Tax Servs.*, 761 P.2d at 1075. Cf. *Olliver/Pilcher*, 715 P.2d at 1219 (anti-piracy covenant which required penalty payment for every customer who transferred to new employer, regardless of actionable conduct by former employee, unreasonable).
- D. Blue pencil/modification:** "Arizona courts will 'blue-pencil' restrictive covenants eliminating grammatically severable, unreasonable provisions," but will not add or rewrite terms. *Valley Med. Specialists*, 982 P.2d at 1286. "Where the severability of the agreement is not evident from the contract, the court cannot create a new agreement for the parties to uphold the contract." *Olliver/Pilcher*, 715 P.2d at 1221. Judicial reformation clauses are unenforceable under Arizona law and, thus, do not permit courts to reform overbroad agreements. *Varsity Gold, Inc. v. Porzio*, 45 P.3d 352, 355 (Ariz. Ct. App. 2002).
- E. Step-down provisions:** Parties may consider using a "step-down" provision, which provides express and grammatically severable alternative geographic restrictions or time restrictions for use in the event the court considers blue penciling the agreement. See, e.g., *Compass Bank v. Hartley*, 430 F. Supp. 2d 973, 980-81 (D. Ariz. 2006) (recognizing issue of first impression; applying Arizona law and using step-down provision to blue pencil and uphold covenant not to compete).
- F. Consideration:** A covenant signed at the inception of an at-will employment relationship is supported by consideration in the form of a promise of continued employment. *Lessner*, 492 P.2d at 40 (finding sufficient consideration where covenant executed at inception of written at-will employment agreement); *Compass*, 430 F. Supp. 2d at 978. It remains unclear whether consideration exists even absent the written at-

will employment agreement. Actual continued at-will employment is sufficient consideration. See *American Credit Bureau v. Carter*, 462 P.2d 838, 840 (Ariz. Ct. App. 1969) (three years of continued at-will employment plus substantial salary); *Mattison v. Johnston*, 730 P.2d 286, 290 (1986) (implied promise of continued employment, albeit at each party's will, followed by employee's voluntary separation three months later). A promise of continued employment, even if it continues on an at-will basis, will support a covenant not to compete executed after the inception of the employment relationship. *Compass*, 430 F. Supp. 2d at 978 (under Arizona law, employer "has the right to require at-will employees to sign . . . restrictive covenants as a condition of continued employment").

G. Enforceability of "clawbacks" and other forfeitures of benefits: The validity of a noncompete clause that requires tender back of shares of stock in a company is determined on the same reasonableness test as noncompete covenants in employment contracts. *Fearnow v. Ridenour, Swenson, Cleere & Evans, P.C.*, 138 P.3d 723, 725-26 (2006) (recognizing provision would be governed by "same fact-based reasonableness analysis" if plaintiff were not an attorney).

H. Is a noncompete covenant enforceable if the employee is discharged?

Unclear, however it appears discharge will not affect enforceability of the covenant unless express terms indicate otherwise. See, e.g., *American Credit Bureau v. Carter*, 462 P.2d 838, 841 (1969) ("The agreement prohibits competition whether the employee leaves or is fired, implying the cause of termination does not affect the agreement.").

I. Will an employer's breach of employment agreement relieve the employee of his obligation not to compete?

Unclear. At least one court has intimated that if an employer is guilty of wrongful conduct in the formation of the contract, a trial court may properly exercise its discretion and not enforce an otherwise valid covenant under the unclean hands doctrine. *American Credit Bureau v. Carter*, 462 P.2d at 841 (employer had unclean hands for inducing former employee to leave prior employment but not notifying employee of noncompete requirement until first day of work).

J. Will a choice of law provision in a contract be followed?

Likely. The issue has not yet been addressed in a restrictive covenant case, but Arizona courts typically look to the Restatement (Second) of

Conflict of Laws to determine which jurisdiction's law applies. The Restatement generally applies the law of the chosen state unless it has no relationship with the parties and the transaction or application of the chosen state's law would be contrary to the forum state's fundamental public policy. *In re Estate of Levine*, 700 F.2d 883, 887 (Ariz. Ct. App. 1985).

K. Trade secrets defined: Ariz. Rev. Stat. § 44-401.

L. Limits on restrictive covenants in particular professions:

Ariz. Rev. Stat. § 23-494: Prohibits broadcasting employers, including television and radio stations and networks, from requiring current or prospective employees to agree to noncompete covenants restricting them from working in a specific geographic area for a specified period of time after employment with broadcasting employer.

Ariz. Sup. Ct. R. 42, Ethical Rule 5.6: Prohibits lawyers from agreeing to restrict the right of a lawyer to practice after termination of employment relationship or dissolution of partnership. However, this rule does not prohibit agreements to impose financial penalties, such as tender back of shares to prior firm, in the event of competition. *Fearnow*, 138 P.3d 723.

"[E]mployment covenants restricting physicians in the practice of medicine involve public policy implications and should therefore be closely scrutinized. *Phoenix Orthopedic Surgeons v. Peairs*, 790 P.2d 752, 758 (Ariz. Ct. App. 1989), overruled on other grounds by *Valley Med. Specialists*, 982 P.2d at 1286 (disapproving portion of *Phoenix Orthopedic* permitting courts to rewrite restrictive covenant). Such agreements are strictly construed for reasonableness due to the special doctor-patient relationship. *Valley Med. Specialists*, 982 F.2d at 1283. Further, the organization's or employer's interest is balanced against "the personal relationship between doctor and patient as well as the patient's freedom to see a particular doctor." *Id.* at 1284.

ARKANSAS

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained
in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612-340-2868
schnell.todd@dorsey.com

ARKANSAS

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

Not applicable.

B. Judicial Statement of the Law

1. Under Arkansas law, for a covenant not to compete to be enforceable, three requirements must be met: (a) the covenantee must have a valid interest to protect; (b) the geographical restriction must not be overly broad; and (c) a reasonable time limit must be imposed. *Moore v. Midwest Distribution, Inc.*, 65 S.W.3d 490, 493 (Ark. 2002); *Duffner v. Alberty*, 718 S.W.2d 111, 112 (Ark. App. 1986). See also *Owens v. Penn Mut. Life Ins. Co.*, 851 F.2d 1053, 1054-55 (8th Cir. 1988).
2. Protectable interests include both a stock of customers and trade secrets. See *Statco Wireless, LLC v. Southwestern Bell Wireless, LLC*, 95 S.W.3d 13, 17 (Ark. App. 2003) (vital interest exists “in protecting the confidential information contained in its customer lists, agent compensation plans, written bid proposals, and marketing strategies”); *Moore*, 65 S.W.3d at 493 (“Where a covenant not to compete grows out of an employment relationship, the courts have found an interest sufficient to warrant enforcement of the covenant only in those cases where the covenantee provided special training, or made available trade secrets, confidential business information or customer lists, and then only if it is found that the covenantee was able to use information so obtained to gain an unfair competitive advantage” citing *Federated Mut. Ins. Co. v. Bennett*, 818 S.W.2d 596 (Ark. App. 1991)); *Owens*, 851 F.2d at 1055; *Girard v. Rebsamen Ins. Co.*, 685 S.W.2d 526, 527-28 (citing *Borden, Inc. v. Huey*, 547 S.W.2d 760, 761 (Ark. 1977)); *Olin Water Services v. Midland Research Lab., Inc.*, 596 F. Supp. 412 (E.D. Ark. 1984), *appeal dismissed and remanded*, 774 F.2d 303 (8th Cir. 1985). *Accord Duffner*, 718 S.W.2d at 112-13 (covenant not enforceable where court concluded that doctors remaining with practice did not maintain personal relationship or acquaintance with patients of doctor leaving practice and doctor leaving practice did not appropriate “stock of patients” in leaving).

II. CONSIDERATION ISSUES

A. Consideration Generally

Continued employment is sufficient consideration for a non-compete agreement. *Olin*, 596 F. Supp. at 415; *Credit Bureau Management Co. v. Huie*, 254 F. Supp. 547, 554 (E.D. Ark. 1966).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE “REASONABLENESS TEST” AS APPLICABLE

A. Non-competes Ancillary to an Employment Agreement

1. Held Enforceable

- *Advanced Environmental Recycling Technologies, Inc. v. Advanced Control Solutions, Inc.*, __S.W.3d__; 2008 WL 324358 (Ark. 2008) (upholding jury finding and holding that there was substantial evidenced to support jury’s determination that the state-wide geographic restriction in two-year covenant not to compete was reasonable);
- *Colonial Life & Acc. Ins. Co. v. Sisco*, 1999 WL 258573 (Ark. App. 1999) (insurance salespersons’ covenants not to solicit business for two years from customers whose accounts they serviced during their employment, upheld);
- *Girard v. Rebsamen Ins. Co.*, 685 S.W.2d 526 (Ark. App. 1985) (insurance salesman’s covenant not to solicit or accept business for two years from customers whose accounts he serviced at time of termination, upheld);
- *Borden. Inc. v. Huey*, 547 S.W.2d 760 (Ark. 1977) (covenant not to compete for one year in area where the former employee had sold former employer’s productions, which area encompassed four county seats, upheld);
- *All-State Supply, Inc. v. Fisher*, 483 S.W.2d 210 (Ark. 1972) (former employee/salesman’s covenant not to compete in the entire state of Arkansas for a two-year period upheld as reasonable);
- *Owens*, 851 F.2d at 1055 (covenant restricting competition by former insurance salesman/office manager for two years within 200 miles of former office upheld as reasonable); and

- *Olin*, 596 F. Supp. at 412 (E.D. Ark. 1984) (covenant not to compete for one year in area where former employee most recently sold employer's products, upheld).

2. Held Unenforceable or Modified

- *Moore*, 65 S.W.3d 490 (covenant prohibiting competition in a state in which the employer did not conduct business was unreasonably broad as to geographic area);
- *Jaraki v. Cardiology Associates of Northeast Arkansas, P.A.*, 55 S.W.3d 799 (Ark. App. 2001) (covenant not to compete with geographic restriction greater than the former employer's trade area was unreasonably broad and therefore void);
- *City Slickers, Inc. v. Douglas*, 40 S.W.3d 805 (Ark. App. 2001) (5-year confidentiality and nondisclosure covenants executed by the general manager of an on-site automotive oil-changing service found unreasonable);
- *Rector-Phillips-Morse Inc. v. Vroman*, 489 S.W.2d 1 (Ark. 1973) (three-year restraint unreasonable where it exceeded the useful life of the protectable information);
- *Borden Inc. v. Smith*, 478 S.W.2d 744 (Ark. 1972) (Former salesman's agreement not to compete in 59 counties in Arkansas and two counties in each of three other states found unreasonable and unenforceable);
- *Little Rock Towel & Linen Supply Co. v. Independent Linen Service Co. of Arkansas*, 377 S.W.2d 34 (Ark. 1964) (finding time restraint of five years unreasonable and unenforceable; *Am. Excelsior Laundry Co. v. Derisseaux*, 165 S.W.2d 598 (Ark. 1942) (same); and
- *McCumber v. Federated Mut. Implement & Hardware Ins. Co.*, 320 S.W.2d 637 (Ark. 1959) (two-year restraint unreasonable where no trade secrets were involved).

B. Non-competes Incidental to the Sale of a Business

- *Dawson v. Temps Plus, Inc.*, 987 S.W.2d 722 (Ark. 1999) (covenant not to compete, incidental to sale of 49% interest in temporary employment agency, for five years and within 70 miles of city in which temporary agency was located, upheld);

- *Hyde v. C M Vending Co., Inc.*, 703 S.W.2d 862 (Ark. 1986) (covenant not to compete in food and drink vending business within fifty miles of one city for a period of five years after payment in full of purchase price upheld; purchase price payments to last between eight to ten years, making total restraint thirteen to fifteen years);
- *Madison Bank & Trust v. First Nat'l Bank of Huntsville*, 635 S.W.2d 268 (Ark.1982) (covenant incidental to sale of bank prohibiting new owners of bank from relocating main office or establishing branch within ten-mile radius of Huntsville, Arkansas for ten years upheld);
- *McClure v. Young*, 98 S.W.2d 877 (Ark. 1936) (covenant, incidental to sale of hardware business, not to compete for three years in the same city as the business sold upheld); and
- *Stubblefield v. Siloam Springs Newspapers, Inc.*, 590 F. Supp. 1032 (W.D. Ark. 1984) (covenant, incidental to sale of printing and advertising business, not to compete directly or indirectly for ten years in same county found unreasonably long and therefore void).

IV. GENERAL COMMENTS

A. Specific Issues

1. Arkansas courts will not equitably modify an unreasonably broad covenant. A covenant that is unreasonable as to the time or geographic restraint, or as to the activities prohibited, is unenforceable and void. *Bendinger v. Marshalltown Trowell Co.*, 994 S.W.2d 468, 473 (Ark. 1999); *Borden, Inc. v. Smith*, 478 S.W.2d at 747; *Brown v. Devine*, 402 S.W.2d 669, 672 (Ark. 1966); *McLeod v. Meyer*, 372 S.W.2d 220, 223 (Ark. 1963).
2. A forfeiture of benefits clause will be evaluated under the same standards as a non-compete covenant. *E.g.*, *Owens*, 851 F.2d at 1054 (clause by which insurance salesman lost 50% of post-termination commissions if he became a manager of a competing agency held to be covenant not to compete).
3. The prevailing party is entitled to a reasonable attorney fee in breach of covenant not to compete cases. *Dawson v. Temps Plus, Inc.*, 987 S.W.2d at 729 (citing Ark. Code Ann. § 16-22-308).
4. Arkansas courts recognize that if an employer commits the first substantial breach of a covenant not to compete, it cannot maintain an action against its former employee for failure to perform. See

Sisco, 1999 WL 258573 at *3 (recognizing “first breach rule” but holding that employer did not breach the covenant not to compete).

5. Choice of law: Arkansas courts employ a multifactored “significant contacts” or “center of gravity” approach in determining the law applicable to contracts. *Olin*, 596 F. Supp. at 414.

B. Miscellaneous

1. A trade secret, defined by the Arkansas Trade Secrets Act, ARK. CODE ANN. §§ 4-75-601 to 607, means information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (a) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. ARK. CODE ANN. § 4-75-601(4).
2. Noteworthy articles and/or publications: Conrad, Christina Rose, *Bendinger v. Marshalltown Trowell Co.*: The Need for Compromising Competition in Arkansas: A Look at the Limits of Covenants Not to Compete, 53 ARK. L. REV. 903 (2000); Pagan, Arkansas Courts and Covenants Not to Compete, 12 U. ARK. LITTLE ROCK L.J., 57, 62-63 (1989).

CALIFORNIA

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Sandra L. M. Riley

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
sriley@fenwick.com

CALIFORNIA

I. STATUTORY STATEMENT OF THE LAW:

Under California law, covenants not to compete are generally void and unenforceable: “Except as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade, or business of any kind is to that extent void.” Cal. Bus. & Prof. Code § 16000.

Express exceptions to this general rule exist for the following business transactions:

- A. Sale of the goodwill of a business, sale or other disposal of all of an ownership interest in a business entity, or sale of “(a) all or substantially all of its operating assets together with the goodwill of the business entity, (b) all or substantially all of the operating assets of a division or a subsidiary of the business entity together with the goodwill of that division or subsidiary, or (c) all of the ownership interest of any subsidiary,” where business entities include partnerships, limited liability corporations, and corporations (Cal. Bus. & Profs. Code § 16601);
- B. Upon or in anticipation of disassociation of a partner from or dissolution of a partnership (Cal. Bus. & Profs. Code § 16602); and
- C. Upon or in anticipation of a dissolution of or the termination of an ownership interest in a limited liability company (Cal. Bus. & Profs. Code § 16602.5).

To be enforceable, these restrictive covenants must specify the geographic area of the noncompete restriction, which must be limited to the area in which the business entity, partnership, or limited liability company transacted business. Further, the covenant is only valid for as long as the person acquiring the goodwill or ownership interest (§ 16601), a member of the partnership (§ 16602), or a member of the limited liability company (§ 16602.5) carries on a like business within the restricted territory.

II. JUDICIAL INTERPRETATION AND APPLICATION OF STATUTES

“Noncompetition agreements are invalid under section 16600 in California even if narrowly drawn, unless they fall within the applicable statutory exceptions of section 16601, 16602, or 16602.5.” *Edwards v. Arthur Anderson LLP*, 189 P.3d 285, 297 (Cal. 2008).

In the years since its original enactment as Civil Code section 1673, our courts have consistently affirmed that section 16600 evinces a settled public policy in favor of open competition and employee mobility. (See

D'Sa v. Playhut, Inc. (2000) 85 Cal.App.4th 927, 933 [102 Cal. Rptr. 2d 495].) The law protects Californians and ensures “that every citizen shall retain the right to pursue any lawful employment and enterprise of their choice.” (*Metro Traffic Control, Inc. v. Shadow Traffic Network* (1994) 22 Cal.App.4th 853, 859 [27 Cal. Rptr. 2d 573].) It protects “the important legal right of persons to engage in businesses and occupations of their choosing.” (*Morlife, Inc. v. Perry* (1997) 56 Cal.App.4th 1514, 1520 [66 Cal. Rptr. 2d 731].)

Edwards, 189 P.3d at 291.

A. Ancillary to an employment contract

California law does not provide an exception to the general rule against restraints of trade for covenants ancillary to an employment contract. While one line of federal cases stemming from a Ninth Circuit Court of Appeal decision recognized a “narrow-restraint” exception, the California Supreme Court subsequently rejected that purported exception and a further argument that the statute may be interpreted to allow reasonable restraints. *Edwards*, 189 P.3d at 291-293 (narrow restraint exception announced in *Campbell v. Trustees of Leland Jr. Univ.*, 817 F.2d 499 (9th Cir. 1987) and followed in *International Business Machines Corp. v. Bajorek*, 191 F.3d 1033 (9th Cir. 1999) and *General Commercial Packaging v. TPS Package*, 126 F.3d 1331 (9th Cir. 1997)).

[W]e are of the view that California courts “have been clear in their expression that section 16600 represents a strong public policy of the state which should not be diluted by judicial fiat.” [citation omitted.] Section 16600 is unambiguous, and if the Legislature intended the statute to apply only to restraints that were unreasonable or overbroad, it could have included language to that effect.

Edwards, 189 P.3d at 293.

A question remains as to the existence of a trade secret exception to section 16600. California appellate courts have recognized an employer’s ability to prohibit former employees from using its trade secret information. See, e.g., *Thompson v. Impaxx, Inc.*, 113 Cal. App. 4th 1425, 1429 (2003) (all restrictive covenants must pass muster under section 16600 and recognizing an exception as necessary to protect trade secrets). In *Edwards*, the California Supreme Court expressly left open “the applicability of the so-called trade secret exception to section 16600” *Edwards*, 189 P.3d 291, n.4. A further question remains as to the enforceability of covenants not to solicit employees and contractors of a former employer and whether they must also be limited to the use of confidential and proprietary information.

B. Ancillary to the sale of goodwill in a business

Section 16601 reflects that when the goodwill of a business is sold, it would be unfair for the seller to engage in competition that diminishes the value of the asset sold. *Hill Med. Corp. v. Wycoff*, 86 Cal. App. 4th 895, 903 (2001). For a covenant not to compete to be enforceable in this context, goodwill must be transferred; thus, there must be a clear indication that in the sales or redemption transaction, the parties valued or considered goodwill as a component of the sales price. *Id.* To determine whether goodwill transferred:

[A]ll aspects of the sales arrangement should be evaluated. For example, the entire structure of the transaction, including the sales price, might suggest that it can be said that goodwill had transferred. Additionally, such a conclusion might be reached because the seller has a significant economic investment. Evidence that the amount paid to the departing or selling shareholder approximates the amount the shareholder was expected to lose, as a result of the covenant not to compete, may be strong indicia that the sales price was intended to include goodwill so as to invoke the exception of section 16601. Further, if fair market value is paid for the shares, it may indicate that goodwill is part of the transaction, as an inference can be made that the price includes a value for goodwill. *Id.*, at 904.

The sales of stock must also involve “a substantial interest in the corporation so that the owner, in transferring all of his shares, can be said to transfer the goodwill of the corporation.” *Id.* at 904, citing *Bosley Med. Group v. Abramson*, 161 Cal. App. 3d 284, 290 (1984). At least one court has recognized that a three-percent holding in an entity priced at \$23 million was a substantial interest. *Vacco Indus. v. Van Den Berg*, 5 Cal. App. 4th 34, 38-39 (1992).

III. GENERAL COMMENTS:

- A. **Protectable interests:** Goodwill, as protected through the exceptions set forth in Business and Professions Code Sections 16601-16602.5, described above; fair competition, including protection of confidential and trade secret information (see e.g., *American Credit Indemnity Co. v. Sacks*, 213 Cal. App. 3d 622, 630-32 262 Cal. Rptr. 92, 98 (1989) (trade secret client information); *Readylink Healthcare v. Cotton*, 126 Cal. App. 4th 1006, 1022 (2005) (client and employee information; “we note that ‘if a former employee uses a former employer’s trade secrets or otherwise

commits unfair competition, California courts recognize a judicially created exception to section 16600 and will enforce a restrictive covenant in such a case”) and prevention of employee “raiding” and commensurate workplace disruption (see, e.g., *Loral Corp. v. Moyes*, 174 Cal. App. 3d 268, 276-280 (1985)).

B. Blue pencil/modification: California courts will not reform a void and unenforceable noncompete covenant in the employment context. *Kolani v. Gluska*, 64 Cal. App. 4th 402, 408 (1998) (refusing to reform, despite savings provision in agreement). In the sale of business context, however, courts have blue penciled covenants to narrow and make enforceable the restrictive covenant. See, e.g., *Mahlstedt v. Fugit*, 79 Cal. App. 2d 562, 566-567, 180 P.2d 777, 779 (1947). “[T]he rule of severability may be evoked to uphold the covenant to the extent that it falls within the limits permitted by statute.” *Roberts v. Pfefer*, 13 Cal. App. 3d 93, 98 (1970). Compare *Swenson v. File*, 475 P.2d 852, 856 (Cal. 1970) (invoking severability to impose more narrow geographical limitation) with *Weber, Lipshie & Co. v. Christian*, 52 Cal. App. 4th 645, 658 n.6 (1997) (in dicta, refusing to blue pencil agreement which lacked any geographic restriction and distinguishing *Swenson* on that ground).

C. Enforceability of “clawbacks” and other forfeitures of benefits: The California Supreme Court “invalidated an otherwise narrowly tailored agreement as an improper restraint under section 16600 because it required a former employee to forfeit his pension rights on commencing work for a competitor.” *Edwards*, 189 P.3d at 291 (citing *Muggill v. Reuben H. Donnelley Corp.*, 398 P.2d 147, 149 (Cal. 1965) and *Chamberlain v. Augustine*, 156 P. 479, 480 (1916)).

D. Is a noncompete covenant enforceable if the employee is discharged?

If the noncompete covenant falls within an exception to section 16600, the noncompete, which was obtained in exchange for purchase of stock, remains enforceable notwithstanding the employee’s termination, even where the termination may be wrongful. *Vacco Indus.*, 5 Cal. App. 4th at 47-49.

E. Will a choice of law provision in a contract be followed?

Depends. “When a contract provides a choice of law other than California law, its enforcement involved a two-step analysis: (1) the foreign law must bear some substantial relationship to the parties or the contract and (2) application of the foreign law must not violate a strong public policy of California. *Weber*, 52 Cal. App. 4th at 658 (citing *Nedlloyd Lines B.V. v.*

Superior Court, 3 Cal. 4th 459, 479, 834 P.2d 1148, 1160-63 (1992)). Because section 16600 reflects strong public policy of California, courts typically apply California law to employment-related transactions involving a California party. See, e.g., *Application Group, Inc. v. Hunter Group, Inc.*, 61 Cal. App. 4th 881, 885 (1998) (applying California law over Maryland choice of law provision; “California law may be applied to determine the enforceability of a covenant not to compete, in an employment agreement between an employee who is not a resident of California and an employer whose business is based outside of California, when a California-based employer seeks to recruit or hire the nonresident for employment in California”); *Frame v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 20 Cal. App. 3d 668, 673 (1971) (applying California law notwithstanding New York choice of law provision contained in employment contract).

- F. **Trade secrets defined:** Cal. Civ. Code § 3426.1.
- G. **Statutory limitations within the legal industry:** Rule 1-500(A) of the Rules of Professional Conduct of the California State Bar prohibits attorneys licensed to practice in California from being “a party to . . . an agreement . . . if the agreement restricts the right of the member to practice law.” That rule, however, does not prohibit attorneys from agreeing to pay former partners or members of a corporation liquidated damages in the event of competition, assuming the agreement otherwise comes within an exception to section 16600. *Howard v. Babcock*, 863 P.2d 150 (Cal. 1993).

COLORADO

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further INFORMATION about the summary contained in this chapter, please contact:

Jonathan C. Wilson

Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson

Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

COLORADO

I. STATUTORY AUTHORITY

Colorado has a statute governing agreements not to compete. Colo. Rev. Stat. 8-2-113.

The statute states:

8-2-113. Unlawful to intimidate worker—agreement not to compete

- A. It shall be unlawful to use force, threats, or other means of intimidation to prevent any person from engaging in any lawful occupation at any place he sees fit.
- B. Any covenant not to compete which restricts the right of any person to receive compensation for performance of skilled or unskilled labor for any employer shall be void, but this subsection (2) shall not apply to:
 - 1. Any contract for the purchase and sale of a business or the assets of a business;
 - 2. Any contract for the protection of trade secrets;
 - 3. Any contractual provision providing for recovery of the expense of educating and training an employee who has served an employer for a period of less than two years;
 - 4. Executive and management personnel and officers and employees who constitute professional staff to executive and management personnel.
- C. Any covenant not to compete provision of an employment, partnership, or corporate agreement between physicians which restricts the right of a physician to practice medicine, as defined in section 12-36-106, C.R.S., upon termination of such agreement, shall be void; except that all other provisions of such an agreement enforceable at law, including provisions which require the payment of damages in an amount that is reasonably related to the injury suffered by reason of termination of the agreement, shall be enforceable. Provisions which require the payment of damages upon termination of the agreement may include, but not be limited to, damages related to competition.

II. SUMMARY OF LAW

Colorado prohibits all covenants not to compete unless the covenant falls within

one of four categories: (1) it is related to the sale or purchase of a business; (2) it is related to the protection of trade secrets; (3) it relates to the recovery of training expenses of an employee employed for less than two years; and (4) it relates to executive or management employees or their professional staff. None of these exceptions apply to independent contractors.

III. ELEMENTS OF ENFORCEABILITY

A. Protectable Interest

To fit within the trade secret exception, the purpose of the covenant must be the protection of trade secrets and the covenant must be reasonably limited in scope to protect those trade secrets. *Gold Messenger v. McGuay*, 937 P.2d 907, 910 (Colo. Ct. App. 1997). When determining whether information is a trade secret, Colorado courts look at six factors: (1) the extent to which the information is known outside the business; (2) the extent to which it is known to those inside the business; (3) the precautions taken to guard the secrecy of the information; (4) the saving effected and value to the holder in having the information against competitors; (5) money and effort spent in obtaining and developing the information; and (6) money and effort it would require others to develop or acquire the same information. *Porter Industries v. Higgins*, 680 P.2d 1339, 1341 (Colo. Ct. App. 1984).

B. Executive and Management Personnel, Officers, and Employees who Constitute Professional Staff

The determination of whether an employee falls within the executive and management personnel exception is generally a fact question for the court. *Porter Industries, Inc. v. Higgins*, 680 P.2d 1339, 1342. Courts have limited the phrase "professional staff to executive and management personnel" to those persons who, while qualifying as "professionals" and reporting to managers or executives, primarily serve as key members of the manager's or executive's staff in the implementation of management or executive functions. *Phoenix Capital, Inc. v. Dowell*, 176 P.3d 835 (Colo. Ct. App. 2007). Courts require that the employee must be able to act in an unsupervised manner and/or manage and supervise other employees. See *Porter*, 680 P.2d at 1342 (employee who did not exercise control over the employer's contracts and did not act in unsupervised manner was not management or executive personnel); *Atmel Corp. v. Vitesse Semiconductor Corp.*, 30 P.3d 789, 795 (Colo. Ct. App. 2001) (technical liaison who had no managerial or supervisory duties and had several levels of management above him was not management or executive personnel); *Management Recruiters of Boulder v. Miller*, 762 P.2d 763 (Colo. Ct. App. 1988) (a headhunter account executive whose

primary duty was gathering information was not executive or management personnel). In *Smith v. Sellers*, 747 P.2d 15 (Colo. App. 1987), a Court found that a restrictive covenant was void because the employment contract stated that covenantor was an independent contractor; therefore, the convenator could not be “staff.”

C. Reasonableness Requirements

Even if the covenant not to compete falls within one of the statutory exceptions, Colorado courts also require that the covenant be reasonable as to time and territory. *National Graphics v. Dilley*, 681 P.2d 546 (Colo. App. 1984); *Electrical Distribs., Inc. v. SFR, Inc.*, 166 F.3d 1074 (10th Cir. 1999). The courts look at the facts and circumstances of each case to determine whether the restrictions are reasonable. *Zeff, Farrington & Assocs. v. Farrington*, 449 P.2d 813, 816 (Co. 1968). Colorado courts have found the restrictions reasonable in the following instances: *Gibson v. Angros*, 491 P.2d 87 (Colo. App. 1971) (five year, one county restriction on ophthalmologist was reasonable and enforceable); *Boulder Medical Center v. Moore*, 651 P.2d 464 (Colo. App. 1982) (doctor’s five year, one county covenant not to compete with hospital was enforceable since he sold his business and was a member of the professional staff, thus qualifying under two of the exceptions to the statute); *Management Recruiters of Boulder v. Miller*, 762 P.2d 763, 764-766 (Colo. App. 1988) (portion of contract restricting headhunter for one year from contacting potential candidates was enforceable under trade secret exception to statute); *In re Marriage of Fischer*, 834 P.2d 270 (Colo. App. 1992) (covenant not to compete imposed on husband in divorce proceeding which required him to transfer photographic developing business to wife and not to compete within twenty miles for three years was reasonable and fit within the sale of business and executive and management personnel exceptions to the statute).

Colorado courts have held that the following restrictions were unreasonable: *National Graphic Co. v. Dilley*, 681 P.2d 546 (Colo. App. 1984) (covenant not to compete without restrictions as to duration and geographic scope held to be void); *Colorado Accounting Machines v. Mergenthaler*, 609 P.2d 1125, 1126 (Colo. App. 1980) (portion of employment contract with covenant containing general noncompetition provision held void) (Colo. App. 1984); *Nutting v. RAM Southwest, Inc.*, 106 F.Supp.2d 1121 (D. Colo. 2000).

D. Consideration

In Colorado, continued employment appears to be sufficient consideration. *Lamley v. Celebrity Homes, Inc.*, 594 P.2d 605, 608 (Colo. App. 1979);

Olsen v. Bondurant and Co., 759 P.2d 861 (Colo. App. 1988); *but see Rivendell Forest Products, Ltd. v. Georgia-Pacific Corp.*, 824 F.Supp. 961, 968 (D. Colo. 1993) (court holds that confidentiality agreement was void for lack of consideration where “there was no evidence that [the employee] received anything—higher wages, a promotion, access to technical aspects of [the old employer’s] system—as a result of his voluntary signing of the agreement”).

IV. GENERAL COMMENTS

A. Court Reformation

Colorado courts have the discretion to sever or reform an overbroad covenant to make it reasonable. *National Graphic Co. v. Dilley*, 681 P.2d 546 (Colo. App. 1984); *Management Recruiters of Boulder v. Miller*, 762 P.2d 763, 764-766 (Colo. App. 1988); *Colorado Accounting Machines v. Mergenthaler*, 609 P.2d 1125, 1126 (Colo. App. 1980).

B. Choice of Law Provisions

Colorado courts will generally honor choice of law provisions unless (1) the chosen state does not have any relationship to the parties and the transactions; or (2) the law of the chosen state is against a fundamental policy of Colorado. A choice of law provision that selects a state that would find a covenant not to compete valid when the covenant would be invalid under Colorado law may be against a fundamental policy of Colorado and, therefore, unenforceable. *See Dresser Industries v. Sandvick*, 732 F.2d 783 (10th Cir. 1984). If the chosen state’s law does not conflict with Colorado law, the courts will enforce a choice of law provision. *King v. PA Consulting Group, Inc.*, 485 F.3d 577, 589 (10th Cir. Colo. 2007).

C. Enforceability if Employee Terminated

While a Colorado court has not expressly addressed this issue, it appears that Colorado courts will enforce covenants not to compete against employees who have been terminated. *See Management Recruiters of Boulder v. Miller*, 762 P.2d 763 (Colo. Ct. App. 1988) (covenant enforced against employee terminated for undependability).

D. Forfeiture Provisions

It is unclear whether Colorado courts will recognize all forfeiture provisions. However, the courts have enforced a provision in a deferred profit sharing plan that provided that the former employee would not be

entitled to future payments if the employee later engaged in a competitive line of work. *Collister v. Board of Trustees of McGee Company Profit Sharing Plan*. 531 P.2d 989 (Colo. Ct. App. 1975).

E. Attorney's Fees

Colorado courts have not addressed the issue of whether attorney's fees are recoverable in a covenant not to compete case. However, Colorado only allows for the awarding of attorney's fees if they are provided for in a statute, court rule or private contract in a contract action. *Berhard v. Farmer's Insurance Exchange*, 915 P.2d 1285, 1287 (Co. 1996). Therefore, it is unlikely that attorney's are recoverable in a suit to enforce a covenant not to compete.

CONNECTICUT

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP

World Trade Center West

155 Seaport Boulevard

Boston, MA 02210-2604

Main: 617-439-2293

Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

CONNECTICUT

I. SUMMARY OF THE LAW

"In order to be valid and binding, a covenant which restricts the activities of an employee following the termination of his employment must be partial and restricted in its operation "in respect either to time or place . . . and must be reasonable that is, it should afford only a fair protection to the interest of the party in whose favor it is made and must not be so large in its operation as to interfere with the interests of public."

The interests of the employee himself must also be protected, and a restrictive covenant is unenforceable if by its terms the employee is precluded from pursuing his occupation and thus prevented from supporting himself and his family.

Connecticut courts will consider five factors in determining the reasonableness of a covenant not to compete: "(1) the length of time the restriction is to be in effect; (2) the geographic area covered by the restriction; (3) the degree of protection afforded the party in whose favor the covenant is made; (4) the restriction on the employee's ability to pursue his occupation; and (5) the extent of interference with the public's interests."

Scott v. General Iron & Welding Co., 368 A.2d 111, 114 15 (Conn. 1976) (citations omitted); see also Connecticut Uniform Trade Secrets Act, C.G.S.A. § 35 50 to § 35 58 (1993); New Haven Tobacco Co. v. Perrelli, 528 A.2d 865, 868 (Conn. App. 1987) (cited in Pediatric Occupational Therapy Services, Inc. v. Town of Wilton et al, 2004 Conn. Super. LEXIS 893, *27).

The second prong of the test, the geographic scope, is not the deciding factor in and of itself. The general rule is that the application of a restrictive covenant will be confined to a geographical area which is reasonable in view of a particular situation. A restrictive covenant which protects the employer in areas in which he does not do business or is unlikely to do business is unreasonable with respect to the area. Scott v. General Iron & Welding Co., 171 Conn. 138 (1976).

Under the fifth prong of the Scott test, in determining whether a covenant interferes with the public's interest, a Connecticut court will consider three factors: "(1) the scope and severity of the covenant's effect on the public interest; (2) the probability of the restriction creating or maintaining an unfair monopoly in the area of trade; and (3) the interest sought to be protected by the employer." New Haven Tobacco Co. v. Perrelli, 528 A.2d 865, 868 (Conn. App. 1987).

Furthermore, "the five-pronged test is disjunctive; a finding of unreasonableness in any one of the criteria is enough to render the covenant unenforceable." New

Haven Tobacco Co. v. Perrelli, 528 A.2d 865, 867 (Conn. App. 1987).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

Geographic restrictions should be "narrowly tailored to the employer's business situation." *Braman Chemical Enterprises, Inc. v. Barnes*, 2006 Conn. Super. Lexis 3753, *9. Regarding time periods, a non-compete agreement may provide for a sufficient period of time for an employer to restaff his sales force to cover customers of the former employer and to secure the goodwill of those customers. *Van Dyck v. DiNicola*, 43 Conn.Sup. 191 (1993). Connecticut courts have tended to apply greater scrutiny to non-compete agreements that create general bars based on geographical considerations than to anti-sales provisions, which prevent a former employee from transacting business with his former employer's customers. See *Robert S. Weiss & Associates, Inc. v. Wiederlight*, 546 A.2d 216 (1988).

1. Covenants held reasonable:

United Rentals, Inc. v. Bastanzi, 2005 U.S. Dist. LEXIS 45268 (D. Conn. 2005) (upholding a one-year restriction encompassing a seventy-five mile radius because the area accurately captured the market serviced by the employer and was therefore precisely drawn to protect the employer's good will); *Robert S. Weiss & Assocs., Inc. v. Wiederlight*, 546 A.2d 216 (Conn. 1988) (upholding ten-mile radius restriction with areas carved out where the employee was free to practice his trade); *Scott v. General Iron & Welding Co.*, 368 A.2d 111 (Conn. 1976) (five year statewide covenant barring employee from working as *manager* in competing business was reasonable); *Roessler v. Burwell*, 176 A. 126 (Conn. 1934) (covenant which restricted solicitations from customers of the former employer in a specific locality upheld); *KX Industries v. Saaski*, 1997 Conn. Super. LEXIS 2444 (restriction containing no geographic boundaries upheld because limited to four direct competitors); *Maintenance Technologies International, LLC v. Vega*, 2006 Conn. Super. LEXIS 136, *2, *10 (court granted temporary injunction to enforce two-year, 150-mile covenant not to compete because plaintiff's employees and its customer relationships were plaintiff's most valuable assets, and restrictive covenant provided fair and reasonable degree of protection to plaintiff); *Access America, LLC v. Mazzotta*, 2005 Conn. Super. LEXIS 2597, *1, *12-13 (court granted temporary injunction to enforce fifteen-mile covenant not to compete for one year); *Kim's*

Hair Studio, LLC v. Rogers, 2005 Conn. Super. LEXIS 1805, *2, *8 (court granted temporary injunction to enforce one-year, ten-mile covenant not to compete; *Edge Technology Services, Inc. v. Worley*, 2005 Conn. Super. LEXIS 1804, *8, *22, *25 (court granted temporary injunction to enforce one-year covenant not to compete covering any client of employer); *Piscitelli v. Pepe*, 2004 Conn. Super. LEXIS 3264 (court granted temporary injunction to enforce one-year covenant not to compete spanning four towns); *Riordan v. Barbosa*, 1999 Conn. Super LEXIS 446 (five-year restriction against soliciting or servicing any then-existing clients of accounting partnership upheld).

2. *Covenants held unreasonable:*

Samuel Stores. Inc. v. Abrams, 108 A. 541 (Conn. 1919) (five-year covenant barring sales in "any city" where employer operated found invalid); *Timenterial, Inc. v. Dagata*, 277 A.2d 512 (Conn. Super. Ct. 1971) (bar covering areas within fifty miles from any of employer's locations in five states unreasonable; one-year time limit reasonable); *Braman Chemical Enterprises, Inc. v. Valerie Barnes*, 2006 Conn. Super. Lexis 3753 (50-mile radius unreasonable because substantially more than necessary to provide protection of employer's business, 6-month time limit reasonable); *Sanford Hall Agency, Inc. v. Dezanni*, 2004 Conn. Super. LEXIS 3574, *4-5, *8-10 (court refused to grant temporary injunction to enforce two-year restrictive covenant prohibiting employee from canvassing, soliciting or accepting business for any other employer insurance agency, from any present or past clients; giving any other person, firm or corporation the right to canvass, solicit or accept any business for any other insurance agency, from any present or past clients; directly or indirectly disclosing to any other person, firm or corporation the names of past, present or future clients of the agency; or directly or indirectly inducing or attempting to influence any employee of the agency to terminate his or her employment because the restriction was overbroad and therefore not enforceable); *Grayling Associates, Inc. v. Villota*, 2004 Conn. Super. LEXIS 1859 (one hundred-mile radius restriction was unreasonable; 2 year time period reasonable); *Century 21 Access America v. Lisboa*, 2003 Conn. Super. LEXIS 2085 (two-year restriction found unreasonable when it was shown that plaintiff real estate agency's average customer listing lasted only six months and there was little repeat business; court also noted that plaintiff is not required to demonstrate that it does business in each and every town that is within the geographic area proscribed by the covenant);

Cost Management Incentives, Inc. v. London-Osborne, 2002 Conn. Super. LEXIS 3967 (in the context of the “fast moving nature of the biotechnology market” a two-year anti-solicitation covenant found overreaching and unnecessary to protect employer’s position to withstand competition from former employees); *Ranciato v. Nolan*, 2002 Conn. Super. LEXIS 489 (three-year, three-state restriction on building restorer was not “reasonably limited” and court refused to “blue pencil” the restrictive covenant when no evidence was presented to establish appropriate boundaries of protection); *RKR Dance Studios v. Makowski*, 2008 Conn. Super. LEXIS 2295 (non-compete preventing employee from working for two years as dance instructor within fifteen miles of employer or within ten miles of any of the same franchise’s dance studios was unreasonable).

B. Incidental to the sale of a business.

Connecticut courts are generally more willing to uphold restrictions in cases involving the sale of a business than in cases between employees and employers. See *Samuel Stores, Inc. v. Abrams*, 94 Conn. 248 (1919) (explaining the difference based on the fact that restrictions related to the transfer of a business add value to both parties, the parties in a business transfer are more likely equals in negotiation ability, and there is a large scope for freedom of contract in negotiations between experienced businesspersons).

1. *Covenants held reasonable:*

Leo’s Partners, LLC v. Ferrari, 2005 Conn. Super. LEXIS 3595 (20-mile restriction in connection with sale of a family restaurant upheld); *Kim’s Hair Studio, LLC v. Rogers*, 2005 Conn. Super. LEXIS 1805 (upholding 10-mile restriction in connection with sale of beauty salon); *Sagarino v. SCI Connecticut Funeral Services, Inc.*, 2000 Conn. Super. LEXIS 1384 (30-mile restriction in connection with sale of family-owned funeral home upheld); *Musto v. Opticare Eye Health Centers, Inc.*, 2000 Conn. Super. LEXIS 2298 (agreement not to compete incidental to sale of ophthalmology business which prohibited competition for eighteen months within a fifteen-mile radius held reasonable); *Mattis v. Lally*, 82 A.2d 155 (Conn. 1951) (agreement not to compete incidental to sale of barber shop prohibiting competition in one city (or a one-mile radius of the barber shop) for five years held reasonable); *Milaneseo v. Calvanese*, 103 A. 841 (Conn. 1918) (covenant incidental to sale by part owner of his interest in a fruit, ice cream and vegetable business prohibiting competition in the same town for three years found reasonable).

III. GENERAL COMMENTS

- A. Protectible interests:** sale of goodwill, customer contacts, disclosure of trade secrets, including client and customer lists, formulas and other information. See *Robert S Weiss & Assocs., Inc. v. Wiederliht*, 546 A.2d 216 (Conn. 1988); *Scott v. General Iron & Welding Co.*, 368 A.2d 111 (Conn. 1976); *May v. Young*, 125 Conn. 1, 6-7 (1938) (“Especially if the employment involves the imparting of trade secrets, methods or systems and contacts and associations with clients or customers it is appropriate to restrain the use, when the service is ended, of the knowledge and acquaintance, so acquired, to injure or appropriate the business which the party was employed to maintain and enlarge. The employer is entitled to contract for and to enforce protection against unfair competition . . . such as the knowledge of trade secrets or other confidential information or an acquaintance with his employer's customers and their requirements, resulting from the nature of the employee's services, which is regarded as a species of good will in which the employer has a proprietary interest.”). See also *Sagarino v. SCI Connecticut Funeral Services, Inc.*, 2000 Conn. Super. LEXIS 2298 (court upheld as reasonable agreement incidental to sale of funeral home which restricted competition within a thirty-mile radius for fifteen years, noting that the personal nature of the funeral business made the longer duration reasonable to protect the good will purchased); *Entex Information Services, Inc. v. Behrens*, 2000 Conn. Super. LEXIS 744 (where employees were of an extremely low skill level and possessed no skills that were not easily duplicated by other firms, an intention to hold an employee for no other purpose than to prevent that employee from working for another competitor is unreasonable and the covenant not to compete was not enforced).
- B. Covenant Reformation:** If a covenant is overbroad it can be enforced insofar as is reasonable, if the parties have evidenced an intent to make the covenant severable. A court may use the “blue pencil” rule to reform an unreasonable restriction only if a “grammatically meaningful reasonable restriction remains after the words making the restriction unreasonable are stricken.” *Deming v. Nationwide Mut. Ins. Co.*, 279 Conn. 745 (2006) (citing *A.N. Deringer, Inc. v. Strough*, 103 F.3d 243, 247 (2d Cir. 1996)); *Gartner Group Inc. v. Mewes*, 1992 WL 4766 (Conn. Super. Ct. Jan. 3, 1992) (courts will “blue pencil” a contract when a covenant “contains or may be read as containing several distinct undertakings bounded by different limits of time or space, different in subject-matter” such that it is severable). See also *Beit v. Beit*, 135 Conn. 195 (1948) (refusing to reform a covenant not to compete in an entire county to make it reasonable where the parties did not separately identify localities that could be penciled out); *Timenterial, Inc. v. Dagata*, 277 A.2d 512 (Conn.

Super. Ct. 1971); *Century 21 Access America v. Lisboa*, 2003 WL 21805547 (Conn. Super. Ct. 2003) (parties' intent that unreasonable time limit in restrictive covenant be severable found in covenant language and more reasonable time limit of one year imposed by court to preserve the covenant).

- C. Consideration:** Continued employment alone is not usually sufficient consideration. See *Timenterial, Inc. v. Dagata*, 277 A.2d 512, 515 (Conn. Super. Ct. 1971); *Lester Telemarketing v. Pagliaro*, 1998 Conn. Super. LEXIS 2483. However, when the employee is presented with a non-compete agreement after commencing work, but where the parties have not concluded an agreement encompassing all of the terms of employment, continued employment may be sufficient consideration. *Van Dyck Printing Co. v. DiNicola*, 648 A.2d 898 (1993). See also *Torrington Creamery, Inc. v. Davenport*, 12 A.2d 780 (Conn. 1940) (where employer hired employee to work in a different capacity than his previous position, there was sufficient consideration to enforce a covenant not to compete); *Weseley Software Development Corp. v. Burdette*, 977 F.Supp. 137 (D. Conn. Dec. 1996) (consideration for covenant not to compete found in employment agreement was established by continued employment, an articulated paid vacation entitlement and a new entitlement to severance benefits and stock option.)

On the other hand, when the employee is terminable at will, continued employment is generally considered sufficient consideration. *RKR Dance Studios, Inc. v. Makowski*, 2008 Conn. Super. LEXIS 2295 (summarizing several cases holding both that continued employment is and is not sufficient consideration). See Also *Blum, Shapiro & Company, P.C. v. Searles & Houser, LLC*, 1999 Conn. Super. LEXIS 2261 (when a pre-existing contract of employment is terminable at will, no overt consideration is required to support an otherwise valid covenant not to compete. The law presumes that such a covenant is supported by the employer's implied promise to continue the employee's employment or his forbearance in not discharging the employee then and there); *KX Industries v. Saaski*, 1997 Conn. Super. LEXIS 2444 (when determining whether a restrictive covenant in the employment context is supported by sufficient consideration, the court must consider the temporal proximity between the employee's hiring and the signing of the employment agreement. Moreover, where a preexisting contract of employment is terminable at will, no overt consideration is required to support an otherwise valid covenant not to compete).

- D. Employee discharged:** The reasonableness of a non-compete covenant does not turn on whether the employee left voluntarily or was involuntarily

discharged. *Robert S. Weiss & Assocs., Inc. v. Wiederlight*, 546 A.2d 216, 221 (Conn. 1988). See also *Gartner Group Inc. v. Mewes*, 1992 WL 4766 (Conn. Super. Ct. Jan. 3, 1992); *Simcic v. G&W Management, Inc.*, 2000 Conn. Super. LEXIS 3271 (after offer of at-will employment was accepted, the employee refused to sign a non-competition agreement and was terminated. The court held that the employee had no valid claim of violation of public policy for the termination).

- E. **Attorneys' fees:** Attorneys' fees are generally not recoverable unless specified in contract or available by statute. The Connecticut version of the Uniform Trade Secrets Act provides, "if a claim of misappropriation is made in bad faith or if a motion to terminate an injunction is made or resisted in bad faith, the court may award reasonable attorneys' fees to the prevailing party." C.G.S.A. § 35-54.
- F. **Employer's breach:** Employer's breach of employment agreement will generally relieve employee of contractual obligation not to compete if the breach was material and the employee has not waived the breach. See *Van Dyck Printing Co. v. Denicola*, 1993 Conn. Super. LEXIS 2054 (the court enforced a restrictive covenant where the employer's breach was not material).
- G. **Choice of law:** The courts of Connecticut have adopted the rules on conflict of laws set forth in the Restatement of the Law, and under these rules, substantial weight and deference is required to be given to the parties' choice of law. However, the parties' choice of another state's law will be disregarded if either: (1) the other state has no substantial relationship to the parties or transaction and there is no other reasonable basis for the parties' choice; or (2) the application of the other state's law would be contrary to a fundamental policy of Connecticut and Connecticut has a materially greater interest in the matter than the other state. *Industrial Technologies, Inc. v. Paumi*, 1997 Conn. Super. LEXIS 1499. See also *Custard Insurance Adjusters, Inc. v. Nardi*, 2000 Conn. Super. LEXIS 1003 (holding that even though Massachusetts law applied to the contract, Connecticut's Uniform Trade Secrets Act and Unfair Trade Practices Act both reflected important public policy considerations and should be applied). Furthermore, specifically concerning the enforcement of non-compete agreements, it has been held that even where a choice of law clause dictates that the law of a foreign state will apply, a court will apply the law of the forum state (i.e. the locality test) in determining the propriety and extent of injunctive relief under the agreement and as to all theories of liability against the parties. *Id.* (evaluating the contract interpretation issues and breach of contract claims using Massachusetts

law and evaluated the reasonableness of the restriction using Connecticut law).

- H. **Trade Secrets defined:** “A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound . . . or a list of customers.” *Robert S. Weiss & Assocs., Inc. v. Wiederlight*, 546 A.2d 216, 223-24 (Conn. 1988) (citing the Restatement, Torts § 757, comment b); C.G.S.A. § 35-54(d). A customer list may be a trade secret, and an employee prevented from using it, if the employee obtained the list in confidence and it is not available publicly. *Id.*
- I. **Forfeiture clauses:** A contractual forfeiture clause, under which deferred compensation accrued under an agency security compensation plan is forfeited if employee engages in competing business, does not differ meaningfully from a covenant not to compete, and therefore must be subjected to the same reasonableness test as covenants not to compete. See *Deming v. Nationwide Mutual Insurance Company*, 279 Conn. 745, 767-69 (2006). See also *Schoonmaker v. Cummings and Lockwood of Connecticut*, 252 Conn. 416 (2000) (employment agreement for a law firm partner contained a non-competition provision that stated that post-employment benefits were conditioned upon the former partner not practicing law for three years within three counties in Connecticut as well as certain counties in Florida where the firm had offices. The court upheld this provision and stated that it did not violate the public policy set forth in the Connecticut Rules of Professional Conduct prohibiting an attorney from subscribing to a restrictive practice agreement).
- J. **Noteworthy articles and/or publications:** Lips, Non-Competition Clauses in Employment Contracts, 60 Conn. B. J. 369 (1986); Employee Covenants in CT, NJ and PA – Watch Out New Yorkers!, 1233 PLI/Corp 107 (2001).
- K. **Noteworthy cases summarizing scope of permissible/impermissible restraints:** *Robert S. Weiss & Assocs., Inc. v. Wiederlight*, 546 A.2d 216 (Conn. 1988); *New Haven Tobacco Company v. Perrelli*, 528 A.2d 865 (Conn. App. 1987); *Braman Chemical Enterprises, Inc. v. Barnes*, 2006 Conn. Super. Lexis 3753, *9; *KX Industries v. Saaski*, 1997 Conn. Super. LEXIS 2444; *Aetna Retirement Services, Inc. v. Hug*, 1997 Conn. Super. LEXIS 1781.

DELAWARE

This chapter was prepared by the law firm of Reed Smith LLP.

For further information about the summary contained in this chapter, please contact:

Frederick H. Colen
Reed Smith LLP
435 Sixth Avenue
Pittsburgh, PA 15219
Main: 412-288-7210
Facsimile: 412-288-3063
bcoyne@reedsmith.com

or

Barry J. Coyne
Reed Smith LLP
435 Sixth Avenue
Pittsburgh, PA 15219
Main: 412-288-4164
Facsimile: 412-288-3063
fcolen@reedsmith.com

DELAWARE

I. JUDICIAL STATEMENT OF THE LAW

“In the case of *Capital Bakers v. Leahy* . . . this Court noted that Delaware recognized the general validity of restrictive covenants in employment contracts, stating:

‘Whatever might have been the early rule on the subject, it is now too well settled to be disputed that an agreement by an employee not to follow his trade or business for a limited time and during a limited period is not void as against public policy, when the purpose of the agreement and its reasonable operation is to protect his employer from the injury which the employee’s subsequent activity in the way of trade may occasion.’

This principle is qualified; however, by the further rule that where a sale of a business is not involved, courts should be less prone to enforce such covenants.”

Knowles-Zeswitz Music, Inc. v. Cara, 260 A.2d 171, 174-75 (Del.Ch. 1969) (quoting *Capital Bakers, Inc. v. Leahy*, 178 A. 648 (Del.Ch. 1935)); see also *Lewmor, Inc. v. Fleming*, 1986 WL 1244, 12 Del. J. Corp. L. 292 (Del.Ch. 1986) (Delaware courts balance the harm to the former employee of enforcing the covenant, whether the employer will suffer harm from the employee’s breach and any harm to the public.); see also *Faw, Casson & Co. v. Cranston*, 375 A.2d 463, 465 (Del. Ch. 1977) (“[C]ovenants are subject to somewhat greater scrutiny when contained in an employment contract as opposed to contracts for the sale of a business.”); *TriState Courier and Carriage, Inc. v. Berryman*, No. C.A. 20574, 2004 WL 835886, at *10 (Del. Ch. Apr. 15, 2004) (inquiry into enforceability of covenant in contract for sale of stock “is less searching than if the Covenant had been contained in an employment contract.”).

“In order for a covenant not to compete to be enforceable, it must (1) meet general contract law requirements, (2) be reasonable in scope and duration, (3) advance a legitimate economic interest of the party enforcing the covenant, and (4) survive a balance of the equities.” *TriState Courier and Carriage, Inc.*, 2004 WL 835886, at *10 (citing *Del. Express Shuttle, Inc. v. Older*, No. 19596, 2002 WL 31458243, at *11 (Del. Ch. Oct. 23, 2002); *Research & Trading Corp. v. Pfuhl*, 1992 WL 345465, at *11 (Del. Ch. Nov. 18, 1992)).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract

1. *Del. Express Shuttle, Inc. v. Older*, No. 19596, 2002 WL 31458243 (Del. Ch. 2002) (covenants restricting future employment must be reasonably limited in geography and time and address a legitimate economic interest of the employer); *McCann Surveyors, Inc. v. Evans*, 611 A.2d 1 (Del. Ch. 1987) (three-year, 50-mile radius restriction was reasonable, but specific enforcement was denied after court balanced the relative injuries to the parties); *Faw, Casson & Co. v. Cranston*, 375 A.2d 463 (Del. Ch. 1977) (three-year bar limited to peninsula where employee-accountant's former partnership had offices found reasonable).
2. *John Roane, Inc. v. Tweed*, 89 A.2d 548 (Del. 1952) (court reduced five-year restriction on insurance adjuster to four years); *Elite Cleaning Co. v. Capel*, No. Civ. A. 690, 2006 WL 1565161, at *8-9 (Del. Ch. June 2, 2006) (finding two-year restriction unreasonable for an unskilled worker and suggesting that any restriction would be unreasonable if imposed on an unskilled worker with no special knowledge or training); *Caras v. American Original Corp.*, No. 1258, 1987 Del. Ch. LEXIS 467 (July 31, 1987) (geographic restrictions in areas where employer does not operate were unenforceable).

B. Incidental to the sale of a business

1. *Turek v. Tull*, 139 A.2d 368 (Del. Ch.), *aff'd*, 147 A.2d 658 (Del. 1958) (promise by seller of nursing home not to operate a sanitarium in the county for ten years was reasonable).

III. GENERAL COMMENTS

- A.** Protectable interests: Customer contacts, goodwill, business secrets (including customer lists), relationships with employees. See *Knowles-Zeswitz Music, Inc. v. Cara*, 260 A.2d 171 (Del.Ch. 1969); *Original Vincent & Joseph, Inc. v. Schiavone*, 134 A.2d 843 (Del.Ch. 1957); *Weichert Co. of Pa. v. Young*, C.A. No. 2223, 2007 WL 4372823, at *3-4 (Del. Ch. Dec. 7, 2007) (finding legitimate business interest in protecting relationships with employees because of considerable resources expended in training employees); see also *Hammermill Paper Co. v. Palese*, No. 7128, 1983 Del. Ch. LEXIS 400 (Del. Ch. June 14, 1983); *Elite Cleaning Co. v. Capel*, No. Civ. A. 690, 2006 WL 1565161, at *7-8 (Del. Ch. June 2, 2006) (employer has legitimate interest in preventing “disintermediation” (i.e., elimination of the “middleman” employer by the employer’s clients directly hiring the employer’s workers), but that interest is very weak for unskilled workers).

- B.** If covenant is overbroad, it may be enforced only to the extent reasonable. See, e.g., *Knowles-Zeswitz Music, Inc. v. Cara*, 260 A.2d 171 (Del. Ch. 1969) (rejecting the "blue pencil test").
- C.** In appropriate circumstances, a court may enforce an agreement without express territorial scope and establish a reasonable geographic limitation. *Del. Express Shuttle, Inc. v. Older*, No. 19596, 2002 WL 31458243 (Del. Ch. 2002). For example, in *Research & Trading Corp. v. Pfuhl*, No. 12527, 1992 WL 345465 (Del. Ch. Nov. 19, 1992), the court concluded that the widespread goodwill of the plaintiff and the limited nature of relief sought by the plaintiff rendered the covenant reasonable as written (without any geographical restriction) and the court refrained from restricting the agreement's geographic scope.
- D.** The scope of activities prohibited by a noncompetition agreement may be unenforceable as vague or overbroad. For example, the Delaware Court of Chancery refused to enforce a provision of a non-competition agreement that prohibited a former employee from engaging in activities "similar to" his former employer, but enjoined the former employee from engaging in activities "competitive with" the former employer. *Del. Express Shuttle, Inc. v. Older*, No. 19596, 2002 WL 31458243 (Del. Ch. Oct. 23, 2002). The court viewed such prohibitions on activities "similar to" the employer to be unenforceable as an unduly expansive range of activities when not accompanied by a territorial limit in the agreement. *Id.* at *50; see also *EDIX Media Group, Inc. v. Mahani*, No. Civ. A. 2186, 2006 WL 3742595, at *8 (Del. Ch. Dec. 12, 2006) (finding that preventing independent contractors from engaging in any activities "substantially similar" to plaintiff's activities may force an independent business out of an industry, suggesting strongly "that enforcement of 'substantially similar' provisions in non-competition clauses will be both inequitable to the contractor and against public policy" (citing *Del. Express Shuttle*, 2002 WL 31458243)).

Such restrictions, however, are enforceable when accompanied by territorial restrictions. In *TriState Courier and Carriage, Inc. v. Berryman*, No. C.A. 20574, 2004 WL 835886 (Del. Ch. Apr. 15, 2004), the court considered covenants in a stock purchase agreement in which a former employee sold stock back to his former employer. The court enforced covenants prohibiting the former employee from providing services "substantially similar" to those provided by the former employer within the geographic region where the employer conducted business, and prohibiting the former employee from soliciting the employer's customers for the purpose of providing services "reasonably substitutable" for the employer's services.

- E. Continued employment for an at-will employee is sufficient consideration for a noncompetition covenant. See *Research & Trading Corp. v. Powell*, 468 A.2d 1301 (Del. Ch. 1983); *Comfort, Inc. v. McDonald*, 9 Del. J. Corp. L. 420 (Del. Ch. 1984); *Weichert Co. of Pa. v. Young*, C.A. No. 2223, 2007 WL 4372823, at *3 (Del. Ch. Dec. 7, 2007); *All Pro Maids, Inc. v. Layton*, No. Civ. A. 058, 2004 WL 1878784, at *3 (Del. Ch. Aug. 10, 2004). Other cases cite to promotions in evaluating consideration. See, e.g., *Faw, Casson & Co. v. Cranston*, 375 A.2d 463 (Del. Ch. 1977).
- F. A forfeiture of benefits provision may be treated as a restraint of trade and thus subject to the same analysis as other noncompetition covenants. *Pollard v. Autotote, Ltd.*, 852 F.2d 67 (3d Cir. 1988), amended 872 F.2d 1131 (3d Cir. 1989).
- G. Is a noncompete covenant enforceable if the employee is discharged? The law in Delaware is unclear. It appears however, that if the employer breaches the employment contract, by wrongfully discharging the employee, then the noncompete covenant will be unenforceable. See, e.g., *Caras v. Am. Original Corp.*, No. 1258, 1987 Del. Ch. LEXIS 467 (July 31, 1987) (Del. Ch. 1987) (where the court states that if the employee were terminated "at the wish of his employer," the restrictive covenant not to compete is no longer effective); *Caldwell Flexible Staffing, Inc. v. Mays*, No. 5204, 1976 Del. Ch. LEXIS 149 (Del. Ch. Nov. 26, 1976) (where the court made the enforceability decision based on the actions of the former employer which led the employees to believe their conduct post-termination would be acceptable).
- H. Attorneys' fees may be recoverable if so provided by contract. See *Research & Trading Corp. v. Pfuhl*, No. 12527, 1993 Del. Ch. LEXIS 45 (Del. Ch. Feb. 26, 1993) (court reluctantly enforced contractual provision which allowed recovery for attorneys' fees).
- I. Will employer's breach of employment agreement relieve employee of contractual obligations not to compete? Yes. See, e.g., *Knowles-Zeswitz Music, Inc. v. Cara*, 260 A.2d 171, 174 (Del. Ch. 1969); *Capital Bakers, Inc. v. Leahy*, 178 A. 648, 650-51 (Del. Ch. 1935).
- J. Will choice of law provisions in contract be followed? Yes. See, e.g., *Cooper v. Ross & Roberts, Inc.*, 505 A.2d 1305 (Del. Super. Ct. 1986).
- K. Trade secrets defined: See *Del. Code Ann.* tit. 6, § 2001(4) (2003).
- L. An employer may be granted an injunction against a former employee who agreed either expressly or impliedly not to disclose trade secrets or other confidential information acquired in the course of employment. *E.I.*

Dupont De Nemours & Co. v. Am. Potash & Chem. Corp., 200 A.2d 428, 431 (Del. Ch. 1964); see also *Horizon Personal Commc'ns, Inc. v. Sprint Corp.*, No. 1518, 2006 WL 4782361, at * 20 (Del. Ch. Apr. 4, 2006) (“Damages would not adequately compensate Plaintiffs for a breach of the confidentiality provisions because the purpose of such provisions is to prevent harm and misuse before it occurs.”). In the absence of a covenant not to compete, an employee who achieves technical expertise or general knowledge from his former employer may later use that information in competition with his former employer, as long as trade secrets are not used or disclosed. *Rypac Packaging Mach. Inc. v. Coakley*, No. 16069, 2000 Del. Ch. LEXIS 64, *37 (Del. Ch. May 1, 2000).

- M. Noteworthy cases summarizing scope of permissible/impermissible restraints: *McCann Surveyors, Inc. v. Evans*, 611 A.2d 1 (Del. Ch. 1987); *Knowles-Zeswitz Music, Inc. v. Cara*, 260 A.2d 171 (Del. Ch. 1969).
- N. A covenant not to compete provision found in an employment, partnership or corporate agreement restricting the area in which a physician may practice is void upon the termination of a principal agreement of which the provision is a part. *Del. Code Ann.* tit. 6, § 2707 (2003).
- O. A covenant not to compete found in an agreement with an independent contractor may not be as restrictive as a covenant found in an agreement with an employee. An employer/employee relationship is more intimate than an independent contractor relationship. Thus, “[t]he legitimate economic interests of an employer in restricting the substantially similar activities of an independent contractor will be more limited than they would be with respect to an employee.” *EDIX Media Group, Inc. v. Mahani*, No. Civ. A. 2186, 2006 WL 3742595, at *8 (Del. Ch. Dec. 12, 2006).

DISTRICT OF COLUMBIA

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett

Venable LLP

575 7th Street, NW

Washington, DC 20004-1601

Direct: 202-344-4893

Facsimile: 202-344-8300

irburdett@venable.com

DISTRICT OF COLUMBIA

I. SUMMARY OF THE LAW

The Federal Circuit has addressed the issue of covenants not to compete in the context of licensing agreements. See *Litton System Inc. v. Honeywell Inc.*, 87 F.3d 1559 (Fed. Cir. 1996), Judgment vacated in 520 US 1111 (1997).

The Court of Claims has also addressed the issue peripherally in tax cases involving the sale of a business on the requisites of an enforceable covenant restricting competition. See *Forward Communications v. United States*, 608 F.2d 485 (Ct. Cl. 1979); *Richard S Miller & Sons, Inc. v. United States*, 537 F.2d 446 (Ct. Cl. 1976).

II. PARAMETERS OF THE “REASONABLENESS” TEST

A. Ancillary to an employment contract.

1. There are no reported cases from the Federal Circuit on element of the “reasonableness” test.

B. Incidental to the sale of a business.

1. Licensing agreements: *In Universal Gym Equip. v. ERWA Exercise Equip.*, 827 F.2d 1542 (Fed. Cir. 1987), the court upheld an agreement by the licensee not to copy the licensed products after the contract had expired. The agreement, which did not set any geographic or time limitations on the covenant, prohibited the licensee from duplicating any of the features and designs produced by the licensing company.

FLORIDA

This chapter was prepared by the law firm of Powell Goldstein Frazer & Murphy LLP and updated in August, 2009 by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact any of the following attorneys:

James R. Burdett

Partner, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4893
Facsimile: 202.344.8300
irburdett@Venable.com

Kyle D. Petaja

Associate, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4457
Facsimile: 202.344.8300
kpetaja@Venable.com

FLORIDA

I. STATUTORY CRITERIA FOR NON-COMPETE AGREEMENTS

The applicable Florida Statute governing the enforceability of covenants not-to-compete depends on the date of the covenant's execution. *Bradley v. Health Coalition, Inc.*, 687 So.2d 329, 331 (Fla. 3d Dist. Ct. App. 1997) (“[E]nforceability of a covenant not-to-compete under the Florida Statutes is governed by the law in effect at the time the agreement was entered into”). To determine enforceability, non-compete covenants must be divided into three classes: (1) covenants executed on or after July 1, 1996, (2) covenants executed between June 28, 1990 and July 1, 1996, and (3) covenants executed before June 28, 1990.¹ *American Residential Servs., Inc. v. Event Technical Servs., Inc.*, 715 So.2d 1048, 1049 (Fla. 3d Dist. Ct. App. 1998).

Restrictive Covenants Executed On or After July 1, 1996

Section 542.335 of the Florida Antitrust Act governs the enforceability of covenants not-to-compete entered into on or after July 1, 1996. FLA. STAT. § 542.335 (2004). Such a covenant is enforceable if: (i) it is in writing signed by the party against whom enforcement is sought, and (ii) it contains reasonable limitations as to time, geographic area, and line of business. *Id.* at § 542.335(1). There are two additional requirements under the statute: (1) the existence of one or more legitimate business interests that justify the restriction, *Id.* at § 542.335(1)(b), and (2) the scope of activity restrained must not impose a greater restraint than reasonably necessary to protect the legitimate business interests of the promisee. *Id.* at § 542.335(1)(c).

Restrictive Covenants Executed Between June 28, 1990 and July 1, 1996

Section 542.33 of the Florida Antitrust Act, as amended by Chapter 90-216, Section 1, Laws of Florida, governs the enforceability of covenants not-to-compete entered into on or after June 28, 1990 but before July 1, 1996. FLA. STAT. § 542.33 (1990); FLA. STAT. § 542.331 (2004). This statute provides that a non-compete covenant prohibiting a similar business and/or the solicitation of existing customers is enforceable if: (i) it contains reasonable limitations as to time and geographic area, (ii) the promisee continues to carry on a similar business, and (iii) the covenant itself is reasonable in general. FLA. STAT. § 542.33(2)(a) (1990). The promisee must also prove that irreparable injury will result if the covenant is not enforced. *Id.*; *Gupton v. Village Key & Saw Shop, Inc.*, 656 So.2d 475, 478 (Fla. 1995). Irreparable injury is presumed to exist when trade secrets, customer lists, or direct solicitation of existing customers are involved. FLA. STAT. § 542.33(2)(a) (1990). The standard for enforceability

¹ For purposes of this discussion, the law under the most recent statute will be primarily discussed.

under this section is more stringent than the standard under Section 542.335. American Residential Servs., 715 So.2d at 1049.

Restrictive Covenants Executed Before June 28, 1990

A non-compete covenant executed prior to June 28, 1990 is enforceable if (i) it contains reasonable limitations as to time and geographic area, and (ii) the promisee continues to carry on a similar business. FLA. STAT. § 542.33(2)(a) (1985). Proof of irreparable injury is not required, but is instead presumed upon breach of the covenant, regardless of the specific type of interest involved. *Gupton*, 656 So.2d at 477-78. The statute applies only to restraints on carrying on a similar business and on the solicitation of existing customers. FLA. STAT. § 542.33(2)(a) (1985).

II. LEADING CASE LAW

The purpose behind Florida's statute governing covenants not-to-compete is to provide protection of identifiable assets of a business while still allowing competing businesses to hire experienced workers and employees to secure better-paying employment. See *University of Florida, Bd. of Trustees v. Sanal*, 837 So.2d 512, 516 (Fla. 1 st Dist. Ct. App. 2003). As a result, a plaintiff seeking to enforce a covenant not-to-compete must demonstrate that the defendant's breach of the covenant harms one or more of the plaintiff's legitimate business interests by way of actual or threatened misappropriation of identifiable assets of the business. *Id.*

III. ELEMENTS OF ENFORCEABILITY

A. Agreements Arising in an Employment Context

To enforce a non-compete agreement, the employer has the burden of establishing (i) the existence of one or more legitimate business interests that justify the restriction, FLA. STAT. § 542.335(1)(b), and (ii) the specific restriction is reasonably necessary to protect these interests. *Id.* at § 542.335(1)(c). The specific limits placed on the employee by the restraint must be reasonable as to geographic territory, duration, and scope of activities in light of the employer's line of business and protectable interests. Establishment of these elements shifts the burden to the employee to prove that the restriction is overbroad, overlong, or otherwise not reasonably necessary. *Id.* If the employee shows the restraint is too broad, the restraint is not void. Instead, the court must modify the scope of the restraint and enforce it as modified. *Id.* Covenants that are not supported by a legitimate business interest, however, are unenforceable. *Id.* at § 542.335(1)(b).

Florida courts also consider whether an enforceable agreement between

the parties that is supported by consideration exists, and whether the agreement has been materially breached by the employer. *Bradley*, 687 So.2d at 333; *North American Prods., Corp. v. Moore*, 196 F.Supp.2d 1217, 1224 (M.D. Fla. 2002). A material breach, such as an employer's failure to pay an ex-employee compensation owed under the employment agreement, renders the non-compete covenant unenforceable against the employee. *Moore*, 196 F.Supp.2d at 1224. An employer's modification of the terms of an employment at will relationship does not amount to a material breach of the employment agreement and therefore does not void a non-compete covenant. *Kupscznk v. Blasters, Inc.*, 647 So.2d 888, 891 (Fla. 2d Dist. Ct. App. 1994)

1. **Protectable Interests:** The most recent statute adopted by the Florida Legislature provides a non-exhaustive list of protectable interests such as (1) trade secrets,² (2) other valuable confidential business information, (3) substantial relationships with specific prospective or existing customers, (4) goodwill associated with a business by way of a trademark,³ or a specific geographic location or trade area, and (5) extraordinary or specialized training. FLA. STAT. § 542.335(1)(b).

To prove a legitimate interest based on trade secrets, the information involved must meet Florida's statutory definition of trade secrets. FLA. STAT. § 542.335(1)(b)(1). However, otherwise confidential information that does not comport with the definition of trade secrets under FLA. STAT. § 688.002(4) also establishes a legitimate business interest. *Id.* at § 542.335(1)(b)(2); *American Residential Servs.*, 715 So.2d at 1049. Simply asserting that trade secrets or confidential information is involved is not enough to support the non-compete agreement. The employer must provide some evidence that (1) specific trade secrets or confidential information is involved and (2) the employee has knowledge of the trade secrets or confidential information. See *Anich Indus., Inc. v. Raney*, 751 So.2d 767, 770-71 (Fla. 5th Dist. Ct. App. 2000).

² This is expressly limited to Florida's statutory definition of trade secrets which is: information, including a formula, pattern, compilation, program, device, method, technique, or process that:

- (a) Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and
- (b) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Fla. Stat. § 688.002(4).

³ This includes trade names, trademarks, service marks, and trade dress.

A legitimate interest based on substantial relationships with specific customers is established where the employee “gains substantial knowledge of [the] employer’s customers, their purchasing history, and their needs and specifications.” *Moore*, 196 F.Supp.2d at 1228. In addition, the employer must identify specific customers in order to establish it has a legitimate business interest. *Sanal*, 837 So.2d at 516 (substantial relationship must be “with a particular, identifiable, individual”).

An employer may establish a legitimate interest based on extraordinary training when the employer invests substantial time and money to provide the employee with skills that the employee did not otherwise possess prior to the employment relationship. *Aero Kool Corp. v. Oosthuizen*, 736 So.2d 25 (Fla. 3d Dist. Ct. App. 1999) (legitimate business interest based on provision of 195 hours of specialized aviation repair training); *Balasco v. Gulf Auto Holding, Inc.*, 707 So.2d 858, 860 (Fla. 2d Dist. Ct. App. 1998) (legitimate business interest based on provision of six month sales training program); *Cf. Austin v. Mid State Fire Equip. of Cent. Fla.*, 727 So.2d 1097, 1098 (Fla. 5th Dist. Ct. App. 1999) (substantial industry experience prior to employment does not create business interest in form of extraordinary or specialized training). The degree of training required to qualify as a legitimate business interest varies based on the specific industry involved in each case, but the training must convey skills that could not be acquired by simply reading a manual. *Hapney v. Central Garage, Inc.*, 579 So.2d 127, 131, 132 (Fla. 2d Dist. Ct. App. 1991), disapproved on other grounds by *Gupton*, 656 So.2d 475. To qualify as extraordinary, the training must exceed that which is usual, regular, common, or customary in the industry. *Dyer v. Pioneer Concepts, Inc.*, 667 So.2d 961, 964 (Fla. 2d Dist. Ct. App. 1996).

The protectable interests discussed above are also recognized by case law interpreting the 1990 amendments, which apply to restrictive covenants executed between June 28, 1990 and July 1, 1996. See *Hapney*, 579 So.2d at 131 (employer's legitimate interest is threshold condition to validity of non-compete covenant and include trade secrets, confidential business lists, customer goodwill, and extraordinary training), disapproved on other grounds by *Gupton*, 656 So.2d 475. As to non-compete covenants entered into prior to June 28, 1990, an employer is not required to show the existence of a legitimate business interest because irreparable injury is presumed to flow from an employee's breach. See *Gupton*, 656 So.2d at 477-78.

2. **Geographic Territory Restrictions:** Relevant factors courts consider in assessing the reasonableness of the covenant's geographic scope include: (i) the area in which the employer does business; (ii) the nature and scope of the employer's business; (iii) the physical location of the employer's customer/clients; and (iv) the location/area in which the employee worked and performed services for the employer. See e.g., *Xerographics, Inc. v. Thomas*, 537 So.2d 140, 143 (Fla. 2d Dist. Ct. App. 1988) (reasonable

restriction of five county territory assigned to defendant during his employment). Courts have generally held reasonable geographic restrictions that cover the territory or area in which the employee worked and performed services for the employer. See *id.*

3. **Time Limitations:** For covenants executed on or after July 1, 1996, the statute provides rebuttable presumptions of reasonable and unreasonable time restrictions. FLA. STAT. § 542.335(1)(d). If the employer's legitimate business interests do not include trade secrets, restraints of six months or less are presumed reasonable in time, while restraints greater than two years in duration are presumed unreasonable. *Id.* If trade secrets are involved, a restraint is presumed reasonable if it spans five years or less, and is presumed unreasonable only if it is for a term greater than ten years. *Id.* at § 542.335(1)(e). When the duration of a restraint is presumptively unreasonable, the employer must provide evidence to support the entire duration of the restraint or else the court will limit the restraint to a period of two years (ten years if trade secrets are involved). *Balasco*, 707 So.2d at 860; *Flickinger v. R.J. Fitzgerald & Co., Inc.*, 732 So.2d 33, 34-5 (Fla. 2d Dist. Ct. App. 1999).

For covenants executed prior to July 1, 1996, courts will determine the reasonableness of the temporal restriction by balancing the employer's interests in preventing competition against the oppressive effect of the restraint on the employee. *Carnahan v. Alexander Proudfoot Co.*, 581 So.2d 184, 185 (Fla. 4th Dist. Ct. App. 1991). In balancing these interests, courts will consider several factors including: (i) the length of the time the employee worked for the employer; (ii) the exact nature of the employee's duties and responsibilities; (iii) the extent of the employee's contact and relationship with customers; and (iv) the applicable business cycle. See *Dominy v. Frank B. Hall & Co.*, 464 So.2d 154, 158 (Fla. 5th Dist. Ct. App. 1985); *Mathieu v. Old Town Flower Shops, Inc.*, 585 So.2d 1160 (Fla. 4th Dist. Ct. App. 1991) (considering employee's position in corporate hierarchy). Courts must also consider the public interest. *Carnahan*, 581 So.2d at 185.

4. **Scope of Activity Restrained:** Generally, a prohibition against engaging in a competing business should be limited to not only the type of business in which the company is engaged but also the specific type of business in which the employee worked. This comports with the requirement that the restraint be reasonably

necessary to justify business interests. FLA. STAT. § 542.335(1)(c); FLA. STAT. 542.33(2)(a) (1990).

Prohibitions against soliciting customers are expressly subject to the requirements of the non-compete statutes. FLA. STAT. §§ 542.33(2)(a); John A. Grant, Jr. and Thomas T. Steele, Restrictive Covenants: Florida Returns to the Original “Unfair Competition” Approach for the 21st Century, 70-Nov Fla. B.J. 53, 54 (1996) (article co-authored by Senate sponsor and principal drafter of Section 542.335, stating that the legislation covers non-competition agreements, non-solicitation agreements, confidentiality agreements, exclusive dealing agreements, and all other contractual restraints of trade). To be enforceable, such a restriction should generally be limited to customers with whom the employee actually worked or had some contact or involvement during employment. See *Moore*, 196 F.Supp.2d at 1228-29. A restriction that applies to all of an employer’s customers may still be enforced, but will be limited by the court to identifiable existing customers. *Sanal*, 837 So.2d 512; *Dyer*, 667 So.2d at 964.

5. **Consideration:** In addition to satisfying the elements of the relevant statute, a non-competition agreement must be supported by adequate consideration. *Wright & Seaton v. Prescott*, 420 So.2d 623, 625-27 (Fla. 4th Dist. Ct. App. 1982), reh’g denied (Fla. 1982). Because non-compete agreements are generally bilateral contracts comprised of mutual executory promises, the doctrine of mutuality of obligation applies. *Id.* at 625. Lack of mutuality at the time the agreement is made will not invalidate a non-compete covenant so long as the employer performs what it promised to do in exchange for the employee’s promise not-to-compete. *Id.* at 627. Thus, adequate consideration for a non-competition agreement exists when the employee signs the agreement at the start of employment if the employer either promises to give written notice of termination or the employer promises to employ and pay the employee for a specific period and subsequently performs that promise. See *id.* An employer’s simple promise to employ and pay the employee is not sufficient consideration when the employment may be terminated at any time without cause. *Id.* The promise of continued employment, however, does serve as adequate consideration supporting a covenant not-to-compete that is entered into after the start of employment, even where the employment is at will. *Open Magnetic Imaging, Inc. v. Nieves-Garcia*, 826 So.2d 415, 417-18 (Fla. 3d Dist. Ct. App. 2002); *Austin*, 727 So.2d at 1098. To ensure enforceability, the agreement should expressly

indicate that it is supported by consideration in the form of continued employment. *Balasco*, 707 So.2d at 860.

6. **Judicial modification:** Under all versions of the statutes and interpretive case law, Florida courts are empowered to reform overbroad covenants to the extent necessary to bring them into compliance with the governing statute. FLA. STAT. § 542.335(1)(c) (requiring court to modify overbroad restraint and grant relief reasonably necessary to protect promisee's interests); *Health Care Fin. Enters., Inc. v. Levy*, 715 So.2d 341, 342 (Fla. 4th Dist. Ct. App. 1998) (under 1990 amendments to section 542.33, courts may modify terms of restrictive covenants to comply with reasonableness requirement of statute); *Flammer v. Patton*, 245 So.2d 854, 859-60 (Fla. 1971) (directing trial court to modify duration of restrictive covenant in pension agreement under pre-1980 version of section 542.33). Because of the availability of judicial modification, some employers take the approach that the covenant should be drafted broadly to have the maximum deterrent effect, and then rely on the court to reform and enforce the covenant to the extent deemed reasonable. This may not be a good idea in light of the fact that the court is authorized by statute to award attorney's fees and costs to the prevailing party in its discretion. FLA. STAT. § 542.335(1)(k).

B. Agreements Ancillary to the Sale of Business

Generally, covenants not-to-compete that are made in connection with the sale of a business follow the same provisions and guidelines as covenants not-to-compete in the employer/employee context. FLA. STAT. § 542.335. Such covenants made on or after July 1, 1996, are presumed reasonable if they are three years or less in duration and presumed unreasonable if they are more than seven years in duration. *Id.* at § 542.335(1)(d)(3). Nevertheless, covenants not-to-compete must not impose a greater restraint than is reasonably necessary to protect the business conveyed. *Id.* at § 542.335(1)(c).

Similarly, under Section 542.33, the analysis of covenants not-to-compete made in connection with the sale of a business is the same as the analysis for covenants not-to-compete in the employer/employee context. FLA. STAT. § 542.33(2). Courts will generally enforce covenants not-to-compete ancillary to the sale of a business as long as the time restrictions span ten years or less and the scope is reasonable. See *Rinker Materials Co. of West Palm Beach v. Holloway Materials Co.*, 167 So.2d 875 (Fla. 2nd Dist. Ct. App. 1964) (covenant not-to-compete for ten years within 25 miles of plant in concrete products business found reasonable); *Merritt v.*

Smith, 446 So.2d 263, 264 (Fla. 2nd Dist. Ct. App. 1984) (covenant not-to-compete ancillary to sale of dry cleaning business in one county for five years enforced); but see *Kaye v. Orkin Exterminating Co.*, 472 F.2d 1213, 1215 (5th Cir.1973) (covenant not-to-compete made in context of sale of business and spanning 20 years held unreasonable where 13 years remained with respect to covenant); *Cerniglia v. C. & D. Farms, Inc.*, 203 So.2d 1 (Fla. 1967) (covenant ancillary to sale of business for twenty-year period and covering the entire United States held void). Covenants made in the context of a partnership dissolution, however, are governed by Section 542.33(3) which states that “[p]artners may, upon or in anticipation of a dissolution of the partnership, agree that all or some of them will not carry on a similar business within a reasonably limited time and area.” FLA. STAT. § 542.33(3).

IV. **SUMMARIZATION OF FLORIDA LAW WITH REGARD TO THE USE OF TRADE SECRETS**

Under Florida’s Uniform Trade Secrets Act, employees have a statutory duty not to use or disclose trade secrets received from a current or former employer. FLA. STAT. §§ 688.001 et seq. Even without an enforceable contractual restriction, a former employee is prohibited from misappropriating an ex-employer’s trade secrets. *Id.* at § 688.003. In other words, the employee cannot acquire, disclose, and/or use the information to the detriment of his former employer. See *Del Monte Fresh Produce Co. v. Dole Food Co., Inc.*, 148 F.Supp.2d 1326, 1335 (S.D. Fla. 2001). The employee’s actual use of the information is not required because even the threat of misappropriation is prohibited under the statute. FLA. STAT. § 688.003(1); *Thomas v. Alloy Fasteners, Inc.*, 664 So.2d 59, 60 (Fla. 5th Dist. Ct. App. 1995). Both damages and injunctive relief are recognized as proper remedies to protect trade secrets. FLA. STAT. §§ 688.003, 688.004. Claims brought under Florida’s Uniform Trade Secrets Act are distinct from claims for breach of a covenant not-to compete. FLA. STAT. § 688.008(2)(a).

GEORGIA

This chapter was prepared by the law firm of Powell Goldstein Frazer & Murphy LLP and updated in August, 2009 by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact any of the following attorneys:

James R. Burdett

Partner, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4893
Facsimile: 202.344.8300
irburdett@Venable.com

Kyle D. Petaja

Associate, Venable LLP
575 7th Street, NW
Washington, DC 20004
United States of America
Direct: 202.344.4457
Facsimile: 202.344.8300
kpetaja@Venable.com

GEORGIA

I. STATUTORY CRITERIA FOR NON-COMPETE AGREEMENTS

The Georgia Constitution states that all contracts that have the effect of or are intended to defeat or lessen competition or encourage a monopoly are illegal and void. GA CONST. ART. 3, §6, PAR. 5

O.C.G.A. § 13-8-2 provides that contracts deemed contrary to public policy will not be enforced. Pursuant to § 13-8-2, contracts in general restraint of trade are contrary to public policy while contracts in partial restraint of trade are not.

In 1990, the Georgia Assembly enacted the Restrictive Covenant Act in an attempt to codify Georgia law on non-compete covenants. O.C.G.A. § 13-8-2.1. The Georgia Supreme Court declared the Act unconstitutional. *Jackson & Coker, Inc. v. Hart*, 405 S.E.2d 253 (1991). Pre-statutory cases remain good law. *Vortex Protective Serv., Inc. v. Dempsey*, 218 Ga. App. 763, 463 S.E.2d 67, 68 (1995).

II. LEADING CASE LAW

Georgia courts have interpreted O.C.G.A. § 13-8-2 to mean that a non-compete covenant contained in an employment agreement is in partial restraint of trade and not per se void or against public policy. *W.R. Grace & Co. v. Mouyal*, 262 Ga. 464, 465, 422 S.E.2d 529, 531 (1992). A covenant will therefore be upheld if the restraint imposed is reasonable, “is founded on valuable consideration, is reasonably necessary to protect the interest of the party in whose favor it is imposed, and does not unduly prejudice the interests of the public.” *Id.* (citation omitted). “Whether the restraint imposed by the employment contract is reasonable is a question of law for determination by the court, which considers ‘the nature of extent of the trade or business, the situation of the parties, and all the other circumstances’”. *Id.* (citations omitted). “A three-element test of duration, territorial coverage, and scope of activity has evolved as ‘a helpful tool’ in examining the reasonableness of the particular factual setting to which it is applied.” *Id.* (citations omitted).

It is worth noting that, compared to other states, it is extremely difficult to enforce a non-compete covenant in Georgia. *Watson v. Waffle House, Inc.*, 253 Ga. 671, 672-673, 324 S.E.2d 175, 177-178 (1985).

III. ELEMENTS OF ENFORCEABILITY

A. Agreements Arising in an Employment Context

To determine whether a non-compete covenant ancillary to an

employment agreement is reasonable, Georgia courts use a three-pronged test of duration, territorial coverage, and scope of activity. *W.R. Grace*, 262 Ga. at 465, 422 S.E.2d at 531; *Watson*, 253 Ga. at 672, 324 S.E.2d at 177. In determining whether a covenant is reasonably limited with regard to these factors, the court must balance the interest the employer seeks to protect against the impact the covenant will have on the employee, factoring in the effect of the covenant on the public's interest in promoting competition and the freedom of individuals to contract. *Beckman v. Cox Broadcasting Corp.*, 250 Ga. 127, 130, 296 S.E.2d 566, 568 (1982). Further, in determining reasonableness, consideration must be given to the employee's right to earn a living, and the employee's ability to determine with certainty the area within which his post-employment actions are restricted. *W.R. Grace*, 262 Ga. at 466, 422 S.E.2d at 531-532. At the same time, the employer has a protectable interest in the customer relationships its former employee established and/or nurtured while employed by the employer, and is entitled to protect itself from the risk that a former employee might appropriate customers by taking unfair advantage of the contacts developed while working for the employer. *Id.*

Whether a restricted covenant is reasonable is a question of law to be determined by the court. *Osta v. Moran*, 208 Ga. App.544, 546, 430 S.E.2d 837, 839 (1993). The court may make this determination from the language or wording of the covenant itself. *Id.*; *Ken's Stereo-Video Junction, Inc., v. Plotner*, 253 Ga. App. 811, 813-814, 560 S.E.2d 708, 710 (2002). The party seeking to enforce the covenant has the burden of proving reasonableness. *Howard Schultz & Assocs. v. Broniec*, 239 Ga. 181, 184, 236 S.E.2d 265, 268 (1977).

1. **Time Limitations:** There are no time restrictions that are per se unreasonable. *Johnson v. Lee*, 243 Ga. 864, 865 257 S.E.2d 273, 275 (1979). One and two year durations are generally found to be reasonable. *Habif, Arogeti & Wynne, P.C. v. Baggett*, 231 Ga. App. 289, 292, 498 S.E.2d 346, 351 (1998); *Sysco Food Services of Atlanta, Inc. v. Chupp*, 225 Ga. App. 584, 586, 484 S.E.2d 323, 326 (1997). A five-year limitation, however, has also been upheld. *Smith v. HBT, Inc.*, 213 Ga. App. 560, 563, 445 S.E.2d 315 (1994). Limitations in time should bear some relation to the amount of time needed by the former employer to re-establish and solidify its relationships with its customers. *Orkin Exterminating Co. v. Walker*, 251 Ga. 536, 538, 307 S.E.2d 914, 916-917 (1983).
2. **Geographic Territory Restrictions:** Courts will accept as prima facie valid a covenant related to the territory where the employee

was employed as a legitimate protection of the employer's investment in customer relations and good will. *Reardigan v. Shaw Industries, Inc.*, 238 Ga. App. 142, 144, 518 S.E.2d 144, 147 (1999); *Howard Schultz & Assocs. v. Broniec*, 239 Ga. 181, 183-184, 236 S.E.2d 265, 268 (1977). However, a court will not accept as prima facie valid a covenant related to the territory where the employer does business where the only justification is that the employer wants to avoid competition by the employee in that area. *Howard Schultz*, 239 Ga. at 184, 236 S.E.2d at 268.

A territorial restriction that cannot be determined until the date of the employee's termination is too indefinite to be enforced. *New Atlanta Ear, Nose & Throat Associates, P.C. v. Pratt*, 253 Ga. App. 681, 685, 560 S.E.2d 268, 272 (2002) (citation omitted); *AGA, LLC v. Rubin*, 243 Ga. App. 772, 774, 533 S.E.2d 804, 806 (2000). The employee must be able to forecast with certainty the territorial extent of the duty owing to the employer. *New Atlanta*, 253 Ga. App. at 685, 560 S.E.2d at 272; *AGA*, 243 Ga. App. at 774, 533 S.E.2d at 806.

There are no territorial restrictions that are per se unreasonable. *Johnson v. Lee*, 243 Ga. 864, 865, 257 S.E.2d 273, 275 (1979). The reasonableness of the territory depends not so much on the geography and size of the territory as on the reasonableness of the territorial restrictions in view of the facts and circumstances surrounding the case. *Rollins Protective Services Co. v. Palermo*, 249 Ga. 138, 139, 287 S.E.2d 546, 548 (1982). Territorial restrictions that encompass the entire United States or the world have been consistently struck down as over broad and unreasonable. *Firearms Training v. System Sharp*, 213 Ga. App. 566, 567-68, 445 S.E.2d 538, 539-40 (1994); *American Software USA, Inc., vs. Moore*, 264 Ga. 480, 483, 448 S.E.2d 206, 209 (1994). Similarly a territory defined as "Metro Atlanta" is considered too vague. *Hamrick v. Kelley*, 260 Ga. 307, 392 S.E.2d 518 (1990). Where a city, as opposed to a metropolitan area, is designated as the center of a radius, the covenant will be upheld. *Keeley v. Cardiovascular Surgical Assoc., P.C.*, 236 Ga. App. 26, 29-30, 510 S.E.2d 880, 884 (1999).

3. **Scope of Activity Restrained:** A covenant must explain with particularity the business activities that the employee is prohibited from performing. *Howard Schultz*, 239 Ga. at 184, 236 S. E. 2d at 268. Further, there should be some rational relationship between these activities and the activities the employee conducted for his

former employer. *Edwards v. Howe Richardson Scale Co.*, 237 Ga. 818, 819-820 229 S.E.2d 651, 652 (1976); *Moore v. Preferred Research, Inc.*, 191 Ga. App. 26, 27, 381 S.E.2d 72, 74 (1989). A covenant wherein the employee is prohibited from accepting employment with a competitor “in any capacity” is likely to be struck down as overly broad. *Howard Schultz*, 239 Ga. at 185, 236 S.E.2d at 268. On the other hand, a covenant that specifies the type of activities it intends to restrict will likely be upheld. *Moore*, 191 Ga. App. at 27-28, 381 S.E.2d at 74.

Covenants not-to-compete and covenants not to solicit are analyzed differently. Covenants not-to-compete prohibit the employee from performing competitive activities in a certain geographic area for a limited time after termination of employment and are designed primarily to protect the employer’s investment of time and money in developing the employee’s skills. *Habif, Arogeti & Wynne, P.C. v. Baggett*, 231 Ga. App. 289, 295, 498 S.E.2d 346, 353 (1998). Non-solicitation covenants, on the other hand, restrict the employee from soliciting business from the employer’s customers or prospective customers after termination of employment and are designed primarily to protect the employer’s investment of time and money in developing customer relationships. *Id.* This type of covenant only requires a territorial restriction if the forbidden clients include the clients with whom the employee did not have a relationship prior to departure. *Id.*

4. **Protectable Interests:** The Georgia Supreme Court has defined protectable interests to be “property, confidential information and relationships, good will and economic advantage.” *Durham v. Stand-By Labor of Georgia*, 230 Ga. 558, 561, 198 S.E.2d 145, 148 (1973). Avoidance of competition is clearly not a protectable interest. *Brunswick Floors* 234 Ga. App. at 300, 506 S.E.2d at 673; *Osta v. Moran*, 208 Ga. App. 544, 547, 430 S.E.2d 837 (1993).

With respect to relationships and good will, an employer has a protectable interest in the customer relationships its former employee established at work and a right to protect itself from the risk that the former employee might use contacts so cultivated to unfairly appropriate customers. *Ken’s Stereo*, 253 Ga. App. at 812-813, 560 S.E.2d at 710; *Darugar v. Hodges*, 221 Ga. App. 227, 229, 471 S.E.2d 33, 35-36 (1996).

An employer’s time and monetary investment in its employee’s skills and development of his craft has also consistently been held to constitute protectable interests. *Beckman v. Cox Broadcasting*

Corp., 250 Ga. 127, 130, 296 S.E.2d 566, 569 (1982); *Brunswick Floors, Inc. v. Guest*, 234 Ga. App. 298, 300, 506 S.E.2d 670, 673 (1998).

Additionally, an employer's confidential information and trade secrets are protectable interests. *Sunstates Refrigerated Services, Inc., v. Griffin*, 215 Ga. App. 61, 63, 449 S.E.2d 858, 860 (1994).

5. **Consideration:** The prospect for employment or continued employment is sufficient consideration for restrictive covenants. *Mouldings, Inc. v. Potter*, 315 F. Supp. 704, 713 (M.D. Ga. 1970); *Thomas v. Coastal Indus. Servs.*, 214 Ga. 832, 108 S.E.2d 328 (1959).
6. **Judicial modification:** Georgia courts have traditionally divided restrictive covenants into two categories: covenants ancillary to an employment contract, which receive strict scrutiny and are not blue-penciled, and covenants ancillary to a sale of business which receive much less scrutiny and may be blue-penciled. *Advance Tech. Consultants v. RoadTrac, LLC*, 250 Ga. App. 317, 319, 551 S.E.2d 735, 736 (2001). Georgia law is clear that if one non-compete or non-solicit covenant in a employment agreement is unenforceable, all such covenants are unenforceable and courts cannot employ the blue pencil doctrine of severability. *Advance Tech. Consultants, LLC*, 250 Ga. App. at 320, 551 S.E.2d at 737; *American Gen. Life & Accident Ins. Co. v. Fisher*, 208 Ga. App. 282, 284, 430 S.E.2d 166, 168 (1993). Moreover, a court will not sever an overbroad covenant not-to-compete and leave intact and enforce a narrower valid covenant not-to-compete also contained in the contract regardless of whether or not there is a severability clause in the contract. *Ceramic & Metal Coatings Corp. v. Hizer*, 242 Ga. App. 391, 394, 529 S.E.2d 160, 163 (2000); *Harville v. Gunter*, 230 Ga. App. 198, 200, 495 S.E.2d 862, 864 (1998); *Sunstates Refrigerated Services, Inc., v. Griffin*, 215 Ga. App. 61, 63, 449 S.E.2d 858, 860 (1994).

B. Agreements Ancillary to the Sale of Business

As discussed above, Georgia courts distinguish between covenants ancillary to employment and covenants ancillary to the sale of a business. *Advance Tech. Consultant*, 250 Ga. App. at 319, 551 S.E.2d at 736. Georgia courts will give greater latitude to covenants ancillary to the sale of a business because of the perceived equality of bargaining power between the parties and because the covenant is a significant part of the consideration for the purchase of the business. *Hicks v. Doors by Mike*,

Inc., 260 Ga. App. 407, 409, 579 S.E.2d 833, 835 (2003); *Hudgins v. Amerimax Fabricated Prods., Inc.*, 250 Ga. App. 283, 285, 551 S.E.2d 393, 396 (2001).

Because of the liberal standard for covenants ancillary to the sale of a business, the attendant benefits of this standard (i.e., blue-penciling and the fact that such a covenant does not need to be in writing), and because non-compete covenants are often executed in connection with the sale of a business, it is frequently litigated in Georgia courts whether a covenant not-to-compete is ancillary to the sale of a business or ancillary to employment. *White v. Fletcher Mayo Assoc.*, 251 Ga. 203, 206-207, 303 S.E.2d. 746, 749-750 (1983). Factors which will be considered in determining whether a covenant is ancillary to the sale of the business include: (i) whether the original company was reliant upon the employee's skills; (ii) whether the employee was represented by an attorney in the transaction; (iii) whether the employment agreement was executed contemporaneously with other documents related to the sale of the business or whether the various documents reference each other; (iv) whether the employee was aware of the consequences of the sale of the stock; (v) whether the employee initiated the negotiations for the sale of the business or whether there was any pressure or duress; (vi) whether the employee profited from the sale; and (vii) whether the employee received relief from any personal liability for the debts of the pre-merger company. *Drumheller v. Drumheller Bag & Supply, Inc.*, 204 Ga. App. 623, 626-627, 420 S. E. 2d 331, 334-335 (1992). Further, if a contract for sale of a business and an employment contract are part of the same transaction, they may be construed together to supply missing elements and blue-penciled to make overbroad terms valid. *Lyle v. Memar*, 259 Ga. 209, 378 S.E.2d 465 (1989).

IV. SUMMARIZATION OF GEORGIA LAW WITH REGARD TO THE USE OF CONFIDENTIAL INFORMATION

Georgia's Trade Secrets Act of 1990, O.C.G.A. §§ 10-1-760 et seq., supersedes other civil remedies for misappropriation of a trade secret. § 10-1-767(a). The Act defines a "trade secret" as information-- including technical or nontechnical data, financial plans, or customer lists-- that derives economic value from not being known or readily ascertainable to others, and that "is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." § 10-1-761(4); *Bacon v. Volvo Service Center*, 2004 WL 396461 (Ga. Ct. App. March 4, 2004). Thus, to establish a cause of action for misappropriation, an employer must show the information at issue has value and that the employer took measures for secrecy. *Stone v. Williams General Corp.*, 2004 WL 415296 (Ga. Ct. App. March 8, 2004) (finding there was sufficient evidence to support the

jury's verdict that former employees had misappropriated the employer's trade secrets where it was shown that employer went above and beyond its restrictive covenant to protect its customer documentation by restricting access to documents and instructing employees not to leave building with documents).

Trade secrets need not be in the form of written data to warrant protection, see *Avnet, Inc. v. Wyle Labs., Inc.*, 263 Ga. 615, 619, 437 S.E.2d 302 (1993), but Georgia law generally does not prevent a departing employee from using the skills and information he acquired at work. "A person who leaves the employment of another has a right to take with him all the skill he has acquired, all the knowledge he has obtained, all the information that he has received, so long as nothing is taken that is the property of the employer." *Vendo Co. v. Long*, 213 Ga. 774, 778, 102 S.E.2d 173 (1958).

HAWAII

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Dan Ko Obuhanych

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dobuhanych@fenwick.com

HAWAII

I. Statement of the Law:

Hawaii law generally permits post-employment covenants not to compete provided that the restrictions are “reasonable.”

Hawaii’s unfair competition statute, Haw. Rev. Stat. § 480-4, provides:

(c) . . . [I]t shall be lawful for a person to enter into any of the following restrictive covenants or agreements ancillary to a legitimate purpose not violative of this chapter, unless the effect thereof may be substantially to lessen competition or to tend to create a monopoly in any line of commerce in any section of the State:

1. A covenant or agreement by the transferor of a business not to compete within a reasonable area and within a reasonable period of time in connection with the sale of the business;
2. A covenant or agreement between partners not to compete with the partnership within a reasonable area and for a reasonable period of time upon the withdrawal of a partner from the partnership;

* * *

3. A covenant or agreement by an employee or agent not to use the trade secrets of the employer or principal in competition with the employee's or agent's employer or principal, during the term of the agency or thereafter, or after the termination of employment, within such time as may be reasonably necessary for the protection of the employer or principal, without imposing undue hardship on the employee or agent.

In *Technicolor, Inc. v. Traeger*, 57 Haw. 113, 551 P.2d 163 (1976), the Hawaii Supreme Court interpreted this statute as not prohibiting a general post-employment termination covenant not to compete, and adopted a “rule of reason test.” “Under this test, a covenant is valid only if the court deems it to be ‘reasonable.’” *Id.* at 122 (citation omitted).

II. **PARAMETERS OF THE “REASONABLENESS” TEST**

A. Ancillary to an employment contract:

Generally, an employment covenant not to compete will be deemed “not reasonable,” and therefore invalid, if:

- i. “it is greater than required for the protection of the person for whose benefit it is imposed;
- ii. it imposes undue hardship on the person restricted; or
- iii. its benefit to the covenantee is outweighed by injury to the public.”

Technicolor, 57 Haw. at 122 (citation omitted).

In applying this test, a court must examine such factors as geographical scope, length of time, and breadth of the restriction placed on a given activity. *Id.*

B. Ancillary to the sale of a business

Haw. Rev. Stat. § 480-4(c)(1) permits an agreement by the transferor of a business not to compete within a reasonable area and within a reasonable period of time in connection with the sale of the business.

III. GENERAL COMMENTS:

- A. Protectable interests:** Customer contacts and customer lists, specialized training, confidential information (e.g., pricing information), and trade secrets all constitute employer interests protectable under Hawaii law by a reasonable covenant not to compete. See *Technicolor*, supra; *UARCO, Inc. v. Lam*, 18 F. Supp. 2d 1116 (D. Haw. 1998); *The 7’s Enters., Inc. v. Del Rosario*, 111 Haw. 484, 143 P. 3d 23 (2006).
- B. Scope of the restriction:** Courts have approved a three-year, state-wide covenant not to compete and a three-year covenant not to compete in the City and County of Honolulu. See *Technicolor*, supra; *The 7’s*, supra. A court has also enforced a two-year “customer contact” restriction. See *UARCO*, supra.
- C. Blue pencil/modification:** Hawaii courts have not specifically addressed the issue of whether a court may modify an overly broad covenant not to compete to make it enforceable.
- D. Consideration:** The Hawaii Supreme Court has suggested that employment may be sufficient consideration to support a reasonable non-compete restriction. See *Technicolor*, 57 Haw. at 120.
- E. Choice of law:** Although no Hawaii case has specifically addressed choice of law issues in the context of a covenant not to compete case, Hawaii courts generally follow a contractual choice of law provision provided the chosen state has some nexus to the parties or the contract.

See, e.g., *Airgo, Inc. v. Horizon Cargo Transp., Inc.*, 66 Haw. 590, 595, 670 P.2d 1277 (1983). In the absence of a choice of law provision, Hawaii courts will generally apply the law of the state with the most significant relationship to the parties and the subject matter of the dispute. See, e.g., *Roxas v. Marcos*, 89 Haw. 91, 117 n. 16 (1998) (not a covenant not to compete case).

- F. Trade secret definition:** Haw. Rev. Stat. § 482B-2.
- G. Protection of confidential or trade secret information (absent a covenant not to compete)?** Yes. Hawaii's Uniform Trade Secrets Act, Haw. Rev. Stat. §§ 482B-1 *et seq.* prohibits actual or threatened misappropriation of trade secrets.
- H. Case examples of covenants not to compete upheld by the courts:**

Technicolor, Inc. v. Traeger, 57 Haw. 113, 551 P.2d 163 (1976): The Hawaii Supreme Court upheld the enforcement of a 3 year statewide non-compete restriction against the former General Manager of the plaintiff's photofinishing business.

UARCO, Inc. v. Lam, 18 F. Supp. 2d 1116 (D. Haw. 1998): The United States District Court for the District of Hawaii enjoined two former sales employees of the plaintiff, for a period of two years, from contacting any of the plaintiff's customers which the employees solicited, contacted or dealt with during the former employees' employment with the plaintiff.

The 7's Enters., Inc. v. Del Rosario, 111 Haw. 484, 143 P. 3d 23 (2006): The Hawaii Supreme Court upheld an injunction against a former "briefer" of the plaintiff which prohibited her from working as a briefer for a period of three years within the City and County of Honolulu. The Court determined that an employer's proprietary, extensive and confidential training which provides skills beyond those of a general nature is a legitimate interest which may be considered in weighing the reasonableness of a non-competition covenant.

IDAHO

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Dan Ko Obuhanych

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dobuhanych@fenwick.com

IDAHO

I. STATEMENT OF THE LAW

Covenants not to compete are enforceable in Idaho if they are reasonable. *Intermountain Eye and Laser Centers, P.L.L.C. v. Miller*, 142 Idaho 218, 127 P.3d 121 (2005). There is no Idaho statute that specifically addresses the enforceability of covenants not to compete.

II. PARAMETERS OF THE “REASONABLENESS” TEST

Covenants not to compete in an employment contract, though enforceable, are disfavored and will be strictly construed against the employer. *Freiburger v. J-U-B Eng’rs, Inc.*, 141 Idaho 415, 419, 111 P. 3d 100, 104 (2005). A covenant not to compete contained in an employment contract must be reasonable as applied to the employer, the employee, and the public. *Id.* at 420. Moreover, a covenant not to compete is reasonable only if the covenant: (1) is not greater than is necessary to protect the employer in some legitimate business interest; (2) is not unduly harsh and oppressive to the employee; and (3) is not injurious to the public. *Id.* All restrictions, including those of time, area, scope and money, must be reasonable. *Intermountain, supra.*

III. GENERAL COMMENTS

A. Protectable interests: Customer contacts, trade secrets and other confidential information are interests protectable by a covenant not to compete. *Intermountain, supra.*

B. Scope of the restriction: A court found reasonable a 1-year covenant in any country in which the former employer conducts business. *WGI Heavy Minerals, Inc. v. Gorrill*, 2006 WL 637030 (Idaho Dist. Ct. 2006). Another court found reasonable a 1-year covenant against competing “in the truck brokerage business” within a 300-mile radius of Boise. *Magic Valley Truck Brokers, Inc. v. Meyer*, 133 Idaho 110, 115, 982 P. 2d 945, 950 (Ct. App. 1999). 2-year and 3-year, 25 mile radius non-compete covenants against physicians were held to be reasonable. *Dick v. Geist*, 107 Idaho 931, 693 P. 2d 113 (Ct. App. 1985); *Marshall v. Covington*, 81 Idaho 199, 339 P. 2d 504 (1959).

A 2-year covenant barring an engineer (independent contractor) from offering, selling, or trading his services to past or current customers of the former company, was held to be overly broad and unenforceable. *Pinnacle Performance, Inc. v. Hessing*, 135 Idaho 364, 17 P. 3d 308, 313 (Ct. App. 2001). See also *Freiburger v. J-U-B Eng’rs, Inc.*, 141 Idaho 415,

423, 111 P. 3d 100, 108 (2005) (2 year customer restriction overly broad and unenforceable, in part because restriction was not limited to customers with whom employee had worked); *Insurance Ctr. v. Taylor*, 94 Idaho 896, 499 P.2d 1252 (1972) (covenant unlimited as to time, area and scope of activity was overly broad and unenforceable).

- C. **Blue pencil/modification:** Idaho courts will “blue pencil” a non-compete agreement as to “an unreasonable word or two,” but they will not add clauses to a contract to make it reasonable. *Freiburger*, 141 Idaho at 423, 111 P. 3d at 108. In addition, the covenant must not be so lacking in its essential terms relating to area, time and subject matter limitations that the court itself would have to supply these essential terms in order to make the covenant reasonable. *Id.*; *Pinnacle Performance, supra*.
- D. **Consideration:** Continued at-will employment is valid consideration for a post-hire non-compete restriction. *Insurance Assocs. Corp. v. Hansen*, 111 Idaho 206, 207-208, 723 P. 2d 190, 191-192 (Ct. App. 1986) (employee agreed to non-compete restriction a year and a half after beginning employment). Presumably a covenant not to compete executed at the inception of employment would also be supported by valid consideration, although no reported Idaho court decision has specifically addressed this issue.
- E. **Choice of law:** Idaho courts generally recognize contractual choice of law provisions, unless the chosen state has no substantial relationship to the contract or the parties or the application of the provision would contravene a fundamental public policy of a state with a materially greater interest than the chosen state. See *Great Plains Equip., Inc. v. Northwest Pipeline Corp.*, 132 Idaho 754, 765 n. 3, 979 P. 2d 627, 638 n. 3 (1999); *Ward v. PureGro Co.*, 128 Idaho 366, 368-369, 913 P. 2d 582, 584-585 (1996) (citing to Restatement (Second) of Conflicts of Laws). In the absence of a choice of law provision, Idaho courts generally apply the law of the state with the “most significant relationship” to the contract and the parties. See, e.g., *Seubert Excavators, Inc. v. Anderson Logging Co.*, 126 Idaho 648, 651-52, 889 P. 2d 82, 85-86 (1995).⁴
- F. Trade secret definition: Idaho Code § 48-801(5).
- G. **Protection of confidential or trade secret information (absent a covenant not to compete)?** Yes. Idaho’s Trade Secrets Act, Idaho

⁴ None of these decisions involved covenants not to compete and we are not aware of any reported decisions involving a choice of law analysis for non-compete restrictions.

Code § 48-801 *et seq.* prohibits actual or threatened misappropriation of trade secrets.

ILLINOIS

This chapter was prepared by the law firm of Jenner & Block, LLP.

For further information about the summary contained in this chapter, please contact:

Darren M. Mungerson
Jenner & Block, LLP
One IBM Plaza
Chicago, IL 60611-7603

Main: 312-923-2888
Facsimile: 312-840-7288
dmungerson@jenner.com

ILLINOIS

I. JUDICIAL STATEMENT OF THE LAW

A. Contracts ancillary to an employment relationship:

A restrictive covenant may be held enforceable only if the time and territorial limitations are reasonable and the restrictions are reasonably necessary to protect a legitimate business interest of the employer

There are two general situations in which an employer's legitimate business interests may be found for purposes of enforcing a covenant not to compete: (1) where, by the nature of the business, [the employer] has a near-permanent relationship with its customers and but for his employment, [the former employee] would not have had contact with them; or (2) where the former employee learned trade secrets or acquired other confidential information through his employment [with the former employer] and subsequently tried to use it for his own benefit.

Factors to be considered in determining whether a near-permanent relationship exists between an employer and its customers . . . include the time, cost, and difficulty involved in developing and maintaining the clientele, the parties' intention to remain affiliated for an indefinite period, and the continuity as well as the duration of the relationship.

Label Printers v. Pflug, 206 I11. App. 3d 483, 564 N.E.2d 1382, 1387, *appeal denied*, 575 N.E.2d 916 (2d Dist. 1991) (reversing entry of preliminary injunction because no near-permanent customer relationship existed). *See also, Lawrence & Allen, Inc. v. Cambridge Human Resource Group, Inc.*, 226 Ill. Dec. 331, 685 N.E.2d 434 (2d Dist. 1997); *Reinhardt Printing Co. v. Feld*, 142 I11. App. 3d 9, 490 N.E.2d 1302 (1st Dist. 1986); *Shapiro v. Regent Printing Co.*, 192 I11. App. 3d 1005, 549 N.E.2d 793 (1st Dist. 1989).

B. Contracts ancillary to the sale of a business:

Illinois courts require the restrictive covenant to be (1) necessary in its full extent for the protection of the buyer; (2) unoppressive to the seller; and (3) not harmful to the public Aside from justifying the durational and territorial extent of the restraint . . . plaintiff's first task is to illustrate injury to its legitimate business interest apart from defendant's violation of the

agreement.

The protectable interest which a buyer procures through a restrictive covenant ancillary to a sale of assets originates either in the good will of the business sold or the confidential information used in its operation The explanation for this rationale is that a restrictive covenant must safeguard one or both of the aforementioned interests; otherwise, the injury caused to the public as well as the promisor in restraining competition and restricting services necessarily outweighs any benefit to the promisee.

The good will of a business has been defined to be the benefit which arises from it having been carried on for some time in a particular place, or by a particular person or from the use of a particular trade-mark, and its value consists in the probability that the customers of the old firm will continue to be customers of the new.

Marathon Petroleum Co. v. Chronister Oil Co., 687 F. Supp. 437, 439-40 (C.D. Ill. 1988) (denying application for preliminary injunction because covenant not to compete was found to be illegal restraint of trade without protecting good will or trade secrets). See also, *Boyar-Schultz Corp. v. Tomasek*, 94 Ill. App. 3d 320, 323, 418 N.E.2d 911, 913 (1st. Dist. 1981).

In general, it is easier to enforce a restrictive covenant in the context of the sale of a business than it is in the employment context, as “a covenant ancillary to the sale of a business need only be reasonable in duration, geographical area, and scope to be enforceable.” *Loewen Group Int’l, Inc. v. Habericter*, 912 F. Supp. 388, 392 (N.D. Ill. 1996) (finding that covenant was ancillary to an employment agreement rather than the sale of a business). The determination of whether a covenant is in the context of a sale of business or employment turns on the intent of the parties to protect the integrity of the sale, and such facts may include whether (1) whether the covenant was a condition precedent to the sale; (2) whether the covenant was incorporated into the sale agreement; and (3) the time that the parties entered into the covenant in relation to the time that the parties executed the sales agreement. *Id.* at 393. See also *Howard Johnson & Co. v. Feinstein*, 241 Ill. App. 3d 828, 609 N.E.2d 930 (1st Dist. 1993) (holding that noncompetition agreements were ancillary to the sale of a business where the client base was the primary asset and the agreements were entered into to protect the buyer against losing those clients); *Business Records Corp. v. Lueth*, 981 F.2d 957, 959 (7th Cir. 1992) (a covenant not to compete executed by a key employee as part of the sale of a business, for which the employee received an option to purchase stock in the new corporation, was a covenant ancillary to the sale of a business).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment relationship:

"A restrictive covenant's reasonableness is measured by its hardship to the employee, its effect upon the general public, and the reasonableness of the time, territory and activity restrictions." *Lawrence & Allen, Inc. v. Cambridge Human Resource Group, Inc.*, 226 Ill. Dec. 331, 338, 685 N.E.2d 434, 441 (2d Dist. 1997).

In determining whether a geographic restriction is reasonable, Illinois courts generally look to whether the restricted area is "coextensive with the area in which the employer is doing business." *Lawrence & Allen*, 226 Ill. Dec. at 339, 685 N.E.2d at 442 (citing *Arpac Corp. v. Murray*, 226 Ill. App. 3d 65, 77, 589 N.E.2d 640 (1st. Dist. 1992)).

Illinois courts will allow a customer restriction to substitute for, or complement, a geographic restriction. *Abbott-Interfact Corp. v. Harkabus*, 250 Ill. App. 3d 13, 619 N.E.2d 1337 (2d Dist. 1993). However, those restrictions must be reasonably related to the employer's interest in protecting customer relations that its employees developed while working for the employer. *Lawrence & Allen*, 226 Ill. Dec. at 338, 685 N.E.2d at 441.

In assessing the reasonableness of the time restrictions in restrictive covenants, Illinois courts will look to such factors as the time it takes to acquire and maintain clients, the nature of the industry, and the average length of the customers' relationship with the employer. See *Arpac Corp. v. Murray, supra*.

A number of decisions have enforced restrictive covenants when their restrictions were found to be reasonable under the particular circumstances of the case. See, e.g., *Midwest Tel., Inc. v. Oloffson*, 298 Ill. App. 3d 548, 699 N.E.2d 230 (3d Dist. 1998) (finding one-year, 100-mile-radius restriction reasonable); *Tyler Enters. of Elwood v. Shafer*, 214 Ill. App. 3d 145, 573 N.E.2d 863 (3d Dist. 1991) (enforcing covenant not to compete for three years within a 50 mile radius of employer's place of business); *Business Records Corp v. Lueth*, 981 F.2d 957, 961 (7th Cir. 1992) (enforcing covenant not to compete in Illinois for two years after termination); *World Wide Pharmacal Distributing Co. v. Kolkev*, 5 Ill. App.2d 201, 125 N.E.2d 309 (1st Dist. 1955) (enforcing covenant not to compete for one year within United States); *Agrimerica, Inc. v. Mathes*, 170 Ill. App.3d 1025, 524 N.E.2d 947 (1st Dist. 1988) (enforcing covenant not to compete for two years in three state area); *Gorman Publishing Co.*

v. Stillman, 516 F. Supp. 98 (N.D. Ill. 1980) (enforcing covenant not to compete for two years in United States).

However, when those restrictions are not reasonable, the courts will not enforce the restrictive covenant. See, e.g., *Liautaud v. Liautaud*, 221 F.3d 981 (7th Cir. 2000) (refusing to enforce covenant which lacked time restriction); *Lawrence & Allen, Inc. v. Cambridge Human Resource Group, Inc.*, 226 Ill. Dec. 331, 685 N.E.2d 434 (2d Dist. 1997) (two-year restriction encompassing entire United States was unreasonable in geographic scope); *Johnson v. Country Life Ins. Co.*, 12 Ill. App. 3d 158, 300 N.E.2d 11 (4th Dist. 1973) (restriction in 11-state area was unreasonable); *George S. May Int'l Co. v. Int'l Profit Associates*, 256 Ill. App. 3d 779, 628 N.E.2d 647 (1st Dist. 1993) (geographic restriction covering 36 states plus two Canadian provinces was overly broad and unenforceable because it included areas where company had never conducted business); *Lee/O'Keefe Ins. Agency v. Ferega*, 163 Ill. App. 3d 997, 516 N.E.2d 1313 (4th Dist. 1997) (restrictive covenant prohibiting employee from competing for five years within 100-mile radius of Springfield, Illinois was both temporally and geographically unreasonable).

B. Ancillary to the sale of a business:

When the covenant is in the sale-of-business context, a less stringent standard of reasonableness is applied. See, e.g., *Decker, Berta & Co. v. Berta*, 225 Ill. App. 3d 24, 587 N.E.2d 72 (4th Dist. 1992) (finding 3-year, 35-mile-radius noncompete covenant reasonable); *Russell v. Jim Russell Supply, Inc.*, 200 Ill. App.3d 855, 558 N.E.2d 115, 122-23 (5th Dist. 1990) (enforcing covenant not to compete for 10 years within 100 miles of former partner's trucking partnership); *but see Boyar-Schultz Corp. v. Tomasek*, 94 Ill. App. 3d 320, 418 N.E.2d 911, 914 (1st Dist. 1981) (covenant prohibiting competition throughout United States and Canada for five years held unreasonable and unenforceable).

III. GENERAL COMMENTS

A. Protectable interests:

Protectable interests include trade secrets and the protection of "near-permanent" business relationships. *Label Printers v. Pflug*, 206 Ill. App.3d 483, 564 N.E.2d 1382, 1387, *appeal denied*, 575 N.E.2d 916 (2d Dist. 1991).

Factors to consider in determining whether a "near-permanent" relationship exists include: (1) the number of years the employer required to develop the clientele; (2) the amount of money the employer invested in

developing the clientele; (3) the degree of difficulty in developing the clientele; (4) the amount of personal customer contact with the clientele by the employee; (5) the extent of the employer's knowledge of its clientele; (6) the length of time the customers have been associated with the employer; and (7) the continuity of the employer-customer relationship. *Agrimerica, Inc. v. Mathes*, 199 Ill. App. 3d 435, 557 N.E. 2d 357 (1st Dist. 1990); *Millard Maintenance Serv. Co. v. Bernero*, 207 Ill. App. 3d 736, 566 N.E.2d 379, 386 (1st Dist. 1990); *A.B. Dick Co. v. American Pro-Tech*, 159 Ill. App. 3d 786, 793, 514 N.E.2d 45, 49 (1st Dist. 1987).

Although these *Agrimerica* factors have been cited by a number of cases, at least one court has held that these seven factors, though helpful in some cases, need not be applied in all cases. In *Springfield Rare Coin Galleries, Inc. v. Mileham*, 250 Ill. App. 3d 922, 935, 620 N.E.2d 479 (4th Dist. 1993), the court declined to utilize the near-permanent relationship factors outlined in *Agrimerica* and stated that those factors did not need to be applied when a given business falls squarely within the professional services (where near-permanent relationships are inherent) or the sales categories (where near-permanent relationships with customers are generally absent).

B. Severability/Modification of Overly Broad Restrictions:

If a covenant is overbroad it may be modified by the court to make it enforceable. See *House of Vision v. Hiyane*, 37 Ill.2d 32, 225 N.E.2d 21, 25 (1967) (a court may modify a covenant; however, the court should take into account the fairness of the restraint initially imposed by the employer). See also *Gillespie v. Carbondale & Marion Eye Ctrs., Ltd.*, 251 Ill. App. 3d 625, 622 N.E.2d 1267 (5th Dist. 1993) (recognizing that Illinois courts have long had the authority to limit overly broad restrictive covenants to make them enforceable); *Business Records Corp v. Lueth*, 981 F.2d 957, 961 (7th Cir. 1992) (covenant prohibiting competition in any business that provides the same services as the former employer provided was revised to prohibit competition in any business that provided the same services as the former employee provided for his employer); *Ntron Int'l Sales Co., Inc. v. Carroll*, 714 F. Supp. 335, 337 (N.D. Ill. 1989) (covenant containing no geographic limitations was not per se unenforceable).

Many Illinois courts have refused to modify covenants which they determined to be unreasonable or ambiguous. See, e.g., *Lawrence & Allen, Inc. v. Cambridge Human Resource Group, Inc.*, 226 Ill. Dec. 331, 340, 685 N.E.2d 434, 443 (2d Dist. 1997) (declining to modify overly broad restrictive covenants); *North Am. Paper Co. v. Unterberger*, 172 Ill. App. 3d 410, 526 N.E.2d 621 (1st Dist. 1988) (refusing to reform agreement "redolent of the historical past when involuntary servitude was an

accepted practice"); *Prudential Ins. Co. of Am. v. Sempetrean*, 171 Ill. App. 3d 810, 525 N.E.2d 1016, 1020 (1st Dist. 1988) (agreement without limitations as to time or geographic territory too vague and ambiguous to be enforced); *Dryvit Sys. v. Rushing*, 132 Ill. App. 3d 9, 477 N.E.2d 35, 39 (1st Dist. 1985) (affirming decision not to modify agreement which was unreasonable in time and geographic scope).

In some instances, Employers have successfully enforced covenants which could be construed to be overbroad by seeking only partial enforcement of those covenants. See, e.g., *Cockerill v. Wilson*, 51 Ill.2d 179, 281 N.E.2d 648 (1972) (enforcing 20-mile geographical limitation when covenant provided for 30-mile geographical limitation).

Illinois courts are more likely to modify overly broad restrictions in a noncompetition agreement when the agreement itself provides that its terms can be modified or severed. See *Abbott-Interfast Corp. v. Harkabus*, 250 Ill. App. 3d 13, 619 N.E.2d 1337 (2d Dist. 1993) (citing *McRand, Inc. v. Van Beelen*, 138 Ill. App. 3d 1045, 486 N.E.2d 1306 (1st Dist. 1985)).

C. Continued Employment as Consideration:

Continued employment is sufficient consideration to support a covenant not to compete as long as the employment continues for a "substantial period." *Lawrence & Allen, Inc. v. Cambridge Human Resource Group, Inc.*, 226 Ill. Dec. 331, 338, 685 N.E.2d 434, 441 (2d Dist. 1997); *Applied Micro, Inc. v. SJI Fulfillment, Inc.*, 941 F.Supp. 750, 753 (N.D. Ill. 1996); *Curtis 1000, Inc. v. Suess*, 24 F.3d 941, 945-47 (7th Cir. 1994) (8 years' subsequent employment was a "substantial period"); *Millard Maintenance Serv. Co. v. Bernero*, 207 Ill. App. 3d 736, 566 N.E.2d 379, 383 (1st Dist. 1990) (covenant supported by over three years of continued employment after covenant was executed); *Shapiro v. Regent Printing Co.*, 192 Ill. App. 3d 1005, 549 N.E.2d 793, 795 (1st Dist. 1989); *Corroon & Black of Ill. v. Magner*, 145 Ill. App.3d 151, 494 N.E.2d 785, 791 (1st Dist. 1986); *McRand v. Van Beelen*, 138 Ill. App. 3d 1045, 486 N.E.2d 1306, 1314 (1st Dist. 1985) (covenants not to compete enforced because employees had remained employed for "substantial period" of two years after execution of the covenants); *but see Mid-Town Petroleum, Inc. v. Gowen*, 243 Ill. App. 3d 63, 70, 611 N.E.2d 1221 (1st Dist. 1993) (seven months' employment after execution of noncompete did not provide the requisite consideration; court reasoned that "while a peppercorn can be considered sufficient consideration to support a contract in court of law, a peppercorn may be insufficient consideration in a court of equity to support . . . a preliminary injunction").

- D. A forfeiture of benefits provision is treated as a restraint of trade and thus is subject to the same analysis as other noncompetition covenants. See *Briggs v. R.R. Donnelley & Sons Co.*, 589 F.2d 39, 41 (1st Cir. 1978) (applying Illinois law) (forfeiture provision enforced after considering temporal duration and geographic extent of commitment in covenant not to compete). See also, Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. § 1001 *et seq.*, concerning federal limitations on forfeiture of post-employment benefits.
- E. The covenant not to compete is enforceable if the employee is discharged unless the termination is the result of the employer's bad faith. *Rao v. Rao*, 718 F.2d 219, 224 (7th Cir. 1983).
- F. Ordinarily, attorneys' are awarded to the prevailing party if and only if the written agreement so provides. In *Prairie Eye Center, Ltd. v. Butler*, 329 Ill. App. 3d 293, 768 N.E.2d 414 (4th Dist. 2002), the court granted the employer attorneys' fees exceeding \$164,000 that it incurred in seeking relief for a former employee's repeated violation of a noncompetition agreement. The court found that the agreement at issue provided for the payment of attorneys' fees, and awarded such fees pursuant to the contractual agreement. However, in *Child v. Lincoln Enterprises, Inc.*, 51 Ill. App. 2d 76, 200 N.E.2d 751, 754 (4th Dist. 1964), the court did not award fees because there was no contractual provision concerning fees, holding that fees "are ordinarily not allowable either as costs or damages . . . unless . . . permitted by statute or by virtue of contractual stipulation."
- G. A material breach of an employment contract may excuse performance of a covenant not to compete contained in that contract. *Galesburg Clinic Ass'n v. West*, 302 Ill. App. 3d 1016, 1018, 706 N.E.2d 1035, 1036-37 (3d Dist. 1999); *C.G. Caster Co. v. Regan*, 88 Ill. App. 3d 280, 410 N.E.2d 422, 426 (1st Dist. 1980); *Wyatt v. Dishing*, 127 Ill. App. 3d 716, 469 N.E.2d 608, 611 (5th Dist. 1984); *Sahadi v. Continental Ill. Nat. Bank and Trust Co.*, 706 F.2d 193, 196 (7th Cir. 1983). The test for materiality is whether the breach "is of such a nature and of such importance that, if anticipated in advance, the contract would not have been entered into." *Galesburg Clinic*, 302 Ill. App. 3d at 1018, 706 N.E.2d at 1037.
- H. Although there remains a split within the Illinois appellate courts, most courts that have addressed the issue have found that a covenant need not be ancillary to an employment *agreement*, but rather that an at-will employment *relationship* is all that is needed to satisfy the ancillarity requirement. See *Applied Micro, Inc. v. SJI Fulfillment, Inc.*, 941 F.Supp. 750, 754 (N.D. Ill. 1996) (finding that employment relationship is all that is necessary to meet ancillarity requirement); *Abel v. Fox*, 274 Ill. App. 3d 811, 654 N.E. 2d 591 (4th Dist. 1995) (same); *Lawrence & Allen, Inc. v.*

Cambridge Human Resource Group, Inc., 226 Ill. Dec. 331, 685 N.E.2d 434 (2d Dist. 1997) (adopting holding of *Abel*); *but see Creative Entertainment, Inc. v. Lorenz*, 265 Ill. App. 3d 343, 638 N.E. 2d 217 (1st Dist. 1994) (finding that written contract was required to show ancillarity).

- I. The law of the state chosen by the parties will be applied unless the chosen state has no substantial relationship to the parties or the transaction or if the law to be applied is “repugnant to a strong and fundamental policy of Illinois.” *Labor Ready, Inc. v. Williams Staffing, LLC*, 149 F. Supp. 2d 398, 405 (N.D. Ill. 2001) (choice of Washington law enforced); *American Food Mgmt., Inc. v. Henson*, 105 Ill. App.3d 141, 434 N.E.2d 59, 62 (5th Dist. 1982) (choice of Missouri law enforced).
- J. Illinois has enacted the Illinois Trade Secret Act, 765 ILCS 1065/1, *et seq.* The Act incorporates large portions of the Uniform Trade Secret Act.
- K. 11. Customer lists or customer information are trade secrets only if the lists or information have been developed by the employer over a number of years at great expense and kept under tight security. *Label Printers v. Pflug*, 206 Ill. App. 3d 483, 564 N.E.2d 1382, 1389 (2d Dist. 1991).
- L. Where there is a covenant not to compete between a vendor and a vendee, the court should employ a “similar” – if not identical – analysis as that used in covenants related to employment agreements, to determine its enforceability. *A.J. Dralle, Inc. v. Air Technologies*, 255 Ill. App. 3d 987, 627 N.E.2d 690 (2d Dist. 1994) (finding that vendee lacked protectable interest in customer list that would permit enforcement of restrictive covenant; vendee failed to show customer relationships were near permanent).
- M. The state's Code of Professional Responsibility imposes restrictions on the enforcement of covenants not to compete within the legal profession. See Rule 5.6 of the Illinois Rules of Professional Conduct, 134 Ill.2d R 5.6. See *also* A.B.A. Sec. Lab. Emp. L. Rep. 207 (Supp. 1996).
- N. Noteworthy articles and/or publications: Sabin, Constructing a Viable Restrictive Covenant in Employment Contracts, 72 Ill. B.J. 310 (1984); Petersen, Gene A., Understanding Illinois Noncompetition Agreements and Restrictive Covenants, 89 Ill. B.J. 472 (Sept. 2001); Kitch, Paul R., Employee Noncompete and Nondisclosure Restrictive Covenants: A Summary of Illinois Law Governing Noncompete Restrictive Covenants, With Suggestions to Employers for Protecting Sensitive Information, 88 Ill. B.J. 230 (April 2000); Weiss, S.A., and McMurry, G.M., Modification of Employment Restrictive Covenants: A Call for Equitable Analysis, 82 Ill. B.J. 256 (May 1994).

INDIANA

This chapter was prepared by the law firm of Jenner & Block, LLP.

For further information about the summary contained in this chapter, please contact:

Darren M. Mungerson

Jenner & Block, LLP
One IBM Plaza
Chicago, IL 60611-7603
Main: 312-923-2888
Facsimile: 312-840-7288
dmungerson@jenner.com

INDIANA

I. JUDICIAL STATEMENT OF THE LAW

A. Contracts ancillary to an employment contract:

All such covenants as this are in restraint of trade and are not favored by the law. They will be enforced only if they are reasonable with respect to the covenantee, the covenantor and the public interest. We make this determination upon the basis of the facts and circumstances surrounding each case. It depends upon a consideration of the legitimate interests of the covenantee . . . and the protection granted by the covenant, in terms of time, space and the types of conduct or activity prohibited.

Licocci v. Cardinal Assoc., Inc., 445 N.E.2d 556, 560 (Ind. 1983).

The covenant will be enforced if it is reasonable, is ancillary to the main purpose of a lawful contract, and is necessary to protect the covenantee in the enjoyment of the legitimate benefits of the contract or to protect the covenantee from the dangers of unjust use of those benefits by the covenantor.

Ohio Valley Communications, Inc. v. Greenwell, Inc., 555 N.E.2d 525, 528 (Ind. Ct. App. 4th Dist. 1990).

B. Contracts ancillary to the sale of a business

Covenants not to compete in employment contracts are in restraint of trade and not favored by the law . . . They are strictly construed against the covenantee. . . On the other hand, covenants involved in the sale of a business are not as ill-favored at law as are employee covenants. . .

In the former situation (sale of a business) there is more likely to be equal bargaining power between the parties; the proceeds of the sale generally enable the seller to support himself temporarily without the immediate practical need to enter into competition with his former business; and a seller is usually paid a premium for agreeing not to compete with the buyer. Where the sale of the business includes good will, as this sale did, a broad noncompetition agreement may be necessary to assure that the buyer receives that which he purchased. . . On the other hand, an ordinary employee typically has only his own labor or skills to sell and often is not in a position to bargain with his employer. Postemployment restraints in such cases must be scrutinized carefully to see that they go no further than necessary to protect an employer's legitimate interests, such as trade secrets or confidential customer information. . .

Employer-employee covenants not to compete are reviewed with stricter scrutiny than covenants not to compete ancillary to the sale of a business . . . because of the value of the goodwill purchased.

Of primary importance is the question of whether the covenant not to compete is reasonable as to the covenantee . . . and whether it is reasonable as to time, space and the activity restricted.

Fogle v. Shah, 539 N.E.2d 500, 502-03 (Ind. Ct. App. 4th Dist. 1989) (citations omitted).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract:

To determine whether a covenant is "reasonable," Indiana courts generally consider three factors: (1) whether the restraint is reasonably necessary to protect the employer's business; (2) the effect of the restraint on the employee, and (3) the effect of enforcement upon the public interest. In determining the reasonableness, factors to be considered are the scope of the legitimate business interests of the employer and the geographic and temporal limits on the restraint. *Norlund v. Faust*, 675 N.E.2d 1142, 1154 (Ind. Ct. App. 1997).

In order to show reasonableness, the employer must demonstrate that "the former employee has gained a unique competitive advantage or ability to harm the employer before such employer is entitled to the protection of a noncompetition covenant." *Hahn v. Drees, Perugini & Co.*, 580 N.E.2d 457, 459 (Ind. Ct. App. 2d Dist. 1991).

"A covenant not to compete is unreasonable when it is broader than necessary for the protection of a legitimate business interest in the terms of the geographic area, time period, and activities restricted." *Smart Corp. v. Grider*, 650 N.E.2d 80, 83 (Ind. Ct. App. 1995).

Absent special circumstances, the geographic restriction should be no broader than the employee's, rather than the employer's, geographic area of work. See, e.g., *Commercial Bankers Life Ins. Co. v. Smith*, 515 N.E.2d 110 (Ind. Ct. App. 1987) (covenant restricting employee from competing within entire state of Indiana was unreasonably broad when former employee worked primarily in just the northern part of the state).

In looking at temporal restrictions, Indiana courts have generally found that restrictive covenants with terms of one to three years after the termination of employment are reasonable. See, e.g., *McGlothen v. Heritage Env'tl. Servs., LLC*, 705 N.E. 2d 1069, 1071 (Ind. Ct. App. 1999) (1 year enforceable); *Liccoci v. Cardinal Assoc., Inc.*, 445 N.E. 2d 556 (Ind. 1983) (1 year enforceable); *4408, Inc. v. Losure*, 373 N.E.2d 889 (Ind. Ct. App. 1978 (3 years enforceable). Occasionally, Indiana courts have enforced restrictions of five years after employment ends. See, e.g., *Rollins v. American State Bank*, 487 N.E.2d 842, 843 (Ind. Ct. App. 1986); *Miller v. Frankfort Bottle Gas*, 202 N.E.2d 395 (Ind. Ct. App. 1964).

A number of decisions in Indiana have enforced restrictive covenants when the restrictions were found to be reasonable in both geographic and temporal limitations. See, e.g., *Medical Specialists, Inc. v. Sleweon*, 652 N.E.2d 517, 522-28 (Ind. Ct. App. 1995) (2-year, 10-mile-radius-of-10-hospitals covenant not to compete enforceable); *Fumo v. Medical Group of Michigan City*, 590 N.E.2d 1103, 1109 (Ind. Ct. App. 3d Dist. 1992) (2-year, 25-mile-radius covenant enforced against physician); *Raymundo v. Hammond Clinic Ass'n*, 449 N.E.2d 276, 278 (Ind. Ct. App. 1983) (upholding covenant for two years and 25 miles on physician); *4408, Inc. v. Losure*, 373 N.E.2d 889 (Ind. Ct. App. 1978) (3 years covenant prohibiting coffee service salesman from competing in his former area enforceable); *Liccoci v. Cardinal Assoc., Inc.*, 445 N.E. 2d 556 (Ind. 1983) (enforcing 1-year restriction on salesmen selling same products to former customers in same territory, and 60 days on anyone within former territory and former employer's customers anywhere); *Field v. Alexander & Alexander, Inc.*, 503-N.E.2d 627, 632 (Ind. Ct. App. 1987) (upholding two-year limitation on soliciting customers of employer at time of termination if employee had personal contact with that customer in the preceding two years); *Welcome Wagon v. Haschert*, 127 N.E.2d 103, 105 (Ind. Ct. App. 1955) (upholding five-year restriction upon former employee of welcoming service where employee was a civic leader in that city).

A restriction defined by clients may substitute for geographic limitation. See, e.g., *JAK Prods., Inc. v. Wiza*, 986 F.2d 1080, 1090 (7th Cir. 1993) (applying Indiana law and upholding 1-year restriction on fundraiser for police organizations contacting entities with ongoing business relationship with employer on date of termination). However, in the absence of a geographical limitation, the covenant must list a specific limited class of persons with whom contact is prohibited. See, e.g., *Commercial Bankers Life Ins. Co. of Am. v. Smith*, 516 N.E.2d 110 (Ind. Ct. App. 1987).

When the restrictions contained in the restrictive covenant are not reasonable, Indiana courts will not enforce the covenant. See, e.g., *Cap Gemini Am. v. Judd*, 597 N.E.2d 1272, 1288 (Ind. Ct. App. 1st Dist. 1992) (set of 1-year noncompetition agreements covering three states was unenforceable because the geographic area in the covenant was broader than the area where the employees worked); *Burk v. Heritage Food Serv. Equip., Inc.*, 737 N.E.2d 803, 811-12 (Ind. Ct. App. 2000) (2-year covenant which barred employee from working "in any capacity" for a competitor was overly broad); *Harvest Ins. Agency, Inc. v. Inter-Ocean Ins. Co.*, 492 N.E.2d 686, 689-90 (Ind. 1986) (covenant between insurer and agent unenforceable where it contained no time limitation, as restriction on not replacing "existing coverage" is of unascertainable duration); *Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 236 (Ind.1955) (3-year restriction in United States and Canada on salesman unreasonable and invalid); *Hahn v. Drees. Perugini & Co.*, 581 N.E.2d 457, 461 (Ind. Ct. App. 1991) (covenant restraining doing business with former employer's past customers overbroad); *College Life Ins. Co. v. Austin*, 466 N.E.2d 738, 744 (Ind. Ct. App. 1984) (covenant void where it contains no limitations as to time or geography); *Slisz v. Munzenreider Corp.*, 411 N.E.2d 700, 702 (Ind. Ct. App. 1980) (covenant with store manager of retail furniture store

unenforceable where it prohibited involvement in any "similar" business in any city where former employer operated a store); *Frederick v. Professional Bldg. Maintenance Indus., Inc.*, 344 N.E.2d 299, 300-01 (Ind. Ct. App. 1976) (covenant preventing former employee from furnishing janitorial services for 10 years in 8-county area unreasonable where geographic area broader than area in which former employee had worked and pricing information did not have long-term value).

B. Ancillary to the sale of a business:

When the covenant is in the sale-of-business context, a less stringent standard is applied. See *Fogle v. Shah*, 539 N.E.2d 500, 502 (Ind. Ct. App. 4th Dist. 1989) (enforcing three-year, twelve-state restriction on former owner/operators of pension consulting firm and restriction with no-time limit on doing business with clients at time of sale); *McCart v. H & R Block, Inc.*, 470 N.E.2d 756, 763 (Ind. Ct. App. 1984) (enforcing former franchisee's covenant not to compete with franchisor in tax return business within 50 miles).

However, even when the covenant is in a sale-of-business context, the courts require that the restraints be reasonable under the circumstances, or else the covenant will be found unenforceable. See, e.g., *Young v. Van Zandt*, 449 N.E.2d 300, 305 (Ind. Ct. App. 1983) (covenant binding seller for five years within 200 miles of Evansville unenforceable because one part of business only in Evansville); *South Bend Consumers Club, Inc. v. United Consumers Club, Inc.*, 572 F.Supp. 209, 214 (N.D. Ind. 1983) (restrictive covenant in franchise agreement with consumer buying club unenforceable because it lacked any geographic restriction); *Kladis v. Nick's Patio, Inc.*, 735 N.E.2d 1216 (Ind. Ct. App. 2000) (noncompetition agreement unenforceable because prohibitions on activity went beyond the activities of the business sold)

III. GENERAL COMMENTS

A. Protectable interests:

Indiana courts have recognized the following items to constitute protectable interests: goodwill, contacts with present customers, identity of customers and customer lists (at least in large, diffuse markets), requirements of customers, trade or business secrets, other confidential information not rising to level of a trade secret (such as in-house knowledge), and training. See *In re Uniservices, Inc.*, 517 F.2d 492, 496 (7th Cir. 1975) (requirements of customers); *Harvest Ins. Agency, Inc. v. Inter-Ocean Ins. Co.*, 492 N.E.2d 686, 690 (Ind. 1986) (goodwill through customer contact and renewal of policies already in force); *Licocci v. Cardinal Assocs., Inc.*, 445 N.E.2d 556, 561 (Ind. 1983) (goodwill, trade secrets and confidential information); *Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 240 (Ind. 1955) (goodwill, including names, addresses and requirements of customers); *Hahn v. Drees, Perugine & Co.*, 581 N.E.2d 457, 460 (Ind. Ct. App. 2d Dist. 1991) (goodwill); *Rollins v.*

American State Bank, 487 N.E.2d 842 (Ind. Ct. App. 1986); *Young v. Van Zandt*, 449 N.E.2d 300, 304 (Ind. Ct. App. 1983) (sale of goodwill); *Seach v. Richards, Dieterle & Co.*, 439 N.E.2d 208 (Ind. Ct. App. 1982) (customer lists and in-house knowledge); *Jenkins v. King*, 65 N.E.2d 121 (Ind. 1955) (trade secrets and other confidential information).

Generally, an employer has no protectable interest in restricting contact with its past customers or clients. *Hahn v. Drees, Perugine & Co.*, 581 N.E.2d 457, 461 (Ind. Ct. App. 2d Dist. 1991). An employer also has no protectable interest in the general knowledge, information, and skills gained by an employee in the course of his or her employment. *Brunner v. Hand Indus.*, 603 N.E.2d 157 (Ind. Ct. App. 1992).

B. Severability/Modification of Overly Broad Restrictions:

If a covenant is overbroad, a court will not enforce it. However, a court may – but is not required to – “blue pencil” the agreement by striking unenforceable language, but only where the reasonable parts are clearly separated from the unreasonable ones. See *Hahn v. Drees, Perugine & Co.*, 581 N.E.2d 457, 461-62. An Indiana court will not add new terms or language to the covenant. *College Life Ins. Co. of Am. v. Austin*, 466 N.E.2d 738 (Ind. Ct. App. 1984); *Seach v. Richards, Dieterle & Co.*, 439 N.E.2d 208, 214-15 (Ind. Ct. App. 1982).

If the covenant as written is not reasonable, Indiana courts may not create a reasonable restriction under the guise of interpretation, because to do so “would subject the parties to an agreement they have not made.” *Licocci v. Cardinal Assocs., Inc.*, 445 N.E.2d 556, 561 (Ind. 1983)

However, in *JAK Products, supra*, the Seventh Circuit, under the guise of interpreting the intent of the parties, limited the terms “customer” or “client” to entities with an ongoing business relationship with former employer. 986 F.2d at 1086-89.

C. Continued Employment as Consideration:

Continued employment is sufficient consideration for a non-competition agreement. See, e.g., *Ackerman v. Kimball Int'l, Inc.*, 652 N.E.2d 507 (Ind. 1995); *Leatherman v. Management Advisors, Inc.*, 448 N.E.2d 1048, 1050 (Ind. 1983); *Rollins v. American State Bank*, 487 N.E.2d 842 (Ind. Ct. App. 1986).

D. A forfeiture of benefits provision is not treated as a restraint of trade and thus is not subject to the same type of analysis. *Schlumberger Technology Corp. v. Blaker*, 859 F.2d 512, 516-17 (7th Cir. 1988) (applying Indiana law).

E. A noncompetition agreement may be enforceable if the employee is discharged; however, where the employer discharges the employee in bad

faith, a court may refuse to enforce it. *Gomez v. Chua Medical Corp.*, 510 N.E.2d 191, 195 (Ind. App. 1987).

- F. Attorney's fees may be recovered under the Uniform Trade Secrets Act for "willful and malicious" misappropriation, Ind. Code. Ann. § 24-2-3-5, or where there exists an independent basis for such recovery, such as damages on an injunction bond, *City of Elkhart v. Smith*, 191 N.E.2d 522, 523-24 (Ind. Ct. App. 1963), or where provided by contract, see *Dahlin v. Amoco Oil Corp.*, 567 N.E.2d 806, 812 (Ind. Ct. App. 1991).
- G. Where the employer materially breaches the employment contract, the employee is not required to abide by the terms of either a covenant contained in that employment contract or a covenant incorporated by reference from that contract into another agreement. *Sallee v. Mason*, 714 N.E.2d 757, 762-63 (Ind. Ct. App. 1999); *Hendershot v. Indiana Medical Network, Inc.*, 750 N.E.2d 798 (Ind. Ct. App. 2001); cf. *Barnes Group, Inc. v. O'Brien*, 591 F.Supp. 454, 462-63 (N.D. Ind. 1984) (isolated occurrences in which employer's other salesmen called upon customers assigned to employee did not rise to level of breach of contract so as to allow employee to avoid restrictive covenant).
- H. A choice of law provision in a contract will be followed if the chosen law bears a substantial relationship to the parties or the transaction. *Barrow v. ATCO Mfg. Co.*, 524 N.E.2d 1313, 1315 (Ind. App. 1988); *Austin Powder Co. v. Wallwork*, 761 F. Supp. 612, 616 (S.D. Ind. 1990).

In the absence of a choice of law provision, Indiana courts will use the "most intimate contacts" test to determine which state's law will govern. *OVRs Acquisition Corp. v. Community Health Serv., Inc.*, 657 N.E.2d 117, 124 (Ind. Ct. App. 1995).
- I. Indiana has enacted the Indiana Uniform Trade Secrets Act, Ind. Code. Ann. § 24-2-3-1, *et. seq.*, which defines trade secrets protected by that Act.
- J. The state's Code of Professional Responsibility imposes restrictions on the enforcement of covenants not to compete within the legal profession. See Indiana Rules of Prof. Conduct, Rule 5.6. See also A.B.A. Sec. Lab. Emp. L. Rep. 239 (Supp. 1996).
- K. Noteworthy articles and/or publications: Bowers, Katz & Backs, Covenants Not to Compete: Their Use and Enforcement in Indiana, 31 Val. U. L. Rev. 65 (Fall 1996); F. Joseph Jaskowiak, Covenants Not to Compete in Employment Agreements, 26 Res Gestae 508 (1983).

IOWA

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

IOWA

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

Not applicable.

B. Judicial Statement of the Law

1. The general rule in Iowa is that [courts] will enforce a noncompetitive provision in an employment contract if the covenant is reasonably necessary for the protection of the employer's business and is not unreasonably restrictive of the employee's rights nor prejudicial to the public interest [The] rule is analogous to the Restatement rule which provides that a noncompetitive agreement is unreasonably in restraint of trade if "(a) the restraint is greater than is needed to protect the promisee's legitimate interest or (b) the promisee's need is outweighed by the hardship to promisor and the likely injury to the public." *Iowa Glass Depot, Inc. v. Jindrich*, 338 N.W.2d 376, 381 (Iowa 1983) (citing *RESTATEMENT (SECOND) OF CONTRACTS* § 188(1)). See *Ehlers v. Iowa Warehouse Co.*, 188 N.W.2d 368 (Iowa 1971), *modified*, 190 N.W.2d 413 (Iowa 1971).
2. Covenants not to compete must be tightly limited as to time and area or they are unreasonably restrictive. *Revere Transducers, Inc. v. Deere & Co.*, 595 N.W.2d 751, 761 (Iowa 1999).
3. Factors used to determine whether a covenant not to compete was justified and reasonable are: (a) proximity of employee to employer's customers, (b) nature of business, (c) employee's access to information peculiar to business, (d) nature of occupation restrained, (e) amount and type of training given to employee, and (f) matters of basic fairness. *Iowa Glass*, 338 N.W.2d at 382-84; *Revere Transducers*, 595 N.W.2d at 761.
4. Protectable interests: good will, clients, special employee training, trade secrets, customer contacts, and other confidential business information. See *Dain Bosworth, Inc. v. Brandhorst*, 356 N.W.2d 590, 595 (Iowa App. 1984); *Ehlers v. Iowa Warehouse Co.*, 188 N.W.2d 368, 373 (Iowa 1971), *modified*, 190 N.W.2d 413 (Iowa 1971); *Orkin Exterminating Co. v. Burnett*, 146 N.W.2d 320, 324 (Iowa 1967); *American Express Fin. Advisors v. Yantis*, 358 F. Supp. 2d 818, 829 (N.D. Iowa 2005); *Pro Edge v. Gue*, 374 F. Supp. 2d 711, 741 (N.D. Iowa 2005); *Uncle B's Bakery, Inc. v.*

O'Rourke, 920 F. Supp. 1405, 1429 (N.D. Iowa 1996) (trade secrets). See also *PFS Distribution Co. v. Raduechel*, 492 F. Supp. 2d 1061, 1075 (S.D. Iowa 2007) (Common law prevents employee from using confidential information acquired from and peculiar to the employer's business, even in the absence of a non-compete agreement).

5. An unreasonably broad restrictive covenant ancillary to an employment contract is enforceable in equity to the extent it is reasonable. *Ehlers v. Iowa Warehouse Co.*, 188 N.W.2d at 374. See *Moore Bus. Forms, Inc. v. Wilson*, 953 F. Supp. 1056, 1064 (N.D. Iowa 1996); *Phone Connection v. Harbst*, 494 N.W.2d 445, 449 (Iowa App. 1993) (both citing *Ehlers*); But see *Lamp v. American Prosthetics, Inc.*, 379 N.W.2d 909, 910-11 (Iowa 1986)(refusing to rewrite or partially enforce covenant that court viewed as extremely restrictive).

II. CONSIDERATION ISSUES

A. Adequate Consideration

1. A covenant not to compete signed at the inception of employment is generally sufficient consideration. *Curtis 1000, Inc. v. Youngblade*, 878 F. Supp. 1224, 1259-60 (N.D. Iowa 1995);
2. Continuing employment for an indefinite period generally is sufficient consideration to support a covenant not to compete. *Moore Bus. Forms, Inc. v. Wilson*, 953 F. Supp. 1056 (N.D. Iowa 1996); *Pro Edge v. Gue*, 374 F. Supp. 2d 711, 741 (N.D. Iowa 2005); *Phone Connection, Inc. v. Harbst*, 494 N.W.2d 445, 449 (Iowa 1992); *Iowa Glass Depot, Inc., supra*, 338 N.W.2d at 381; *Farm Bureau Serv. Co. v. Kohls*, 203 N.W.2d at 209, 212 (Iowa 1972).

B. Inadequate Consideration

1. Consideration is not present where one covenants to perform an already existing obligation. *Insurance Agents, Inc. v. Abel*, 338 N.W.2d 531, 533-34 (Iowa Ct. App. 1983) (where employer was bound to employ employee for three years, the promise of continued employment one-year into the agreement was not sufficient consideration).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE "REASONABLENESS" TEST AS APPLICABLE

A. Non-competes Ancillary to an Employment Agreement

1. Held Enforceable

- (a) *Ales v. Anderson, Gabelmann, Lower & Whitlow*, 728 N.W.2d 832 (Iowa 2007) (covenant by former partner of accounting firm not to compete for five years and within 50 miles of former employer held enforceable); *Uncle B's Bakery, Inc. v. O'Rourke*, 920 F. Supp. 1405 (N.D. Iowa 1996) (A five-year, 100-mile radius covenant was upheld where it barred a former plant manager from competing or having any interest in a business or corporation that competes directly or indirectly with the bagel bakery); *Accord Curtis 1000, Inc. v. Youngblade*, 878 F. Supp. 1224, 1262 (N.D. Iowa 1995) (stating that a five-year limitation was at the limit of what an Iowa court will enforce);
- (b) *Orkin Exterminating Co. v. Burnett*, 146 N.W.2d 320 (Iowa 1967) (covenant not to compete for three years with former employer/pest control company within ten miles of any town in which former employee performed services for the company found reasonable);
- (c) *Tasco, Inc. v. Winkel*, 281 N.W.2d 280 (Iowa 1979) (covenant prohibiting allegedly key employee from competing with his employer anywhere within the United States for one year held not unreasonable as a matter of law);
- (d) *White Pigeon Agency, Inc. v. Madden*, 2001 WL 855366 (Iowa App. 2001) (insurance salesperson's covenant not to solicit clients of her former employer for three years after termination of employment and within five county area in which salesperson sold to former employer's customers, upheld);
- (e) *Pro Edge v. Gue*, 374 F. Supp. 2d 711, 741 (N.D. Iowa 2005) (covenant not to compete prevented former employee from competing with his former employer for a period of one year and within 250 miles of one of the former employer's facilities held enforceable).

2. Held Unenforceable or Modified

- (a) *Lemmon v. Hendrickson*, 559 N.W.2d 278, 282 (Iowa 1997) (rejecting former employer's attempt to construe a covenant not to compete as prohibiting the solicitation and servicing of its customers indefinitely because it was an impermissible temporal restriction);
- (b) *Lamp v. American Prosthetics, Inc.*, 379 N.W.2d 909, 910 (Iowa 1986) (en banc) (covenant prohibiting competition within 100 miles of any of employer's Iowa offices, which would have the effect of prohibiting competition anywhere in the state, found unreasonably broad);
- (c) *Farm Bureau Serv. Co. v. Kohls*, 203 N.W.2d 209 (Iowa 1972) (covenant prohibiting competition for two years in a two-county area found unreasonably broad as to geographic area; modified and enforced with respect to six townships in which the former employee worked);
- (d) *Phone Connection, Inc. v. Harbst*, 494 N.W.2d 445, 449 (Iowa App. 1992) (A covenant not to compete was judicially modified from a five-year period to a two-year period and the geographic region was modified to cover the area in which the employer had established business);
- (e) *Wachovia Securities, L.L.C. v. Stanton*, 571 F. Supp. 2d 1014 (N.D. Iowa 2008) (refusing to issue a temporary restraining order against former employee where the former employer had established a breach of contract; where the covenant preventing solicitation of former clients had no temporal limit, the employer did not have a substantial likelihood of demonstrating that the agreement was enforceable).

B. Non-competes Incidental to the Sale of a Business

1. Held Enforceable

- (a) *American Express Financial Advisors., Inc. v. Yantis*, 358 F. Supp. 2d 818 (N.D. Iowa 2005) (non-compete covenant in a franchise agreement restricting competition and solicitation for a one-year period in the area the franchisee worked was reasonable to protect business and customer good will);
- (b) *Sauser v. Kearney*, 126 N.W. 322 (Iowa 1910) (covenant not to compete in the same town for two years incidental to sale

of lumber business upheld as reasonable); *Cole v. Edwards*, 61 N.W. 940 (1895) (covenant by a partner/physician not to compete in the same town for the seller's lifetime incidental to the sale of a partnership interest upheld);

2. Held Unenforceable or Modified

- (a) *Rasmussen Heating & Cooling, Inc. v. Idso*, 463 N.W.2d 703, 704 (Iowa Ct. App. 1990) (covenant not to compete for a period of ten years was not tightly time limited or reasonably necessary for the protection of business)
- (b) *Baker v. Starkey*, 144 N.W.2d 889, 895 (Iowa 1966) (in case predating Iowa's acceptance of equitable modification doctrine, covenant providing that partner would not compete against partnership in any town or city in the continental United States in which the partnership was rendering services to clients at the time of termination of the agreement found unreasonable and unenforceable).
- (c) *Kunz v. Bock*, 163 N.W.2d 442 (Iowa 1968) (covenant incidental to sale of business lacking time and geographic limits found unreasonable and unenforceable);

IV. GENERAL COMMENTS

A. Specific Issues

- 1. Is a covenant not to compete enforceable if the employee is discharged? Not necessarily. Although, "discharge by the employer is a factor opposing the grant of an injunction, to be placed in the scales in reaching the decision whether the employee should be enjoined." *Ma & Pa. Inc. v. Kelly*, 342 N.W.2d 500, 502-03 (Iowa 1984) (denying enforcement of non-competition agreement where the employee was discharged for economic reasons pursuant to contract that gave the employer the right to discharge employee "for any cause whatsoever").
- 2. Will an employer's breach of the employment agreement relieve the employee of his obligation not to compete? Generally, yes. "In Iowa, a breaching party cannot demand performance from the non-breaching party." *Moore Bus. Forms, Inc. v. Wilson*, 953 F. Supp. at 1066 (citing *Orkin Exterminating Co. v. Burnett*, 146 N.W.2d at 324). In the sale-of-business context, where a business seller has materially breached a covenant not to compete with the buyer, the

buyer is justified in suspending payments otherwise due under the sales contract incorporating such covenant. See *Van Oort Constr. Co. v. Nuckoll's Concrete Serv., Inc.*, 599 N.W.2d 684, 691-93 (Iowa 1999), and cases cited therein.

3. Are attorney's fees recoverable? Attorney's fees are recoverable where they are authorized by statute or by an agreement between parties. *Ales v. Anderson, Gabelmann, Lower & Whitlow, P.C.*, 728 N.W.2d 832, 842-43 (Iowa 2007) (arbitrator could not reduce attorney's fees award where the agreement provided that the prevailing party could recover such fees and costs).
4. Will a choice of law provision in the contract be followed? It depends. Iowa courts follow RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 187 when deciding whether to enforce a contractual choice of law provision. *Curtis 1000, Inc. v. Youngblade*, 878 F. Supp. at 1251. Generally, the law of the chosen state will be applied unless the court determines that the chosen state has "no substantial relationship to the parties or the transaction" and "there is no other reasonable basis for the parties' choice." *Id.* at 1253. In addition, an Iowa court will refuse to enforce a choice of law provision if it finds that application of the chosen state's law would contradict the public policy of a state that has a materially greater interest in the dispute than the chosen state. *Id.* at 1255.

B. Miscellaneous

1. In *Van Hosen v. Bankers Trust Co.*, 200 N.W.2d 504, 509 (Iowa 1972), the court held that a forfeiture provision in a pension plan was "so unreasonable as to be in violation of public policy," and therefore was unenforceable.
2. Trade secrets defined: The Iowa Trade Secrets Act, I.C.A. 550.2, subd. 4, defines trade secret as "information, including but not limited to a formula, pattern, compilation, program, device, method, technique, or process that is both of the following: (a) Derives economic value, actual or potential, from not being readily ascertainable by proper means by a person able to obtain economic value from its disclosure or use. (b) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy or confidentially." *U.S West v. Consumer Advocate*, 498 N.W.2d 711 (Iowa 1993).
3. Noteworthy articles and/or publications: Note, *Covenants Not To Compete in the Transfer of a Business - Selected Problems*, 24

DRAKE L. REV. 639 (1975); *Curtis 1000, Inc. v. Youngblade*, 878 F. Supp. 1224 (N.D. Iowa 1995).

4. Iowa courts permit a much greater restraint by covenants incidental to sale or transfer of a business than by covenants ancillary to an employment contract. *Baker v. Starkey*, 144 N.W.2d at 898.

KANSAS

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson

Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson

Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

KANSAS

I. STATUTORY AUTHORITY

Kansas has no statute governing the enforceability or reasonableness of covenants not to compete.

II. SUMMARY OF LAW

A non-competition clause is valid if it is ancillary to any lawful contract, and if it is reasonable and not adverse to the public welfare. Covenants contained in employment agreements are strictly construed against the employer. If the purpose of the covenant is to avoid ordinary competition, it is unreasonable and unenforceable. In analyzing whether a covenant not to compete is reasonable, Kansas courts analyze the following four factors: (1) Does the covenant protect a legitimate business interest of the employer? (2) Does the covenant create an undue burden on the employee? (3) Is the covenant injurious to the public welfare? (4) Are the time and territorial limitations contained in the covenant reasonable? *Graham v. Cirocco*, 69 P.3d 194, 1998 (Kan. Ct. App. 2003); *Weber v. Tillman*, 913 P.2d 84, 90 (Kan. 1996).

III. ELEMENTS OF ENFORCEABILITY

A. Covenant Must Be Ancillary to a Lawful Contract

Covenants not to compete must be ancillary to a lawful contract. They can be ancillary to an employment contract or incidental to the sale of a business. See *Graham v. Cirocco*, 69 P.3d 194, 197-98 (Kan. Ct. App. 2003) (covenant ancillary to employment contract); *Weber v. Tillman*, 913 P.2d 84, 89 (Kan. 1996) (covenant ancillary to employment contract); *Barton v. Hackney*, 208 P.2d 590, 594 (Kan. 1949) (covenant ancillary to sale of a business).

B. Legitimate Business Interest

To be enforceable, a covenant not to compete must protect the legitimate business interest of the employer. Kansas courts have not fully developed what constitutes a legitimate business interest. Kansas courts have expressly recognized that protecting “customer contacts” and “referral sources” are legitimate business interests. *Eastern Distributing Co. v. Flynn*, 567 P.2d 1371, 1372 (Kan. 1977); *Idbeis v. Wichita Surgical Specialists, P.A.*, 112 P.3d 81 (Kan. 2005). Further, Kansas courts recognize that employers have an interest in protecting trade secrets and preventing unfair competition.” *Universal Engraving, Inc. v. Duarte*, 519 F. Supp. 2d 1140 (D. Kan. 2007). The Kansas Supreme Court has also recognized the holdings of courts in other jurisdictions protecting the

special training of employees, confidential business information, trade secrets, loss of clients, good will and reputation. *Weber*, 913 P.2d at 91.

C. Undue Burden on Employee

Further, a covenant may not place an undue burden on the employee. Under this factor, Kansas courts will examine whether the covenant merely restricts an employee from pursuing his chosen profession for a limited amount of time and in a limited area, or whether the covenant prevents the employee from working in his chosen profession entirely. See *Weber* at 91; *Wichita Clinic, P.A. v. Louis*, 185 P.3d 946 (Kan. Ct. App. 2008)

D. Injurious to the Public Welfare

The courts also determine whether the covenant is injurious to the public welfare. Here, the Kansas courts analyze the facts and circumstances of each particular case to determine whether enforcement of the covenant will harm the public. See *Weber* at 95; *Idbeis* at 766. For example, if enforcement of this covenant will leave a community with a shortage of doctors in a particular specialty, the covenant will not be enforced. See *Weber* (citing cases from other jurisdictions that so hold). When considering a covenant's intersection with public policy, the foremost concern is that freedom to contract is not interfered with lightly. See *Graham* at 198; *Idbeis* at 766.

E. Reasonableness Requirements

Finally, the restrictions must be reasonable as to time and territorial limitations. Beyond the truism that the shorter the time and the smaller the geographic area of restriction the more enforceable the covenant, Kansas courts have not developed a fixed rule regarding time and territorial limitations. Kansas courts have enforced a ten year covenant while reducing the territorial restriction to a five mile radius. *Foltz v. Struxness*, 215 P.2d 133, 137-38 (1950) (cited with approval in *Weber* at 90-91). The Kansas Supreme Court has found a two year restriction within a thirty mile radius reasonable. *Weber* at 90-91. On the other hand, another Kansas court found unreasonable a one year restriction within a fifty mile radius of a salesman's territory and reduced the territorial restriction. *Eastern Distributing Co. v. Flynn*, 567 P.2d 1371, 1374 (1977). The Court of Appeals of Kansas has noted that 2-year restrictions are common, and thus do not facially concern Kansas courts. *Graham* at 199. The Kansas Supreme Court has also noted that a relevant consideration in this analysis is the legitimate business interest being protected; the time and territorial limitations must be no greater than necessary to protect the

employer's legitimate business interests. *Weber* at 91. Clearly, this is a fact-intensive inquiry and employers must be prepared to demonstrate the reasonableness of the time and territorial limitations in light of the business interests being protected.

F. Consideration

In Kansas, a covenant not to compete must be supported by valid consideration in order to be enforceable. *Heatron, Inc. v. Shackelford*, 898 F.Supp. 1491, 1499 (D. Kan. 1995) (construing Kansas state law). "Under Kansas law, there is a rebuttable presumption that contracts are supported by consideration." *Id.* Thus, a former employee challenging a covenant not to compete must present evidence to overcome the presumption. Although the Kansas Supreme Court has not expressly ruled on the issue, it appears that continued employment may be sufficient consideration for a non-competition covenant depending on the facts of the case. *Id.*, citing *Puritan-Bennett Corp. v. Richter*, 657 P.2d 589, 592 (Kan. Ct. App. 1983), modified by 679 P.2d 206 (Kan. 1984). In *Puritan*, the Court of Appeals found that continued employment was sufficient consideration since the employee had been told that his continued employment was contingent upon signing the agreement and the employee was given promotions, increased responsibilities and greater importance in company operations after signing the agreement.

IV. OTHER COMMENTS

A. Court Reformation

Under Kansas law, courts have broad equitable powers to modify covenants not compete. See *Graham* at 200. In Kansas, a court has the equitable power to devise a remedy that extends or exceeds the terms of the parties' agreement if it is necessary to make the parties whole or to afford the injured party the protection contemplated by the agreement. *Puritan-Bennett Corp. v. Richter*, 657 P.2d 589, 593 (Kan. 1983), modified by 679 P.2d 206 (Kan. 1984). However, in *First American Investment Group, Inc. v. Henry*, 732 P.2d 792, 796-97 (Kan. Ct. App. 1987), the court held that an injunction could not be modified so as to extend the length of a restrictive covenant beyond that agreed upon by the parties where the restrained party has complied with the court's initial order. Thus, *First American* casts doubt on whether a court may extend injunctive relief past the limits set by the covenant. Kansas courts generally will enforce an unreasonable restraint to the extent it is reasonable. *Eastern Distributing Co. v. Flynn*, 567 P.2d at 1378; *Foltz* at 137-38. If a court finds, however, that the real object of the restrictive covenant is merely to avoid ordinary competition, it may refuse to modify equitably the agreement and instead

find the agreement wholly unenforceable. See *H & R Block, Inc. v. Lovelace*, 493 P.2d 205, 212 (Kan. 1972).

B. Attorney's Fees

Presumably, it is possible for a prevailing party to recover attorneys' fees. However, "under Kansas law, the awarding of attorneys' fees is not authorized unless by statute or agreement of the parties." *Idbeis v. Wichita Surgical Specialists, P.A.*, 285 Kan. 485, 488 (2007). There is no generally applicable statute regarding covenants not to compete in Kansas. Thus, any recovery would have to be pursuant to agreement between the parties.

C. Choice of Law Provisions

In general, Kansas courts follow the rule of *lex loci contractus*, meaning that the law of the state in which the contract was made governs interpretation and enforcement of the contract. See *Aselco, Inc. v. Hartford Ins. Group*, 21 P.3d 1011 (Kan Ct. App. 2001). However, if the contract contains an unambiguous choice-of-law provision, Kansas courts will give it effect "if the transaction at issue has a reasonable relation to that state." *Alexander & Alexander, Inc. v. Feldman*, 913 F.Supp. 1495, 1500 (D. Kan. 1996) (internal quotation omitted) (citation omitted). The same is true of forum selection clauses; if they are clear and unequivocal, they will be enforced. *Ori, Inc. v. Lanewala*, 1999 WL 1423068 (D. Kan. 1999).

D. Sale of Business

Kansas courts distinguish between a restrictive covenant ancillary to an employment contract and one executed incidental to the sale of a business, the former being subject to stricter scrutiny by the courts. *H & R Block* at 211; *Eastern Distributing Co.* at 1376.

E. Forfeiture Provisions

Forfeiture Provisions, also known as "claw-back" clauses, are presumably treated separately from covenants not to compete, as there are no decisions in which the two are discussed together.

KENTUCKY

This chapter was prepared by the law firm of Barnes & Thornburg LLP.

For further information about the summary contained in this chapter, please contact:

Dwight Lueck

Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
Main: 317-236-1313
Facsimile: 317-231-7433
dlueck@btlaw.com

KENTUCKY

V. SUMMARY OF THE LAW

It has been held in Kentucky that an agreement in restraint of trade is reasonable if, on consideration and [sic] circumstances of the particular case, the restriction is such only as to afford fair protection to the interests of the covenantee and is not so large as to interfere with the public interests or impose undue hardship on the party restricted.

Borg-Warner Protective Services Corp. v. Guardsmark, Inc., 946 F. Supp. 495, 501 (E.D. Ky. 1996), citing *Central Adjustment Bureau, Inc. v. Ingram Assoc.*, 622 S.W.2d 681, 685 (Ky. Ct. App. 1971).

The policy behind enforcing noncompetition clauses is to protect businesses against employees resigning and taking valued clients with them. *Managed Health Care Assoc., v. Kethan*, 209 F.3d 923, 929 (6th Cir. 2000), citing *Central Adjustment Bureau, Inc., v. Ingram Assoc.*, 622 S.W.2d 681, 685-86 (Ky. Ct. App. 1981).

Reasonableness is to be determined generally by the nature of the business or profession and employment, and the scope of the restrictions with respect to the charter, duration, and territorial extent.

Hall v. Willard & Woolsey, P.S.C., 471 S.W.2d 316, 317-18 (Ky. 1971).

[T]he interest of “the much maligned but time-honored middleman” is a legitimate one that deserves protection against disintermediation. The court observes that the middleman must find a contractual means to protect itself or the employees, clients or competitors will “opportunistically appropriate” its work product “without paying it the full value of services.”

Borg-Warner Protective Services Corp. v. Guardsmark, Inc., 946 F. Supp. 495, 502 (E.D. Ky. 1996), quoting *Consultants and Designers v. Butler Service Group*, 720 F.2d 1553, 1558-59 (11th Cir. 1983).

VI. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an Employment Contract

Higdon Food Service, Inc. v. Walker, 641 S.W.2d 750, 751 (Ky. 1982) (enforcing one-year time limit and restraint “within any regularly routed area of sales and services” of the employer); *Louisville Cycle & Supply Co. v. Baach*, 535 S.W.2d 230 (Ky. 1976) (enforcing eighteen-month time limit and restraint “in the same territory covered by [defendant] during his

employment with the plaintiff⁹); *Hall v. Willard & Woolsey, P.S.C.*, 471 S.W.2d 316 (Ky. 1971) (enforcing one-year time limit and 50-mile radius restraint); *Lareau v. O'Nan*, 355 S.W.2d 679 (Ky. 1962) (upholding a covenant prohibiting a physician from competing for five years in county); *Daniel Boone Clinic, P.S.C. v. Dahhan*, 734 S.W.2d 488, 490 (Ky. Ct. App. 1990) (enforcing eighteen-month time limit and 50-mile radius restraint in physician's employment contract); *White v. Sullivan*, 667 S.W.2d 385 (Ky. Ct. App. 1983) (enforcing 50-mile, 5-year restrictive covenant in public accounting practice case); *Central Adjustment Review, Inc. v. Ingram Assoc., Inc.*, 622 S.W.2d 681, 686 (Ky. Ct. App. 1981) (enforcing two-year restraint in favor of national collection agency where restraint did not preclude employees from working for local agency or national agency collecting different type of accounts); *Hammons v. Big Sandy Claims Serv.*, 567 S.W.2d 313 (Ky. Ct. App. 1978) (enforcing one-year covenant after reducing territory from 200-mile radius of any territory serviced by employer to 200 miles from an office where employee had worked).

B. Incidental to the Sale of a Business

Ceresia v. Mitchell, 242 S.W.2d 359 (Ky. 1951) (enforcing ten-year covenant after reducing territory from entire state to city and county); *Martin v. Ratliff Furniture Co., Inc.*, 264 S.W.2d 273, 275 (Ky. 1954) (enforcing non-compete agreement executed in connection with sale of business prohibiting competition for 5 years in same county); *Hodges v. Todd*, 698 S.W.2d 317 (Ky. Ct. App. 1985) (holding non-compete agreement executed in connection with sale of business enforceable despite absence of specific geographical limits and remanding for determination of reasonable geographical limits).

VII. GENERAL COMMENTS

- A.** Kentucky courts recognize several protectible interests that will validate a restrictive covenant, including goodwill, protecting an investment in training, and protecting against (1) employee raiding, (2) publication of customer lists, and (3) divulging-or using confidential information. See *Higdon Food Serv. v. Walker*, 641 S.W.2d 750 (Ky. 1982) (employee raiding); *Central Adjustment Bureau*, 622 S.W.2d at 683, 686 (employee raiding, training, and business information); *Hammons v. Big Sandy Claims Serv.*, 567 S.W.2d at 315 (goodwill).
- B.** If a Kentucky court finds that a covenant is overbroad or unreasonable, it will equitably modify the covenant and enforce it as modified. *Hodges v. Todd*, 698 S.W.2d 317, 320 (Ky. Ct. App. 1985) ("Equitable considerations will prevail against a mechanistic approach as to whether the contract is divisible or indivisible"); see also *Ceresia v. Mitchell*, 242 S.W.2d at 362.

- C. For a new employee, the mere fact of employment is sufficient to support a non-compete agreement. See *Higdon Food Service, Inc. v. Walker*, 641 S.W.2d 750, 752 (Ky. 1982); *Louisville Cycle and Supply Co. v. Baach*, 535 S.W.2d 230, 234 (Ky. 1976); *Stiles v. Reda*, 228 S.W.2d 455, 456 (Ky. 1950). Continued employment appears to be sufficient consideration for a non-compete agreement, especially if employment continues for an appreciable time after the non-compete is signed and the employee severs the relationship by voluntarily resigning. *Central Adjustment Bureau*, 622 S.W.2d at 685; *Louisville Cycle and Supply Co. v. Baach*, 535 S.W.2d at 230. But see *Crowell v. Woodruff*, 245 S.W.2d 447, 449 (Ky. 1951) (court in dictum suggests that the covenant therein "should be held without consideration since it was entered into subsequent to the contract of employment").
- D. The Kentucky courts do not appear to have addressed whether a forfeiture of benefits provision is treated as a restraint of trade and is thus subject to the same analysis as other non-competition covenants.
- E. Kentucky courts have not clearly decided whether a non-compete is enforceable if the employee is discharged. In *Bradford v. Billington*, 299 S.W.2d 601 (Ky. 1967), a partnership agreement provided that it could be terminated on four month's notice "for any cause." The Court enforced a six-year, county-wide non-compete agreement against the non-terminating partner after the terminating partner had ended the partnership without cause. *Id.* at 604. However, in *Orion Broadcasting, Inc. v. Forsythe*, 477 F. Supp. 198, 201 (W.D. Ky. 1979), the court refused to enforce a non-compete agreement against an employee who had been discharged "at the whim of plaintiff."
- F. While no Kentucky case has specifically addressed the issue in the non-compete context, attorneys' fees should be recoverable if provided for in the contract. *Lyon v. Whitsett*, 245 S.W.2d 926 (Ky. 1951) ("As a general rule, in the absence of contractual or statutory liability, attorneys' fees are not recoverable as an item of damages.")

Kentucky has adopted the Uniform Trade Secrets Act. Ky. Rev. Stat. §§ 365.880-365.900. Thus, attorneys' fees are recoverable in the circumstances set out in § 4 of the UTSA, including willful and malicious appropriation of a trade secret.

- G. An employer's breach of the employment agreement will relieve the employee of contractual obligations not to compete. *Hemminger v. Johnson*, 1986 Ky. App. LEXIS 1455 (Ky. Ct. App. 1986); *Crowell v. Woodruff*, 245 S.W.2d 447 (Ky. Ct. App. 1952).

- H. Kentucky courts will enforce contractual choice of law provisions if two conditions are met: (1) some vital element of the contract must be associated with the state-whose laws are designated to control; and (2) the transaction must have been entered into in good faith. *Consolidated Jewelers, Inc. v. Standard Financial Corp.*, 325 F.2d 31, 34 (6th Cir. 1963); see also *Big Four Mills, Ltd. v. Commercial Credit Co.*, 307 Ky. 612, 211 S.W.2d 831, 837-38 (1948) (same). There is no Kentucky case applying this rule in the non-compete context.
- I. Kentucky has adopted the Uniform Trade Secret Act's definition of a trade secret as "information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." Ky. Rev. Stat. §§ 365.880-365.900.
- J. Noteworthy articles and/or publications. McClelland and Forgy, Is Kentucky Law "Pro-Business in its Protection of Trade Secrets, Confidential and Proprietary Information? A Practical Guide for Kentucky Businesses and Their Lawyers, 24 N. Ky. L. Rev. 229 (1997).
- K. Noteworthy cases summarizing the scope of permissible/impermissible restraints include *Higdon Food Serv. v. Walker*, 641 S.W.2d 750 (Ky. 1982); *Hodges v. Todd*, 698 S.W.2d 317, 320 (Ky. Ct. App. 1985); *Central Adjustment Bureau v. Ingram Assoc. Inc.*, 622 S.W.2d 681, 685 (Ky. Ct. App. 1981); and *Hammons v. Big Sandy Claims Serv.*, 567 S.W.2d 313 (Ky. Ct. App. 1978).

LOUISIANA

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson
Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson
Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

LOUISIANA

I. Statutory Enactments

Generally, all agreements that prevent individuals from entering into lawful professions, trades, or businesses are void in Louisiana. LA. REV. STAT. ANN. § 23:921.⁵ In the employment context, however, limitations on the rights of

⁵ LA. REV. STAT. § 23:921 (Supp. 2003), in part, reads as follows:

§ 921. Restraint of business prohibited; restraint on forum prohibited; competing business; contracts against engaging in; provisions for

A. (1) Every contract or agreement, or provision thereof, by which anyone is restrained from exercising a lawful profession, trade, or business of any kind, except as provided in this Section, shall be null and void.

(2) The provisions of every employment contract or agreement, or provisions thereof, by which any foreign or domestic employer or any other person or entity includes a choice of forum clause or choice of law clause in an employee's contract of employment or collective bargaining agreement, or attempts to enforce either a choice of forum clause or choice of law clause in any civil or administrative action involving an employee, shall be null and void except where the choice of forum clause or choice of law clause is expressly, knowingly, and voluntarily agreed to and ratified by the employee after the occurrence of the incident which is the subject of the civil or administrative action.

B. Any person, including a corporation and the individual shareholders of such corporation, who sells the goodwill of a business may agree with the buyer that the seller or other interested party in the transaction, will refrain from carrying on or engaging in a business similar to the business being sold or from soliciting customers of the business being sold within a specified parish or parishes, or municipality or municipalities, or parts thereof, so long as the buyer, or any person deriving title to the goodwill from him, carries on a like business therein, not to exceed a period of two years from the date of sale.

C. Any person, including a corporation and the individual shareholders of such corporation, who is employed as an agent, servant, or employee may agree with his employer to refrain from carrying on or engaging in a business similar to that of the employer and/or from soliciting customers of the employer within a specified parish or parishes, municipality or municipalities, or parts thereof, so long as the employer carries on a like business therein, not to exceed a period of two years from termination of employment. An independent contractor, whose work is performed pursuant to a written contract, may enter into an agreement to refrain from carrying on or engaging in a business similar to the business of the person with whom the independent contractor has contracted, on the same basis as if the independent contractor were an employee, for a period not to exceed two years from the date of the last work performed under the written contract.

D. For the purposes of Subsections B and C, a person who becomes employed by a competing business, regardless of whether or not that person is an owner or equity interest holder of that competing business, may be deemed to be carrying on or engaging in a business similar to that of the party having a contractual right to prevent that person from competing.

E. Upon or in anticipation of a dissolution of the partnership, the partnership and the individual partners, including a corporation and the individual shareholders if the corporation is a partner, may agree that

none of the partners will carry on a similar business within the same parish or parishes, or municipality or municipalities, or within specified parts thereof, where the partnership business has been transacted, not to exceed a period of two years from the date of dissolution.

F. (1) Parties to a franchise may agree that:

(a) The franchisor shall refrain from selling, distributing, or granting additional franchises to sell or distribute, within defined geographic territory, those products or services which are the subject of the franchise.

(b) The franchisee shall:

(i) During the term of the franchise, refrain from competing with the franchisor or other franchisees of the franchisor or engaging in any other business similar to that which is the subject of the franchise.

(ii) For a period not to exceed two years following severance of the franchise relationship, refrain from engaging in any other business similar to that which is the subject of the franchise and from competing with or soliciting the customers of the franchisor or other franchisees of the franchisor.

(c) The employee if employed by a franchisor shall:

(i) During the term of his employment by the franchisor, refrain from competing with his employer or any of the franchisees of his employer or engaging in any other business similar to that which is the subject of the franchise.

(ii) For a period not to exceed two years following severance of the employment relationship between the franchisor and the employee, refrain from engaging in any other business similar to that which is the subject of the franchise between the franchisor and its franchisees and from competing with or soliciting the customers of his employer or the franchisees of his employer.

(2) As used in this Subsection:

(a) "Franchise" means any continuing commercial relationship created by any arrangement or arrangements as defined in 16 Code of Federal Regulations 436.2(a).

(b) "Franchisee" means any person who participates in a franchise relationship as a franchisee, partner, shareholder with at least a ten percent interest in the franchisee, executive officer of the franchisee, or a person to whom an interest in a franchise is sold, as defined in 16 Code of Federal Regulations 436.2(d), provided that no person shall be included in this definition unless he has signed an agreement expressly binding him to the provisions thereof.

(c) "Franchisor" means any person who participates in a franchise relationship as a franchisor as defined in 16 Code of Federal Regulations 436.2(c).

G. (1) An employee may at any time enter into an agreement with his employer that, for a period not to exceed two years from the date of the termination of employment, he will refrain from engaging in any

work or activity to design, write, modify, or implement any computer program that directly competes with any confidential computer program owned, licensed, or marketed by the employer, and to which the employee had direct access during the term of his employment or services.

(2) As used in this Subsection, "confidential" means that which:

(a) Is not generally known to and not readily ascertainable by other persons.

(b) Is the subject of reasonable efforts under the circumstances to maintain its secrecy.

(3) As used in this Subsection, "computer program" means a plan, routine, or set of statements or instructions, including any subset, subroutine, or portion of instructions, regardless of format or medium, which are capable, when incorporated into a machine-readable medium, of causing a computer to perform a particular task or function or achieve a particular result.

(4) As used in this Subsection, "employee" shall mean any individual, corporation, partnership, or any other entity which contracts or agrees with an employer to perform, provide, or furnish any services to, for, or on behalf of such employer.

H. Any agreement covered by Subsection B, C, E, F, G, J, K, or L of this Section shall be considered an obligation not to do, and failure to perform may entitle the obligee to recover damages for the loss sustained and the profit of which he has been deprived. In addition, upon proof of the obligor's failure to perform, and without the necessity of proving irreparable injury, a court of competent jurisdiction shall order injunctive relief enforcing the terms of the agreement. Any agreement covered by Subsection J, K, or L of this Section shall be null and void if it is determined that members of the agreement were engaged in ultra vires acts. Nothing in Subsection J, K, or L of this Section shall prohibit the transfer, sale, or purchase of stock or interest in publicly traded entities.

I. (1) There shall be no contract or agreement or provision entered into by an automobile salesman and his employer restraining him from selling automobiles.

(2) (a) For the purposes of this Subsection, "automobile" means any new or used motor-driven car, van, or truck required to be registered which is used, or is designed to be used, for the transporting of passengers or goods for public, private, commercial, or for-hire purposes.

(b) For the purposes of this Subsection, "salesman" means any person with a salesman's license issued by the Louisiana Motor Vehicle Commission or the Used Motor Vehicle and Parts Commission, other than a person who owns a proprietary or equity interest in a new or used car dealership in Louisiana.

J. A corporation and the individual shareholders of such corporation may agree that such shareholders will refrain from carrying on or engaging in a business similar to that of the corporation and from soliciting customers of the corporation within a specified parish or parishes, municipality or municipalities, or parts thereof, for as long as the corporation carries on a similar business therein, not to exceed a period of two years from the date such shareholder ceases to be a shareholder of the corporation. A violation of this Subsection shall be enforceable in accordance with Subsection H of this Section.

K. A partnership and the individual partners of such partnership may agree that such partners will refrain

employees and independent contractors may be valid, as may agreements ancillary to the sale of a business, the dissolution of a partnership, or the formation of a franchise. To remain valid, those agreements may not exceed a term of two years. Unless explicitly mentioned in the statute, other limitations placed on an individual's right to compete are void.

In June 2003, the Louisiana Legislature amended Section 23:921(D) to clarify a conflict among the state's circuit courts regarding the breadth of statutory exceptions for sales of businesses and employment covenants. Section 23:921, as amended, now allows former employers and sellers of businesses to prevent employees and buyers from competing for themselves *and* as employees of third parties. LA. REV. STAT. ANN. § 23:921(D).

II. LOUISIANA'S LEADING CASE LAW

Louisiana's leading non-compete cases include the following: *Richard Berry & Assocs., Inc. v. Bryant*, 845 So.2d 1263, 03-106 (La.App. 5 Cir. 4/29/03) (reasoning that non-compete agreements may be entered into by an independent contractors); *Millet v. Crump*, 687 So.2d 132, 96-639 (La. App. 5 Cir. 12/30/96), *writ denied*, 1997-3207 (La. 2/20/98) (noting that the maximum duration of non-compete ancillary to the sale of a business is two years from the date on which the sale is completed); *AMCOM of Louisiana, Inc. v. Battson*, 670 So.2d 1223, 96-0319 (La. 3/29/96) (providing that courts may strike portions of non-compete agreements that violate state law while enforcing the remaining contracts); *Walker v. Louisiana Health Mgmt. Co.*, 666 So.2d 415, 94-1396 (La. App. 1 Cir. 12/15/95), *writ denied*, 96-0571 (La. 4/19/96) (stating that the version of the statute in effect at the time of an agreement's execution controls); *SWAT 24 Shreveport Bossier, Inc. v. Bond*, 808 So. 2d 294 (La. 6/29/2001) (stating that non-compete agreements in Louisiana should be strictly construed in favor of the employee).

from carrying on or engaging in a business similar to that of the partnership and from soliciting customers of the partnership within a specified parish or parishes, municipality or municipalities, or parts thereof, for as long as the partnership carries on a similar business therein, not to exceed a period of two years from the date such partner ceases to be a partner. A violation of this Subsection shall be enforceable in accordance with Subsection H of this Section.

L. A limited liability company and the individual members of such limited liability company may agree that such members will refrain from carrying on or engaging in a business similar to that of the limited liability company and from soliciting customers of the limited liability company within a specified parish or parishes, municipality or municipalities, or parts thereof, for as long as the limited liability company carries on a similar business therein, not to exceed a period of two years from the date such member ceases to be a member. A violation of this Subsection shall be enforceable in accordance with Subsection H of this Section.

III. ELEMENTS OF ENFORCEABILITY

A. Agreements Arising In the Employment Context

1. Geographical Restrictions.

The geographical restrictions in non-competition agreements must be identifiable from the agreement's language. Unlike most jurisdictions, Louisiana does not consistently apply a "reasonableness" test to determine the applicability of a non-compete's geographical restrictions. The circuit courts in Louisiana's Courts of Appeal are split on this issue. See *Restivo v. Hanger Prosthetics & Orthotics, Inc.*, 483 F. Supp. 2d 521 (E.D. La. 2007) ("There is also conflicting jurisprudence holding that the geographical restriction need only be reasonably identifiable from the provisions of the contract").

Most circuits require that the language of a non-compete adhere strictly to section 23:921, which requires that an agreement list each restricted area specifically. See *SWAT 24 Shreveport Bossier, Inc. v. Bond*, 759 So.2d 1047, 1050, 2000-1 (La.App. 2 Cir. 5/10/00), *aff'd* by 808 So.2d 294, 2001-2 (La. 6/29/01) (commenting that according to the governing statute, the parishes and municipalities in which a former employee is restricted must be listed specifically in any non-compete agreement); *Cellular One, Inc. v. Boyd*, 653 So.2d 30, 33, 94-1783 (La.App. 1 Cir., 3/3/95), *writ denied* 95-1367 (La. 9/15/95) (upholding a non-compete agreement that specifically listed the restricted geographic parishes); *AON Risk Servs. of Louisiana, Inc. v. Ryan*, 807 So.2d 1058, 1060-61, 2002-1 (La.App. 4 Cir. 1/23/02) (declaring a non-compete agreement unenforceable as overly broad where the agreement described the scope of geographic limitations as "whatever parishes, counties and municipalities" served as home to employer's operations); *Bell v. Rimkus Consulting Group, Inc. of La.*, 983 So. 2d 927 (La.App. 5 Cir. 2008) (stating that general reference in the agreement to whatever parishes, counties or municipalities the Company conducted business did not comply with the statute). *Kimball v. Anesthesia Specialists of Baton Rouge, Inc.*, 809 So.2d 405, 412-14, 2001-2 (La.App. 1 Cir. 9/28/01), *writ denied* 2001-3316 (La. 3/8/02), *and writ denied* 2001-3355 (La. 3/8/02) (holding that a provision limiting the geographic area in which a former employee could conduct business was not enforceable because the provision failed to name each parish or municipality).

Alternatively, Louisiana's Third Circuit requires only that the restricted area be identifiable from the agreement's language. See *Moore's Pump and Supply, Inc. v. Laneaux*, 727 So.2d 695, 698 1998-1049 (La.App. 3 Cir. 2/3/99) (stating that a non-compete agreement restricting the former employee from engaging in the same business as the employer in 43 parishes was not overly broad geographically where the employer operated in each of the 43 parishes); *Petroleum Helicopters, Inc. v. Untereker*, 731 So.2d 965, 966-67, 1998-1816 (La.App. 3 Cir. 3/31/99) (noting that a non-compete agreement which, in listing geographic restrictions, failed to list each parish by name was enforceable because the parishes were identifiable and the employee should have been aware of those parishes).

2. Time Restrictions.

According to section 23:921, no agreement restricting competition may last more than two years from the date on which the employment relationship ends. See *Newton and Assocs., Inc. v. Boss*, 772 So.2d 793, 795-96, 2001-1 (La.App. 5 Cir. 10/18/00), *writ denied* 2000-3162 (La. 1/12/01) (noting that the two year duration of a non-compete agreement began with the severance of employment and did not apply to the time between execution of the agreement and the end of the employment relationship); *Cellular One* at 33 (stating that the parties cannot, by mutual agreement, expand the duration of a non-compete agreement); *Sentilles Optical Servs., Div. of Senasco, Inc. v. Phillips*, 651 So.2d 395, 399, 1995-1 (La.App. 2 Cir. 3/1/95) (noting that a non-compete agreement may not exceed the two year statutory limit, which begins with the end of the employment relationship).

3. Scope of Activities Restrained.

Under section 23:921, restricted activities may apply to post-employment activities by former employees, partners, and franchisors. LA. REV. STAT. ANN. § 23:921. For those restrictions to apply, some courts hold that the non-compete agreement must specifically define the former employer's business or the restricted activities. See *Daquiri's III on Bourbon, Ltd. v. Wandfluh*, 608 So.2d 222, 224, 92-446 (La.App. 5 Cir., 10/27/92), *writ denied* 92-3072 (La. 1/8/93) (stating that a provision of a non-compete that precluded former employee from selling "frozen drinks for consumption by the general public" did not adequately define employer's business and therefore, was invalid); *LaFourche Speech & Language Servs., Inc. v. Juckett*, 652 So.2d 679, 680-81,

94-1809 (La.App. 1 Cir., 3/3/95), *writ denied* 95-0850 (La. 5/12/95) (finding that non-compete provision prohibiting the former employee from engaging in “business similar to employer” without defining the employer’s business was overly broad);

Other courts have upheld non-compete clauses failing to specifically define the employer’s business as valid when the employer engaged in business only as the name of the company implied and the employee knew the nature of the employer’s business. *Class Action Claim Servs., L.L.C. v. Clark*, 892 So. 2d 595, (La.App. 5 Cir. 12/14/2004); *Baton Rouge Computer Sales, Inc. v. Miller-Conrad*, 767 So. 2d 763, (La.App. 1 Cir. 5/23/2000). The Third Circuit has allowed restrictions to apply to competition of any kind, regardless of whether the agreement contains any specifications. *See Moores Pump and Supply, Inc. v. Laneaux*, 727 So.2d 695, 698, 1998-1049 (La.App. 3 Cir. 2/3/99) (stating that a non-compete agreement failing to define the employer’s business was enforceable because Louisiana law does not require such definition, the parties knew the nature of the plaintiff’s business upon entering into the agreement, and the agreement specified various business activities as restricted).

Additionally, agreements restricting the solicitation of customers in Louisiana are governed by the state’s non-compete laws. *See Millet*, 687 So.2d at 135 (citing *Maestri v. Destrehan Veterinary Hosp., Inc.*, 554 So.2d 805, 810 (La.App. 5th Cir. 12/13/99)).

4. Protectable Interests.

An employer’s protectable interests may include extensive training, financial information, management techniques, and trade secrets. *See Dixie Parking Serv.* at 1319. In Louisiana, trade secrets include information, formulae, patterns, compilations, programs, devices, methods, techniques, or processes deriving some independent economic value that an employer reasonably attempts to keep secret. LA. REV. STAT. ANN. § 51:1431. Customer lists, however, are not necessarily considered trade secrets. *See Millet*, 687 So.2d at 136 (finding that customer lists were not protectable trade secrets where the former employer had not actively attempted to conceal the lists). *But see Pearce v. Austin*, 465 So.2d 868, 872 (La.App. 2d Cir. 2/27/85) (stating that a former employee did not violate an agreement by relying on his memory to solicit clients).

5. Consideration.

Louisiana does not require any certain form of consideration for the execution of non-compete agreements. Continued employment serves as adequate consideration in Louisiana. See *Cellular One* at 34 (contending that a non-compete agreement was valid where an at-will employee signed the agreement in consideration for continued employment); *Dixie Parking Serv.* at 1321 (noting that a change in employment conditions may suffice for continued employment; even if an employee is demoted, sufficient consideration existed if the employee kept confidential information and continued to participate in the employer's bonus plan).

6. Judicial Modification.

Louisiana courts may reform non-compete agreements to make them enforceable. The Louisiana Supreme Court has allowed the "blue pencil" approach, allowing courts to strike overly broad provisions while enforcing the remaining provisions. See *SWAT* at 1052 (deleting portions of a non-compete that violated the governing statute and examining only the remaining portions of the agreement to determine the applicability of the agreement); *AMCOM* at 1223 (striking the overly broad restrictions in a non-compete but enforcing the remaining portions); *Dixie Parking Serv.* at 1320 (honoring the parties' severability clause and striking only the portions of a non-compete agreement that violated Louisiana law); *Petroleum Helicopter* at 968 (adding parishes to enforce a non-compete agreement that did not specifically identify any with regard to the agreement's geographical scope).

However, courts in Louisiana often decline to save invalid non-competition provisions through reformation. *L&B Transp., LLC v. Beech*, 568 F. Supp. 2d 689 (M.D. La. 2008) (because of the ambiguous language of the non-compete provision, the court held that reformation of the provision was inappropriate); *Prouty*, 691 So.2d at 1388-89 (La. App. 2 Cir. 1997) (declaring an entire non-compete agreement void where the agreement's provision defining the scope of restricted activities was invalid); *Water Processing Technologies, Inc. v. Ridgeway*, 618 So.2d 533, 536 (La. App. 4 Cir. 1993).

B. Agreements Ancillary to the Sale of a Business.

Non-compete agreements may not apply to a term lasting longer than two (2) years from the date of sale. *Millet* at 136 (noting that the maximum duration of non-compete ancillary to the sale of a business is two years from the date on which the sale is completed). The prohibition of

competition itself can be consideration for the sale of a business. *Marshall Brown Ins. Agency, Inc. v. Toledano*, 292 So.2d 266, 268 (La.App. 1974). See also *Hirsh v. Miller*, 167 So.2d 539, 541-42 (La.App. 7/15/64), *rev'd other grounds*, 168 So.2d 821 (La. 12/1/64) (stating that a reasonable restriction of competition is enforceable where it is part of the consideration for the sale of a business and good will). Similar to non-compete covenants in the employment context, non-compete agreements accompanying the sale of a business must identify the restricted geographic area. LA. REV. STAT. ANN. § 23:921(B).

IV. EMPLOYEE USE OF CONFIDENTIAL INFORMATION

If an employer advertises a certain employee's expertise, the employer may protect his investment in the employee by entering into a non-compete agreement that prevents the advertised employee from misusing the employer's information and secrets. Likewise, if an employer spends a substantial amount of money training an employee, the employer may execute a non-compete agreement to prevent the employee from using his specialized training to benefit a competitor. *Orkin Exterminating Co. v. Fotj*, 302 So.2d 593, 596 (La. 10/28/74). However, the typical expenses associated with training, such as the time spent educating the employee through employee sales and training meetings, are not so substantial that they deserve protection through the use of non-compete agreements. *Id.* Upon surrendering protected information to their employers, former employees may rely on their memories and general knowledge that is otherwise available to the general public to solicit customers. *Pearce* at 871-72.

MAINE

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP
World Trade Center West
155 Seaport Boulevard
Boston, MA 02210-2604
Main: 617-439-2293
Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

MAINE

I. SUMMARY OF THE LAW

Maine courts have emphasized that covenants not to compete "are contrary to public policy and will be enforced only to the extent that they are reasonable and sweep no wider than necessary to protect the business interests in issue." Reasonableness is a question of law to be determined by the court. Reasonableness is determined by the time and space restraints imposed by the agreement, as well as the validity of the interest sought to be protected. "The reasonableness of a specific covenant must ultimately be determined by the facts developed in each case as to its duration, geographic area and the interests sought to be protected." Because "the law does not favor non-competition agreements . . . it requires that such agreements be construed narrowly and technically.

Chapman & Drake v. Harrington, 545 A.2d 645, 647 (Me. 1988); *Lord v. Lord*, 454 A.2d 830, 834 (Me. 1983); see also *Roy v. Bolduc*, 34 A.2d 479, 480 (1943); *Luv Homes, Inc. v. Steven Fontaine & Allstate Homes*, 1998 LEXIS 137 (Me. Super. Ct. 1998); *Prescott v. Ross*, 383 F.Supp.2d 180, 191 (D. Me. 2005) (court upheld non-competition agreement covering 100 mile radius and spanning three years) (manufacturing restriction subsequently lifted in *Prescott v. Ross*, 390 F.Supp.2d 44, 50 (D. Me. 2005)).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Chapman & Drake*, 545 A.2d at 648 (five-year non-competition covenant lacking geographic limitation reasonably advancing employer's interest upheld); *Brignull v. Albert*, 666 A.2d 82 (Me. 1995) (non-competition covenant that prevented optometrist from practicing within two miles of former employer for sixteen months upheld); *Walton v. Nalco Chemical Co.*, 1999 WL 33117055 (D. Me. 1999) (eighteen month, eleven county non-competition covenant restricting salesman of chemicals tailored to treat water in boiler systems upheld as reasonable); *Katahdin Insurance Group v. Elwell*, 2001 WL 1736572 (Me. Super. Ct. 2001) (three year non-competition covenant upheld that prevented direct or indirect solicitation of or acceptance of business from any customer with whom employee had business or personal relations); *Smith v. Maine Unemployment Ins. Comm.*, 2002 LEXIS 239 (Me. Super. Ct. 2002) (the court distinguished and found reasonable an employer rule prohibiting simultaneous employment with a competitor from non-competition agreements with a former employer (such as the agreement in *Chapman*) noting that "non-

competition agreements with a *former* employer are often (not always) viewed as against public policy because of their high potential for restricting an employee's capacity to support himself in his chosen occupation").

2. *Roy v. Bolduc*, 34 A.2d at 481 (five-year, ten-town limitation invalid where imposed on real estate agent since no valid business interest protected).

B. Incidental to the sale of a business.

1. *Emery v. Bradley*, 34 A. 167 (1896) (agreement never to engage in photography business upheld); *Flaherty v. Libby*, 81 A. 166 (Me. 1911) (five-year, one-city limitation upheld where employer's legitimate interests (customers) at stake); *Whitney v. Slayton*, 40 Me. 224 (1855) (ten-year, sixty-mile non-competition agreement upheld).
2. *Lord v. Lord*, 454 A.2d at 834-35 (seven-year, sixty-mile restriction found unreasonable where agreement was a nonconsensual court-ordered divorce settlement).

III. GENERAL COMMENTS

A. Protectible interests: Sale of good will, trade secrets and other confidential information, customer contacts. See *Flaherty*, 81 A. at 167; *Roy*, 34 A.2d at 480-81; *Lord*, 454 A.2d at 834. See also *Brignull v. Albert*, 666 A.2d 82, 84 (Me. 1995) (noting that while "protecting an employer from business competition is not a legitimate business interest to be advanced by [a non-competition] agreement", protection of goodwill and current patients are legitimate business interests); *Prescott v. Ross*, 383 F.Supp.2d 180, 190 (D. Me. 2005) (holding that a non-competition and non-disclosure agreement protected the type of business interest that Maine law allows an employer to protect where the employee engaged in outside sales for the company, the employee had 11 years of direct personal contact with the company's customers, and the employee had the ability to affect the company's relationships with vendors).

B. Modification: If a covenant is overbroad, it may be modified and enforced to the extent reasonable. *Lord v. Lord*, 454 A.2d 830, 834 (Me. 1983). See also *Chapman & Drake v. Harrington*, 545 A.2d 645 (Me. 1988). Maine courts will evaluate the reasonableness of a noncompetition clause as the employer seeks to apply it, as opposed to how it is written and might have been applied. *Brignull*, 666 A.2d at 84; *Prescott v. Ross*, 383 F.Supp.2d 180, 190 (D. Me. 2005). The party seeking enforcement

cannot, however, rely on the court to redraft an overly broad provision. Rather, that party must seek to narrow the scope at the enforcement stage. *Prescott v. Ross*, 390 F.Supp.2d 44, 47 (D. Me. 2005).

- C. Attorneys' fees:** Attorneys' fees are recoverable only when provided by statute or agreement of the parties. See generally *Elliot v. Maine Unemployment Ins. Comm.*, 486 A.2d 106 (1984); *Bank of Maine N.A. v. Weisberger*, 477 A.2d 741 (1984). Under the Maine Uniform Trade Secrets Act, the court may award reasonable attorneys' fees to the prevailing party if a claim of misappropriation of trade secrets is made in bad faith, a motion to terminate an injunction is made or resisted in bad faith, or willful and malicious misappropriation exists. 10 Maine Rev. Stat. Ann. §1545.
- D. Trade secrets:** "Trade secret" is defined by the Maine Uniform Trade Secrets Act as information that "derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use" and concerning which the owner has made "reasonable" efforts "to maintain its secrecy." 10 Maine Rev. Stat. Ann. §1542. *But see Bernier v. Merrill Air Engineers*, 770 A.2d 97 (Me. 2001) (noting that the confidential information or knowledge protected by a restrictive covenant need not be limited to information that is protected as a trade secret under the UTSA).
- E. Consideration:** Continued employment is sufficient consideration to support a non-competition covenant. See *Brignull v. Albert*, 666 A.2d 82, 84 (Me. 1995). See also *Wausau Mosinee Paper Corp. v. Magda*, 366 F.Supp.2d 212, 220 (Me. Super. Ct. 2005) (holding that a one-year period of continued employment is not required, but is adequate consideration for an otherwise reasonable covenant not to compete). In the at-will employment context in which an employee voluntarily executes a non-compete agreement after commencement of employment, a court might treat the execution of the contract and the continued performance of his or her job as the employee's acceptance of the employer's modified or renewed job offer. *Wausau Mosinee Paper Corp.* 366 F.Supp.2d at 220 (citing *Pine River State Bank v. Mettelle*, 333 N.W.2d 622, 627 (Minn. 1983) (holding that when the employee "retains employment with knowledge of new or changed conditions, the new or changed conditions may become a contractual obligation"))).
- F. Assignment:** Non-competition provisions are completely assignable and, once assigned, the assignee may enforce the agreement as if it were the original contracting party. See *Katahdin Insurance Group v. Elwell*, 2001 WL 1736572 (Me. Super. Ct. 2001).

- G. Miscellaneous:** Where the covenant not to compete is attached as an exhibit to a purchase and sale agreement, requiring separate signatures, it is not effective if unsigned, even if the parties to the purchase and sale agreement specifically allocated part of the purchase price to the covenant not to compete. See *Cushing v. Berry*, 2002 WL 465145 (Me. Super. Ct. 2002)
- H. Noteworthy articles and/or publications:** Robert Hirshon, Anti-competitive Covenants, 12 Maine Bar Bull. 1 (1978).
- I. Noteworthy cases summarizing scope of permissible/impermissible restraints:** *Chapman & Drake v. Harrington*, 545 A.2d 645 (Me. 1988); *Roy v. Bolduc*, 34 A.2d 479 (Me. 1943); *Spottiswoode v. Levine*, 730 A.2d 166 (Me. 1999); *Prescott v. Ross*, 383 F.Supp.2d 180 (D. Me. 2005).

MARYLAND

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett
Venable LLP
575 7th Street, NW
Washington, DC 20004-1601
Direct: 202-344-4893
Facsimile: 202-344-8300
jrburdett@venable.com

MARYLAND

I. SUMMARY OF THE LAW

The general rule in Maryland is that if a restrictive covenant in an employment contract is supported by adequate consideration and is ancillary to the employment contract, an employee's agreement not to compete with his employer upon leaving the employment will be upheld if the restraint is confined within limits which are no wider as to area and duration than are reasonably necessary for the protection of the business of the employer and do not impose undue hardship on the employee or disregard the interest of the public. *Becker v. Bailey*, 299 A.2d 835, 837-38 (Md. 1973); *Tuttle v. Riggs-Warfield-Roloson, Inc.*, 246 A.2d 588, 590 (Md. 1968).

Some factors considered in determining enforceability include: Whether the person sought to be enjoined is an unskilled worker whose services are not unique; whether the covenant is necessary to prevent the solicitation of customers or the use of trade secrets, assigned routes, or private customer lists, whether there is any exploitation of personal contacts between the employee and customer and whether enforcement of the clause would impose an undue hardship on the employee or disregard the interests of the public. *Budget Rent A Car, Inc. v. Raab*, 302 A.2d 11, 13 (Md. 1973).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Padco Advisors, Inc. v. Omdahl*, 179 F.Supp.2d 600 (D. Md. 2002) (2 year non-compete agreement with no geographic limit which barred former employee from working with two specific competitors was reasonable); *Intelus Corp. v. Barton*, 7 F.Supp.2d 635 (D. Md. 1998) (temporal term not at issue; as to geographic term, resolving question of first impression by determining that absence of geographic term is not fatal to covenant enforcement); *Holloway v. Faw, Casson & Co.*, 572 A.2d 510, 521 (Md. 1990) (covenant requiring accountant to pay his former firm a fee if he served clients within a 40-mile radius of the office was reasonable; Court of Special Appeals did not err in reducing time from five years to three years); *Budget Rent A Car, Inc.*, 302 A.2d 11 (two year restriction within the municipality in which the sub-franchisee leases cars was reasonable but was unenforceable because firm had no protectable interest); *Millward v. Gerstung Int'l Sort. Educ., Inc.*, 302 A.2d 14 (Md. 1973) (restriction limited to area immediately surrounding city of Baltimore was reasonable); *Ruhl v. F.A. Bartlett Tree Exert Co.*, 225 A.2d 288 (Md. 1967) (two-year restriction within the six county area where employee formerly worked for the employer was reasonable).

2. *United Rentals, Inc. v. Davidson*, No. 03-C-02-007061, 2002 WL 31994250 (Md. Cir. Ct. Jul. 23, 2002) (2 year duration to be overarching, and therefore, covenant is unenforceable); *Nationwide Mut. Ins. Co. v. Hart*, 534 A.2d 999 (Md. App. 1988) (covenant restricting former employees for one year after an injunction was unenforceable because it was potentially unlimited in duration); *Ecology Services Inc. v. Clym Env'tl Services, LLC*, 952 A.2d 999 (Md. App. 2008) (citing the fact that former employees did not benefit from personal contact with customers as one factor in refusing to enforce covenant; stating that personal relationships are generally not relevant in competitive bid contract situations).

B. Incidental to the sale of a business.

1. *Checket-Columbia Co. v. Lipman*, 94 A.2d 433 (Md. App. 1953) (ten-year, ten-county restraint incidental to sale of retail store, upheld); *Anderson v. Truitt*, 148 A. 223 (Md. App. 1930) (twenty-five year, county-wide restriction ancillary to the sale of a business reasonable but not enforced because individual plaintiffs were not parties to the contract containing the restrictive covenant).

III. GENERAL COMMENTS

1. Protectable interests: Trade secrets, routes, client lists, established customer relationships, and goodwill. *Becker*, 299 A.2d 838; *Intelus Corp.*, 7 F.Supp.2d 639; cf. *Budget Rent A Car, Inc.*, 302 A.2d 11. Maryland will enforce restrictive covenants only against those employees who provide unique services or to prevent the misuse of trade secrets, routes or lists of clients, or solicitation of customers. *Nationwide Mut. Ins. Co.*, 534 A.2d at 1002 (citing *Becker*, 299 A.2d 835).

But note: Maryland employers have no protectable interest in merely preventing an increase in ordinary competition. *Intelus Corp.*, 7 F.Supp.2d at 639.

2. If a covenant is overbroad, but not deliberately unreasonable, Maryland courts are reluctant to modify and enforce it. See *Deutsche Post Global Mail, Ltd. v. Conrad*, 292 F. Supp. 2d 748, 757 (2003) (holding that blue pencil actions by the court should be limited to removal of offending language and not adding language to make covenant reasonable); *Fowler v. Printers II, Inc.*, 598 A.2d 794, 802 (Md. App. 1991); but cf. e.g., *Holloway*, 572 A.2d at 523-24 (five-year covenant reduced to three years).

3. Continued employment by itself is not sufficient consideration for a non-competition agreement. See *Tuttle*, 246 A.2d 588; *Ruhl*, 225 A.2d 290 (change in terms or conditions of employment through substitution of a new pay plan was sufficient consideration). But see *Simko, Inc. v. Graymor Co.*, 464 A.2d 1104, 1107 (Md. App.) cert. denied, 469 A.2d 452 (1983) (continuation of employment for a substantial period (nine years) beyond the threat of discharge is sufficient consideration).
4. A forfeiture of benefits provision is treated as a restraint of trade and thus is subject to the same analysis as other non-competition covenants. See, e.g., *Holloway*, 572 A.2d 510 (where the covenant did not prevent the employee from soliciting clients of his former firm, but required the employee to forfeit a portion of the fees charged to those clients); *Food Fair Stores, Inc. v. Greeliv*, 285 A.2d 632, 638 (Md. 1972) (forfeiture of benefits provision was not enforced where pension vested upon termination); *MacIntosh v. Brunswick Corp.*, 215 A.2d 222, 225 (Md. 1965).
5. Is non-compete covenant enforceable if the employee is discharged? Probably not. See *Ruhl*, 225 A.2d at 293 (where the court enforced a covenant, but noted, "[h]ad Ruhl been terminated by Barlett through no fault of Ruhl's, a different legal situation might well have been presented"); *MacIntosh v. Brunswick Corp.*, 215 A.2d 222, 225-26 (Md. 1965).
6. Will a choice of law provision in contract be followed? Generally, yes. Maryland courts will give effect to a choice of law provision unless there is no reasonable basis for the choice or the choice violates a fundamental policy of the state. *Labor Ready, Inc. v. Abis*, 767 A.2d 936 (Md. App. 2001) (giving effect to parties' choice of Washington substantive law); *CIENA Corp v. Jarrard*, 203 F.3d 312 (4th Cir. 2000) (applying Delaware substantive law); *Kronevet v. Lipchin*, 415 A.2d. 1096, 1104-05 (Md. 1980).
7. In cases involving the interpretation of a non-competition agreement, summary judgment is inappropriate unless extrinsic evidence is undisputed or only one reasonable meaning can be ascribed to the language when viewed in context. *Labor Ready*, 767 A.2d at 944 (applying Maryland procedural law)
8. Trade secrets defined: *Tabs Assocs. v. Brohawn*, 475 A.2d. 1203, 1212 (Md. App. 1984).

9. Noteworthy articles and/or publications: Restrictive Covenants in Maryland Employment Agreements: A Guide to Drafting, 11 U. Balt. L. Rev. 377 (1982).
10. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Becker*, 299 A.2d 835; *Tabs Assocs.*, 474 A.2d 1203.

MASSACHUSETTS

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP
World Trade Center West
155 Seaport Boulevard
Boston, MA 02210-2604
Main: 617-439-2293
Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

MASSACHUSETTS

I. SUMMARY OF THE LAW

A. Covenants Ancillary to an Employment Contract

In order to be enforceable, employee noncompetition agreements must be reasonable in time and space, necessary to protect legitimate interests of the employer, and not an obstruction of the public interest. "What is reasonable depends on the facts in each case."

Novelty Bias Binding Co. v. Shevrin, 175 N.E.2d 374, 376 (1961).

Reasonableness of restrictions is determined with reference to "the nature of the [employer's] business . . . the character of employment involved . . . the situation of the parties, the necessity of the restriction for the protection of the employer's business and the right of the employee to work and earn

a livelihood."

Richmond Bros. Inc. v. Westinghouse Broadcasting Co., 256 N.E.2d 304, 307 (Mass. 1970).

See *Ferrofluidics v. Advanced Vacuum Components*, 968 F.2d 1463, 1469 (1st Cir. 1992).

In deciding whether to enforce a particular agreement, a court should consider if the covenant (1) is necessary to protect the legitimate interests of the employer, (2) is supported by consideration, (3) is reasonably limited in all circumstances, including time and space, and (4) is otherwise consonant with public policy.

Bowne of Boston, Inc. v. Levine, 1997 WL 781444, at *2 (Mass. Super. Nov. 25, 1997).

"An executive employee is barred from actively competing with his employer during the tenure of his employment, even in the absence of an express covenant so providing."

Orkin Exterminating Company, Inc. v. Rathje, 72 F.3d 206, 207(1st Cir. (Mass.) 1995).

"Contracts drafted by employers to limit the employment prospects of former employees – even those at a very high level – must be construed narrowly against the employer."

Securitas Security Services USA, Inc. v. Jenkins, 16 Mass. L. Rep. 486 (Mass. Super. 2003) (citation omitted).

Employee covenants not to compete are enforceable if reasonable based on all the circumstances. Restrictive covenants in the employment context will be enforced to the extent that the restrictions are reasonably limited in time and geographic scope and are consistent with the public interest.

See *All Stainless, Inc. v. Colby*, 364 Mass. 773, 778 (1974).

Restrictive covenants are reasonable when they are narrow in geographic scope and cover a relatively short time frame.

Boch Toyota, Inc. v. Klimoski, 18 Mass. L. Rep. 80, *11 (Mass. Super. 2004) (upholding a covenant not to compete spanning a duration of twelve months and a geographic scope of thirty-five miles).

B. Covenants Incidental to the Sale of a Business

Generally, courts will enforce a non-competition agreement ancillary to the sale of a business if it is reasonable in time, space, and product line and does not conflict with the public interest.

Whitinsville Plaza, Inc. v. Kotseas, 390 N.E.2d 243, 252 (Mass. 1979).

In determining reasonableness with respect to covenants incidental to a sale, courts look to the following factors: the amount of money paid by the buyer; the identity of the name of the seller with the name of the business; the duration and importance of the seller's association with the business; and the conduct and statements of the seller at the time of the sale.

Tobin v. Cody, 180 N.E.2d 652, 656 (Mass. 1962).

In the context of the sale of a business, courts look “less critically” at covenants not to compete because they do not implicate an individual’s right to employment to the same degree as in the employment context.

Alexander & Alexander, Inc. v. Danahy, 21 Mass. App. Ct. 488, 498 (1986).

In the context of the sale of a business, courts are less concerned with unequal bargaining power between the parties than in the employment context.

Wells v. Wells, 9 Mass. App. Ct. 321, 324 (1980).

A franchise agreement should be analyzed as a sale of business where the plaintiff, former owner of a franchise, gained access to the franchise company's confidential information and trademarks, received profits from the franchise, received long-term contracts of association with the franchise corporation, received protection from competition from former franchisees under the terms of the very covenant not to compete that plaintiff now challenges, and voluntarily terminated the franchise agreement at a profit of \$72,000.

Boulangier v. Dunkin' Donuts, Inc., 442 Mass. 635, 641 (2004).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. Reasonable: *Blackwell v. E.M. Helides, Jr., Inc.*, 313 N.E.2d 926, 927 (Mass. 1974) (three-year, thirteen-city restriction reasonable); *Novelty Bias Binding v. Shevrin*, 175 N.E.2d 374 (Mass. 1961) (covenant prohibiting former employee/general manager from competing with his former employer in twenty-six states for a three-year period held reasonable where former employee had primary responsibility for employer's sales program in those areas); *New England Tree Expert Co. v. Russell*, 28 N.E.2d 997, 1000 (Mass. 1940) (stating that in appropriate circumstances a non-competition agreement can be enforced beyond the limits of the actual place of employment of the person concerned); *Marine Contrs. Co. v. Hurley*, 365 Mass. 280, 289 (1974) (covenant not to compete covering area within 100 miles of Boston reasonable); *Affinity Partners, Inc. v. Drees*, 1996 WL 1352635 (Mass. Super. 1996) (enforcing a two-year restriction preventing former employee from competing directly or indirectly with any business organization whose activities are directly or indirectly competitive with the employer, but the original noncompetition agreement that restricted the former employee from "working for any company whose activities or services are *similar* to those of the [employer]" was found to be unreasonable. (emphasis in original)); *Philips Electronics North America v. Halperin*, 2000 WL 33171040 (Mass. Super. 2000) (two-year nationwide restriction barring work in the narrow field of voice recognition software technology found reasonable); *Boch Toyota, Inc. v. Klimoski*, 18 Mass. L. Rep. 80, *11 (Mass. Super. 2004) (one-year, thirty-five mile restriction reasonable because of the narrow geographic scope and relatively short time frame).

2. Unreasonable: *Richmond Bros., Inc. v. Westinghouse Broadcasting Co.*, 256 N.E.2d 304, 307 (Mass. 1970) (five-year restriction unreasonable; court refused to enforce remaining two years on a five-year non-competition agreement for a radio broadcaster where he had complied with the agreement for almost three-year period); *Wrentham Co. v. Cann*, 189 N.E.2d 559, 562 (Mass. 1963) (five-year restriction unreasonable; affirmed enforcement of non-competition agreement for three years); *All Stainless Inc. v. Colby*, 308 N.E.2d 481, 485-86 (Mass. 1974) (two-year non-competition agreement that barred competition in New England and New York found reasonable as to time but overly broad as to territory, since it was not limited to the geographic area actually served by salesman); *Merrill Lynch, Pierce, Fenner & Smith Inc. v. DeForest*, Superior Ct., Suffolk Cty., Civ. A. No. 94-6784 (Dec. 23, 1994) (declining to issue injunction against stockbroker because of strong public policy in favor of allowing customers to use the financial consultant of their choice); *IKON Office Solutions, Inc. v. Belanger*, 59 F.Supp.2d 125, 129 (D. Mass. 1999) (two-year restriction not “categorically appropriate” when the time of employ, during which the restrictive covenants were in place, was only slightly greater than one year); *W.B. Mason Company, Inc. v. Staples, Inc.*, 2001 WL 227855 (Mass. Super. 2001) (one-year 50 or 100 mile radius restriction caused enough potential hardship to the former employees that the court modified and narrowed the breadth of the covenant to cover only those things necessary to protect the good will in issue, and it prohibited the former employees only from calling upon customers they called upon while in the employ of the former employer, for the remainder of the one-year period from the end of their employment).

B. Incidental to the sale of a business.

1. Reasonable: *Tobin v. Cody*, 180 N.E.2d 652, 658 (Mass. 1962) (permanently enjoining sellers of a scrap-metal business from engaging in that type of business and from soliciting customers of purchaser, within the county of the business sold); *Alexander & Alexander, Inc. v. Danahv*, 21 Mass. App. 488 (1986) (upholding customer-based covenant for five-year period; finding it was not unreasonable to include prospective customers within the ban and finding covenants were not unreasonably restrictive despite the fact they prevented individuals from “receiving” business; holding that in the context of the sale of a business, a covenant not to compete was proper where the seller received proceeds from the business);

Bonneau v. Meaney, 178 N.E.2d 577, 579 (Mass. 1961) (enforcing 20-year non-competition agreement made in connection with sale of telephone answering service business); *Wells v. Wells*, 400 N.E.2d 1317, 1321 (Mass. 1980) (covenant incidental to sale of interest in homemaker service business prohibiting competition in the "greater New Bedford, Plymouth and Fall River areas" for an unlimited time enforced for a period of 52 months; agreement enforceable despite restricting defendant from competing in areas in which the business had no customers or offices when the agreement was signed); *Boulangier v. Dunkin' Donuts, Inc.*, 442 Mass. 635, 644 (2004) (rejecting the argument that the portion of a covenant not to compete prohibiting employment by a competitor within a five-mile area of a Dunkin' Donuts implicates a liberty right).

III. GENERAL COMMENTS

A. Protectible interests: A covenant not to compete is reasonable if its purpose is to protect an employer's legitimate business interests, including good will, customer contacts, trade secrets, other confidential business information, and company reputation; courts will not enforce covenants designed to protect against ordinary competition. See *Marine Contrs. Co., Inc. v. Hurley*, 310 N.E.2d 915 (Mass. 1974); *Wells v. Wells*, 400 N.E.2d 1317 (Mass. 1980); *National Hearing Aid Centers, Inc. v. Ayers*, 311 N.E.2d 573 (Mass. 1974) ("[S]kill and intelligence acquired or increased and improved through experience or through instruction received in the course of employment" are not protectible interests); *Club Aluminum Co. v. Young*, 263 Mass. 223, 226-27 (Mass. 1928); *Richmond Bros., Inc. v. Westinghouse Bdcst. Co., Inc.*, 357 Mass. 106, 111 (1970) (holding that protection of an employer from ordinary competition is not a legitimate business interest, and a covenant not to compete designed solely for that purpose will not be enforced); *Marcam Corp. v. Orchard*, 885 F. Supp. 294, 299 (D. Mass. 1995) ("[A] noncompetition agreement may be enforced to protect a company's reputation and its relationship with its customers."); *Workflow Solutions, LLC v. Murphy*, 2008 Mass. Super. LEXIS 305 (2008) ("The employer's interest is usually analyzed in terms of whether there are trade secrets or other confidential information at stake, or where the employer stands to lose the goodwill of its customers if the covenant is not enforced."); *Augat, Inc. v. Aegis, Inc.*, 565 N.E.2d 415 (Mass. 1991) (gross sales and other financial information may be protectible); *New England Circuit Sales, Inc. v. Randall*, 1996 U.S. Dist. LEXIS 9748 (D. Mass. 1996) ("In deciding whether certain information is confidential and should be afforded protection, several factors are relevant including the extent to which the information is known outside of the

business, the extent of measures taken by the employer to guard secrecy of the information, and the ease or difficulty with which information could be properly acquired by others”); *EMC Corp v. Gresham*, 14 Mass. L. Rep. 128 (Mass. Super. 2001) (“Good will is a broad term and encompasses a variety of intangible business attributes such as the name, location and reputation, which tends to enable the business to retain its patronage. An employer’s positive reputation or position in the eyes of its customers is an element of good will. Good will is also generated by repeat business with existing customers. Good will is a legitimate business interest that the employer is entitled to protect.”).

- B. Modification of covenants:** Although there is some authority indicating that overbroad covenants will be modified only to the extent they are divisible, the weight of authority suggests that such covenants can be modified regardless of the severability of the contract language. See *All Stainless, Inc. v. Colby*, 308 N.E.2d 481, 482 (Mass. 1974) (“If the covenant is too broad in time, in space or in any other respect, it will be enforced only to the extent that is reasonable and to the extent that it is severable for the purposes of enforcement.”); *Kroeger v. Stop & Shop Cos., Inc.*, 432 N.E.2d 566 (Mass. 1982) (reduced time); *Wrentham Co. v. Cann*, 189 N.E.2d 559 (Mass. 1963) (reduced time and geographic scope); *Ferrofluidics v. Advanced Vacuum Components*, 968 F.2d 1463, 1469 (1st Cir. 1992) (“Massachusetts courts will not invalidate an unreasonable noncompete covenant completely but will enforce it to the extent that it is reasonable.”). See also *Sentient Jets, Inc. v. Lambert*, 15 Mass. L. Rep. 500 (Mass. Super. 2002) (court imposed limitations on defendant former employees’ business until the non-competition agreements expired because totally closing defendants down would impose on them a far greater burden than that suffered by the former employer plaintiff if no relief were granted).
- C. Consideration:** Continued employment appears to be sufficient consideration for a non-competition agreement. See *Slade Gorton & Co. v. O’Neil*, 242 N.E.2d 551 (Mass. 1968); *Economy Grocery Stores Corp. v. McMenemy*, 195 N.E. 747 (Mass. 1935); *NECX v. Glidden*, Superior Ct., Essex Cty., Civ. A. No. 93-1907C (Oct. 1994); *but see First Eastern Mortgage Corp. v. Gallagher*, 2 Mass. L. Rep. 350 (July 21, 1994) (agreement was not signed as part of original employment; rather employee signed agreement reluctantly and as a result of what he perceived to be implied threats or duress); *IKON Office Solutions, Inc. v. Belanger*, 59 F.Supp.2d 125, 131 (D. Mass. 1999) (despite *McMenemy* and *Sherman v. Pfefferkorn*, “later decisions demonstrate that, in order for a restrictive covenant to withstand scrutiny, some additional consideration ought pass to an employee upon the execution of a post-employment

agreement.” The court also states, “At bottom, the courts now appear to refuse to enforce non-competition and non-solicitation agreements when the only purported consideration is the employee’s continued employment.” However, the court partially distinguishes the case at hand by noting that the new contract with the covenant not to compete was not negotiated.)

- D. **Forfeiture of benefits:** A forfeiture of benefits provision is treated as a restraint of trade and thus is generally subject to the same analysis as other non-competition covenants. *Cheney v. Automatic Sprinkler Corp. of America*, 385 N.E.2d 961, 965 (Mass. 1979).
- E. **Discharge of employee:** Non-competition covenants may or may not be enforceable if the employee is discharged. See *Economy Grocery Stores Corp. v. McMenemy*, 195 N.E. 747 (Mass. 1935) (refusing to enforce a non-competition agreement where an at-will employee was discharged without just cause); *Kroeger v. Stop & Shop Cos., Inc.*, 432 N.E.2d 566 (Mass. 1982) (explaining that while termination of the employment relationship at the initiative of the employer does not itself render a noncompetition provision invalid, an inequitable discharge may render invalid an otherwise reasonable non-competition provision); see also *Sherman v. Pfefferkorn*, 135 N.E. 568 (1922) (covenant enforceable where employer terminated employment); *Philips Electronics North America v. Halperin*, 2000 WL 33171040 (Mass. Super. 2000) (a non-competition agreement may be enforced if the employee is laid off: the employee signed a Separation Agreement that explicitly stated that she would abide by the Employment Agreement, which included the non-competition clause. “It is illogical to construe the non-competition clause as inapplicable to [the employee] because she was laid off.”).
- F. **Attorney’s fees:** Attorneys’ fees are recoverable only if addressed in the parties’ contract or by statute. *Lincoln St. Realty Co. v. Green*, 373 N.E.2d 1172 (Mass. 1978).
- G. **Breach of employment agreement by employer:** Whether an employer’s breach of an employment agreement will relieve employee of his contractual obligations not to compete depends upon the circumstances. *Ward v. American Mut. Liability Ins. Co.*, 443 N.E.2d 1342, 1343 (Mass. 1983) (holding employer’s material breach of employment agreement discharged former employee from obligation under the covenant not to compete); *Southern New England Ice Co. v. Ferrero*, 4 N.E.2d 359 (Mass. 1936) (rejecting employee’s claim that the non-competition agreement should not be enforced because the employer had not lived up to its obligation under the contract; the Federal

Bankruptcy Act prevented employer from being in a position to comply with the employment agreement).

- H. Requisite irreparable harm for an injunction:** *Marcam Corp. v. Orchard*, 885 F. Supp. 294, 297 (D. Mass. 1995) (for the purposes of determining whether the requisite irreparable harm will occur sufficient to warrant the issuing of an injunction enforcing a non-competition agreement, courts may infer that former employees who have signed noncompetition agreements will inevitably disclose confidential information, even if it is not the intention of the former employee to do so). *Philips Electronics North America v. Halperin*, 2000 WL 33171040 (Mass. Super. 2000) (for the purposes of determining whether the requisite irreparable harm will occur sufficient to warrant the issuing of an injunction enforcing a non-competition agreement, the party seeking to enforce the agreement must establish “injury that is not remote or speculative, but is actual and imminent. An injunction will not be issued to prevent the possibility of some remote future injury; a presently existing actual threat must be shown”). *Jet Spray Cooler, Inc. v. Crampton*, 361 Mass. 835, 840 (1972) (whether a departing employee actually takes any customer or supplier lists with him is not dispositive; the employee may still be enjoined if the appropriated confidential information is merely in his or her memory); see also *Boch Toyota, Inc. v. Klimoski*, 18 Mass. L. Rep. 80, *9 (Mass. Super. 2004). *Alexander & Alexander, Inc. v. Danahy*, 21 Mass. App. Ct. 488, 495-96 (1986) (“Unexplained delay in seeking relief for allegedly wrongful conduct may indicate an absence of irreparable harm and may make an injunction based upon that conduct inappropriate.”); see also *Exeter Group, Inc. v. Sivan*, 2005 Mass. Super. LEXIS 257, *15-16 (2005) (plaintiff’s delay in bringing action for injunctive relief weighed against its allegation of irreparable harm).
- I. Choice-of-law provisions:** *Shipley Co. Inc. v. Clark*, 728 F. Supp. 818, 825 (D. Mass. 1990) (choice-of-law provision upheld; Massachusetts law applicable to enforcement of non-competition agreement against two former employees who were conducting business in Michigan); *Shipley Co., Inc. v. Kozlowski*, 926 F. Supp. 28, 30 (D. Mass. 1996) (choice-of-law provision upheld; the court applied Massachusetts law and held that it was not required to apply the law of California, where the employee was working at the time of his resignation, because California did not have a fundamental policy barring non-competition clauses where trade secrets were in issue. “[A] court must disregard a choice-of-law provision in an agreement if: (1) the other state involved has a fundamental policy against the non-compete agreement; (2) that state has a materially greater interest than the designated state in the determination of the issue of enforcement of the non-competition agreement; and (3) the other state’s

law would have applied in the absence of the choice-of-law provision in the employment agreement.”). See also *Roll Systems, Inc. v. Shupe*, 1998 U.S. Dist. LEXIS 3142 (D. Mass. 1998) (choice-of-law provision denied where California found to have a materially greater interest in resolving the dispute, as the defendant was a California resident working out of California). See also *Next Generation Vending v. Bruno*, 2008 Mass. Super. LEXIS 348 (choice-of-law provision upheld where employee worked out of Massachusetts office because Massachusetts has a strong interest in enforcing agreements made by its employees and businesses).

- J. **Trade secrets defined:** *Healy v. Murphy & Son, Inc.*, 260 N.E.2d 723 (Mass. 1970) (any formula, pattern, device, or compilation of information; which is used in business of one claiming a "trade secret," and which gives him opportunity to obtain advantage over competitors who do not know it).
- K. **Physician non-competes void:** Under Mass. Gen. L. ch. 112, sec. 12X, any provision in a partnership, employment or other agreement with a physician which places any restriction on his right to practice medicine in any geographic area for any period of time after the termination of such professional relationship is void and unenforceable. *Falmouth Ob-Gyn Assocs., Inc. v. Abisla*, 629 N.E.2d 291, 293-94 (Mass. 1994) (compensation for competition clause requiring departing physician to compensate former partners is void and unenforceable because the Massachusetts physician non-competition statute prohibits "any restriction" on the ability of physicians to practice). See *Parikh v. Franklin Medical Center*, 940 F.Supp. 395 (D. Mass. 1996).
- L. **Nurse non-competes void:** Under Mass. Gen. L. ch. 112, sec. 74D (1993), any contract or agreement creating a partnership, employment or any other professional relationship with a registered nurse or licensed practical nurse, which includes any restriction on the right of the registered nurse to practice in any geographical area for any period of time after the termination of the partnership, employment or other such professional relationship is void and unenforceable.
- M. **Broadcast Industry: non-competes void:** Under Mass. Gen. L. ch. 149, sec. 186, "[a]ny contract or agreement which creates or establishes the terms of employment for an employee or individual in the broadcasting industry, including, television stations, television networks, radio stations, radio networks, or any entities affiliated with the foregoing, and which restricts the right of such employee or individual to obtain employment in a specified geographic area for a specified period of time after termination of employment of the employee by the employer or by termination of the employment relationship by mutual agreement of the employer and the

employee or by termination of the employment relationship by the expiration of the contract or agreement, shall be void and unenforceable with respect to such provision.” This statute provides that whoever violates this provision shall be liable for attorneys’ fees. See also *Carr v. Entercom Boston, LLC et al.*, 23 Mass. L. Rep. 171 (Mass. Super. 2007) (“A right of first refusal, exercised prior to the termination of an agreement, is substantively a different concept and does not, on its face, violate [sec. 186]. It can only be a statutory violation, if at all, if the right is imposed after the agreement terminates so as to prevent competition.”).

- N. **Social Workers non-competes void:** Under Mass. Gen. L. ch. 112, sec. 135C, “[a] contract or agreement creating or establishing the terms of a partnership, employment, or any other form of professional relationship with a social worker licensed under this chapter that includes a restriction of the right of the social worker to practice in any geographic area for any period of time after termination of the partnership, employment or professional relationship shall be void and unenforceable with respect to that restriction.”
- O. **Attorneys non-competes void:** A lawyer may not participate in an agreement which restricts the right of a lawyer to practice law after the termination of a relationship created by the agreement. One reason for this rule is to protect the public. The strong public interest in allowing clients to retain counsel of their choice outweighs any professional benefits derived from a restrictive covenant. *Meehan v. Shaughnessy*, 404 Mass. 419 (1989). Note, however, that forfeiture provisions are not per se illegal with respect to lawyers if a law firm could demonstrate its legitimate interest in its survival and well-being justified such a clause. *Pettingell v. Morrison, Mahoney & Miller*, 426 Mass. 253 (1997) (invalidating the forfeiture provision in the case at hand due to the lack of evidence that the departures had caused or threatened to cause any harm to the firm or its continuing partners).
- P. **Implied covenant not to compete:** *Abrams v. Liss*, 762 N.E.2d 862, 865 (Mass. App. 2002) (implied covenants not to compete are enforceable, if reasonable in time, space, and in their effect on the public interest. Good will passes with other assets in a sale of business context, even when the sale did not involve the entire business operation. This implies that “each party may not compete so as to derogate from what was given away.”).
- Q. **Franchises:** *Grease Monkey Int’l., Inc. v. Ralco Lubrication Services, Inc.*, 24 F.Supp.2d 120 (D. Mass. 1998) (covenant not to compete with a franchisor may not apply to the individual officers, directors, or shareholders of the franchisee). *Boulanger v. Dunkin’ Donuts, Inc.*, 442 Mass. 635, 635-36 (2004) (upholding covenant not to compete stemming

from franchise agreement because “Dunkin’ Donuts was protecting the very franchise system from which plaintiff himself benefited”).

- R. **Enforcement by successor corporation:** *Securitas Security Services USA, Inc. v. Jenkins*, 16 Mass. L. Rep. 486 (Mass. Super. 2003) (court would not grant successor corporation’s request for injunctive relief to uphold a non-competition provision in an employment agreement where the employee resigned before the former employer was acquired, because the employee’s agreement not to compete was made with the employer, not the successor corporation).
- S. **Bankruptcy:** *Maids Int’l. v. Ward (In re Ward)*, 194 B.R. 703 (Bankr. D. Mass. 1996) (right to injunctive relief pursuant to a covenant not to compete as a “claim” within the meaning of the Bankruptcy Code).
- T. **Damages:** *Oceanair, Inc. v. Katzman*, 14 Mass. L. Rep. 414 (Mass. Super. 2002) (can prove damages by showing the profits the company lost as a result of losing a former client’s business to the former employee’s new company, or in the alternative, it may show the profits gained by the former employee or new company).
- U. **Chapter 93A:** *Oceanair, Inc. v. Katzman*, 14 Mass. L. Rep. 414 (Mass. Super. 2002) (violation of a non-compete agreement by a former employee falls outside the scope of Mass. Gen. L. ch. 93A, which prohibits unfair or deceptive acts or practices in the conduct of a trade or business, and which provides for the award of multiple damages and attorneys’ fees in certain cases, regardless of whether the alleged violation occurs during or after the employment relationship).
- V. **Definition of “direct competition”:** *Cereva Networks, Inc. v. Lieto*, 13 Mass. L. Rep. 694 (Mass. Super. 2001) (as between two data storage companies, the companies were determined to be in direct competition not because they manufacture identical products, but because a consumer wanting or needing to update its data storage would turn only to one of these entities’ products to solve its problems. Purchasing both of these products would not be a sensible third course. In determining the meaning of direct competition, “courts have focused on the customer and to whom the product is marketed.” Direct competition is also defined as “attempting to fulfill the same need in the same marketplace.”).
- W. **Non-solicitation covenants:** *Bowne of Boston, Inc. v. Levine*, 1997 WL 781444 (Mass. Super. 1997) (a non-solicitation agreement is evaluated on essentially the same standards as a non-competition agreement, and it “will be enforced only if it is reasonable, based on all of the circumstances.” The court upheld an agreement prohibiting the former

employer, for two years from the date of termination of employment, from helping a competitor of the employer solicit the business of any customer, client or individual who worked for a customer or client, who was assigned to the employee as a potential source of business of for whom the employee received sales credit during the two years prior to leaving the employer, because the employee was in a position to appropriate the company's goodwill. An employee is in a position to appropriate an employer's goodwill when the employee's close association with the former employer's customers might cause the customers to associate the service or products at issue with the employee, rather than with the employer).

- X. **Partnership non-competes may be valid:** *McFarland v. Schneider*, 1998 WL 136133 (Mass. Super. 1998) (upholding a five-year ban on providing services to clients of the partnership, but striking down the three-year ban on all competition, as it would have a significant impact on the partner's ability to earn a living and is not essential or even highly necessary to protect the partnership's legitimate interests).
- Y. **Former employee's continuing personal ties with current employees:** *Quaboag Transfer, Inc. v. Halpin*, 19 Mass. L. Rep. 257, *12 (Mass. Super. 2005) (holding no breach of non-solicitation provision of covenant not to compete in sale of business context where former employee continued friendships and frequent social encounters with current employees whom she had known for 18 years, even if this continuing contact could give her a competitive advantage in the future if she engaged in any act of solicitation).
- Z. **Assignment:** Non-compete clauses are not assignable absent assent to such an assignment. *Securitas Security Services USA, Inc. v. Jenkins*, 16 Mass. L. Rep. 486 (Mass. Super. 2003). See also *Next Generation Vending v. Bruno*, 2008 Mass. Super. LEXIS 348 (“[U]nder Massachusetts law, a non-compete agreement is unassignable absent an express agreement permitting assignment. The burden to negotiate for an assignability clause rests with the employer -- not the employee.”) (citation omitted).
- AA. **Noteworthy articles and publications:** Reece, Employee Non-Competition Agreements and Related Restrictive Covenants: A Review and Analysis of Massachusetts Law, 76 Mass. L. Rev. 2 (1991); Hughes, Employee Non-Competition Agreements: A Review of Massachusetts Law, 1978 Mass. L. Rev. 27; Boudett, Article: The Goodwill Interest in Non-Competition Cases: Still Undefined Despite Decades of Litigation, 43 B.B.J. 6 (Sept./Oct. 1999); Reece, Department:

Legal Analysis: Employee Noncompetition Agreements: Four Recurring Issues, 46 B.B.J. 10 (Mar./Apr. 2002).

- BB. Noteworthy cases summarizing scope of permissible/ impermissible restraints:** *Middlesex Neurological Assocs. v. Cohen*, 324 N.E.2d 911 (Mass. 1975) (cited by *Falmouth Ob-Gyn Assocs., Inc. v. Abisla*, 629 N.E.2d 291, 293 (Mass. 1994) (“It seems probable that G. L. c. 112, § 12X, enacted in 1977, was a legislative response to an Appeals Court decision, *Middlesex Neurological Assocs., Inc. v. Cohen* . . . in which the court enforced a covenant restraining a physician from practicing medicine in a particular geographic area for two years after termination of his employment agreement.”)); *National Hearing Aid Centers v. Aters*, 311 N.E.2d 573 (Mass. 1974); *Abranson v. Blackman*, 166 N.E.2d 729 (Mass. 1960); *Boulanger v. Dunkin’ Donuts, Inc.*, 442 Mass. 635 (2004).

MICHIGAN

This chapter was prepared by the law firm of Barnes & Thornburg, LLP.

For further information about the summary contained in this chapter, please contact:

Don Knebel

Barnes & Thornburg, LLP
11 South Meridian Street
Indianapolis, Indiana 46204
Main: 317-236-1313
Facsimile: 317-231-7433
dknebel@btlaw.com

MICHIGAN

I. SUMMARY OF THE LAW

A. Contracts Ancillary to an Employment Relationship.

1. Contracts entered before March 29, 1985.

Under Mich. Comp. Laws §445.761 (repealed by Mich. Comp. Laws §445.778, effective March 29, 1985) a contract by which a person agreed not to compete in a profession or business was illegal. *Compton v. Lepak, D.D.S., P.C.*, 154 Mich. App. 360, 397 N.W.2d 311, 313-14 (1986), *leave denied*, 428 Mich. 862 (1987). A narrow exception existed for covenants not to compete obtained from employees to whom route lists had been furnished. Those covenants were enforced if they were limited to a period of 90 days after termination and prohibited competition only within the territory that the employee had worked. Mich. Comp. Laws §445.766 (repealed).

All contracts entered before March 29, 1985 are subject to §445.761. *Compton*, 397 N.W.2d at 315-16; *Production Finishing Corp. v. Shields*, 158 Mich. App. 479, 405 N.W.2d 171, 176 (1987), *cert. denied*, 488 U.S. 955 (1988); *Burns Clinic Medical_Center P.C. v. Vorenkamn*, 165 Mich. App. 224, 418 N.W.2d 393, 394 (1987.), *appeal denied*, 425 N.W.2d 90 (1988).

Even contracts entered into before March 29, 1985 are enforceable if they can be characterized as “anti-piracy provisions,” directed to protecting confidential information. *Merrill, Lynch, Pierce, Fenner & Smith Inc. v. Ran*, 67 F. Supp.2d 764, 774 (E.D. Mich. 1999).

2. Contracts entered after March 29, 1985.

Under Mich. Comp. Laws §445.774a:

- (a) An employer may obtain from an employee an agreement or covenant which protects an employer's reasonable competitive business interests and expressly prohibits an employee from engaging in employment or a line of business after termination of employment if the agreement or covenant is reasonable as to its duration, geographical area, and the type of employment or line of business. To the extent any such agreement or covenant is found to be unreasonable in any respect, a court may limit the agreement to render it reasonable in light of the circumstances in which it was made and specifically enforce the agreement as limited.

- (b) If a non-compete agreement entered into after March 29, 1985 is not within the scope of Mich. Corp. Laws §445.774a, it is enforceable if reasonable under the common law. *Bristol Window and Door, Inc. v. Hoogenstyn*, 250 Mich. App. 478, 650 N.W.2d 670 (Mich. Ct. App. 2002) (enforcing agreement against independent contractor) "But if considered with reference to the situation, business and objects of the parties, and in the light of all the surrounding circumstances with reference to which the contract was made, the restraint contracted for appears to have been for a just and honest purpose, for the protection of the legitimate interests of the party in whose favor it is imposed, reasonable as between them and not specifically injurious to the public, the restraint will be held valid." *Id.*

B. Contracts Ancillary to the Sale of a Business.

In *Brillhart v. Danneffel*, 36 Mich. App. 359, 194 N.W.2d 63, 65-66 (Mich. Ct. App. 1971), the Court held that covenants not to compete in conjunction with the sale of a business were allowed under Mich. Comp. Laws §445.766(6) (an exception to Mich. Comp. Laws §445.761) and held that a covenant not to compete for five years within 10 miles of the business which had been sold was reasonable. Mich. Comp. Laws §445.766(6) allowed covenants not to compete in conjunction with the sale or transfer "of a trade, pursuit, avocation, profession or business or the good will thereof." *Boggs v. Couturier*, 115 Mich. App. 735, 321 N.W.2d 794, 796 (Mich. Ct. App. 1982).

Covenants made ancillary to the sale of a business are generally viewed more favorably than those made in an employment context. *Great Lakes Spice Co. v. GB Seasonings, Inc.*, Case No. 05-70387, 2005 U.S. Dist. LEXIS 29795, *4-5 (E.D. Mich. Nov. 29, 2005).

In *WorcTess Agency, Inc. v. Lane*, 66 Mich. App. 538, 239 N.W.2d 417, 421 (1976), the Court held that the "sale of business along with its accompanying good will" creates an implied covenant not to solicit customers of the business.

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

Under Mich. Comp. Laws §445.774a(1), effective March 29, 1985, a covenant not to compete will be enforced if it is "reasonable as to its duration, geographical area; and the type of employment or line of business." See *United Rentals (North America), Inc. v. Keizer*, 202 F. Supp. 2d 727, 740 (W.D. Mich. 2002) (covenant unreasonable to extent it could be construed to foreclose competition outside county); *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Ran*, 67 F. Supp. 2d 764, 773 (E.D. Mich. 1999) (one-year covenant against soliciting former customer

enforceable); *Robert Half Int'l, Inc. v. Van Steenis*, 784 F. Supp. 1263 (E.D. Mich. 1991) (the Court reformed an overbroad covenant to create an enforceable covenant which prohibited a defendant from competing for one year within 50 miles of two offices at which defendant had performed services).

Noncompetition agreements are disfavored as restraints on commerce and are only enforceable to the extent they are reasonable. A court must assess the reasonableness of the noncompetition clause if a party has challenged its enforceability. The burden of demonstrating the validity of the agreement is on the party seeking enforcement.

Coates, 741 at 545.

Michigan state and federal courts have upheld non-compete agreements covering time periods of six months to three years. *Whirlpool Corp. v. Burns*, 457 F. Supp. 2d 806, 813 (W.D. Mich. 2006). Furthermore, one Michigan court has noted that a “restriction that is not limited in its geographic scope is not necessarily unreasonable,” especially where the former employer did business in many states and several foreign countries. *Capaldi v. Liftaid Transport, L.L.C.*, No. 267981, 2006 WL 3019799, *4 (Mich. Ct. App. Oct. 24, 2006).

However, Michigan courts have not enforced covenants not to compete when the former employee had no confidential information that would have given him an unfair competitive advantage. *Certified Restoration Dry Cleaning Network, L.L.C. v. Tenke Corp.*, 511 F.3d 535, 549 (6th Cir. 2007); see also *Whirlpool*, 457 F. Supp. 2d at 813 (preventing enforcement of non-compete when former employer had presented no evidence that former employee had disclosed or was likely to disclose confidential information or use such information in his new job with a competitor).

Other notable Michigan cases involving covenants not to compete ancillary to employment contracts include *Coates v. Bastian Bros., Inc.*, 741 N.W.2d 539, 546 (Mich. Ct. App. 2007) (enforcing covenant preventing ex-employee from competing for one year within 100 miles of former employer); *St. Clair Med., P.C. v. Borgiel*, 715 N.W.2d 914 (Mich. Ct. App. 2006) (enforcing covenant in physician’s employment contract preventing him from competing within seven miles of two clinics operated by former employer for one year); *Bristol Window and Door, Inc.*, 250 Mich. App. 478, 494, 650 N.W.2d 670, 678 (under “rule of reason,” agreement precluding competition for three years within Michigan enforceable).

B. Incidental to the sale of a business.

A Michigan federal court upheld a covenant not to compete covering all states and countries in which a business had operated for a period of five years after its sale. *Great Lakes Spice Co. v. GB Seasonings, Inc.*, Case No. 05-70387, 2005 U.S. Dist. LEXIS 29795, *4-5 (E.D. Mich. Nov. 29, 2005).

Another Michigan court enforced a five-year covenant not to compete following the sale of a business in Michigan and Ohio. *Spradlin v. Lakestates Workplace Solutions, Inc. (In re Spradlin)*, 284 B.R. 830, 836 (E.D. Mich. 2002).

A covenant not to compete for five years within 10 miles of the business which had been sold was held reasonable in *Brillhart v. Dannefel*, 36 Mich. App. 359, 194 N.W.2d 63, 65-66 (Mich. Ct. App. 1971). A covenant not to compete for three years within 12 miles of the business sold by the defendant was upheld in *Roland v. Kenzie*, 11 Mich. App. 604, 162 N.W.2d 97 (Mich. Ct. App. 1968). See generally *Alterman, Trade Regulation in Michigan: Covenants Not to Compete*, 23 Wayne L. Rev. 275, 299-305 (1977) (summarizing in tabular form sale of business cases).

III. GENERAL COMMENTS

A. Protectible interests:

Mich. Comp. Laws §445.774a provides that an employer may obtain from an employee an agreement or covenant which protects an employer's "reasonable competitive business interests" Although there is little case law defining these interests, commentators suggest that they include trade secrets, corporate planning or confidential employment materials, and employee training. Golab, *Employee Non-Competition Agreements*, 67 Mich. B.J. 388, 389 (1988). Cf. *Whirlpool Corp. v. Burns*, 457 F. Supp. 2d 806, 813 (W.D. Mich. 2006) (covenant unenforceable when former employer had presented no evidence that former employee had disclosed or was likely to disclose confidential information or use such information in his new job with a competitor); *Kelsey-Haves Co. v. Maleki*, 765 F. Supp. 402, 407 (E.D. Mich. 1991) (covenant unenforceable because defendant did not have access to confidential information which could have been used on behalf of new employer).

Even when covenants not to compete were prohibited in employment relationships, Mich. Comp. Laws §445.766(6) (repealed) allowed covenants not to compete in conjunction with the sale or transfer "of a trade, pursuit, avocation, profession or business or the good will thereof." *Boggs v. Couturier*, 115 Mich. App. 735, 321 N.W.2d 794, 796 (Mich. Ct. App. 1982); see also *Cardiology Assoc. of S.W. Mich. v. Zencka*, 155 Mich. App. 632, 400 N.W.2d 606, 610 (Mich. Ct. App. 1985) (covenant not to compete unenforceable because not connected to sale of separate business interest or good will).

- B. If a covenant is overbroad a court may limit the covenant to render it reasonable in light of the circumstances in which it was made and specifically enforce the agreement as limited. Mich. Comp. Laws §445.774a(1). *Bristol Window & Door v. Hoogenstyn*, 650 N.W.2d 670, 678 (Mich. Ct. App. 2002); *Compton v. Lepak, D.D.S., P.C.*, 154 Mich. App. 360, 397 N.W.2d 311, 313-14 (Mich. Ct. App. 1986) (covenant without time limitation would be interpreted to have a duration of a reasonable time), *leave denied*, 428 Mich. 862 (1987); *Robert Half Int'l*,

Inc. v. Van Steenis, 784 F. Supp. 1263, 1273-74 (E.D. Mich. 1991) (covenant prohibiting competition within 50 miles of any of plaintiff's offices nationwide was reformed to prohibit competition within 50 miles of two offices at which defendant had performed services).

- C. Continued employment apparently constitutes sufficient consideration for a covenant not to compete if the employee's employment is at will. *Robert Half Int'l, Inc. v. Van Steenis*, 784 F. Supp. 1263, 1273 (E.D. Mich. 1991).
- D. Forfeiture of benefits provisions were enforced even before Mich. Comp. Laws §445.761 was repealed. *Tweddle v. Tweddle Litho Co.*, 80 Mich. App. 418, 264 N.W.2d 9 (Mich. Ct. App. 1978) (upholding forfeiture of profit sharing benefits where the employee engaged in activities that competed with the employer); *Woodward v. Cadillac Overall Supply Co.*, 396 Mich. 379, 240 N.W.2d 710 (Mich. 1976) (upholding denial of a former employee's right to future participation in the employer's retirement plan where the employee entered employment of a competitor); *Production Finishing Corp. v. Shields*, 158 Mich. App. 479, 405 N.W.2d 171, 177 (Mich. Ct. App. 1987), *cert. denied*, 488 U.S. 955 (1988) (enforcing provision by which employee forfeited bonuses if employee competed within three years of termination); *Rehmann Robson & Co. v. McMahan*, 187 Mich. App. 36, 466 N.W.2d 325, 327-28 (Mich. Ct. App. 1991) (enforcing "indemnity agreements" which compelled former employees to pay former employer a penalty if former employee performed services for clients of former employer within two years following termination of employment). *But see Mackie v. State Farm Mut. Auto. Ins. Co.*, 13 Mich. App. 556, 164 N.W.2d 777, 779 (1968) (summary judgment in favor of employee seeking post-employment benefits because agreement not to compete which would have precluded receipt of benefits was void under Mich. Comp. Laws §445.761). See Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. § 1001 *et seq.*, concerning federal limitations on forfeiture of post-employment benefits.
- E. Michigan does not appear to have a published decision addressing the issue of whether a covenant not to compete is enforceable if the employee is discharged. However, in at least three unpublished decisions the Michigan Court of Appeals upheld the right of employers to seek enforcement of such covenants against terminated employees. See *Medhealth Systems Corp. v. Kerr*, 2001 Mich. App. LEXIS 710, *2, 5 (Mich. Ct. App. 2001) (noting employee was fired and finding party could seek permanent injunction even though preliminary injunction had expired and contractual term had literally run while appeal was pending); *Holder v. Smith Security Corp.*, 1999 Mich. App. LEXIS 207151, *1-22 (Mich. Ct. App. 1999) (noting defendants "either quit, was terminated or [were] laid

off' in course of affirming judgment and upholding permanent injunctive relief); *Buckley v. Rish*, 1997 Mich. App. LEXIS 1938, *3, 6-9 (Mich. Ct. App. 1997) (noting that contract was terminated for cause by plaintiff, reversing finding that damage claim for expired covenant was moot). While these cases are not citable as precedent, there is also no indication that termination (outside of the context of breach by the employer, see *infra*) is a defense to enforcement.

- F.** Michigan does not appear to have addressed the specific issue of whether attorneys' fees are recoverable if a covenant not to compete provides for an award of those fees upon breach. In *Central Transport, Inc. v. Fruehauf Corp.*, 139 Mich. App. 536, 362 N.W.2d 823, 829 (Mich. 1984) (awarding attorneys' fees granted under equipment lease), the court held that contractual provisions for payment of reasonable attorneys' fees are judicially enforceable and are considered part of the damage award, not part of costs.
- G.** Michigan does not appear to have addressed the issue of whether an employer's breach of the employment agreement will relieve the employee from his contractual obligations not to compete. As a general rule, the party which commits the first material breach of a contract cannot maintain an action against the other contracting party for failure to perform. *Ehlinser v. Bodi Lake Lumber Co.*, 324 Mich. 77, 36 N.W.2d 311, 316 (Mich. 1949). At least two federal district courts sitting in diversity have cited the first breach defense to enforcement of covenants not to compete, one in the context of an employee and the other in the context of a franchisee, based on general Michigan contract law. See *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Ran*, 67 F. Supp. 2d 764, 776 (E.D. Mich. 1999) (citing *Baith v. Knapp-Stiles, Inc.*, 380 Mich 119, 126, 156 N.W. 2d 575, 578 (Mich. 1968) but finding insufficient evidence of a contractual breach by the employer); cf. *P.A.L. Investment Group, Inc. v. Staff-Builders, Inc.*, 118 F. Supp. 2d 781, 786-88 and n. 2 (E.D. Mich. 2000) (citing *Merrill Lynch* and *Baith* and finding that undisputed failure of franchisor to pay franchisee royalties prevented finding likelihood of success on the merits, denying entry of preliminary injunction based on same).
- H.** No Michigan court appears to have addressed the question of whether a choice of law provision will be enforced in a covenant not to compete. Diversity cases decided before Mich. Comp. Laws §445.761 was repealed suggested that Michigan would not honor such clauses in covenants not to compete. See, e.g. *Muma v. Financial Guardian, Inc.*, 551 F. Supp. 119 (E.D. Mich. 1982) (decided), in which the Court refused to enforce covenant not to compete (which did not contain a choice of law provision) executed in Missouri by Missouri residents because the former employee

resided in Michigan at time of suit and Michigan public policy precluded enforcement of covenants not to compete. More recent cases suggest that such clauses will typically be honored. See *Superior Consulting, Inc. v. Walling*, 851 F. Supp., 839, 846-47 (E.D. Mich. 1994), which found that the choice of Michigan law clause in contract between Michigan company and Texas resident employee invoked Michigan substantive law and not just Michigan choice of law rules. *Lowry Computer Products, Inc. v. Head*, 984 F. Supp. 1111 (E.D. Mich. 1997), followed a choice of law provision specifying Michigan law in dispute between Michigan company and California employee based both on the logic of *Superior Consulting*, and an independent analysis under Restatement (Second) of Conflict of Laws §§ 187-88. Additionally, district courts have applied choice of law clauses specifying non-Michigan substantive law in disputes involving Michigan residents. See *Neveux v. Webcraft Technologies, Inc.*, 921 F.Supp. 1568, 1571 (E.D. Mich. 1996), which analyzed the covenant's enforceability under specified New Jersey law.

- I. In 1998, Michigan adopted the Uniform Trade Secrets Act. Mich. Comp. Laws § 445.1901 *et seq.* Prior to the adoption of the UTSA, Michigan applied the definition of a trade secret set forth in the Restatement of Torts §757 comment b. *Hayes Albion Corp. v. Kuberski*, 421 Mich. 170, 364 N.W.2d 609, 614 (1984), *reh'g denied*, 421 Mich. 1202 (1985).
- J. Noteworthy articles and/or publications: Pynnonen, *Ohio and Michigan Law on Post-Employment Covenants Not to Compete*, 55 Ohio St. L. J. 215 (1994); Golab, *Employee Non-Competition Agreements*, 67 Mich. B. J. 388 (1988); Cornelius, Michigan's Law of Trade Secrets and Covenants Not to Compete: Chapter Two, 66 U. Det. L. Rev. 33 (Fall 1988); Cornelius, Supreme-Court, Legislature Say "Yes" to Michigan's Trade Secrets - Michigan's Law of Trade Secrets and Covenants Not to Compete After Haves-Albion and Repeal of the Non-Compete Statute, 64 U. Det. L. Rev. 1-227 (Fall 1986).
- K. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Robert Half Int'l. Inc. v. Van Steenis*, 784 F. Supp. 1263, 1273-74 (E.D. Mich. 1991) (enforcing covenant not to compete which prohibited competition for one year within 50 miles of two offices at which defendant had performed services); *Brillhart v. Dannefel*, 36 Mich. App. 359, 194 N.W.2d 63, 65-66 (Mich. Ct. App. 1971) (covenant not to compete for five years within 10 miles of the business which had been sold was reasonable).

MINNESOTA

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

MINNESOTA

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

Not applicable.

B. Judicial Statement of the Law

Minnesota has long recognized the importance of employee mobility and the risks associated with an undue restraint of trade caused by post-employment restrictive covenants. See, e.g., *Mentor Co. v. Brock*, 180 N.W. 553, 555 (Minn. 1920) (the right to labor is the “most important right” a person possesses and the deprivation of this right “is ruin”). More recently, Minnesota’s Supreme Court emphasized that non-competes are “looked upon with disfavor, cautiously considered and carefully scrutinized.” *Bennett v. Storz Broadcasting Co.*, 134 N.W.2d 892, 898 (Minn. 1965). The Court emphasized the importance of the “right of the employee to work and to earn a livelihood and better his status . . .” See also, *Ecolab, Inc. v. Gartland*, 537 N.W.2d 291, 294 (Minn. Ct. App. 1995) (“The court dislikes and closely scrutinizes non-compete agreements, because they partially restrict trade.”).

Despite these periodic judicial pronouncements on the problems associated with post-employment restrictive covenants, Minnesota courts will enforce these contractual agreements when they are carefully linked to legitimate corporate interests, and when they are reasonable. “Reasonableness” is measured by the nature and scope of the substantive, geographic and temporal restrictions. The test in Minnesota is “whether or not the restraint is necessary for the protection of the business or good will of the employer, . . . whether the stipulation has imposed upon the employee any greater restraint than is necessary to protect the employer’s business [taking into consideration] the nature and character of the employment, the time for which the restriction is imposed, and the territorial extent of the locality to which the prohibition extends.” *Bennett, supra*, 134 N.W.2d 892, 899-900. See, *Medtronic, Inc. v. Gibbons*, 527 F. Supp. 1085 (D. Minn. 1981); *Jim W Miller Constr., Inc. v. Schaefer*, 298 N.W.2d 455, 458 (Minn. 1980); *Davies & Davies Agency, Inc. v. Davies*, 298 N.W.2d 127, 131 (Minn. 1980).

II. CONSIDERATION ISSUES

A. Consideration Generally

If the covenant is not made ancillary to the initial employment contract, it can be sustained only if it is supported by independent consideration.

Modern Controls Inc. v. Andreadakis, 578 F.2d 1624 (8th Cir. 1978)(non-compete signed nine weeks after start date unenforceable); *Timm and Associates, Inc. v. Broad*, 2005 WL 3241832 (D. Minn. 2005)(non-compete signed three weeks after start date not ancillary); *Sanborn Mfg. Co. v. Currie*, 500 N.W.2d 161 (Minn. App. 1993)(where offer letter did not include reference to non-compete and employee asked to sign upon reporting to work, no consideration). See also, *National Recruiters, Inc. v. Cashman*, 323 N.W.2d 736, 740 (Minn. 1982) (where employee not informed of non-compete until reporting to work, no consideration); *Jostens, Inc. v. Nat'l Computer Sys.*, 318 N.W.2d 691, 703 (Minn. 1982).

B. Continued Employment

Continued employment can be sufficient consideration if the covenant is bargained for and if it provides the employee with “substantial economic and professional benefits.” Such benefits could include increased wages, a promotion, a contract of guaranteed, long-term employment, or access to information that otherwise would not have been provided. *Freeman v. Duluth Clinic Ltd.*, 334 N.W.2d 626, 630 (Minn. 1983); *Davies & Davies Agency, Inc. v. Davies*, 298 N.W.2d 127, 130 (Minn. 1980); *Satellite Indus. Inc. v. Keeling*, 396 N.W.2d 635, 639 (Minn. Ct. App. 1986); *Modern Controls, Inc. v. Andreadakis*, 578 F.2d 1264, 1267 (8th Cir. 1978); *Minnesota Min. and Mfg. Co. v. Kirkevold*, 87 F.R.D. 324, 332 (D. Minn. 1980). As the court stressed in *Davies & Davies Agency, Inc.*, the “adequacy of consideration for a non-competition contract or clause in an ongoing employment relationship should depend on the facts of each case.” 298 N.W.2d at 130. See, *Tenant Construction, Inc. v. Mason*, 2008 WL 314515 (Minn. Ct. App. 2008)(ongoing employment conditioned on the execution of the non-compete, coupled with \$500, constituted adequate consideration); *Witzke v. Mesabi Rehabilitation Services, Inc.*, 2008 WL 614353 (Minn. Ct. App. 2008)(continued employment over 17 years, involving promotions, salary increases, professional development, constituted adequate consideration, when non-compete was specifically bargained for).

C. Severance Compensation

Severance compensation may constitute adequate consideration to support post-employment restrictive covenants. See, *West Publishing Corp. v. Stanley*, 2004 WL 73590 (D. Minn. 2004)(\$200,000 in severance pay adequate consideration for one year non-compete agreement).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE “REASONABLENESS TEST” AS APPLICABLE

A. Ancillary to an employment contract.

1. Held Enforceable

- *Vital Images, Inc. v. Martel*, 2007 WL 3095378 (D. Minn. 2007) (18-month non-competes enforceable);
- *Hutchinson Tech. Corp. v. Magnecorp Corp.*, Civ. No. 06-1703 (D. Minn. July 17, 2006) (holding reasonable a two-year non-compete in an industry which is “dominated by a relatively small number of manufacturers”);
- *Millard v Elec. Cable Specialists*, 790 F. Supp. 857, 859 (D. Minn. 1992) (1-year, nationwide restraint held reasonable);
- *Minnesota Min. & Mfg. Co. v. Kirkevold*, 87 F.R.D. 324, 332-34 (D. Minn. 1980) (2-year, nationwide restriction deemed reasonable);
- *Walker Employment Service Inc. v. Parkhurst*, 219 N.W.2d 437, 442 (Minn. 1974) (single county, one-year restriction held reasonable);
- *Overholt Crop Ins. Service v. Bredeson*, 437 N.W.2d 698, 703 (Minn. Ct. App. 1989) (2-year, 6-county restriction was reasonable);
- *Creative Communications Consultants, Inc. v. Gaylord*, 403 N.W.2d 654 (Minn. Ct. App. 1987) (one year prohibition against soliciting or servicing former employer's customers upheld);
- *Alside, Inc. v. Larson*, 220 N.W.2d 274 (Minn. 1974) (2-year restriction reasonable).

2. Held Unenforceable

- *Davies & Davies Agency, Inc. v. Davies*, 298 N.W.2d 127 (Minn. 1980) (three 5-year, 50-mile restrictions modified to single 1-year, county-wide restraint);
- *Dean Van Horn Consulting Assoc. v. Wold*, 395 N.W.2d 405 (Minn. Ct. App. 1986) (3-year restriction excessive and unreasonable);

- *Klick v. Crosstown State Bank of Ham Lake*, 372 N.W.2d 85, 88 (Minn. Ct. App. 1985) (3-year temporal restriction unreasonable);
- *Harris v. Bolin*, 247 N.W.2d 600, 603 (Minn. 1976) (forfeiture provision unlimited as to time and geographic area held unenforceable).

B. Incidental to the sale of a business.

1. *Arthur J. Gallagher & Co. v. Youngdahl*, 412 F. Supp.2d 1013 (D. Minn. 2006) (when incidental to sale of business, “reasonableness” test subject to less rigorous analysis).
2. *Sealock v. Peterson*, 2008 WL 314146 (Minn. Ct. App. 2008) (non-compete enforced in connection with the sale of an optometry practice; prohibition against “competition” included advertising in restricted territory).
3. *B & Y Metal Painting, Inc. v. Ball*, 279 N.W.2d 813, 815 (Minn. 1979) (3-year, 100-mile restriction held reasonable); *Faust v. Parrott*, 270 N.W.2d 117 (Minn. 1978) (100-mile, 10-year minimum restriction upheld); *Saliterman v. Finney*, 361 N.W.2d 175 (Minn. App. 1985) (3-year, 3-mile restriction against practicing dentistry held reasonable).
4. *Bess v. Bossman*, 257 N.W.2d 791, 794 (Minn. 1977) (restriction unlimited in time and territory deemed unreasonable; modified to 5-year, city-wide restraint).

IV. GENERAL COMMENTS

- A. Assignment:** Assignment rights dependent on contract language. See *Inter-Tel, Inc. v. CA Communications, Inc.*, Civ. File No. 02-1864, 2003 WL 23119384 (D. Minn. 2003) (in Minnesota, “a finding of assignability likely depends on the language of the contract”); *Saliterman v. Finney*, 361 N.W.2d 175 (Minn. Ct. App. 1985) (limited restrictive covenant, including assignment clause, enforceable).
- B. Attorneys’ Fees:** See *Cherne Indus., Inc. v. Grounds & Assoc.*, 278 N.W.2d 81, 95 (Minn. 1979) (attorneys’ fees generally not recoverable unless provided by statute or contractual provision); see also Minn. Stat. § 325C.01, *et seq.* (attorneys’ fees may be recovered under the Uniform Trade Secrets Act). See *Kallok v. Medtronic, Inc.*, 573 N.W. 2d 356

(Minn. 1998) (attorneys' fees recoverable under tortious interference with contract analysis).

- C. Benefit Forfeiture:** A forfeiture of benefits provision is treated as a restraint of trade and thus is subject to the same analysis as other noncompetition covenants. *Bellboy Seafood Corp. v. Nathanson*, 410 N.W.2d 349, 352 (Minn. Ct. App. 1987); *Harris v. Bolin*, 247 N.W.2d 600, 601 (Minn. 1976); *National Recruiters. Inc. v. Cashman*, 323 N.W.2d 736, 741 (Minn. 1982).
- D. Choice of Law:** Choice of law provision in contract generally will be followed. *Surgidev Corp. v. Eye Technology. Inc.*, 648 F. Sup. 661, 679 (D. Minn. 1986).
- E. Compensating Employee for Not Working:** Non-competition provision that provided for compensation to employee during period of unemployment that was attributable to non-compete was enforceable (Minnesota court applying Arkansas law under choice of law provision). Summary judgment for employee affirmed. *Bannister v. Bemis Co.*, No.08-1634 (8th Cir. February 2009).
- F. Employer Breach:** Will employer's breach of the employment agreement relieve employee of contractual obligations not to compete? It depends upon the circumstances of the case, e.g., whether the employee waived the breach by acknowledging the validity of the contract after the breach occurred. See *Creative Communications Consultants. Inc. v. Gaylord*, 403 N.W.2d 654, 657 (Minn. Ct. App. 1987); *Marso v. Mankato Clinic. Ltd.*, 153 N.W.2d 281 (Minn. 1967).
- G. Equitable Modification:** If a noncompetition covenant is overbroad, it can be equitably modified. See, *Vital Images, Inc. v. Martel*, 2007 WL 3095378 (D. Minn. 2007) (agreements modified to make reasonable); *Management Recruiters International v. Professional Placement Services*, 1992 WL 61542 (Minn. Ct. App. 1992); *Bess v. Bothman*, 257 N.W.2d 791, 794 (Minn. 1977); *Davies & Davies Agcy. Inc. v. Davies*, 298 N.W.2d 127, 131 n.1 (Minn. 1980).
- H. Protectible interests:** Sale of good will, trade secrets (and other confidential information), and customer contacts. *Cherne Indus. Inc. v. Grounds & Assoc.*, 278 N.W.2d 81, 92 (Minn. 1979); *Saliterman v. Finney*, 361 N.W.2d 175, 178 (Minn. Ct. App. 1985); *Webb Pub. Co. v. Fosshage*, 426 N.W.2d 445, 449 (Minn. Ct. App. 1988); *Overholt Crop Ins. Service v. Bredeson*, 437 N.W.2d 698, 703 (Minn. Ct. App. 1989); *Bennett v. Storz Broadcasting Co.*, 134 N.W.2d 892, 898 (Minn. 1965); *Jim W. Miller Const. Inc. v. Schaefer*, 298 N.W.2d 455, 459 (Minn. 1980).

- I. **Trade secrets defined:** Minn. Stat. § 325C.01. (based on Uniform Trade Secrets Act); see also *Electro-Craft Corp. v. Controlled Motion Inc.*, 332 N.W.2d 890, 897-903 (Minn. 1983); *Medtronic, Inc. v. Advanced Bionics Corp.*, 630 NW 2d 438 (Minn. App. 2001).

- J. **Wrongful Discharge:** A noncompete covenant probably is not enforceable if the employee is wrongfully discharged. *Edin v. Jostens Inc.*, 343 N.W.2d 691, 693 (Minn. Ct. App. 1984).

MISSISSIPPI

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson
Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson
Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

MISSISSIPPI

I. STATUTORY REGULATION

None.

II. MISSISSIPPI'S LEADING CASE LAW REGARDING NON-COMPETE AGREEMENTS

Mississippi's leading non-compete cases include the following: *Redd Pest Control Co. v. Foster*, 761 So.2d 967 (Miss. Ct. App. 2000) (balancing the interests of the public, the employer, and the employee in examining a non-compete agreement to determine the agreement's enforceability, per Mississippi law); *Empiregas, Inc. v. Bain*, 599 So.2d 971 (Miss. 1992) (stating that a court may refuse to enforce a non-compete agreement if the employee's termination was arbitrary, capricious, or in bad faith).

III. ELEMENTS OF ENFORCEABILITY

A. Employment Context.

1. Geographical Restrictions.

Mississippi courts will enforce "reasonable" geographical limitations in non-compete agreements. *Empiregas* at 975. In drafting a "reasonable" agreement, the parties to a non-compete must tailor the agreement's geographical scope to meet the specific needs and customer base of the employer. Hence, the reasonableness of each non-compete depends on the facts presented in the particular situation. Mississippi courts consider many factors in analyzing the reasonableness of an agreement's geographical limitations. Customer lists, for example, may serve as substitutes for specified territorial restrictions. See *Taylor v. Cordis Corp.*, 634 F. Supp. 1242, 1249 (S.D. Miss. 1986). Parties may also limit the geographical scope of an agreement according to areas of operation and reasonable expectations of expansion. See also *Kennedy v. Metropolitan Life Ins. Co.*, 759 So.2d 362, 364, 1998-CA-01007-SCT (Miss. 2000) (stating that the validity and the enforceability of a non-competition agreement are largely predicated upon the reasonableness and specificity of its terms, primarily, the duration of the restriction and its geographic scope).

2. Time Restrictions.

For any time period stated in a non-compete, an employer must provide evidence supporting the reasonableness and necessity of

the chosen term; employers must therefore produce evidence of the amount of time and expense exhausted in training the former employee, the amount of time a novice might spend acquiring necessary skills and training, and the amount of time and expense the employer incurs in finding a suitable replacement for the employee. See *Herring Gas*, 813 F. Supp. 1239, 1246 (S.D. Miss. 1993) *aff'd* 22 F.3d 603 (5th Cir. 1994) (upholding a term lasting six years).

3. Scope of Activities Restricted.

In Mississippi, non-competes can restrict competition in virtually all industries and professions so long as they are “reasonable.” In determining reasonability, courts analyze interests held by the employer, the employee, and the public. See *Field v. Lamar*, 822 So.2d 893, 901-02 (Miss. 2002) (reasoning a physician’s right to practice could not be restricted where such restriction affected patients’ rights to choose a physician). Any activity that utilizes information taken from a former employer may become subject to reasonable restrictions. See *Taylor* at 1248. See also *Frierson v. Sheppard Bldg. Supply Co.*, 154 So.2d 151, 169-70 (Miss. 1963) (stating that an agreement listing the prohibited acts was sufficient in defining such acts).

4. Protectable Interests.

An employer’s protectable interests include protection of the customer base, protection of good will, the ability to succeed in a competitive market, the time and expense of training, the customer’s reliance on the employee’s skill and training, the protection of trade secrets, and the protection of confidential and proprietary business information. The Mississippi Uniform Trade Secrets Act, MISS. CODE ANN. § 75-26-1 to 75-26-19 governs the protection of trade secrets, which include formulae, patterns, compilations, programs, devices, methods, techniques, and processes that derive some independent economic value that the employer reasonably attempts to keep secret. MISS. CODE ANN. § 75-26-3. See *Union Nat. Life Ins. Co. v. Tillman*, 143 F. Supp. 2d 638, 644 (N.D. Miss. 2000).

5. Consideration.

Continued employment constitutes sufficient consideration for non-compete agreements in Mississippi. *Frierson* at 167. Competing employees may not rely on the defense of “lack of consideration”

because this defense is unavailable in Mississippi. Nevertheless, employees fired shortly after entering into non-compete agreements may be able to argue that the agreement was not supported by consideration. Mississippi courts have not identified any time period as a requirement to considering continued employment as sufficient consideration. See *generally Empiregas* at 977 (stating that continued employment and good behavior served as adequate consideration in non-compete agreements and that lack of consideration was not a valid defense).

6. Judicial Modification.

Mississippi courts apply the “blue pencil” approach in reforming non-compete agreements to modify contract provisions deemed unreasonable. See *Hensley v. E.R. Carpenter Co.*, 633 F.2d 1106, 1110 (5th Cir. 1980). This means that unreasonable terms may be stricken, but the court may still enforce the covenant according to reasonable terms. *Id.*

B. Sale of Business Context.

In Mississippi, a different standard applies to non-compete agreements evolving from the sale of business than for those arising out of an employment relationship. Mississippi courts are more willing to honor non-competes arising out of the sale of a business than in a general employment relationship, reasoning that a departing employee’s need for flexibility in finding a new job within the employment context is greater than the needs of an adequately compensated seller in the sale of a business. See *Cooper v. Gidden*, 515 So.2d 900, 905 (Miss. 1987) (stating that the court would scrutinize the reasonableness of a non-compete to a lesser degree in the sale of a business’s goodwill rather than in the employment context). Courts apply the same legal principles to the sale of business and employment contexts; however, courts apply that law more broadly when analyzing a non-compete covenant in the sale of a business.

IV. EMPLOYEE USE OF CONFIDENTIAL INFORMATION

Employees may be liable for misappropriation of trade secrets even if they use the secret in a form different from that which the employee received from the employer. Accordingly, an employee may be held liable for modifying or improving secrets, even if the improvements result from the employee’s own efforts. Differences in detail alone cannot preclude liability. *Cataphote Corp. v. Hudson*, 422 F.2d 1290, 1294-95 (5th Cir. 1970).

MISSOURI

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

MISSOURI

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

28 Mo. Stat. Ann. § 431.202, which went into effect July 1, 2001, provides:

1. A reasonable covenant in writing promising not to solicit, recruit, hire or otherwise interfere with the employment of one or more employees shall be enforceable and not a restraint of trade pursuant to subsection 1 of section 416.031, if:
 - (a) Between two or more corporations or other business entities seeking to preserve workforce stability (which shall be deemed to be among the protectable interests of each corporation or business entity) during, and for a reasonable period following, negotiations between such corporations or entities for the acquisition of all or a part of one or more of such corporations or entities;
 - (b) Between two or more corporations or business entities engaged in a joint venture or other legally permissible business arrangement where such covenant seeks to protect against possible misuse of confidential or trade secret business information shared or to be shared between or among such corporations or entities;
 - (c) Between an employer and one or more employees seeking on the part of the employer to protect:
 - (d) Confidential or trade secret business information; or
 - (e) Customer or supplier relationships, goodwill or loyalty, which shall be deemed to be among the protectable interests of the employer; or
2. Between an employer and one or more employees, notwithstanding the absence of the protectable interests described in subdivision (3) of this subsection, so long as such covenant does not continue for more than one year following the employee's employment; provided, however, that this subdivision shall not apply to covenants signed by employees who provide only secretarial or clerical services.
3. Whether a covenant covered by this section is reasonable shall be

determined based upon the facts and circumstances pertaining to such covenant, but a covenant covered exclusively by subdivision (3) or (4) of subsection 1 of this section shall be conclusively presumed to be reasonable if its post-employment duration is no more than one year.

4. Nothing in subdivision (3) or (4) of subsection 1 of this section is intended to create, or to affect the validity or enforceability of, employer-employee covenants not to compete.
5. Nothing in this section shall preclude a covenant described in subsection 1 of this section from being enforceable in circumstances other than those described in subdivisions (1) to (4) of subsection 1 of this section, where such covenant is reasonably necessary to protect a party's legally permissible business interests.
6. Nothing in this section shall be construed to limit an employee's ability to seek or accept employment with another employer immediately upon, or at any time subsequent to, termination of employment, whether said termination was voluntary or nonvoluntary.
7. This section shall have retrospective as well as prospective effect.

B. Judicial Statements of the Law

1. Restrictive covenants are not favored in the law because they restrain trade so they are only enforceable to protect a legitimate business interest. *AEE-EMF, Inc. v. Passmore*, 906 S.W.2d 714, 719 (Mo. App. W.D. 1995).
2. "There are at least four valid and conflicting concerns at issue in the law of non-compete agreements. First, the employer needs to be able to engage a highly trained workforce to be competitive and profitable, without fear that the employee will use the employer's business secrets against it or steal the employer's customers after leaving employment. Second, the employee must be mobile in order to provide for his or her family and to advance his or her career in an ever-changing marketplace. This mobility is dependent upon the ability of the employee to take his or her increasing skills and put them to work from one employer to the next. Third, the law favors the freedom of parties to value their respective interests in negotiated contracts. And, fourth, contracts in restraint of trade are unlawful." *Payroll Advance, Inc. v.*

Yates, 270 S.W.3d 428, 434 (Mo. App. S.D. 2008) (citing *Healthcare Servs. of the Ozarks, Inc. v. Copeland*, 198 S.W.3d 604, 609-610 (Mo. 2006)).

3. Protectable interests include the stability of an employer's workforce, the sale of goodwill, customer contacts and relationships, trade secrets, and perhaps other confidential information not rising to level of a trade secret. 28 Mo. Stat. Ann. § 431.202; *Systematic Bus. Servs., Inc. v. Bratten*, 162 S.W.3d 41, 51 (Mo. App. W.D. 2005) (customer lists need not be secret to be protected); *Easy Returns Midwest, Inc. v. Schultz*, 964 S.W.2d 450, 453 (Mo. App. E.D. 1998); *Refrigeration Indus., Inc. v. Nemmers*, 880 S.W.2d 912 (Mo. App. W.D. 1994); *Osage Glass Inc. v. Donovan*, 693 S.W.2d 71 (Mo. 1985); *Mid-States Paint & Chemical Co. v. Herr*, 746 S.W.2d 613, 617 (Mo. App. E.D. 1988); *Orchard Container Corp. v. Orchard*, 601 S.W.2d 299, 303 (Mo. App. E.D. 1980). See also *Ashland Oil. Inc. v. Tucker*, 768 S.W.2d 595 (Mo. App. E.D. 1989) (knowledge of territory, products, competition, customers and suppliers is protectable). Special training and technical education, standing alone, are not protectable interests. *Osage Glass*, 693 S.W.2d at 74.
4. In order to be enforceable a covenant restraining an employee must not only be legally valid but also reasonable as to the employer, the employee, and the public. Reasonableness is determined by the limitations on both time and area contained in the agreement. The test applied is "whether the area in which the restriction is to be enforced is larger than reasonably necessary for the protection of the covenantee." Application of this test requires "a thorough consideration of all surrounding circumstances, including the subject matter of the contract, the purpose to be served, the situation of the parties, the extent of the restraint, and the specialization of the business." . . . The burden of proving the reasonableness of the restriction is on the party claiming its benefit. *Reed, Roberts Associates, Inc. v. Bailenson*, 537 S.W.2d 238, 241-42 (Mo. App. 1976) (citations omitted).
5. If a covenant is overbroad, it can be modified and enforced to the extent it is reasonable. *Easy Returns Midwest, Inc.*, 964 S.W.2d at 453 (dicta); *Orchard Container*, 601 S.W.2d at 304; *R.E. Harrington, Inc. v. Frick*, 428 S.W.2d 945, 951 (Mo. App. 1968).
6. "The ordinary rules of contractual construction and enforcement are not necessarily applicable to non-compete agreements." *Morrow v. Hallmark Cards, Inc.*, 273 S.W.3d 15, 28 (Mo. App. W.D. 2008)

(citing *Continental Research Corp. v. Scholz*, 595 S.W.2d 396, 399 (Mo. App. E.D. 1980)).

II. CONSIDERATION ISSUES

A. Adequate Consideration

1. When a non-compete is ancillary to an at-will employment contract, continued employment constitutes sufficient consideration. *Nail Boutique, Inc., v. Church*, 758 S.W.2d 206, 210 (Mo. App. S.D. 1988); *Computer Sales Int'l, Inc. v. Collins*, 723 S.W.2d 450 (Mo. App. E.D. 1986); *Bailenson*, 537 S.W.2d at 241.

B. Inadequate Consideration

1. *Sturgis Equipment Co., Inc. v. Falcon Indus. Sales Co.*, 930 S.W.2d 14 (Mo. App. E.D. 1996) (refusing to enforce non-compete in buy-sell stock agreement between employer and employee due to lack of consideration).

C. Consideration Generally

1. Noting in dicta that “it would be more accurate to say that the justification for the covenant (the ‘consideration’) was not the continued employment *per se*, but rather the employer’s allowing the employee (by virtue of the employment) to have *continued* access to the protectable assets and relationships. Thus, it is, we suggest, merely a reductionism, and not precisely accurate, to say that the ‘consideration’ was ‘continued employment.’” *Morrow*, 273 S.W.2d at 28-29 (emphasis added).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE “REASONABLENESS TEST” AS APPLICABLE

A. Non-competes Ancillary to an Employment Agreement

1. Held Enforceable

Naegele v. Biomedical Sys. Corp., 272 S.W.3d 385, 389 (Mo. App. E.D. 2008) (upholding enforcement of non-compete/non-solicitation agreement and finding enforcing employer had protectable interest in preexisting customer contacts previously developed by employee who was subject to non-compete);

Healthcare Servs. of the Ozarks, Inc., 198 S.W.3d at 609-10 finding non-competes were enforceable against former employees in 100

mile geographic territory over two years where employer “had a protectable interest in its patient base”);

Bratten, 162 S.W.3d at 49-52 (Mo. App. W.D. 2005) (upholding enforcement of covenant barring former employee from dealing with employer’s customers but finding covenant barring employee from engaging in attending physician statement and record business for two years after termination was too broad);

Alltype Fire Protection Co. v. Mayfield, 88 S.W.3d 120 (Mo. App. E.D. 2002) (covenant not to compete preventing former employee from selling, inspecting, or servicing fire prevention devices and equipment for two years and within 100 miles of the location of the employer’s business offices, upheld);

Silvers, Asher, Sher, & McLaren, M.D.s Neurology, P.C. v. Batchu, 16 S.W.3d 340, 343 (Mo. App. W.D. 2000) (covenant not to compete preventing former employee from performing any medical services or engaging in the practice of neurology for two years and within 75 miles of the location of the employer’s business office, upheld);

Bailenson, 537 S.W.2d at 241-242 (three-year, three-state limitation reasonable under circumstances);

House of Tools & Engineering, Inc. v. Price, 504 S.W.2d 157, 159 (Mo. App. 1973) (three-year, two-state restriction upheld); and

Gold v. Holiday Rent-A-Car Int’l, Inc., 627 F. Supp. 280 (W.D. Mo. 1985) (75-mile restraint on opening of competing rental car agency upheld).

2. Held Unenforceable or Modified

Payroll Advance, 270 S.W.3d at 433-438 (affirming trial court’s finding that 50 mile, 2 year non-compete in payday loan industry was unreasonable “under the facts and circumstances of the particular industry, agreement, and geographic location here involved” and refusing to modify covenant because issue was never raised by suing employer in trial court);

JTL Consulting, L.L.C. v. Shanahan, 190 S.W.3d 389, 396-399 (Mo. App. E.D. 2006) (holding plaintiffs did not have a protectable interest in its members’ customer contacts and thus could not enforce non-solicitation clause);

Easy Returns Midwest, Inc. v. Schultz, 964 S.W.2d 450, 453-54 (Mo. App. E.D. 1998) (finding that employer failed to show that the former employee/salesperson had contacts of a kind enabling him to influence customers in any part of the geographic area to support a 30-month 24-state covenant not to compete);

West Group Broadcasting, Ltd. v. Bell, 942 S.W.2d 934 (Mo. App. S.D. 1997) (covenant unenforceable due to lack of protectable interest – “The only things that Bell took with her and used when she went from KXDG to KSYN were her aptitude, skill, mental ability, and the voice with which she was born.”);

Mid-States Paint & Chemical Co. v. Herr, 746 S.W.2d 613 (Mo. App. E.D. 1988) (350-mile restraint on industrial coatings salesman reduced to 125 miles);

Mo-Kan Cent. Recovery Co. v. Hedenkamp, 671 S.W.2d 396, 400-401 (Mo. App. W.D. 1984) (refusing to enforce a non-compete where the evidence that a bidding structure and repossession techniques were trade secrets was too general and conclusory);

Frick, 428 S.W.2d at 945 (covenant preventing competition in any state the former employer was doing business enforced as to three-state area in which the employer, a specialized corporation with a limited clientele, had over 1,900 customers); and

Sigma Chemical Co. v. Harris, 794 F.2d 371 (8th Cir. 1986) (two-year non-compete covenant lacking geographic limitation enforced so as to prohibit employment with a known competitor).

B. Non-competes Incidental to the Sale of a Business

Horizon Memorial Group, L.L.C. v. Bailey, ___ S.W.3d ___, 2009 WL 166973 (Mo. App. W.D. January 27, 2009) (affirming enforcement of a ten-year, 30 mile radius non-compete against seller of funeral business following seller’s breach of non-compete terms);

Migar Enterprises, Inc. v. DeMent, 817 S.W.2d 911, 912 (Mo. App. W.D. 1990) (five year non-compete in sale of survey business upheld);

Champion Sports Center, Inc. v. Peters, 763 S.W.2d 367 (Mo. App. E.D. 1989) (covenant not to compete in retail sale of sporting goods, equipment and trophies for 8 years within three counties upheld);

Schnucks Twenty-Five, Inc. v. Bettendorf, 595 S.W.2d 279 (Mo. App. 1979) (covenant not to engage in retail food business for ten years within 200-mile radius of the City of St. Louis found enforceable);

Kreger Glass Co. v. Kreger, 49 S.W.2d 260 (Mo. App. 1932) (seller's covenant not to compete within 25 miles of city for as long as the purchaser remained in business in same territory upheld);

Angelica Jacket Co. v. Angelica, 98 S.W. 805 (Mo. App. 1906) (seller's covenant not to engage in the manufacture of jackets and aprons in approximately 33 states for a nine-year period found enforceable).

IV. GENERAL COMMENTS

A. Specific Issues

1. Is a non-compete covenant enforceable if the employee is discharged? It depends. See *McKnight v. Midwest Eye Institute of Kansas City, Inc.*, 799 S.W.2d 909, 917 (Mo. App. W.D. 1990); *Am. Nat'l Ins. Co. v. Coe*, 657 F.Supp. 718, 723 (E.D. Mo. 1986); *Showe-Time Video Rentals, Inc. v. Douglas*, 727 S.W.2d 426 (Mo. App. S.D. 1987); *Adrian N. Baker & Co. v. Demartino*, 733 S.W.2d 14, 18 (Mo. App. 1987).
2. Are attorneys' fees recoverable? Generally not (except perhaps by the old employer on a tortious interference claim against the new employer or by the employee on the injunction bond if the TRO or preliminary injunction is dissolved). See, e.g., *Payroll Advance*, 270 S.W.3d at 434 (reversing award of attorneys' fees where employer seeking to enforce non-compete failed to show actual or threatened breach of specific terms of non-compete); *Collins & Hermann-Welsbasch & Associates Div., Inc. v. St. Louis County*, 684 S.W.2d 324, 326 (Mo. 1985) (injunction bond); see also *Dent Wizard Int'l Corp. v. Puricelli*, 976 S.W.2d 582 (Mo. App. E.D. 1998) (per curiam order; refusing to overturn on appeal that part of judgment requiring each party to pay its own attorneys' fees).
3. Will employer's breach of the employment agreement relieve the employee of his obligation not to compete? Yes, if the prior breach is material (unless the employee waives or is estopped from asserting the breach). *McKnight*, 799 S.W.2d at 914-16; *Adrian N. Baker*, 733 S.W.2d at 17; *Ballesteros v. Johnson*, 812 S.W.2d 217, 222 (Mo. App. E.D. 1991).

4. Will a choice of law provision in contract be followed? Generally, yes. See *Ozark Appraisal Service, Inc. v. Neale*, 67 S.W.3d 759, 764 (Mo. App. 2002) (Missouri courts generally will enforce a choice of law provision, as long as application of the chosen law would not violate a fundamental public policy of Missouri); *Consolidated Financial Investments, Inc. v. Manion*, 948 S.W.2d 222, 224 (Mo. App. E.D. 1997) (not a covenant case); see also *Baxter Int'l. Inc. v. Morris*, 976 F.2d 1189, 1195-1197 (8th Cir. Oct. 9, 1992) (analyzing contractual choice of law provision under Section 187 of the Restatement (Second) of Conflict of Laws (1971)). But see *Shanahan*, 190 S.W.3d at 396 (Mo. App. E.D. 2006) (noting even with Delaware choice of law provision, parties can waive choice of law by their conduct, in this case choosing to rely on Missouri law notwithstanding contract language).

5. Are punitive damages ever available against party violating or causing a breach of a non-compete? Yes. See, e.g., *Bailey*, 2009 WL 166973 (Mo. App. W.D. January 27, 2009) (reversing JNOV and finding plaintiff buyer of funeral home business offered sufficient evidence of "evil motive" to justify jury's \$100,000 punitive damages award against competing funeral home business for causing breach of non-compete by seller of funeral home business who went to work for competitor business).

B. Miscellaneous

Non-competes may be ancillary to an independent contractor relationship. See *Renal Treatment Centers-Missouri, Inc. v. Braxton*, 945 S.W.2d 557, 563 (Mo. App. E.D. 1997).

A forfeiture of benefits provision may not be treated as a restraint of trade and therefore may not be subject to the same type of analysis. See *Grebing v. First Nat'l Bank of Cape Girardeau*, 613 S.W.2d 872, 875-76 (Mo. App. E.D. 1981) (forfeiture provision in the bank/employer's non-contributory profit-sharing pension plan did not constitute a restraint of trade and thus did not require the court to determine whether it was reasonable).

Trade secrets defined: See *Nat'l Rejectors, Inc. v. Trieman*, 409 S.W.2d 1, 18-19 (Mo. 1966) (quoting Restatement of Torts § 757).

Noteworthy articles and/or publications: William M. Corrigan Jr. & Michael B. Kass, *Non-compete Agreements and Unfair Competition-An Updated Overview*, 62 J. Mo. Bar 81-90 (2006); Comment, *Covenants Not to Compete - Enforceability Under Missouri Law*, 41 Mo. L. Rev. 37 (1976).

Noteworthy case summarizing scope of permissible/impermissible restraints: See *Herrington v. Hall*, 624 S.W.2d 148 (Mo. App. W.D. 1981).

MONTANA

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Sandra L. M. Riley

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
sriley@fenwick.com

MONTANA

I. STATEMENT OF THE LAW

Montana Code Annotated Section 28-2-703 (“Section 703”) provides: “Any contract by which anyone is restrained from exercising a lawful profession, trade, or business of any kind, otherwise than is provided for by 28-2-704 or 282-2-705, is to that extent void.” Express exceptions to this rule exist for the following business transactions:

- A. Sale of goodwill of a business where the buyer continues to carry on a like business and the noncompete restricts the seller from carrying on a similar business in the following geographic territories:
 - 1. The city or county where the principal office is located;
 - 2. A county or city in any county adjacent to the county in which the principal office of the business is located; and
 - 3. Any combination of the above.
- B. Dissolution of partnership where, upon dissolution the partners agree that one or more of them may not carry on a similar business within the areas provided in the sale of goodwill exception.

While Montana statutes, with limited exceptions, provide that covenants not to compete are generally void and unenforceable, the courts will nonetheless enforce reasonable noncompete covenants. *Montana Mountain Prods. v. Curl*, 112 P.3d 979, 980 (2005) (“In addition to these two statutory exceptions to the bar on contracts in restraint of trade, this Court has held that only restraints on trade that are unreasonable are void.”).

II. PARAMETERS OF THE “REASONABLENESS” TEST

“[T]he same standard of reasonableness applies to a restrictive covenant regardless of whether it is found within a trade contract or an employment contract.” *State Med. Oxygen & Supply v. American Med. Oxygen Co.*, 782 P.2d 1272, 1276 (1989); see also *Dobbins v. DeGuire & Tucker, P.C. v. Rutherford*, 708 P.2d 577, 580 (1985) (concluding similar principles apply to restrictive covenants in trade and employment context). A noncompete covenant is reasonable and enforceable where the restriction “is (1) limited in operation as to either time or place, (2) based upon some good consideration, and (3) affords some reasonable protection for and [does] not impose an unreasonable burden upon the employer, the employee, or the public.” *State Med. Oxygen*, 782 P.2d

at 1275.

A reasonable covenant “should afford only a fair protection to the interests of the party in whose favor it is made, and must not be so large in its operation as to interfere with the interest of the public.” *Dobbins*, 708 P.2d at 580 (internal quotations and citations omitted). A covenant purporting to restrain an employee from engaging in his profession or trade is unreasonable and an unlawful restraint of trade. *Montana Mountain Prods.*, 112 P.3d at 982.

A. Reasonable covenants

1. *Daniels v. Thomas, Dean & Hoskins*, 804 P.2d 359, 370-72 (Mont. 1990): Restriction in share repurchase agreement requiring employee to accept reduced repurchase price for shares in the event he competed with former employer after termination was reasonable noncompete covenant:
 - Reasonably limited temporally: Share repurchase provision requiring payment to be made 120 days after audit following termination date, but no sooner than 240 days after termination, interpreted as temporal restriction on noncompete covenant;
 - Based on good consideration where employee-shareholder had access to the company’s confidential information during employment and employer was required to repurchase shares from employee upon termination; and
 - Afforded reasonable protection and did not impose an unreasonable burden where the covenant operated to deter, but did not prohibit, competition by imposing reduced calculation of share repurchase price in the event of post-termination competition.
 - *But see, id.* at 375-76 (dissenting op., J. Sheeny) (refusing to read provision regarding timing for payment on share repurchase as creating a temporal restriction on noncompete restriction and finding covenant should have been rejected as unreasonable and unenforceable).
2. *Dobbins*, 708 P.2d 577: Covenant requiring employee to pay fee to former employer for each of the former employer’s clients from which the employee obtained business for twelve months post-termination was not, on its face, unreasonable. Likely because the issue was not raised, the court did not distinguish between clients

the employee had solicited and those whose business was obtained through other means.

B. Unreasonable covenants

1. *State Med. Oxygen*, 782 P.2d at 1273-75: Covenant not to disclose employer's trade secrets and customer and other business-related information (regardless of confidential or public nature of information) that lacked any territorial or temporal limits violated Section 703 and was unenforceable.
2. *Montana Mountain Prods.*, 112 P.3d at 982: Three-year noncompete that "outright prohibited [former employee] from practicing her trade within 250 miles of her former employer" was an unlawful restraint of trade.
3. *First Am. Ins. Agency v. Gould*, 661 P.2d 451, 454 (Mont. 1983): Ten-year, 25-mile radius noncompete unreasonable where employer failed to prove protectable interest in customer information restrictive covenant sought to protect.

III. GENERAL COMMENTS

- A. Protectable interests:** Restrictive covenants are only enforceable to the extent reasonably necessary to protect the employer's legitimate interest. In determining whether to enforce the covenant, the court must balance the competing interests of the employer, the employee, and the public. *Dobbins*, 708 P.2d at 580. Legitimate interests include:
1. Customer information that is "confidential and not readily accessible to competitors." *First Am. Ins.*, 661 P. 2d at 454 (quoting and citing *Best Maid Dairy Farms v. Houchen*, 448 P.2d 158, 161 (1968)).
 2. The employer's goodwill and customer base. See, e.g., *Dobbins*, 708 P2d. at 579-80.
- B.** Customer restrictions are valid if they do not constitute a direct restraint on the employee's right to engage in her trade or profession. *Dobbins*, 708 P.2d at 579-80 (finding provision that required employee to pay fee to former employer for each of the former employer's clients from which the employee obtained business for twelve months post-termination did not prohibit competition and was "not unreasonable on its face").
- C. Blue pencil/modification:** The permissibility of blue penciling noncompete covenants has not been decided in the employment context.

A Montana court did blue-pencil a 100-mile-radius restrictive covenant ancillary to a sale of business. *Dumont*, 822 P.2d 96 (Mont. 1991). The court found the covenant enforceable only to the extent it restricted competition in the county in which the sale occurred and the contiguous counties, even though the 100-mile radius purported to reach beyond this statutorily permitted region. *Id.* at 98. “Under this ‘blue pencil approach’ the District court in the instant case acted correctly in limiting the noncompetition covenant to the contiguous counties as required by [Section 704].” *Id.* (citing *Treasure Chemical, Inc. v. Team Lab. Chemical Corp.*, 609 P.2d 285 (Mont. 1980)).

- D. Consideration:** A covenant signed at the inception of employment is supported by sufficient consideration. *Access Organics, Inc. v. Hernandez*, 175 P.3d 889, 903 (Mont. 2008). However, once employed, continued employment alone will not support an “after-thought” noncompete. *Id.* at 903-04. Rather, for an “after-thought” covenant not to compete to be enforceable, the employer must provide independent consideration to support the restriction. *Id.* at 903. Such independent consideration may include (but is not necessarily limited to) a salary increase or promotion, access to trade secrets or other confidential information, or a guaranteed minimum term of employment to an otherwise “at will” employee. *Id.* at 903-04.
- E. Construction:** “Contracts not to compete are by their nature in restraint of trade and are not favorably regarded by the courts. In interpreting or construing contracts which impose restrictions on the right of a party to engage in a business or occupation, the court is governed by a strict rule of construction. The agreement will not be extended by implication, and it will be construed in favor of rather than against the interest of the covenantor.” *Dumont*, 822 P.2d at 98 (quoting and citing with approval 54 Am. Jur. 2d Monopolies Etc., § 521).
- F. Will a choice of law provision in a contract be followed?**

Likely. The issue has not yet been addressed in a restrictive covenant case, but Montana courts typically follow the Restatement (Second) of Conflict of Laws and apply the law of the chosen state unless (a) it has no substantial relationship with the parties or the transaction or there is no other reasonable basis for the choice, or (b) application of the chosen state’s law would be contrary to the fundamental public policy of the state whose law would have governed the contract absent the choice of law provision. *Van Gundy v. P.T. Freeport Indonesia*, 50 F. Supp. 2d 993, 996 (D. Mont. 1999) (applying Montana choice of law rules to employment contract); *Keystone, Inc. v. Triad Sys. Corp.*, 971 P.2d 1240, 1242 (Mont. 1998).

G. Trade secrets defined: Mont. Code Ann. § 30-14-402(4).

NEBRASKA

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

NEBRASKA

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

Not applicable.

B. Judicial Statement of the Law

1. There are three general requirements relating to partial restraints of trade. First, is the restriction reasonable in the sense that it is not injurious to the public; second, is the restriction reasonable in the sense that it is no greater than is reasonably necessary to protect the employer in some legitimate interest; and, third, is the restriction reasonable in the sense that it is not unduly harsh and oppressive on the employee Satisfactory proof is required of the one seeking injunctive relief to establish the necessity for and the reasonableness of covenants restraining the inherent right to labor in cases when the restraint deals with the performance of personal services. *Securities Acceptance Corp. v. Brown*, 106 N.W.2d 456, 463-464 (Neb. 1960), *opinion clarified and rehearing denied*, 107 N.W.2d 450 (Neb. 1961). See also *Vlasin v. Len Johnson & Co.*, 455 N.W.2d 772, 775-76 (Neb. 1990); *Polly v. Ray D. Hilderman & Co.*, 407 N.W.2d 751, 754 (Neb. 1987); *Am. Security Services, Inc. v. Vodra*, 385 N.W.2d 73, 78 (Neb. 1986); *Boisen v. Petersen Flying Service, Inc.*, 383 N.W.2d 29, 33 (Neb. 1986); *Brewer v. Tracy*, 253 N.W.2d 319, 321 (Neb. 1977); *Diamond Match Div. of Diamond Int'l Corp. v. Bernstein*, 243 N.W.2d 764, 766 (Neb. 1976).
2. Protectable interests include the sale of good will, customer contacts, trade secrets and other confidential information. *Boisen*, 383 N.W.2d at 33; *Brockley v. Lozier Corp.*, 488 N.W.2d 556, 564 (Neb. 1992). Compare *Moore v. Eggers Consulting Co., Inc.*, 562 N.W.2d 534 (Neb. 1997) (Former employer not entitled to protection against ordinary competition by former employee).
3. In order to “distinguish between ‘ordinary competition’ and ‘unfair competition,’ this court has consistently focused on the employee’s opportunity to appropriate the employer’s goodwill by initiating personal contacts with the employers’ customers.” *Mertz v. Pharmacists Mut. Ins. Co.*, 625 N.W.2d 197, 204 (Neb. 2001). Specifically, “Where an employee has substantial personal contact with the employer’s customers, develops good will with such customers, and siphons away the goodwill under circumstances where the goodwill properly belongs to the employer, the

employee's resultant competition is unfair, and the employer has a legitimate need for protection against the employee's competition." *Id.*

4. "As a general rule, 'a covenant not to compete in an employment contract 'may be valid only if it restricts the former employee from working for or soliciting the former employer's clients or accounts *with whom the former employee actually did business and has personal contact.*'" *Id.* at 204-205 (emphasis added) (citing *Professional Business Servs. v. Rosno*, 589 N.W.2d at 832).
5. It is lawful for the [seller of a business] to restrict his own freedom of trade only so far as it is necessary to protect the buyer in the enjoyment of good will for which he pays. The restraint on his own freedom must be reasonable in character and in extent of space and time. . . . Courts have generally been more willing to uphold promises to refrain from competition made in connection with sales of [businesses] than those made in connection with contracts of employment. *Chambers-Dobson, Inc. v. Squier*, 472 N.W.2d 391, 397 (Neb. 1991) (citations omitted).

II. CONSIDERATION ISSUES

A. Consideration Generally

1. Continued employment appears to be sufficient consideration for a non-compete agreement. See *Brown*, 106 N.W.2d at 462-63 (dictum).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE "REASONABLENESS TEST" AS APPLICABLE

A. Non-competes Ancillary to an Employment Agreement

1. Held Enforceable

C & L Indus., Inc. v. Kiviranta, 698 N.W.2d 240 (Neb. 2005) (reversing trial court and finding covenant not to compete was not overly broad and was properly limited in scope to be enforceable because it was limited to preventing competition with clients or customers of C & L by former employee);

Vodra, 385 N.W.2d at 80 (three-year restriction barring employee from soliciting or dealing with former employer's customers whom he had serviced, upheld); and

Farmers Underwriters Ass'n v. Eckel, 177 N.W.2d 274 (Neb. 1970) (one-year restriction against soliciting former employer's customers upheld).

2. Held Unenforceable or Modified

Controlled Rain, Inc. v. Sanders, 2006 WL 1222772 (Neb. App. May 9, 2006) (affirming trial court's finding that non-compete was unenforceable because Nebraska case law required two paragraphs of non-compete be treated as integrated and non-severable despite severability clause in agreement);

Mertz, 625 N.W.2d at 205 (affirming trial court's finding that covenant not to compete was broader than reasonably necessary to protect employer's legitimate interest in customer goodwill because covenant prohibited solicitation of all pharmacies in Nebraska and not just those solicited by former employee);

Brockley, 488 N.W.2d at 564 (four-year restriction held unreasonable);

Vlassin v. Len Johnson & Co., 455 N.W.2d 772, 776 (Neb. 1990) (reversing trial court and finding three year non-compete with 50 mile radius restriction in insurance business to be unreasonable and therefore unenforceable);

Polly, 407 N.W.2d at 755 (Neb. 1987) (restriction was overly broad where it prevented employee from being employed by former employer's clients including those whom employee had never contacted);

Phillip G. Johnson & Co. v. Salmen, 317 N.W.2d 900, 904 (Neb. 1982) (covenant unreasonable where it prohibited accountant from soliciting former employer's former clients, as well as current clients whom accountant had never serviced);

Nat'l Farmers Union Serv. Corp. v. Edwards, 369 N.W.2d 76, 80 (Neb. 1985) (25-mile radius was overly broad where it comprised excessive populous outside of former employee's territory);

Brewer, 253 N.W.2d at 319 (5-year, 15-mile restriction unreasonable);

Brown, 106 N.W.2d at 467 (18-month restriction held unreasonable); and

DCS Sanitation Management v. Castillo, 435 F.3d 892 (8th Cir. 2006) (affirming judgment for former employees of DCS and finding one year non-compete preventing contract cleaning services within 100 miles of DCS was overly broad and unenforceable under Nebraska law).

B. Non-competes Incidental to the Sale of a Business

Gary's Implement, Inc. v. Bridgeport Tractor Parts, Inc., 702 N.W.2d 355 (Neb. 2005) (reversing jury verdict in favor of seller of business claiming breach of contract for failure to make annual payments and remanding due to errors to allow, among other things, buyer to prosecute counterclaim that seller breached non-compete in connection with sale of business);

H & R Block Tax Services, Inc. v. Circle A Enterprises, Inc., 693 N.W.2d 548 (Neb. 2005) (reversing trial court finding non-compete unenforceable and holding franchise agreement was analogous to sale of business and that one-year duration of covenant not to compete and geographic limitation of 45 miles from city where franchise was located were reasonable);

Squier, 472 N.W.2d at 391 (upholding two-year restraint prohibiting solicitation of former customers); and

D.W. Trowbridge Ford, Inc. v. Galyen, 262 N.W.2d 442 (Neb. 1978) (fifteen-year, one-county restriction was reasonable under the circumstances).

IV. GENERAL COMMENTS

A. Specific Issues

1. If a noncompetition covenant is overbroad, it is void. Nebraska courts will *not* equitably modify a restrictive covenant. *Terry D. Whitten, D.D.S., P.C. v. Malcom*, 541 N.W.2d 45, 47 (Neb. 1995) (no reformation regardless of modifiability clause in agreement); *Vlassin*, 455 N.W.2d at 776; *Brockley*, 488 N.W.2d at 564; *Polly*, 407 N.W.2d at 755.
2. A forfeiture of benefits provision is treated as a restraint of trade and thus is subject to the same analysis as other noncompetition covenants. *Brockley*, 488 N.W.2d at 563.

3. Whether a choice of law provision in a contract will be followed depends on whether application of the selected law would be contrary to a fundamental policy of Nebraska. *Rain & Hail Ins. v. Casper*, 902 F.2d 699, 700 (8th Cir. 1990) (court, applying Nebraska law, refused to enforce a choice of law provision selecting Iowa law to govern a restrictive covenant to be enforced in Nebraska; court concluded that application of Iowa law, which permitted modification of an overbroad covenant, would have been contrary to a fundamental policy of Nebraska law, which did not permit such reformation).

B. Miscellaneous

1. Trade secrets defined: See *Henkle & Joyce Hardware Co. v. Maco, Inc.*, 239 N.W.2d 772, 775 (Neb. 1976) (quoting from Restatement, Torts, section 757).
2. Noteworthy articles and or publications: The Legal Implications of Covenants Not to Compete in Veterinary Contracts, 71 Neb. L. Rev. 826 (1992); Dead or Alive? Territorial Restrictions in Covenants Not to Compete in Nebraska, 33 Creighton L. Rev. 175 (Dec. 1999).
3. Noteworthy cases summarizing scope of permissible/impermissible restraints. *Professional Business Services Co. v. Rosno*, 589 N.W.2d 826 (Neb. 1999), *aff'd*, 680 N.W.2d 176 (Neb. 2004); *Malcom*, 541 N.W.2d at 47; *Brockley*, 488 N.W.2d at 556; *Polly*, 407 N.W.2d at 751; *Boisen*, 383 N.W.2d at 29.

NEVADA

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Dan Ko Obuhanych

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dobuhanych@fenwick.com

NEVADA

I. STATEMENT OF THE LAW

Nevada permits reasonable covenants not to compete by statute:

Nev. Rev. Stat. § 613.200. **Prevention of employment of person who has been discharged or who terminates employment unlawful; criminal and administrative penalties; exception.**

- A. Except as otherwise provided in this section, any person, association, company or corporation within this state, or any agent or officer on behalf of the person, association, company or corporation, who willfully does anything intended to prevent any person who for any cause left or was discharged from his or its employ from obtaining employment elsewhere in this state is guilty of a gross misdemeanor and shall be punished by a fine of not more than \$5,000.
- B. In addition to any other remedy or penalty, the Labor Commissioner may impose against each culpable party an administrative penalty of not more than \$5,000 for each such violation.
- C. If a fine or an administrative penalty is imposed pursuant to this section, the costs of the proceeding, including investigative costs and attorney's fees, may be recovered by the Labor Commissioner.
- D. The provisions of this section do not prohibit a person, association, company, corporation, agent or officer from negotiating, executing and enforcing an agreement with an employee of the person, association, company or corporation which, upon termination of the employment, prohibits the employee from:
 - 1. Pursuing a similar vocation in competition with or becoming employed by a competitor of the person, association, company or corporation; or
 - 2. Disclosing any trade secrets, business methods, lists of customers, secret formulas or processes or confidential information learned or obtained during the course of his employment with the person, association, company or corporation, if the agreement is supported by valuable consideration and is otherwise reasonable in its scope and duration.

However, an agreement not to compete with a former employer will be enforced only if the terms are "reasonable." *Camco, Inc. v. Baker*, 113

Nev. 512, 518, 936 P.2d 829, 830 (1997), *citing Hansen v. Edwards*, 83 Nev. 189, 191, 426 P.2d 792, 793 (1967).

II. PARAMETERS OF THE “REASONABLENESS” TEST

A. Ancillary to an employment contract:

A restraint is unreasonable if it is greater than is required for the protection of the person for whose benefit the restraint is imposed or imposes undue hardship upon the person restricted. *Hansen*, 83 Nev. at 191-192. The period of time during which the restraint is to last and the territory that is included are important factors to be considered in determining the reasonableness of the agreement. *Id.*

B. Ancillary to the sale of a business:

Nev. Rev. Stat. § 589A.040(5)(b) allows a contract of sale to prohibit the seller of a business from competing with the purchaser of the business within a reasonable market area and for a reasonable period of time. Nev. Rev. Stat. § 589A.040(5)(b).

III. GENERAL COMMENTS

A. Protectable interests: Customer contacts and goodwill are interests protectable by a covenant not to compete. See *Camco*, 113 Nev. at 520. Trade secrets are protected by Nevada’s Uniform Trade Secrets Act, Nev. Rev. Stat. §§ 600A.010 *et seq.*

B. Scope of the restriction: An orthopedic surgeon’s two year covenant, limited to the practice of general medicine only (and not orthopedic surgery also), in the geographic area serviced by a medical clinic, was held to be reasonable. *Ellis v. McDaniel*, 95 Nev. 455, 596 P.2d 222 (1979). A podiatrist’s one year limitation for the City of Reno was held to be reasonable. *Hansen, supra* (court imposed a one year limitation to covenant which had no temporal limitation). A five year covenant not to compete was held to be *per se* unreasonable and unenforceable. *Jones v. Deeter*, 112 Nev. 291, 913 P.2d 1272 (1996). A covenant not to compete which applied to areas “targeted” for corporate expansion, where there was no established customer base or goodwill in such areas, was held to be completely unreasonable and unenforceable. *Camco, supra*.

C. Blue pencil/modification: Although earlier Nevada cases “blue penciled” overly broad covenants not to compete to render them enforceable, more recent case law reveals that Nevada courts will not “blue pencil” overly broad covenants not to compete. See, *e.g.*, *Camco, supra* (covenant not to compete which was unreasonable in territorial scope was

unenforceable as against public policy); *Deeter, supra* (five year restriction on competition held to impose too great a hardship and was therefore unenforceable).

- D. **Consideration:** Continued at-will employment is valid consideration for a post-hire non-compete restriction. *Camco*, 113 Nev. 512. Accordingly, the inception of at-will employment will also likely constitute valid consideration for a non-compete restriction. *Id.* at 518 (there is “no substantive difference between the promise of employment upon hire and the promise of continued employment subsequent to ‘day one’”).
- E. **Assignability:** Under Nevada law, absent an express assignment clause, a covenant not to compete is personal in nature and is unassignable, absent the employee’s express consent. *Traffic Control Services, Inc. v. United Rentals Northwest, Inc.*, 120 Nev. 168, 87 P.3d 1054 (2004). In addition, assignability clauses must be negotiated at arm’s length and supported by additional and separate consideration from that given in exchange for the covenant itself. *Id.* at 174-175.
- F. **Choice of law:** Under Nevada law, parties can generally select the law that will govern the validity and effect of their contract, so long as the situs has a substantial relationship to the transaction and the agreement is not contrary to the public policy of Nevada. *Engel v. Ernst*, 102 Nev. 390, 395, 724 P.2d 215 (1986) (not a covenant not to compete case). In the absence of a choice of law provision, Nevada courts generally apply the law of the state with the “most significant relationship” to the contract and the parties. *See, e.g., Insurance Co. of N. Amer. V. Hilton Hotels U.S.A., Inc.*, 908 F. Supp. 809, 814 (D. Nev. 1995) (not a covenant not to compete case).
- G. **Trade secret definition:** Nev. Rev. Stat. § 600A.030.
- H. **Protection of confidential or trade secret information (absent a covenant not to compete)?** Yes. Nevada’s Uniform Trade Secrets Act, Nev. Rev. Stat. §§ 600A.010 *et seq.* prohibits actual or threatened misappropriation of trade secrets.

NEW HAMPSHIRE

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP
World Trade Center West
155 Seaport Boulevard
Boston, MA 02210-2604
Main: 617-439-2293
Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

NEW HAMPSHIRE

I. SUMMARY OF THE LAW

In order to be enforceable, a covenant restraining an employee must not only be legally valid and supported by adequate consideration but also reasonable with respect to the interests of the employer, employee and public. The reasonableness of the agreement depends on the particular circumstances. To determine the reasonableness of a restrictive covenant ancillary to an employment contract, New Hampshire courts employ a three-pronged test: (i) whether the restriction is greater than necessary to protect the legitimate interests of the employer; (ii) whether the restriction imposes an undue hardship upon the employee; and (iii) whether the restriction is injurious to the public interest. If any of these questions is answered in the affirmative, the restriction in question is unreasonable and unenforceable. New Hampshire courts adopt a principle of strict construction when they interpret covenants not to compete. The Supreme Court of New Hampshire has stated that “the law does not look with favor upon contracts in restraint of trade or competition. Such contracts are to be narrowly construed.” *Technical Aid Corp. v. Allen*, 134 N.H. 1, 8 (1991) (reaffirmed in *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192, 197 (2005)).

However, restrictive covenants are valid and enforceable if the restraints are reasonable, given the particular circumstances of the case. *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192, 197 (2005). A covenant’s reasonableness is a matter of law for courts to decide. *Concord Orthopaedics Prof. Assoc. v. Forbes*, 142 N.H. 440, 443 (1997).

Moore v. Dover Veterinary Hospital, 367 A.2d 1044 (N.H. 1976); *Technical Aid Corp. v. Allen*, 591 A.2d 262 (N.H. 1991); *Smith, Batchelder & Rugg v. Foster*, 406 A.2d 1310 (N.H. 1979); see also *Dunfey Realty Co. v. Enwright*, 138 A.2d 80 (N.H. 1958); *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192 (N.H. 2005).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. Reasonable: *Moore v. Dover Veterinary Hospital*, 367 A.2d 1044 (N.H. 1976) (5-year restriction on practicing veterinary medicine within 20 miles of defendant’s hospital is reasonable); *Technical Aid Corp. v. Allen*, 591 A.2d 262 (N.H. 1991) (prohibition on employee’s engagement in competitive activities while he remained employed with the employer valid; eighteen-month restriction on soliciting clients of former employer reasonable); *Emery v. Merrimack Valleywood Products, Inc.*, 701 F.2d 985 (1st Cir. 1983) (one-year

limitation on sale to clients of former employer found reasonable under New Hampshire law); *Concord Orthopaedics Professional Association v. Forbes*, 702 A.2d 1273 (N.H. 1997) (two-year, twenty-five mile restriction on physician upheld as reasonable but not applicable to new patients); *ACAS Acquisitions (Precitech) Inc. v. Hobert*, 2007 N.H. LEXIS 65 (two-year restriction against engaging in any line of business that represents at least 5% of employer's gross revenues upheld as reasonable).

2. Unreasonable: *Dunfey Realty Co. v. Enwright*, 138 A.2d 80 (1958) (three-year, two county restriction found unreasonable due to limited amount of employer's business in the specified geographic area); *Smith, Batchelder & Rugg v. Foster*, 406 A.2d 1310 (N.H. 1979) (3-year restriction on contacting any customer, past or present, of the largest accounting firm in New Hampshire and Vermont is unreasonably broad); *Ferrofluidics Corp. v. Advanced Vacuum Components*, 968 F.2d 1463 (1st Cir. 1992) (five-year restraint unlimited as to geography held unreasonable as to time); *National Employment Service Corporation v. Olsten Staffing Service, Inc.*, 761 A.2d 401 (N.H. 2000) (covenant not to compete found contrary to public policy where workers were at-will light industrial laborers who were not in a position to appropriate the company's goodwill and were without access to sensitive information; 100-mile geographic limitation was greater than necessary to protect Technical Aid's legitimate interests); *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192, 199 (2005) (covenant not to compete covering 1,200 customers "goes far beyond the [company's] sphere of customer goodwill, and was more restrictive than necessary to protect the [company's] legitimate interests," given that the company had no particular claim to the goodwill of roughly 95% of those 1,200 identified customers). *Technical Aid Corp. v. Allen*, 591 A.2d 262 (N.H. 1991) (eighteen month, 100-mile restriction on engaging in a business similar to employers held unenforceable).

B. Incidental to the sale of a business.

1. Reasonable: *Gosselin v. Archibald*, 437 A.2d 302 (N.H. 1981) (five-year, fifteen mile non-competition agreement reasonable); Cf. *Bancroft & Rich v. Union Embossing Co.*, 57 A. 97 (N.H. 1903) (assignment of exclusive right to manufacture certain type of embossing machine held equivalent to sale of good will in business of manufacturing such machine; covenant not to make or sell such machines during the period for which any letters patent might be

granted or, if none were granted, for twenty years (unlimited as to space), held valid in view of the nature of the business and the limited number of customers); *Centorr Vacuum Indus., Inc. v. Lavoie*, 609 A.2d 1213, 1215 (N.H. 1992) (non-competition covenants ancillary to a sale of a business can be interpreted more liberally than employment non-competition agreements because parties bargain from more even strength and proceeds from sale of business insure covenantor will not face undue hardship) (reaffirmed in *Clarkeies Mkt., L.L.C. v. Estate of Kelley* (In re *Clarkeies Mkt., L.L.C.*), 2004 BNH 24 (Bankr. D.N.H. 2004)).

III. GENERAL COMMENTS

- A. Physician non-competes:** (“The weight of authority . . . supports enforcement of reasonable covenants not to compete involving physicians.” In determining the reasonableness of such a covenant, the court will consider the time necessary to “obliterate in the minds of the public the association between the identity of the physician with his employer’s practice.”) *Concord Orthopaedics Professional Association v. Forbes*, 702 A.2d 1273 (N.H. 1997).
- B. Protectible interests:** sale of good will, trade secrets and other confidential information. *Allied Adjustment Service v. Henev*, 484 A.2d 1189 (N.H. 1984); *Dunfey Realty Co. v. Enwright*, 138 A.2d 80 (1958); customer contacts, *Smith, Batchelder & Rugg v. Foster*, 406 A.2d 1310 (N.H. 1979); *Technical Aid*, 591 A.2d at 271-72; *National Employment Service Corporation v. Olsten Staffing Service, Inc.*, 761 A.2d 401 (N.H. 2000) (employer’s trade secrets which have been communicated to the employee during the course of employment; confidential information communicated by the employer to the employee, but not involving trade secrets, such as information on a unique business method; an employee’s special influence over the employer’s customers, obtained during the course of employment; contacts developed during the employment; and the employer business’s development of goodwill and a positive image. The mere cost associated with recruiting and hiring employees is not a legitimate interest protectible by a restrictive covenant in an employment contract.) When an employee holds a position involving client contact, it is natural that some of the goodwill emanating from the client is directed to the employee rather than to the employer, and the employer has a legitimate interest in preventing its employees from appropriating this goodwill to its detriment.” *ACAS Acquisitions (Precitech) Inc. v. Hobert*, 2007 N.H. LEXIS 65, *14 (citing *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192, 198 (2005)).

- C. **Covenant Reformation:** If covenant is overbroad, it can be reformed if the employer shows it acted in good faith in the execution of the employment contract. See *Smith, Batchelder & Rugg v. Foster*, 406 A.2d 1310, 1313 (N.H. 1979); *Technical Aid*, 591 A.2d at 271-72; *Ferrofluidics*, 968 F.2d at 1469.
- D. **Consideration:** Continued employment is sufficient consideration for a non-competition agreement. See *Smith, Batchelder & Rugg v. Foster*, 406 A.2d 1310, 1312 (N.H. 1979)
- E. **Attorneys Fees:** Attorneys fees are generally not recoverable and may be awarded only by virtue of statutory authorization, an agreement between the parties, or an established exception. See *Maguire v. Merrimack Mutual Ins. Co.*, 573 A.2d 451, 453 (1990). But see *Harkeem v. Adams*, 377 A.2d 617 (1977); *St. Germain v. Adams*, 377 A.2d 620, 623 (1977); *Kennan v. Fearon*, 543 A.2d 1379, 1383 (1988). Under the New Hampshire Uniform Trade Secrets Act, the court may award reasonable attorneys' fees to the prevailing party when a claim of misappropriation of trade secrets is made in bad faith, a motion to terminate an injunction is made or resisted in bad faith, or willful and malicious misappropriation exists. N.H. Rev. Stat. Ann. §350-B:4.
- F. **Choice of Law:** Choice of law provision in contract will be followed. *Allied Adjustment Service v. Henev*, 484 A.2d 1189, 1190 (N.H. 1984) (choice of law provisions will be honored if any significant relationship to the chosen jurisdiction exists); see also *Ferrofluidics v. Advanced Vacuum Components, Inc.*, 968 F.2d 1463, 1467-68 (1st Cir. 1992) (dictum).
- G. **Trade Secrets:** Trade secrets defined: Information that "derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use" and concerning which the owner has made "reasonable" efforts to "maintain its secrecy." N.H. Rev. Stat. Ann. §350-B:1 (1989).
- H. **Indirect Competition:** Covenants that explicitly forbid "indirect" competition may be upheld. *Centorr*, 609 A.2d at 1215 (upholding covenant incidental to sale of a business that expressly prohibited indirect competition).
- I. **Breach by Employer:** Non-competition agreements may not be enforceable if the employer breaches its employment agreement. See *Genex Cooperative, Inc. v. Bujnevicie*, 2000 WL 1507319 (D.N.H. July 17, 2000) (refusing to enforce a non-competition agreement where employer significantly decreased employee's salary. Court found this unilateral and

material reduction in salary to be a material breach of the employment agreement and refused to enforce the non-competition agreement despite a provision in the agreement that stated the restrictive covenant shall remain in full force and effect upon the termination of the agreement by either party.)

- J. Noteworthy articles and/or publications:** Russell F. Hilliard and Michael D. Urban, Covenants Not to Compete: An Overview, 30 N.H.B.J. 227 (1989); R. Jason D'Cruz, Dealing With the Moveable Employee and Complying With Employment Laws, 683 PLI/Pat 71 (2002).
- K. Noteworthy cases summarizing scope of permissible/impermissible restraints:** *Technical Aid Corp. v. Allen*, 591 A.2d 262 (N.H. 1991); *Concord Orthopaedics Professional Association v. Forbes*, 702 A.2d 1273 (N.H. 1997); *Merrimack Valley Wood Products, Inc. v. Near*, 152 N.H. 192 (N.H. 2005).

NEW JERSEY

This chapter was prepared by the law firm of Reed Smith LLP.

For further information about the summary contained in this chapter, please contact:

Frederick H. Colen

Reed Smith LLP

435 Sixth Avenue

Pittsburgh, PA 15219

Main: 412-288-7210

Facsimile: 412-288-3063

bcoyne@reedsmith.com

or

Barry J. Coyne

Reed Smith LLP

435 Sixth Avenue

Pittsburgh, PA 15219

Main: 412-288-4164

Facsimile: 412-288-3063

fcolen@reedsmith.com

NEW JERSEY

I. JUDICIAL STATEMENT OF THE LAW

In *Solari [Industries, Inc. v. Malady]*, 55 N.J. 571, 264 A.2d 53 (N.J. 1970)], we recently adopted the judicial rule that noncompetitive agreements may receive total or partial enforcement to the extent reasonable under the circumstances. However, we pointed out that while a seller's noncompetitive covenant designed to protect the good will of the business for the buyer is freely enforceable, an employee's covenant not to compete after the termination of his employment is not as freely enforceable because of well recognized countervailing policy considerations. Nonetheless an employee's covenant will be given effect if it is reasonable under all the circumstances of his particular case; it will generally be found to be reasonable if it 'simply protects the legitimate interests of the employer, imposes no undue hardship on the employee, and is not injurious to the public.' 55 N.J. at 576.

Whitmyer Bros., Inc. v. Doyle, 274 A.2d 577, 580-81 (N.J. 1971); see also *Maw v. Advanced Clinical Commc'ns, Inc.*, 846 A.2d 604, 608-09 (N.J. 2004) (explaining that the enforceability of noncompete agreements is determined under the "Solari/Whitmyer" test, and that "Solari/Whitmyer has now become an accepted part of the common law"); *Raven v. A. Klein & Co., Inc.*, 478 A.2d 1208, 1210 (N.J. Super. Ct. App. Div. 1984) ("[R]estrictive covenants will be enforced to the extent that they are reasonable as to time, area and scope of activity, necessary to protect a legitimate interest of the employer, not unduly burdensome upon the employee, and not injurious to the public interest." (citing *Solari*, 264 A.2d at 56)).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract

1. *A. Hollander & Son, Inc. v. Imperial Fur Blending Corp.*, 66 A.2d 319, 336 (N.J. 1949) (two-year, east of St. Louis, Missouri, noncompete covenant reasonable); *Irvington Varnish & Insulator Co. v. Van Norde*, 46 A.2d 201 (N.J. 1946) (two-year nationwide noncompete covenant may be enforceable); *A.T. Hudson & Co., Inc. v. Donovan*, 524 A.2d 412 (N.J. Super. Ct. App. Div. 1987) (two-year noncompete covenant restricted to former employer's customers was enforceable); *Hogan v. Bergen Brunswick Corp.*, 378 A.2d 1164 (N.J. Super. App. Div. 1977) (one-year, two-county restriction was reasonable); *Karlin v. Weinberg*, 372 A.2d 616 (N.J. Super. Ct. App. Div. 1977), *aff'd*, 390 A.2d 1161 (N.J. 1978) (five-year, ten-mile radius restriction on dermatologist was reasonable).

2. *Solari Indus., Inc. v. Malady*, 264 A.2d 53 (N.J. 1970) (court adopted rule that overly broad noncompetitive provisions are partially enforceable to the extent reasonable under the circumstances and applied the rule to limit a broad one-year noncompete covenant with no geographic limitation to the United States); *Mallman, Ross, Toyes & Shapiro v. Edelson*, 444 A.2d 75 (N.J. Super. Ct. Ch. Div. 1982) (covenant restricting accountant was enforced only to the extent that the accountant could not solicit his former employer's customers; he could, however, serve those customers that chose to go with him).

3. *Comprehensive Psychology System, P.C. v. Prince*, 867 A.2d 1187 (N.J. 2005) (two-year, ten-mile radius restriction on psychologist was barred by rules of Board of Psychological Examiners; analogy was drawn to rules applicable to attorneys and client/patient choice was prioritized); *Community Hospital Group, Inc. v. More*, 869 A.2d 884 (N.J. 2005) (thirty-mile restriction prohibiting neurosurgeon from engaging in any practice of medicine was unreasonable).
 - (a) Incidental to the sale of a business
 - i) *Heuer v. Rubin*, 62 A.2d 812, 814 (N.J. 1949) (court enforced covenant preventing sellers of fruit and vegetable business from engaging in a similar business within the city of Rahway, even though there was no time limitation; where the "space contained in the covenant is reasonable and proper there need be no limitation as to time"); *J.H. Renarde, Inc. v. Sims*, 711 A.2d 410, 413 (N.J. Super. Ct. Ch. Div. 1998) (restrictive covenants made in connection with the sale of a business are assignable without express language to that effect and pass as an incident of the sale even though not specifically assigned); *Coskey's Television & Radio Sales & Service, Inc. v. Foti*, 602 A.2d 789, 793 (N.J. Super. Ct. App. Div. 1992) (covenants not to compete ancillary to the purchase of a business are given far more latitude than those ancillary to employment contracts); *Artistic Porcelain Co. v. Boch*, 74 A. 680, 681 (N.J. Ch. 1909) (three and a half-year covenant is enforceable by injunction).
 - ii) *Trenton Potteries Co. v. Oliphant*, 43 A. 723 (N.J. 1899); *Bloomfield Baking Co. v. Maluvius*, 163 A. 441 (N.J. Ch. 1932) (60-block radius for three years enforceable).

- iii) *Jackson Hewitt, Inc. v. Childress*, 2008 WL 834386, *7 (D. N.J. March 27, 2008) (restrictions contained in franchise agreements are analogous to those contained in a sale of business, thus they must be freely enforced).

III. GENERAL COMMENTS

- A. Protectable interests: Customer relationships, trade secrets, and confidential information, as distinguished from matters which are generally known within the industry or community. *Whitmyer Bros., Inc. v. Doyle*, 274 A.2d 577, 581 (N.J. 1971); *A.T. Hudson & Co., Inc. v. Donovan*, 524 A.2d 412, 433 (N.J. Super. Ct. App. Div. 1987).
- B. If a covenant is overbroad, the court may modify or “blue pencil” it and enforce it as modified to the extent reasonable. *Karlin v. Weinberg*, 390 A.2d 1161, 1168 (N.J. 1978); *Solari Indus., Inc. v. Malady*, 264 A.2d 53,61 (N.J. 1970); See, e.g., *Richards Manufacturing Co. v. Thomas & Betts Corp.*, 2005 WL 2373413 (D.N.J. Sept. 27, 2005).
- C. Continued employment is sufficient consideration for a noncompetition agreement. See, e.g., *Hogan v. Bergen Brunswick Corp.*, 378 A.2d 1164, 1167 (N.J. Super. Ct. App. Div. 1977).
- D. A forfeiture of benefits provision apparently will be treated as a restraint of trade and therefore be subject to the same type of analysis. See, e.g., *Jacob v. Norris, McLaughlin & Marcus*, 607 A.2d 142, 148-49 (N.J. 1992) (attorney termination agreement which barred severance pay to attorneys if they rendered post-termination services to clients of the firm was void as violative of the public policy which gives the public the right to engage counsel of its own choosing); *Ellis v. Lionikis*, 394 A.2d 116, 119 (N.J. Super. Ct. App. Div. 1978) (restrictive covenant ancillary to benefits plan was subject to the same reasonableness standard as restrictive covenants ancillary to employment contracts); *Knollmeyer v. Rudco Indus., Inc.*, 381 A.2d 378, 380 (N.J. Super. Ct. App. Div. 1977) (forfeiture of benefits provision was valid as it only applied if defendant worked for plaintiff’s competitor). See also *Ingersoll-Rand Co. v. Ciavatta*, 542 A.2d 879 (N.J. 1988) (restrictive covenant purporting to give employer rights to inventions patented post-termination was subject to the same reasonableness standard as covenants not to compete).
- E. Is a noncompete covenant enforceable if the employee is discharged? Maybe. The *Hogan* court enforced the covenant against an employee who had been discharged, but the court did not address the issue of involuntary termination. But see *Karlin v. Weinberg*, 390 A.2d 1161, 1169

(N.J. 1978) (court suggests that if employer breaches employment contract, the covenant may be unenforceable).

- F. Will employer's breach of employment agreement relieve the employee of his obligation not to compete? *Karlin* suggests it will. See 390 A.2d at 1169.
- G. Can employer enforce an agreement when employer's former client, with whom employer does not currently have a relationship, hires employer's former employee? No. Enforcement of this type of agreement would improperly stifle competition. *Cost Reduction Solutions v. Durkin Group, LLC*, 2008 WL 3905679, at *4 (N.J. Super. Ct. App. Div. Aug. 22, 2008).
- H. Will a choice of law provision in a contract be followed? Yes, so long as it does not violate the public policy of New Jersey. See *Solari Indus., Inc. v. Malady*, 264 A.2d 53 (N.J. 1970); *Raven v. A. Klein & Co., Inc.*, 478 A.2d 1208, 1210 (N.J. Super. Ct. App. Div. 1984). See also *Shotwell v. Dairyman's League Coop. Ass'n, Inc.*, 37 A.2d 420, 422 (Warren County Ct. 1944).
- I. Trade secrets defined: *Ingersoll-Rand Co. v. Chiavatta*, 542 A.2d 879, 893 (N.J. 1988); *Whitmyer Bros., Inc. v. Doyle*, 274 A.2d 577, 581 (N.J. 1971); *Raven v. A. Klein & Co., Inc.*, 478 A.2d 1208, 1210 (N.J. Super. Ct. App. Div. 1984).
- J. Former employees may be enjoined from disclosing the trade secrets of their former employers, either by an express contract or through an implied contract by virtue of their confidential relationship. *Stone v. Goss*, 55 A. 736 (N.J. 1903). An employer may enjoin a former employee from using or disclosing a trade secret learned during the employment, even in the absence of an express agreement to that effect. *Sun Dial Corp. v. Rideout*, 108 A.2d 442, 446 (N.J. 1954).
- K. A lawyer violates the New Jersey Rules of Professional Conduct by offering or making: (1) a partnership or employment agreement that restricts the rights of a lawyer to practice after termination of the relationship, except an agreement concerning benefits upon retirement; or (2) an agreement in which a restriction on the lawyer's right to practice is part of the settlement of a controversy between private parties. N.J. Rule Prof. Conduct 5.6 (1998).
- L. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Solari Indus., Inc. v. Malady*, 264 A.2d 53 (N.J. 1970); *Rubel & Jenson Corp. v. Rubel*, 203 A.2d 625, 629 (N.J. Super. Ct. App. Div. 1964).

NEW MEXICO

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson
Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson
Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

NEW MEXICO

I. STATUTORY AUTHORITY

New Mexico has no statute governing the enforceability or reasonableness of covenants not to compete.

II. SUMMARY OF LAW

New Mexico courts have not decided many covenant not to compete cases. The Supreme Court authored the seminal case in 1939 and stated “[i]t is of course a well established rule that a naked agreement by one party not to engage in business in competition with another party is in contraventions of public policy and therefore void, unless such agreement and restriction be incidental to some general or principal transaction. That is, its main object must not be to stifle competition. *Nichols v. Anderson*, 92 P.2d 781, 783 (1939) (quoting *Gross, Kelly & Co. v. Bebo*, 145 P. 480 (N.M. 1914)). The court continued, stating that “[t]he principle is firmly established that contracts only in partial restraint of any particular trade or employment, if founded upon a sufficient consideration, are valid and enforceable, if the restraint be confined within limits which are no larger and wider than the protection of the party with whom the contract is made may reasonably require.” *Id.* (citation omitted).

More recently, a court noted that “[n]on-competition covenants are ordinarily enforceable as long as a court deems them reasonable.” *Insure New Mexico, L.L.C. v. McGonigle*, 995 P.2d 1053 (N.M. App. 2000) citing *Bowen v. Carlsbad Ins. & Real Estate, Inc.*, 724 P.2d 223, 225-26 (1986).

III. ELEMENTS OF ENFORCEABILITY

A. Employer’s Protectable Interest

An employer’s protectable interest include trade secrets such as goodwill and the employer’s relationship with its customers. See *Lovelace Clinic v. Murphy*, 417 P.2d 450, 453 (1966); *Manuel Lujan Ins. v. Jordan*, 673 P.2d 1306 (1983); *Nichols v. Anderson*, 92 P.2d 781, 783 (1939).

B. Reasonableness Requirements

The only requirement for enforcing a covenant not to compete in New Mexico is that the length of time and geographic restriction must be no greater than that needed to protect the employer’s legitimate interests. See *Nichols v. Anderson*, 92 P.2d 781, 783 (1939) (court upheld the covenant not to compete that prohibited employee from directly or indirectly soliciting, calling for, or delivering articles to be cleaned, pressed or dyed or laundered in the Las Vegas or any other area where the

employee served the employer for one year after termination of employment was enforceable); *Manuel Lujan Insurance, Inc. v. Jordan*, 673 P.2d 1306 (1983) (the court upheld a 2-year non-compete agreement); *Lovelace Clinic v. Murphy*, 417 P.2d 450 (N.M. 1966) (the court held that a covenant which prohibited a doctor from practicing medicine in one county for three years was enforceable. The court noted that “[t]here is no doubt that this type of covenant tends to some extent to eliminate or restrict competition, and in many instances may operate as some compulsion on the part of the employee to remain in the employ of the employer. These are usually the main purposes of such covenants, and these are legitimate purposes, so long as the restrictions are reasonable. The court commented that “[i]n determining reasonableness, courts consider such factors as the nature of the business, its location, the parties involved, the purchase price, and the main object of the restriction).

C. Consideration

New Mexico courts have not directly addressed what consideration is necessary for a covenant not to compete to be enforceable. However, the courts have enforced covenants not to compete entered into at the inception of the employment relationship and after the inception of the employment relationship. *Manuel Lujan Ins. v. Jordan*, 673 P.2d 1306 (1983); *Nichols v. Anderson*, 92 P.2d 781, 783 (1939).

IV. GENERAL COMMENTS

A. Forfeiture Provisions

A forfeiture of benefits provision apparently will not be treated as a restraint of trade and thus not be subject to the same analysis as other noncompetition covenants. *Swift v. Shop Rite Food Stores, Inc.*, 489 P.2d 881 (N.M. 1971). In *Swift*, the court upheld the validity of a forfeiture provision contained in an employer’s profit-sharing plan. The *Swift* court’s decision apparently is grounded on the fact that the forfeiture provision therein did not (1) provide the former employer the right to enjoin the former employee from being employed by a competing business or (2) make the former employee civilly liable to the employer for any other breach of covenant. This type of reasoning indicates that the New Mexico Supreme Court does not consider a forfeiture provision to be a restraint of trade.

B. Enforceability if Employer Terminates Employee

One court determined that an employee would not be bound by covenant

not to compete when the employer terminated the employee without cause and the agreement specifically provided that the employee would not be bound in such a circumstance. *Danzer v. Professional Insurors*, 679 P.2d 1276, 1280-81.

C. Choice of Law Provisions

New Mexico courts have not directly addressed choice of law provisions in the covenant not to compete context. In addition, New Mexico has not expressly adopted Sections 186-88 of the Restatement (Second) of Conflict of Laws. Therefore, a court would likely weigh the public policy interest in enforcing the covenant in New Mexico versus the enforceability of the covenant in the chosen state.

D. Sale of Business

New Mexico courts are much more likely to enforce a restrictive covenant in a sale of business context than in an employment context. *Sonntag v. Shaw*, 22 P.3d 1188 (N.M. 2001).

E. Attorney's Fees

New Mexico courts have not specifically addressed whether attorney's fees are recoverable in a covenant not to compete case. In New Mexico, attorney's fees are not recoverable unless there is statutory authority or a rule of a court. *Hiatt v. Keil*, 738 P.2d 121, 122 (N.M. 1987). Therefore, it is unlikely that attorney's fees are recoverable in a covenant not to compete case.

NEW YORK

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP
World Trade Center West
155 Seaport Boulevard
Boston, MA 02210-2604
Main: 617-439-2293
Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

NEW YORK

I. SUMMARY OF THE LAW

“At one time, a covenant not to compete . . . was regarded with high disfavor by the courts and denounced as being ‘against the benefit of the commonwealth’ . . . It later became evident, however, that there were situations in which it was not only desirable but essential that such covenants not to compete be enforced.

“Where, for instance, there is a sale of a business, involving as it does the transfer of its good will as a going concern, the courts will enforce an incidental covenant by the seller not to compete with the buyer after the sale . . . The sole limitation on the enforceability of such a restrictive covenant is that the restraint imposed be ‘reasonable,’ that is, not more extensive, in terms of time and space, than is reasonably necessary to the buyer for the protection of his legitimate interest in the employment of the assets lost . . .

“Also enforceable is a covenant given by an employee that he will not compete with his employer when he quits his employ, and the general limitation of ‘reasonableness,’ to which we have just referred, applies equally to such a covenant . . . However, . . . the courts have generally displayed a much stricter attitude with respect to covenants of this type . . . Thus, a covenant by which an employee simply agrees, as a condition of his employment, not to compete with his employer after they have severed relations is not only subject to the overriding limitation of ‘reasonableness’ but is enforced only to the extent necessary to prevent the employee’s use or disclosure of his former employer’s trade secrets, processes, or formulae . . . or his solicitation of, or disclosure of any information concerning, the other’s customers If, however, the employee’s services are deemed ‘special, unique or extraordinary,’ then, the covenant may be enforced by injunctive relief, if ‘reasonable,’ even though the employment did not involve the possession of trade secrets or confidential customer lists.”

Purchasing Assocs., Inc. v. Weitz, 196 N.E.2d 245, 247-48, 245 (N.Y. 1963). See also *AM Media Communications Group v. Kilgallen*, 261 F.Supp.2d 258 (S.D.N.Y. 2003) (the Second Circuit disfavors restrictive covenants in the employment context, enforcing them only to the extent they are reasonable and necessary to protect valid interests); *BDO Seidman v. Hirshberg*, 712 N.E.2d 1220, 1223 (N.Y. 1999) (New York courts will enforce a restrictive covenant “only to the extent that it is reasonable in time and area, necessary to protect the employer’s legitimate interests, not harmful to the general public and not unreasonably burdensome to the employee”).

“The modern, prevailing common-law standard of reasonableness for employee agreements not to compete applies a three-pronged test. A restraint is reasonable only if it: (1) is *no greater* than is required for the protection of the

legitimate interest of the employer, (2) does not impose undue hardship on the employee, and (3) is not injurious to the public. A violation of any prong renders the covenant invalid.” *BDO Seidman v. Hirshberg*, 93 N.Y.2d 382, 388-89, 690 N.Y.S.2d 854, 712 N.E.2d 1220 (1999).

A covenant will be rejected as overly broad if it seeks to bar the employee from soliciting or providing services to clients with whom the employee never acquired a relationship through his or her employment or if the covenant extends to personal clients recruited through the employee's independent efforts (See *BDO Seidman v Hirshberg*, 93 N.Y.2d 382(1999).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract. Judicial disfavor of restrictive covenants in the employment context is “provoked by considerations of public policy that militate against sanctioning the loss of a man’s livelihood.” Thus, in addition to examining the reasonableness of the covenant, the court also looks at whether the covenant is harmful to the general public or unreasonably burdensome to the employee. *Reed, Roberts Assoc., Inc. v. Strauman*, 40 N.Y.2d 303 (1976).

1. *Covenants Held Reasonable*

Natsource LLC v. Paribello, 151 F.Supp.2d 465 (S.D.N.Y. 2001) (one- to three-month nationwide noncompetition agreement held reasonable because the nature of a business in which there are only a finite number of customers over which all brokers compete requires an unlimited geographic restriction); *Lumex Inc. v. Highsmith*, 919 F. Supp. 624 (E.D.N.Y. 1996) (six-month non-competition restriction held reasonable where high-level technical employee would be compensated his base salary while restriction was in effect); *John Hancock Mut. Life Ins. Co. v. Austin*, 916 F. Supp 158 (N.D.N.Y. 1996) (non-competition provision contained within collective bargaining agreement prohibiting former insurance representative from contacting former employer's clients within representative's former district for a period of two years held reasonable and enforceable); *Innovative Networks Inc. v Satellite Airlines Ticketing Centers, Inc.*, 871 F. Supp. 709 (S.D.N.Y. 1995) (one-year nationwide non-competition agreement held reasonable in light of plaintiff’s business); *HBD, Inc. v. Ryan*, 642 N.Y.S.2d 913 (N.Y. App. Div. 1996) (non-competition provision precluding former employee from preparing tax returns for former employer’s customers within a twenty-five-mile radius for a two-year period held reasonable and enforceable); *Continental Group, Inc. v. Kinsley*, 422 F. Supp. 838 (D. Conn. 1976) (applying New York law)

(covenant prohibiting engineer from engaging in similar employment for a period of eighteen months in Canada, the United States, Western Europe and Japan found reasonable as to time and geographic constraints; scope of prohibited activities modified and enforced to the extent reasonable); *Coolidge Co. v. Mokrynski*, 472 F.Supp. 459 (S.D.N.Y. 1979) (restrictive covenant between mailing list broker and its employee prohibiting competition for two years in states east of the Mississippi River found reasonable as to geographic scope, but unreasonable as to time and scope of prohibited activities; modified and enforced to the extent reasonable); *Gelder Medical Group v. Webber*, 41 N.Y.2d 680 (1977) (covenant not to compete within 35-mile radius for five years upheld); *Business Intelligence Servs. Inc. v. Hudson*, 580 F.Supp. 1068 (S.D.N.Y. 1984) (upholding covenant despite unlimited geographic scope in light of the international nature of employer's business); *IBM v. Papermaster*, 2008 U.S. Dist. LEXIS 95516 (2008) (upholding a one-year, world-wide restriction because employee's services were unique and he had confidential information that would be valuable to a competitor, and the nature of the employer's business required that the restriction be unlimited in geographic scope).² *Ivy Mar Co., Inc. v. C.R. Seasons Ltd.*, 907 F. Supp. 547 (E.D.N.Y. 1995) (non-compete agreement prohibiting former employee from selling or importing competing goods effectually throughout the world for a period of six years held unreasonably overbroad); *Karpinski v. Ingrassi*, 268 N.E.2d 751 (N.Y. 1971) (covenant prohibiting oral surgeon from practicing in five counties unlimited as to time found unreasonably broad; equitably modified so as to prohibit only the practice of dentistry in such counties).

2. *Covenants Held Unreasonable*

Ivy Mar Co., Inc. v. C.R. Seasons Ltd., 907 F. Supp. 547 (E.D.N.Y. 1995) (non-compete agreement prohibiting former employee from selling or importing competing goods effectively throughout the world for a period of six years held unreasonably overbroad); *Karpinski v. Ingrassi*, 268 N.E.2d 751 (N.Y. 1971) (covenant prohibiting oral surgeon from practicing in five counties unlimited as to time found unreasonably broad; equitably modified so as to prohibit only the practice of dentistry in such counties). *Good Energy, L.P. v. Kosachuk*, 2008 NY Slip Op 2031 (N.Y. App. Div. 1st Dep't 2008) (covenant not to compete was reasonable in terms of duration (five years) but unreasonable in terms of geographic area (the entire United States), since the former employer operated

in only eight states); *Reed, Roberts Assoc. Inc., v. Strauman*, 40 N.Y.2d 303 (1976) (refusing to enforce restrictive covenant preventing former employee from engaging in competing business with employer for three years post-termination in the city of New York and three nearby counties because there were no trade secrets involved, nor were the employee's services unique or extraordinary, and further refusing to enforce covenant which would have prevented employee from soliciting any of former employer's customers indefinitely because the names of potential customers were readily discoverable through public sources); *Columbia Ribbon & Carbon Mfg. Co.*, 42 N.Y.2d 496 (1977) (covenant not to compete for two years in any territory which employee was assigned in last two years of employment unreasonable because limitation not tied to uniqueness, trade secrets, confidentiality or competitive unfairness); *Purchasing Associates v. Weitz*, 13 N.Y.2d 267 (1963) (two-year restriction preventing employee from competing with employer within 300-mile radius of New York City unenforceable because employee's services were not unique).

B. Incidental to the sale of a business.

1. *Covenants Held Reasonable*

Borne Chemical Co. v. Dictrow, 445 N.Y.S.2d 406 (N.Y. App. Div. 1981) (covenant in employment contract executed in connection with the sale of a product packaging business prohibiting competition for three years after the employee's termination of employment in any state in which the company operates at the time of termination enforced to the limited extent requested by the employer, i.e., a 150-mile radius of its New York office); *Standard Slide Corp. v. Appel*, 180 N.Y.S. 431 (N.Y. App. Div. 1920) (covenant incidental to sale of mica slide business prohibiting competition for five years in the entire United States except for New Mexico upheld); *Diamond Match Co. v. Roeber*, 13 N.E. 419 (N.Y. 1887) (covenant incidental to sale of match business covering the entire United States except for the state of Nevada and territory of Montana for a 99-year period valid and enforceable).

III. GENERAL COMMENTS

A. Protectible Interests. New York courts have limited the employer interests which can justify the imposition of post-employment restraints to (1) protection of confidential customer information, (2) protection of trade secrets, (3) protection of an employer's client base, and (4) protection against irreparable harm where an employee's services are unique or

extraordinary. *Silipos, Inc. v. Bickel*, 2006 U.S. Dist. LEXIS 54946 (2006) (citing *BDO Seidman v. Hirshberg*, 93 N.Y.2d 382 (1999)). Customer lists are protectible only if they constitute trade secrets or confidential material, and are not readily ascertainable from a nonconfidential source. *Briskin v. All Seasons Servs., Inc.*, 615 N.Y.S.2d 166 (1994). Cf. *J.H. Goldberg Co. v. Stern*, 385 N.Y.S.2d 427 (N.Y. App. Div. 1976); *Service Systems Corp. v. Harris*, 341 N.Y.S.2d 702 (N.Y. App. Div. 1973) (stating that “an employer has sufficient interest in retaining present customers to support an employee covenant where the employee's relationship with the customers is such that there is a substantial risk that the employee may be able to divert all or part of the business”); *Greenwich Mills Co. v. Barrie House Coffee Co.*, 459 N.Y.S.2d 454 (N.Y. App. Div. 1983); *ABC Mobile Brakes, Div. of D. A. Mote, Inc. v. Leyland*, 446 N.Y.S.2d 660, 661 (N.Y. App. Div. 1981).

- B. Trade Secrets.** New York courts define trade secrets as “any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.” *Ashland Mgmt. Inc. v. Janien*, 82 N.Y.2d 395 (1993) (quoting Restatement (Second) of Torts § 757, cmt. b (1979)). The six factors under the Restatement are: “(1) the extent to which the information is known outside of the business; (2) the extent to which it is known by employees and others involved in the business; (3) the extent of measures taken by the employer to guard the secrecy of the information; (4) the value of the information to the employer and to his competitors; (5) the amount of effort or money expended by the employer in developing the information; and (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.” The most important factor, however, is whether the plaintiff can show that it took measures to protect the secret nature of its information. *Geritrex Corp. v. Dermarite Indus., LLC*, 910 F.Supp. 955 (1996); See also *Ivy Mar Co., Inc. v. C.R. Seasons Ltd.*, 907 F. Supp. 547, 556 (E.D.N.Y. 1995).

However, in the context of restrictive covenants, “trade secrets” does not “encompass nearly all confidential business documents.” *Marietta Corp. v. Fairhurst*, 301 A.D.2d 734 (N.Y. App. Div. 2003). Further, mere “knowledge of the intricacies of a business operation” does not constitute a trade secret. *Silipos, Inc. v. Bickel*, 2006 U.S. Dist. LEXIS 54946 (2006) (quoting *Catalogue Serv. of Westchester, Inc. v. Henry*, 107 A.D.2d 783 (N.Y. App. Div. 1985)).

- C. Uniqueness.** Even where there are no trade secrets or confidential material, a covenant may be enforceable if the former employee's services

are unique or extraordinary. *Shearshon Lehman Bros., Inc. v. Schmetzler*, 116 A.D.2d. 216 (1986). “In analyzing whether an employee’s services are unique, the focus today is less on the uniqueness of the individual person of the employee, testing whether such person is extraordinary [but instead] is more focused on the employee’s relationship to the employer’s business to ascertain whether his or her services and value to that operation may be said to be unique, special or extraordinary [and] must of necessity be on a case-by-case basis.” *Ticor Title Insurance Co. v. Cohen*, 173 F.3d 63, 65 (2d Cir. 1999). See *Savannah Bank, N.A. v. Savings Bank of Fingerlakes*, 691 N.Y.S.2d 227 (N.Y. App. Div. 1999) (the services of two bank loan officers were not sufficiently unique to support the enforceability of covenants not to compete); *Columbia Ribbon & Carbon Mfg. Co. v. A-1-A Corp.*, 369 N.E.2d 4 (N.Y. 1977); *Purchasing Assocs., Inc. v. Weitz*, 196 N.E.2d 245 (N.Y. 1963). Generally, employees whose services are considered unique include “musicians, professional athletes, actors and the like.” *Ticor Title Ins. Co. v. Cohen*, 173 F.3d 63 (2d Cir. 1999). Additionally, the uniqueness requirement has been interpreted to reach members of the “learned professions.” See e.g., *Karpinski v. Ingrassi*, 28 N.Y.2d 45 (1971).

- D. Severability:** New York courts usually will enforce an unreasonably broad restrictive covenant to the extent it is reasonable. *Karpinski v. Ingrassi*, 268 N.E.2d at 754-55 (N.Y. 1971) (enforcing a covenant not to compete in the field of dentistry generally by prohibiting defendant from practicing the more narrow practice of oral surgery, plaintiff’s particular specialty); Cf. *AM Media Communications Group v. Kilgallen*, 261 F.Supp.2d 258 (S.D.N.Y. 2003) (declining to “blue-pencil” a two-year restriction with no geographic limitation finding the agreement overreaching as a whole); *Great Lakes Carbon Corp. v. Koch Indus., Inc.*, 497 F. Supp. 462 (S.D.N.Y. 1980) (covenant not enforceable to any extent where found to be unconscionably broad).

When “the unenforceable portion is not an essential part of the agreed exchange, a court should conduct a case specific analysis, focusing on the conduct of the employer in imposing the terms of the agreement. Under this approach, if the employer demonstrates an absence of overreaching, coercive use of dominant bargaining power, or other anti-competitive misconduct, but has in good faith sought to protect a legitimate business interest, consistent with reasonable standards of fair dealing, partial enforcement will be justified.” *BDO Seidman v. Hirshberg*, 93 N.Y.2d 382 (1999). See also Restatement [Second] of Contracts §184. New York courts have rejected the “judicial blue pencil” doctrine, which requires strict divisibility before a covenant may be partially enforced. Id.

- E. Sale of a business:** A non-competition agreement ancillary to an employment contract will be upheld only in certain limited situations (i.e., where trade secrets confidential customer lists or unique or extraordinary services are involved), so it is imperative that a covenant incidental to the sale of a business/retained employee situation be considered ancillary to the sale of a business rather than to an employment contract. See *Borne Chemical Co. v. Dictrow*, 445 N.Y.S.2d at 412; *Standard Slide Corn v. Appel*, 180 N.Y.S. 431 (N.Y. App. Div. 1920). If a non-competition covenant ancillary to the sale of a business is violated, it may constitute proof of irreparable injury for purposes of a preliminary injunction. See *Frank May Assocs. v. Boughton*, 721 N.Y.S.2d 152 (N.Y. App. Div. 2001).
- F. Consideration:** Under New York law, continued employment of an at-will employee or independent contractor for a substantial period of time after the covenant is given is sufficient consideration to support the covenant. See *Zellner v. Conrad*, 589 N.Y.S.2d 903 (N.Y. App. Div. 1992); see also *Ikon Office Solutions v. Leichtnam*, 2003 U.S. Dist. LEXIS 1469 (W.D.N.Y. 2003) (denying defendant employee's motion to dismiss because, among other reasons, the at-will employee's continued employment was adequate consideration to support the covenant not to compete). Continued eligibility for incentive compensation also provides the necessary consideration. *International Paper Co. v. Suwyn*, 951 F. Supp. 445 (S.D.N.Y. 1997).
- G. Forfeiture provisions:** A forfeiture clause is unreasonable as a matter of law when an employee has been terminated without cause. See *Post v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 397 N.E.2d 358 (N.Y. 1979) (holding that forfeiture of pension benefits under a non-compete agreement by an employee who was involuntarily discharged by his employer without cause and thereafter entered into competition with his former employer was unreasonable as a matter of law); see, *Weiner v. Diebold Group, Inc.*, 568 N.Y.S.2d 959 (1st Dep't 1991) (rule extended to "forfeiture of earned wages (including commissions)); *Cray v. Nationwide Mutual Insurance Company*, 136 F.Supp. 2d 171, 179 (W.D.N.Y. 2001) (not extended to bonuses or other benefits payable at the discretion of the employer, such as stock options); *International Business Machines Corporation v. Martson*, 37 F.Supp.2d 613 (S.D.N.Y. 1999) (exercised stock options were not wages for purposes of invalidating the forfeiture provision; and in this context, forfeiture is not appropriate where the stock options are considered earned wages. But options are generally not considered wages in an incentive stock award plan).

New York courts have adopted the **employee choice doctrine**, which applies when an employer conditions receipt of post-employment benefits

on compliance with a restrictive covenant. The employee choice doctrine distinguishes between a covenant not to compete, whereby a former employee may be enjoined from competing, and a condition which forces the former employee to choose between not competing and sustaining monetary losses due to a forfeiture of some benefit. *Sarnoff v. American Home Prods. Corp.*, 798 F.2d 1075 (7th Cir. 1986) (applying New York law). See also *Lucente v. International Business Machines Corporation*, 310 F.3d 243, 254 (2d Cir. 2002) (“New York courts will enforce a restrictive covenant without regard to its reasonableness if the employee has been afforded the choice between not competing (and thereby preserving his benefits) or competing (and thereby risking forfeiture)”). Thus, where an employee voluntarily resigns and proceeds to work for a competitor, the court will uphold a forfeiture provision without regard to reasonableness. *Morris v. Schroder Capital Mngmt. Int’l*, 859 N.E.2d 503 (N.Y. Ct. of App. 2006). Conversely, the employee choice doctrine will not apply where the employer has involuntarily terminated the employee without cause (i.e. where the employee has not been given a choice). In this situation, the forfeiture provision will not be upheld. Furthermore, the question of whether the employee was involuntarily terminated without cause is generally not suitable for summary judgment. *Cray*, 136 F. Supp. 2d at 255.

To determine whether an employee has “voluntarily” resigned, courts apply the “**constructive discharge**” test. *Morris*, 859 N.E.2d at 507. If the court finds that the employer made the working conditions “so difficult or unpleasant that a reasonable person in the employee’s shoes would have felt compelled to resign,” the court will not apply the employee choice doctrine. *Id.* Thus, where an employee has been constructively discharged, the court will examine the reasonableness of the restrictive covenant. *Id.*

ERISA also affects the validity of forfeiture provisions. Under 29 U.S.C. § 1053, a benefit that qualifies as retirement income or a pension plan governed by ERISA may not be forfeited. 29 U.S.C. § 1053 (2003); See also *International Paper Co. v. Suwyn*, 978 F.Supp. 506, 510 (S.D.N.Y. 1997). Generally, “top hat plans,” are exempt from some of the ERISA requirements and therefore may be forfeited for violating a noncompete agreement. Top hat plans are “unfunded and maintained by an employer primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees.” See *Demery v. Extebank Deferred Compensation Plan (B)*, 216 F.3d 283, 286-87 (2d Cir. 2000) (quoting 29 U.S.C. § 1051(2)).

- H. Involuntary termination:** New York courts will not enforce a non-competition agreement where the former employee has been involuntarily discharged without cause. See, *In re UFG International, Inc.*, 225 B.R. 51, 55-56 (S.D.N.Y. 1998); *SIFCO Industries, Inc. v. Advanced Plating Technologies, Inc.*, 867 F.Supp. 155 (S.D.N.Y. 1994); *Weintraub, et al. v. Schwartz*, 516 N.Y.S.2d 946 (N.Y. App. Div. 1987). Where an employer terminates an employee without cause, he “destroys the mutuality of obligation on which the covenant rests, as well as the employer’s ability to impose a forfeiture.” *Post v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 397 N.E.2d 358 (N.Y. 1979). As noted above, the employee choice doctrine does not apply when an employee has been involuntarily discharged without cause, and the courts will refuse to enforce a forfeiture. *Morris v. Schroder Capital Mngmt. Int’l*, 2006 N.Y. Slip Op 8638 (2006). An employer’s financial problems do not constitute “cause” for termination, which would allow the employer to enforce the non-compete. *In re UFG Int’l Inc.*, 225 B.R. 51 (Bankr. S.D.N.Y. 1998).
- I. Professionals/law firm partnerships:** “With agreements not to compete between professionals . . . we have given greater weight to the interests of the employer in restricting competition within a confined geographical area. In *Gelder Med. Group v. Webber* and *Karpinski v. Ingrasci*, we enforced total restraints on competition, in limited rural locales, permanently in *Karpinski* and for five years in *Gelder*. The rationale for the differential application of the common-law rule of reasonableness expressed in our decisions was that professionals are deemed to provide ‘unique or extraordinary’ services.” *BDO Seidman v. Hirshberg*, 93 N.Y.2d 382, 389 (1999) (citations omitted). In the context of law practice, however, non-compete agreements are reviewed more strictly. “Law firm partnership agreements represent an exception to the liberality with which we have previously treated restraints on competition in the learned professions (see, *Cohen v Lord, Day & Lord*, 75 N.Y.2d 95; *Denburg v Parker Chapin Flattau & Klimpl*, 82 N.Y.2d 375). Our decisions invalidating anti-competitive clauses in such agreements were not based on application of the common-law rule, but upon enforcement of the public policy reflected in DR 2-108 (A) of the Code of Professional Responsibility (see, 22 NYCRR 1200.13).” *BDO Seidman*, 93 N.Y.2d at 390 n. 1 (partially enforcing a non-compete provision requiring a former employee-accountant to pay liquidated damages for providing services to former clients of his accounting firm). Where the effect of a forfeiture or penalty provision in a lawyer’s employment or partnership agreement is to improperly deter competition, such a restriction on the practice of law will not be enforced by New York courts. See *Denburg v. Parker Chapin Flattau & Klimpl*, 624 N.E.2d 995 (N.Y. 1993) (a restriction providing that withdrawing partners practicing law in the private sector pay penalty to

former firm was held unenforceable); *Judge v. Bartlett, Pontiff, Stewart & Rhodes P.C.*, 610 N.Y.2d 412 (N.Y. App. Div. 1994) (termination benefits forfeiture provision prohibiting departing partner from competing within fifteen miles of any office of former firm for a five-year period held unenforceable); *but see Hackett v. Milbank, Tweed, Hadley & McCoy*, 654 N.E.2d 95 (N.Y. 1995) (forfeiture provision held enforceable where departing lawyer's supplemental withdrawal benefits were merely reduced by amount of new yearly income exceeding one hundred thousand dollars). Indirect prohibitions on the practice of law involving financial disincentives may be enforceable depending on the particular facts and circumstances of the case. Furthermore, these rules apply not only to partnership agreements or employment agreements, but to *any* agreements between lawyers, including shareholder, operating or other similar types of agreements. *Nixon Peabody, LLP v. de Senilhes*, 2008 N.Y. Slip Op. 51885U (2008).

- J. Choice of Law:** New York courts will generally honor a contractual choice-of-law provision as long as the jurisdiction whose law is to be applied bears a reasonable relationship to the dispute, and no fraud nor violation of fundamental public policy of the state of New York would result. In order to bear a reasonable relationship to the dispute, the state selected in the contract must have sufficient contacts with the transaction. *See Legal Sea Foods, Inc. v. Calise*, 2003 WL 21991588 (S.D.N.Y. 2003) (under NY choice-of-law rules, the district court honored the contractual provision to use Massachusetts law in determining the enforceability of the non-compete agreement); *ServiceMaster Residential/Commercial Services, L.P. v. Westchester Cleaning Services, Inc.*, 2001 WL 396520 (S.D.N.Y. 2001) (under NY choice-of-law rules, the court honored the contractual provision to use Tennessee law in determining the enforceability of the non-compete agreement); *but see SG Cowen Securities Corp. v. Messih*, 2000 WL 633434 (S.D.N.Y. 2000) (declining to follow contractual choice-of-law provision based on the exemption in NY Gen. Oblig. Law §5-1401 for agreements involving "labor or personal services" and because California contacts predominated over New York contacts); *Gambar Enterprises, Inc. v. Kelly Services, Inc.*, 418 N.Y.S.2d 818 (N.Y. App. Div. 1979) (inclusion of a "choice of law" provision in a non-competition agreement will affect, but not necessarily determine, the law that will be applied in determining the validity of the agreement).
- K. Noteworthy articles and/or publications:** In Most States, Covenants Not to Compete Will be Enforced If They are Necessary to Protect a Legitimate Business Interest of the Employer, Employment Law Yearbook §15:3:2, (2002). New York State and City Employment Law, 680 PLI.Lit

763 (2002); Non-Compete Agreements: Weighing the Interests of Profession and Firm, 53 Ala. L. Rev 1023 (2002).

- L. **Noteworthy cases summarizing scope of permissible/impermissible restraints:** *Reed, Roberts Assocs., Inc. v. Strauman*, 40 N.Y.2d 303, 353 N.E.2d 590, 386 N.Y.S.2d 677 (1976); *Purchasing Associates, Inc. v. Weitz*, 13 N.Y.2d 267, 196 N.E.2d 245, 247-48, 245 N.Y.S.2d 600 (1963); *Morris v. Schroder Capital Mngmt. Int'l*, 859 N.E.2d 503 (N.Y. Ct. of App. 2006) (explaining the employee choice doctrine).

NORTH CAROLINA

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett
Venable LLP
575 7th Street, NW
Washington, DC 20004-1601
Direct: 202-344-4893
Facsimile: 202-344-8300
jrburdett@venable.com

NORTH CAROLINA

I. SUMMARY OF THE LAW

In order to be enforceable, a covenant restraining an employee must be: (1) in writing; (2) made part of an employment contract; (3) based upon valuable consideration; (4) reasonable both as to time and territory; and (5) not against public policy. To determine what is reasonable, courts look at the facts and circumstances of each particular case. With respect to public policy, an individual's right to earn a living outweighs the employer's right to protection, against competition. Therefore, the employer has the burden of proving the reasonableness of the restriction. *United Labs. Inc. v. Kuykendall*, 370 S.E.2d 375 (N.C. 1988). See also *Hanover Rent-A-Car, Inc. v. Martinez*, 525 S.E.2d 487 (N.C. 2000) (requirement that a covenant not to compete be in writing explicitly "includes a requirement that the writing be signed."); N.C. Gen. Stat. § 75-4 (1988) (covenants against competition must be in writing and signed by the employee).

In general, covenants not to compete between employer and employee are not viewed favorably in modern law under North Carolina jurisprudence. *Farr Assocs., Inc. v. Baskin*, 530 S.E.2d 878 (N.C. Ct. App. 2000).

Under North Carolina law, covenants not to compete must be reasonable both as to geographic and temporal restrictions, and courts must analyze these two restrictions in tandem. *Precision Walls, Inc. v. Servie*, 568 S.E.2d 267 (N.C. App. 2002). In determining whether the geographic scope of a covenant not to compete is reasonable, the court shall consider: (1) the area or scope of the restriction; (2) the area assigned to the employee; (3) the area where the employee actually worked; (4) the area in which the employer operated; (5) the nature of the business involved; and (6) the nature of the employee's duty and his knowledge of the employer's business operation. *Farr Assocs., Inc.*, 530 S.E.2d at 882 (citing *Hartman v. W.H. Odell and Assocs., Inc.*, 450 S.E.2d 912, 917 (N.C. App. 1994), review denied, 454 S.E.2d 251 (1995)).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Precision Walls, Inc.*, 568 S.E.2d 267 (holding that a one year, two state restriction in a covenant not to compete was reasonable); *Market Am., Inc. v. Christman-Orth*, 520 S.E.2d 570 (N.C. App. 1999) (finding that 6 month covenant not to compete with no geographic restriction was not "unreasonable as a matter of law"); *Triangle Leasing Co. v. McMahan*, 393 S.E.2d 854 (N.C. 1990) (two-year restriction from soliciting former employer's customers in state enforced); *United Labs.*, 370 S.E.2d 375 (18-month restriction on soliciting former employer's customers upheld); *Amdar. Inc. v.*

Satterwhite, 246 S.E.2d 165 (N.C. App. 1978) (one-year, 25-mile radius restriction upheld), cert. denied, 248 S.E.2d 249 (1978); *Schultz & Assocs. of the Southeast v. Ingram*, 248 S.E.2d 345, 350 (N.C. App. 1978) (covenant covering employer's entire multi-state area upheld); *Forrest Paschal Mach. v. Milholen*, 220 S.E.2d 190 (N.C. App. 1975) (two-year, 350-mile radius restriction upheld); *Wilmar, Inc. v. Corsillo*, 210 S.E.2d 427 (N.C. App. 1974) (one year, selling territory restriction upheld), cert. denied, 211 S.E.2d 802 (1975);

2. *Static Control Components, Inc. v. Darkprint Imaging, Inc.*, 240 F. Supp.2d 465 (M.D. N.C. 2002) (applying North Carolina law and finding that 2 year covenant with no geographic restriction was unreasonable); *Manual Woodworkers & Weavers, Inc. v. The Rug Barn, Inc.*, No. 1:00cv284-C, 2001 WL 1672253 (W.D. N.C. Dec. 19, 2001) (noting that plaintiff attempted to “impose a geographic limitation, which was based on marketing, to employees who were engaged in manufacturing[,]” and finding non-compete agreement to be overly broad and “unenforceable as a matter of law”); *Farr Assocs., Inc.*, 530 S.E.2d at 883 (holding that the scope of the client-based territorial restriction, which prevented employee from working for all of former employer’s current or recent clients, was unreasonable, rendering the non-compete agreement unenforceable); *Nalle Clinic Co. v. Parker*, 399 S.E.2d 363 (N.C. App. 1991) (two-year, one-county restriction against doctor with pediatric specialty unreasonable); *Electrical S., Inc. v. Lewis*, 385 S.E.2d 352 (N.C. App. 1989) (covenant with potential world-wide effect unreasonable); *Masterclean of North Carolina, Inc. v. Guy*, 345 S.E.2d 692 (N.C. App. 1986) (holding a covenant restricting employee from engaging in similar business in any city or state of the United States in which employer then operated or intended to operate “patently unreasonable”); *Starkings Court Reporting Serv., Inc. v. Collins*, 313 S.E.2d 614 (N.C. App. 1984) (court reporter hired as “independent contractor;” covenant unreasonable where it restricted reporter from working in county or within 50-mile radius for two years); .

B. Incidental to the sale of a business.

1. *Kennedy v. Kennedy*, 584 S.E.2d 328 (N.C. App. 2003) (finding three year, fifteen mile radius restriction “wholly reasonable”); *Bicycle Transit Auth., Inc. v. Bell*, 333 S.E.2d 299 (N.C. App. 1985) (seven-year, two-county restriction enforced); *Jewel Box Stores v. Morrow*, 158 S.E.2d 840 (N.C. 1968) (10-year, 10-mile restriction

upheld); *Thompson v. Turner*, 96 S.E.2d 263 (N.C. 1957) (restriction from operating in buyer's city or territory upheld); *Sineath v. Katzis*, 12 S.E.2d 671 (N.C. 1940) (covenant preventing officer of seller from operating competing business within county for 15 years enforceable). See also *Keith v. Day*, 343 S.E.2d 562 (N.C. App. 1986) (in proposed-joint venture arrangement, covenant extending for two years and restricted to municipality where parties resided enforced).

III. GENERAL COMMENTS

- A. Protectable interests: customer contacts and relationships, goodwill, trade secrets, technical knowledge and most likely other confidential information that does not rise to the level of a trade secret. *Farr Assocs., Inc.*, 530 S.E.2d at 881; *United Labs.*, 370 S.E.2d at 380-81 (restrictive covenants in employment relationships valid if the employee will come into contact with employer's customers or will be exposed to confidential information); *Young v. Mastrom. Inc.*, 392 S.E.2d 446, 449 (N.C. App. 1990) (employer's protectable interests extend beyond trade secrets).

But note: An employer does not have a legitimate protectable interest in merely preventing ordinary competition from a former employee. *Cox v. Dine-A-Mate, Inc.*, 501 S.E.2d 353, 356 (N.C. App. 1998).

- B. If a covenant is overbroad, it will not be enforced and the court will not reform it. *Digital Recorders v. McFarland*, 2007 NCBC LEXIS 23 (N.C. Sup. Ct. 2007). If, however, the contract is severable, and one provision is reasonable, the court will enforce the reasonable provision. *Whittaker Gen. Med. Corp. v. Daniel*, 379 S.E.2d 824, 828 (N.C. 1989).
- C. When an ambiguity is present in a covenant not to compete, the court is to construe the ambiguity against the drafter (i.e., the party responsible for choosing the questionable language). *Novocare Orthotics & Prosthetics E., Inc. v. Speelman*, 528 S.E.2d 918 (N.C. App. 2000).
- D. Reasonable covenants not to compete are enforceable against independent contractors. *Market Am., Inc.*, 520 S.E.2d at 578.
- E. Mootness: Plaintiff can only seek to enforce a covenant not to compete under North Carolina law for the period of time within which the covenant proscribes. *Rug Doctor, L.P. v. Prate*, 545 S.E.2d 766 (2001). See also *Artis & Assocs. V. Auditore*, 572 S.E.2d 198 (N.C. App. 2002) (citing *Rug Doctor*, 545 S.E.2d at 768); *Corpening Ins. Center, Inc. v. Haaff*, 573 S.E.2d 164 (N.C. App. 2002) (citing *Rug Doctor*, 545 S.E.2d at 768).

- F. Under North Carolina law, “the promise of new employment is valuable consideration in support of a covenant not to compete.” *Farr Assocs., Inc.*, 530 S.E.2d at 881. When a covenant not to compete is part of the original verbal employment contract, it is supported by consideration despite the fact that the contract is not actually signed until some time after employment has begun. *Wade S. Dunbar Ins. Agency, Inc. v. Barber*, 556 S.E.2d 331 (N.C. App. 2001) (covenant orally agreed to prior to inception of employment but not actually executed until 1 year after employment began). However, a “covenant entered into after an employment relationship already exists must be supported by new consideration, such as a raise in pay or a new job assignment.” *Reynolds & Reynolds Co. v. Tart*, 955 F.Supp. 547, 553 (W.D. N.C. 1997). Continued employment is not sufficient consideration for a non-compete agreement entered into after the employment relationship has begun. *Cox*, 501 S.E.2d 356; *Forrest Paschal Mach. Co.*, 220 S.E.2d at 190.
- G. Will a choice of law provision in contract be followed? Yes. See *Buettel v. Lumber Mut. Ins. Co.*, 518 S.E.2d 205, 209 (N.C. App. 1999) (stating that “[c]hoice of law provisions are not contrary to the laws of this state” and “[t]he parties’ intent must rule.”). See also *Redlee/SCS, Inc. v. Pieper*, 571 S.E.2d 8 (N.C. App. 2002) (applying Texas law pursuant to the terms of the employment agreement); *UBS Painewebber, Inc. v. Aiken*, 197 F.Supp.2d 436 (W.D. N.C. 2002) (applying New York law pursuant to the choice of law provision in the contract).
- However, a forum selection clause will not be enforced if the clause was the product of unequal bargaining power and enforcement of the clause would be unfair and unreasonable. *Cox*, 501 S.E.2d at 355-56 (refusing to enforce the forum selection clause).
- H. Noteworthy articles/publications: Bret L. Grebe, *Fidelity at the Workplace: The Two-Faced Nature and Duty of Loyalty under Dalton v. Camp*, 80 N.C. L. Rev. 1815 (June 2002); Jason S. Wood, *A Comparison of the Enforceability of Covenants Not to Compete and Recent Economic Histories of Four High Technology Regions*, 5 Va. J.L. & Tech. 14 (Fall 2000) (focusing on California, Massachusetts, North Carolina, and Texas); John Reid Parker, Jr., *Injunctive Russian Roulette and Employment Non-Competition Cases: A.E.P Industries, Inc. v. McClure*, 63 N.C. L. Rev. 222 (Nov. 1984).

NORTH DAKOTA

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

NORTH DAKOTA

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

N.D. Cent. Code § 9-08-06.

“In restraint of business void -- Exceptions. Every contract by which anyone is restrained from exercising a lawful profession, trade, or business of any kind is to that extent void, except:

1. One who sells the goodwill of a business may agree with the buyer to refrain from carrying on a similar business within a specified county, city, or a part of either, so long as the buyer or any person deriving title to the goodwill from him carries on a like business therein;
2. Partners, upon or in anticipation of a dissolution of the partnership, may agree that all or any number of them will not carry on a similar business within the same city where the partnership business has been transacted, or within a specified part thereof.”

B. Judicial Statement of the Law

Applying this statute, North Dakota courts will not enforce non-compete covenants which are ancillary to employment agreements whenever such covenants effectively prohibit employees from competing, regardless of the contract's reasonableness. See, e.g., *Werlinger v. Mutual Service Cas. Ins.*, 496 N.W.2d 26 (N.D. 1993); *Spectrum Emergency Care, Inc. v. St. Joseph's Hospital & Health Care Center*, 479 N.W.2d 848 (N. D 1992).

II. CONSIDERATION ISSUES

Standard consideration issues are largely inapplicable because the North Dakota legislature, and consequently the North Dakota courts, repudiate post-employment restrictive covenants except in very limited, statutorily-defined circumstances. Therefore, questions concerning the adequacy of consideration at the commencement of employment, whether continued employment can constitute sufficient consideration, and like inquiries, are inapplicable.

III. PARAMETERS OF THE STATUTE AND GOVERNING LAW

A. Incidental to the sale of a business

1. See N.D. Cent. Code § 9-08-06 (statutorily limits the geographic

scope of a restrictive covenant to a "city, county, or a part of either ... so long as the buyer carries on a like business therein").

2. *Earthworks, Inc. v. Sehn*, 553 NW 2d 490 (N.D. 1996) (limited application of covenant to work performed in single county); *Lire, Inc. v. Bob's Pizza Inn Restaurants, Inc.*, 541 N.W.2d 432 (N.D. 1995) (50-mile radius from single city too broad); *Herman v. Newman Signs, Inc.*, 417 N.W.2d 179, 180 (N.D. 1987) (ten-year, state-wide restriction was overbroad; limited to single county); *Hawkins Chem., Inc. v. McNea*, 321 N.W.2d 918, 920 (N.D. 1982) (temporally indefinite six-state restriction was limited to county where business was located).

IV. GENERAL COMMENTS

- A. **Choice of Law:** Whether a choice of law provision in a contract will be followed depends upon whether the particular state's substantive law conflicts with the public policy regarding restrictive covenants in North Dakota. See *Forney Industries, Inc. v. Andre*, 246 F. Supp. 333 (D.N.D. 1965).
- B. **Forfeiture of Benefits:** A forfeiture of benefits provision is treated as a restraint of trade under North Dakota law. As such, it is subject to the same analysis as other non-competition covenants and, in the employment context, is void and unenforceable under § 9-08-06. *Werlinger v. Mut. Serv. Cas. Ins. Co.*, 496 N.W.2d 26, 28-30 (N.D. 1993). However, if the covenant survives the restraint-of-trade scrutiny, a forfeiture clause is valid. See *Kovarik v. American Family Ins. Group*, 108 F.3d 962 (8th Cir. 1997).
- C. **Modification:** If a non-competition covenant is overbroad, it may be modified to conform to the provisions of N.D. Cent. Code § 9-08-06(1), thereby making it enforceable. See *Earthworks, Inc. v. Sehn*, 553 NW 2d 490 (N.D. 1996)(sale of business context; covenant's statewide restriction reduced to single county); *Hawkin Chem., Inc. v. McNea*, 321 N.W.2d at 919-20; *Herman v. Newman Signs, Inc.*, 417 N.W.2d at 180; *Igoe v. Atlas Ready-Mix, Inc.*, 134 N.W.2d 511, 519 (N.D. 1965).
- D. **Non-Solicitation Agreements:** The statutory proscription against non-competition agreements also applies to non-solicitation agreements. *Warner & Co. v. Solberg*, 634 N.W.2d 65 (N.D. 2001) (rejecting prior Eighth Circuit decision applying North Dakota law, which had held the statute did *not* limit employers' rights to impose customer non-solicitation restrictions on former employees, *Kovarik v. American Family Insurance Group*, 108 F.3d 962 (8th Cir. 1996)).

- E. Protectible interests:** A buyer may enforce a non-compete agreement incidental to the sale of a business if it acquired goodwill from the seller. N.D. Cent. Code § 9-08-06. "The sale or transfer of good will can be created upon the facts only through implying that the physical property sold was of less value than the consideration paid, and that therefore the difference must represent good will, and that this good will so represented by such value was a part of the consideration in the transfer of the transfer of the [property]". *Brottman v. Schela*, 202 N.W. 132, 134 (N.D. 1925). A sale of 1/200th interest in a company cannot be said to transfer the goodwill of a business. *Warner and Company v. Solberg*, 634 N.W.2d 65 (N.D. 2001).
- F. Trade secrets defined:** N.D. Cent. Code Ch. 47-25.1 (Uniform Trade Secrets Act); *Warner and Company v. Solberg*, 634 N.W.2d 65 (N.D. 2001); *Kovarik v. American Family Ins. Group*, 108 F.3d 962 (8th Cir. 1997).

OHIO

This chapter was prepared by the law firm of Barnes & Thornburg LLP.

For further information about the summary contained in this chapter, please contact:

Dwight Lueck

Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
Main: 317-236-1313
Facsimile: 317-231-7433
dlueck@btlaw.com

OHIO

I. SUMMARY OF THE LAW

A. Contracts Ancillary to an Employment Relationship.

A covenant not to compete is enforceable if: (1) the restraint is no greater than that which is required to protect the employer; (2) it does not impose an undue hardship on the employee; and (3) it does not injure the public. *Hamilton Ins. Services, Inc. v. Nationwide Ins. Cos.*, 86 Ohio St. 3d 270, 274, 714 N.E.2d 898, 901 (Ohio 1999); *Raimonde v. Van Vlerah*, 42 Ohio St. 2d 21, 325 N.E.2d 544, 547 (Ohio 1975); *Murray v. Accounting Ctr. & Tax Servs.*, 178 Ohio App. 3d 432, 437, 898 N.E.2d 89, 93 (Ohio Ct. App. 2008); *Columbus Medical Equipment Co. v. Watters*, 13 Ohio App.3d 149, 468 N.E.2d 343, 347 (Ohio Ct. App. 1983). In determining the reasonableness of a covenant, courts consider:

[T]he absence or presence of limitations as to time and space[;] . . . [w]hether the employee represents the sole contact with the customer; whether the employee is possessed with confidential information or trade secrets; whether the covenant seeks to eliminate competition which would be unfair to the employer or merely seeks to eliminate ordinary competition; whether the covenant seeks to stifle the inherent skill and experience of the employee; whether the benefit to the employer is disproportional to the detriment to the employee; whether the covenant operates as a bar to the employee's sole means of support; whether the employee's talent which the employer seeks to suppress was actually developed during the period of employment; and whether the forbidden employment is merely incidental to the main employment.

Extine v. Williamson Midwest, 176 Ohio St. 403, 406, 200 N.E.2d 297, 299 (Ohio 1964); *overruled on other grounds, Raimonde v. Van Vlerah*, 42 Ohio St. 2d 21, 325 N.E.2d 544 (Ohio 1975).

Under Ohio law, non-compete agreements by employees can be assigned. *Blakeman's Valley Office Equipment, Inc. v. Bierdeman*, 152 Ohio App. 3d 86, 786 N.E.2d 914 (Ohio Ct. App. 2003); *Artromick International, Inc. v. Koch*, 143 Ohio App. 3d 805, 719 N.E.2d 385 (Ohio Ct. App. 2001).

Non-compete agreements with at-will employees are enforceable in Ohio. See, e.g., *Lake Land Empl. Group of Akron, LLC v. Columber*, 101 Ohio St. 3d 242, 248, 804 N.E.2d 27 (Ohio 2004). Consideration exists to support a non-compete agreement when, in exchange for the assent of an at-will employee to a proffered noncompetition agreement, the employer continues an at-will employment relationship that could legally be terminated without cause. Id.

A covenant not to compete that imposes unreasonable restrictions on an ex-employee will be reformed and enforced by a court only to the extent necessary to protect the employer's legitimate interests. *Klaus v. Kilb, Rogal & Hamilton Co. of Ohio*, 437 F. Supp. 2d 706, 732 (S.D. Ohio 2006); *Raimonde v. VanVlerah*, 42 Ohio St. 2d 21, 325 N.E.2d 544, 547 (Ohio 1975).

If an employer has withdrawn from a particular line of business, it cannot enforce non-compete agreements with ex-employees who continue to work in that line of business. See *Premier Assocs., Ltd. v. Loper*, 149 Ohio App. 3d 660, 671, 778 N.E.2d 630 (Ohio Ct. App. 2002).

B. Contracts Ancillary to the Sale of a Business.

Courts will enforce covenants not to compete in order to protect the good will transferred through the sale of the business. *J.D. Nichols Stores, Inc. v. Lipschutz*, 120 Ohio App. 286, 201 N.E.2d 98 (Ohio Ct. App. 1963). Even if there is not a written covenant not to compete, a "reasonable time within which to possess the advantages of the commercial relationship between [buyer] and the former customers of [seller]" must pass before the seller may compete without violating the buyer's rights in the good will purchased from the seller. *Terminal Vegetable Co. v. Beck*, 8 Ohio App. 2d 231, 196 N.E.2d 109, 111 (Ohio Ct. App. 1964).

While the covenant by a seller of a business not to engage in the same business is void where the restraint is general, an agreement which imposes only a partial restraint made in connection with the sale of a business and its goodwill, shown to be reasonably necessary to the enjoyment of the goodwill and not oppressive, is valid and may be enforced. *DiAngelo v. Pucci*, No. 1267, 1987 Ohio App. LEXIS 6318 (Ohio Ct. App. Mar. 31, 1987).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

Rogers v. Runfola & Assoc., 57 Ohio St. 3d 5, 9, 565 N.E.2d 540, 544 (Ohio 1991) (court held that covenants were reasonable which, as modified by the court, barred former employees of a court reporting service for one year from competing within Columbus, Ohio city limits and from soliciting clients of former employer); *Brentlinger Enterprises v. Curran*, 141 Ohio App. 3d 640, 652, 752 N.E.2d 994, 1003 (Ohio Ct. App. 2001) (affirming refusal to enforce non-compete because prohibition against using employer's information adequate to protect employer). *The Procter & Gamble Co. v. Stoneham*, 140 Ohio App. 3d 260, 747 N.E.2d 268 (Ohio Ct. App. 2000) (three-year non-compete for management level employee reasonable to protect trade secrets and other information of employer); *Professional Investigations & Consulting Agency, Inc. v. Kingsland*, 69 Ohio App. 3d 753, 759, 591 N.E.2d 1265, 1269 (Ohio Ct. App. 1990) (restrictions "must be no greater than that which is required to protect the employer"); *Columbus Medical Equipment Co. v. Watters*, 13 Ohio App. 3d 149, 468 N.E.2d 343, 347 (Ohio Ct. App. 1983) (court enforced a covenant prohibiting a sales person from competing in a similar business in Ohio for two years).

B. Incidental to the sale of a business.

DiAngelo, 1987 Ohio App. LEXIS 6318 at *4 (upholding a fifteen-year restriction incidental to the sale of a business and noting that other courts have upheld restrictions ranging from ten years to "as long as the buyer of a business remains in the city where the subject business was purchased"); *J.D. Nichols Stores, Inc. v. Lipschutz*, 120 Ohio App. 286, 201 N.E.2d 898 (Ohio Ct. App. 1963) (enforcing covenant prohibiting seller from competing with buyer for ten years within city in which the business was located).

III. GENERAL COMMENTS

A. Protectible interests include goodwill, trade secrets and confidential information, including confidential customer information such as customer lists and knowledge of specific customer requirements. *Briggs v. Butler*, 140 Ohio St. 499, 45 N.E.2d 757, 762 (Ohio 1942); *The Procter & Gamble Co. v. Stoneham*, 140 Ohio App. 3d 260, 747 N.E.2d 268 (Ohio Ct. App. 2000); *Conforming Matrix Corp. v. Faber*, 104 Ohio App. 8, 146 N.E.2d 447, 450 (Ohio Ct. App. 1957); *Extine v. Williamson Midwest*, 176 Ohio St. 403, 406, 200 N.E.2d 297, 299 (Ohio Ct. App. 1964), *overruled on other grounds* by *Raimonde v. Van Vlerah*, 42 Ohio St. 2d 21, 325 N.E.2d 544 (Ohio 1975); *J.D. Nichols Stores, Inc. v. Lipschutz*, 120 Ohio App. 286, 201 N.E.2d 898 (Ohio Ct. App. 1963).

- B.** If a covenant is overbroad a court may enforce the covenant to the extent necessary to protect the employer's legitimate interests. *Am. Bldg. Serv., Inc. v. Cohen*, 78 Ohio App. 3d 29, 603 N.E.2d 432 (Ohio Ct. App. 1992); see also *Klaus v. Kilb, Rogal & Hamilton Co. of Ohio*, 437 F. Supp. 2d 706, 732 (S.D. Ohio 2006). A court has discretion to modify an overbroad covenant to make it reasonable and enforceable as modified, regardless of whether the unreasonable portions of the covenant are divisible. *Raimonde v. Van Vlerah*, 42 Ohio St. 2d 21, 325 N.E.2d 544, 547 (Ohio 1975); see also *Rogers v. Runfola & Assoc.*, 57 Ohio St. 2d 5, 9, 565 N.E.2d 540, 544 (Ohio 1991). If a court "could not easily modify existing provisions but might be required to rewrite the entire covenant," the trial court may decline to modify the covenant. *Profl Investigations & Consulting Agency, Inc. v. Kingsland*, 69 Ohio App. 3d 753, 760, 591 N.E.2d 1265, 1269-70 (Ohio Ct. App. 1990).
- C.** Ohio courts of appeals have split on whether continued employment is sufficient consideration for a covenant not to compete and the Ohio Supreme Court has not resolved the conflict. P. Bergeson, Navigating the "Deep and Unsettled Sea" of Covenant Not to Compete Litigation in Ohio: A Comprehensive Look, 31 U. Tol. L. Rev. 373, 382-385 (2000). Most recent cases suggest "that continued employment does provide consideration under Ohio law." *Id.* at 384. Consideration exists to support a noncompetition agreement when, in exchange for the assent of an at-will employee to a proffered noncompetition agreement, the employer continues an at-will employment relationship that could legally be terminated without cause. *Lake Land Empl. Group of Akron, LLC v. Columber*, 101 Ohio St. 3d 242, 248, 804 N.E.2d 27 (Ohio 2004). Changes in the employment relationship will serve as consideration for a covenant not to compete. See *Rogers v. Runfola & Assoc.*, 57 Ohio St. 2d 5, 565 N.E.2d 540 (Ohio 1991) (change from employment at will to terminable for cause employment supported covenant not to compete); *Credit Consultants, Inc. v. Gallagher*, 1991 WL 124357 (Ohio Ct. App. 1991) (change of employment status from "terminable-at-will" to "month-to-month employment" was sufficient consideration to support covenant not to compete), aff'd, 62 Ohio St. 3d 1465, 580 N.E.2d 785 (Ohio 1991); *Columbus Medical Equipment Co. v. Watters*, 13 Ohio App. 3d 149, 150, 468 N.E.2d 343, 346 (1983) (employer increased salary and provided "job related privileges").
- D.** A forfeiture of benefits provision may not be enforced if unreasonable. See *Cad Cam, Inc. v. Underwood*, 36 Ohio App. 3d 90, 521 N.E.2d 498 (Ohio Ct. App. 1987) (refusing to enforce penalty provision which required employee to pay one half of one year's salary as penalty for competition with employer); *Snarr v. Picker Corp.*, 29 Ohio App. 3d 254, 504 N.E.2d

1168 (Ohio Ct. App. 1985) (forfeiture clause in non-contributory profit sharing plan which provided for complete forfeiture of benefits if the employee competed within two years after termination was unreasonable and would not be enforced). *But see Packer, Thomas & Co. v. Eyster*, 126 Ohio App. 3d 109, 117, 709 N.E.2d 922, 926 (Ohio Ct. App. 1998) (enforcing provision requiring employee to pay employer if clients were transferred to new employer); *Keller v. Graphic Systems*, 422 F. Supp. 1005, 1012 (N.D. Ohio 1976) (enforcing forfeiture of retirement benefits resulting from breach of covenant prohibiting competition by former salesman). See Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. § 1001 *et seq.*, concerning federal limitations on forfeiture of post-employment benefits.

- E. A covenant not to compete is enforceable if the employee is discharged for cause. *Patterson Int'l Corp. v. Herrin*, 25 Ohio Misc. 79, 264 N.E.2d 361 (1970) (covenant not to compete enforced against employee terminated for eight-day absence). A covenant not to compete is apparently also enforceable against an employee terminated without cause. *Blakeman's Valley Office Equipment, Inc. v. Bierdeman*, 152 Ohio App. 3d 86, 786 N.E.2d 914 (Ohio Ct. App. 2003) (covenant enforced against terminated employee, with no consideration of existence of cause).
- F. Attorneys' fees incurred as a result of a breach of a covenant not to compete may be recovered if the covenant provides for their recovery. *Hilb, Rogal & Hamilton Agency of Dayton, Inc. v. Reynolds*, 81 Ohio App. 3d 330, 610 N.E.2d 1102 (Ohio Ct. App. 1992). In addition, attorneys' fees may be recoverable if the employee has acted in bad faith. *Columbus Medical Equipment Co. v. Watters*, 13 Ohio App. 3d 149, 468 N.E.2d 343, 348 (Ohio Ct. App. 1983) (attorney fees not generally available absent either statute authorizing their recovery or showing of bad faith; here destruction of employment contract by defendant constituted bad faith warranting award of attorneys' fees).
- G. A breach of the employment agreement by the employer should relieve the employee of his or her non-compete obligations. See *Hamilton Ins. Services, Inc. v. Nationwide Ins. Cos.*, 86 Ohio St. 270, 274, 714 N.E.2d 898, 901 (Ohio 1999) (noting that court of appeals had held non-compete unenforceable because of breach of employment agreement, but reversing because of absence of such a breach); P. Bergeron, [Navigating the "Deep and Unsettled Sea" of Covenant Not to Compete Litigation in Ohio: A Comprehensive Look](#), 31 U. Tol. L. Rev. 373, 391 (2000). As a general rule, a material breach of a contract by one party will excuse continued performance by the other. See *Economou v. Physicians Weight*

Loss Ctrs., 756 F. Supp. 1024, 1034 (N.D. Ohio 1991) (material breach of franchise agreement by franchisor would excuse franchisee from further performance of non-competition provisions of franchise agreement); *Barnes Group, Inc. v. O'Brien*, 591 F. Supp. 454, 462-63 (N.D. Ind. 1984) (decided under Indiana and Ohio law) (court enforced explicit contractual provision providing that an alleged breach of contract by seller was no defense to action to enforce covenant not to compete).

- H. Choice of law provisions will be followed. *Neff Athletic Lettering Co. v. Walters*, 524 F. Supp. 268, 273 (S.D. Ohio 1981) (choice of law enforced unless forum selected by parties has no substantial relationship to the transaction).
- I. In 1994, Ohio adopted the Uniform Trade Secrets Act, which is codified at Ohio Rev. Code Ann. §1333.61 *et seq.*
- J. Noteworthy articles and/or publications: P. Bergeron, Navigating the “Deep and Unsettled Sea” of Covenant Not to Compete Litigation in Ohio: A Comprehensive Look, 31 U. Tol. L. Rev. 373, 391 (2000); Making Employee Non-Competition Agreements Unenforceable: Triumph of Labor Mobility or Policy Prescription for Disaster? Cases of Ohio and California With Some Practical Suggestions, 17 Cap. U.L. Rev. 391 (1988).
- K. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Hamilton Ins. Services, Inc. v. Nationwide Ins. Cos.*, 86 Ohio St. 3d 270, 714 N.E.2d 898 (Ohio 1999); *The Procter & Gamble Co. v. Stoneham*, 140 Ohio App. 3d 260, 747 N.E.2d 268 (Ohio Ct. App. 2000); *Columbus Medical Equip. Co. v. Watters*, 13 Ohio App. 3d 149, 468 N.E.2d 343 (Ohio Ct. App. 1983); *Premix v. Zappitelli*, 561 F. Supp. 269 (N.D. Ohio 1983); *Basiccomputer Corp. v. Scott*, 791 F. Supp. 1280, 1290-91 (N.D. Ohio 1991), *aff'd*, 973 F.2d 507 (6th Cir. 1992).
- L. A former employer may be estopped from enforcing a noncompetition clause against a former employee where (1) the former employer has given the former employee oral assurances, at the time the employment agreement was signed, that the clause would not be enforced, (2) the former employer reasonably expected those assurances to induce the former employee to sign the agreement, and (3) the employee, who was already working for others, had relied on those assurances when she signed the agreement. *Chrysalis Health Care, Inc. v. Brooks*, 65 Ohio Misc. 2d 32, 41, 640 N.E.2d 915, 921 (Ohio Mun. 1994).
- M. The state’s Code of Professional Responsibility may impose restrictions on the enforcement of covenants not to compete within the legal

profession because such covenants operate to restrict the practice of law.
A.B.A. Sec. Lab. Emp. L. Rep. 397 (Supp. 1996).

OKLAHOMA

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson

Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson

Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

OKLAHOMA

IV. STATUTORY AUTHORITY

Oklahoma has a statute governing non-compete agreements. OKLA. STAT. ANN. tit. 15, §§ 217 to 219A (West, 2003).

OKLA. STAT. ANN. tit. 15, § 217 states:

Every contract by which any one is restrained from exercising a lawful profession, trade or business of any kind otherwise than as provided by the next two sections, is to that extent void.

OKLA. STAT. ANN. tit. 15, § 218:

ONE who sells the good-will of a business may agree with the buyer to refrain from carrying on a similar business within a specified period county, city, or part thereof, so long as the buyer, or any person deriving to the good-will from him carries on a like business therein.

OKLA. STAT. ANN. tit. 15, § 219:

PARTNERS may, upon or in anticipation of a dissolution of the partnership, agree that none of them will carry on a similar business within the same city or town where the partnership business has been transacted, or within a specified part thereof.

A supplement to §219 became effective on June 4, 2001. OKLA. STAT. ANN. tit. 15 § 219A. This new section allows employees to enter into non-compete agreements with their employers, "but only to the extent 'the former employee does not directly solicit the sale of goods, services or a combination of goods and services from the established customers of the former employer.'" *Eakle v. Grinnell Corp.*, 272 F. Supp.2d 1304, 1310 (E.D. Okla. 2003) (quoting OKLA. STAT. ANN. tit. 15 § 219A). However, this new provision is not applicable to non-compete agreements entered into prior to June 4, 2001. *Eakle*, 272 F. Supp.2d at 1310.

OKLA. STAT. ANN. tit. 15, § 219A:

- A.** A person who makes an agreement with an employer, whether in writing or verbally, not to compete with the employer after the employment relationship has been terminated, shall be permitted to engage in the same business as that conducted by the former employer or in a similar business as that conducted by the former employer as long as the former employee does not directly solicit the sale of goods, services or a combination of goods and services from the established customers for the

former employer.

- B. Any provision in a contract between an employer and an employee in conflict with the provisions of this section shall be void and unenforceable.

V. SUMMARY OF LAW

The most meaningful development in non-compete law in Oklahoma has taken place since the Oklahoma Supreme Court's decision in *Bayly, Martin & Fay, Inc. v. Pickard*, 780 P.2d 1168 (Okla. 1989). There, the court determined that only unreasonable restrictions constituted violations of § 217. Since then, Oklahoma courts have examined restrictive covenants to determine whether they are reasonable in terms of time, geographical and activity limitations. If they are not, Oklahoma courts have the equitable power to modify them, but will not do so if the covenant is so flawed that the court would be required to re-write the contract or provide its essential terms. *Vanguard Envtl., Inc. v. Curler*, P.3d 1158 (Okla. Ct. App. 2007)

VI. ELEMENTS OF ENFORCEABILITY

A. Protectable Interest

Unfair competition on the part of a former employee is the legitimate focus of a non-compete agreement in Oklahoma. *Mammana* at 213. Competition becomes unfair when a former employee improperly uses some business advantage or opportunity gained through employment with the former employer with whom they had a non-compete agreement, such as soliciting the former employer's actual customers. *Id*; *Loewen Group Acquisition Corp. v. Matthews*, 12 P.3d 977, 982 (Okla. Ct. App. 2000). Thus, provisions that require a former employee to maintain a "hands-off policy" towards a former employer's actual customers are enforceable. *Mammana* at 213; *Key Temp. Personnel, Inc. v. Cox*, 884 P.2d 1213, 1216 (Okla. Ct. App. 1994). On the other hand, such covenants cannot prevent a former employee from accepting customers of the former employer where no solicitation has occurred, such as where the customers affirmatively request or select the former employee. *Bayly, Martin & Fay, Inc. v. Pickard*, 780 P.2d 1168 (Okla. 1989).

Employers also have a protectable interest in trade secrets. In fact, Oklahoma has adopted the Uniform Trade Secrets Act, OKLA. STAT. ANN. tit. 78, §§ 85-94.

An employer has no protectable interest in attempting to avoid ordinary competition. *Mammana* at 213. As a result, employers have no protectable interests in any expertise, good will, contacts or opportunities

that the employee gained before working for the employer. *Matthews* at 982.

B. Reasonableness Requirements

In Oklahoma, covenants not to compete must be reasonable in terms of time and territorial limitations in light of the legitimate interests the employers seeks to protect. See *Mammana* at 214 (covenant that effectively prevented doctor from practicing within 100 mile radius of Tulsa unenforceable even though the covenant only stated that it applied to a twenty mile radius). Whether a covenant not to compete is reasonable is determined by the courts on a case-by-case basis after analyzing all the facts and circumstances of the individual case. *Matthews* at 980. There is no general presumption regarding what time period is reasonable. For instance, a time limitation of nine months has been held to be reasonable. *Key Temp. Personnel* at 1214. A time limitation of two years has also been held to be reasonable. *Thayne A. Hedges Reg'l Speech & Hearing Ctr., Inc. v. Baughman*, 996 P.2d 939, 941 (Okla. Ct. App. 1998). However, a time limitation of three years has been held void and unenforceable. *Matthews* at 979. Not surprisingly, a ten year restriction with no particular geographic limitation was also held unenforceable. *Cohen Realty v. Marinick*, 817 P.2d 747, 749 (Okla. Ct. App. 1991).

In general, Oklahoma courts seem most concerned with whether the restriction relates to active solicitation of the employer's customers (which will generally be upheld) or some other type of activity. For instance, in *Mammana*, the court held unenforceable a nine month bar on solicitation, diversion *or acceptance* of referrals from the employer's referral service. *Mammana* at 214. The court found that the restriction was too broad because it would have prohibited the employee from accepting referrals that he did not actively seek. *Id.* Conversely, the court upheld a one year restriction on active solicitation of the employer's patients by the employee because it allowed an exception for patients who affirmatively requested the former employee's services. *Id.*

C. Consideration

Pursuant to statute, consideration will be presumed anytime there is a written instrument. OKLA. STAT. ANN. tit. 15, § 115.

VII. ADDITIONAL COMMENTS

A. Court Reformation

If a restrictive covenant is overbroad, it can be equitably modified if the contractual defect can be cured by imposing reasonable limitations concerning the activities embraced, time, or geographical limitations. *Mammanna* at 213; *Bayly* at 1173. Although Oklahoma courts have the power to modify an unreasonable restraint on trade, they do not always exercise the power, and they will refuse to supply material terms of a contract. *Mammanna* at 213; *Bayly* at 1172-73. See also *Herchman v. Sun Medical, Inc.*, 751 F. Supp. 942, 947 (N.D. Okla. 1990); *Marinick* at 749 (stating that court cannot modify covenant “if the essential elements of the contract must be supplied”).

B. Enforceability if Employee Terminated

Oklahoma courts have not expressly addressed this issue.

In *Marinick*, the employee was terminated after two years of employment. The parties entered into a termination agreement that expressly stated that the non-compete covenant in the employment agreement would remain in effect after termination. The court simply noted this fact but did not discuss if it would have made any difference had such an explicit termination agreement not been signed. See *Marinick* at 748. Perhaps the court did not address the issue because it found the covenant was unenforceable because it was too broad—it was ten years with no discernable geographic or scope of activity limitations. *Id.* at 749.

In *Key Temporary Personnel*, the employee argued that the covenant not to compete should not be enforced against her essentially on a theory that she was constructively discharged. See *Key Temp. Personnel* at 1217. The court held that, bottom line, she was the one that terminated the employment relationship; and because of that, the reasons surrounding the termination of the employment relationship were not relevant to determining whether the covenant was reasonable. *Id.* (holding however that they are relevant, perhaps, to whether a preliminary injunction to enforce the covenant was proper). Finally, the court distinguished the case authority the employee relied on, noting that here, the employee had not been terminated by the employer, and the covenant explicitly stated that it applied regardless of why the employment relationship ended. *Id.* at 1217 n. 6. However, the court never discussed whether the case would have been different had the employee actually been terminated or if the covenant did not contain such an explicit expression that it would apply regardless of how the employment relationship ended.

C. Choice of Law Provisions

With respect to contract actions, “a choice-of-law clause is unenforceable if its application violates the law or public policy of Oklahoma as expressed in the state's constitution, statutes, or case law.” *MidAmerica Constr. Mgmt., Inc. v. Mastec N. Am., Inc.*, 436 F.3d 1257, 1260 (10th Cir. 2006). Choice of law provisions may be included in covenants not to compete, and the Oklahoma courts will apply the law of the state chosen, unless the parties' choice of law “violate[s] the provisions of Oklahoma law with respect to contracts in restraint of trade.” *Oliver v. Omnicare, Inc.*, 103 P.3d 626, 628 (Okla. Civ. App. 2004) To answer this question, courts will examine the reasonableness of the covenant under the law of the chosen state, and under Oklahoma's law, and compare the two outcomes. *Eakle v. Grinnell Corp.*, 272 F. Supp. 2d 1304, 1312 (E.D. Okla. 2003). If the differences are not great, the court will likely not find Oklahoma's public policy to be implicated, and will apply the chosen state's law. Compare *Id.* at 1313 (two-state territorial restriction with Delaware choice of law upheld) with *Southwest Stainless, L.P. v. Sappington*, 2008 WL 918706 (N.D. Okla. 2008) (seven-state territorial restriction with Florida choice of law stuck down).

D. Sale of Business

This is governed by § 218 of the generally applicable statute. To that extent, the analysis is essentially the same. However, because the sale of a business is one of the explicitly recognized statutory “exceptions,” Oklahoma courts may be willing to uphold greater restrictions. Compare *Eakle* at 1304 (upholding five year restraint covering Arkansas and Oklahoma—court analyzed under Delaware and Oklahoma law and found even though geographic restriction probably invalid under Oklahoma law, it was not enough to implicate state's public policy and override choice of law provision); *Farren v. Autoviable Servs., Inc.*, 508 P.2d 646, 649 (Okla. 1973) (one year restraint on participating in competing business in same territory enforceable) and *Griffin v. Hunt*, 268 P.2d 874, 877 (Okla. 1954) (five year restraint in county of previous dental practice enforceable) with *Southwest Stainless, L.P. v. Sappington*, 2008 WL 918706 (N.D. Okla. 2008) (voiding a three-year, seven-state territorial restriction involving the sale of a business).

E. Forfeiture Provisions

A forfeiture of benefits provision generally is treated as a restraint of trade and thus will be subject to the same analysis as other noncompetition covenants. *Graham v. Hudgins, Thompson, Ball and*

Assoc. Inc., 540 P.2d 1161, 1163 (Okla. 1975). In fact, it will be analyzed under the same statutory framework. *Id.* (court held provision that called for forfeiture of funds in employee benefit plan upon accepting employment with a competitor was an invalid restraint under § 217). If the benefits fall under the control of ERISA, however, then state law regarding covenants not to compete is preempted. *Loffland Bros. v. Overstreet*, 758 P.2d 813, 817 (Okla. 1988).

OREGON

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Mary Wang

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
mwang@fenwick.com

OREGON

I. Judicial Statement of the Law

Post-employment covenants not to compete entered into in the employment context are governed by Or. Rev. Stat. § 653.295.

Covenants Entered Into On or After January 1, 2008: In 2007, the Oregon legislature significantly amended the state's noncompete statute. Under the amended Or. Rev. Stat. § 653.295, a covenant not to compete in the employment context entered into on or after January 1, 2008 is voidable and unenforceable unless:

- The employer tells the employee in a written job offer at least *two weeks before* the employee starts work that the noncompete is required, or the noncompete is entered into upon a “bona fide advancement”; and
- The employee is exempt from Oregon minimum wage and overtime laws; and
- The employer has a “protectable interest” (access to trade secrets or competitively sensitive confidential information); and
- The employee's annual gross salary is more than the median family income for a family of four as calculated by the Census Bureau.

Even if the employee is not exempt and does not meet the salary test, an employer can still obtain an enforceable post-employment covenant not to compete if, during the period the employee is restricted from working for a competitor, the employer pays the departed employee 50 percent of the employee's salary or 50 percent of the median family income for a family of four, whichever is greater.

Or. Rev. Stat. § 653.295 (2007) provides:

653.295. Noncompetition agreements; bonus restriction agreements; applicability of restrictions.

- A.** A noncompetition agreement entered into between an employer and employee is voidable and may not be enforced by a court of this state unless:
1. The employer informs the employee in a written employment offer received by the employee at least two weeks before the first day of the employee's employment that a noncompetition agreement is required as a condition of employment; or

2. The noncompetition agreement is entered into upon a subsequent bona fide advancement of the employee by the employer;
3. The employee is a person described in ORS 653.020 (3);
4. The employer has a protectable interest. As used in this paragraph, an employer has a protectable interest when the employee:
 - B.** Has access to trade secrets, as that term is defined in ORS 646.461;
 - C.** Has access to competitively sensitive confidential business or professional information that otherwise would not qualify as a trade secret, including product development plans, product launch plans, marketing strategy or sales plans; or
 - D.** Is employed as an on-air talent by an employer in the business of broadcasting and the employer:
 1. In the year preceding the termination of the employee's employment, expended resources equal to or exceeding 10 percent of the employee's annual salary to develop, improve, train or publicly promote the employee, provided that the resources expended by the employer were expended on media that the employer does not own or control; and
 2. Provides the employee, for the time the employee is restricted from working, the greater of compensation equal to at least 50 percent of the employee's annual gross base salary and commissions at the time of the employee's termination or 50 percent of the median family income for a four-person family, as determined by the United States Census Bureau for the most recent year available at the time of the employee's termination; and
 3. The total amount of the employee's annual gross salary and commissions, calculated on an annual basis, at the time of the employee's termination exceeds the median family income for a four-person family, as determined by the United States Census Bureau for the most recent year available at the time of the employee's termination. This paragraph does not apply to an employee described in paragraph (c)(C) of this subsection.
- E.** The term of a noncompetition agreement may not exceed two years from the date of the employee's termination. The remainder of a term of a noncompetition agreement in excess of two years is voidable and may not be enforced by a court of this state.

- F.** Subsections (1) and (2) of this section apply only to noncompetition agreements made in the context of an employment relationship or contract and not otherwise.
- G.** Subsections (1) and (2) of this section do not apply to:
1. Bonus restriction agreements, which are lawful agreements that may be enforced by the courts in this state; or
 2. A covenant not to solicit employees of the employer or solicit or transact business with customers of the employer.
- H.** Nothing in this section restricts the right of any person to protect trade secrets or other proprietary information by injunction or any other lawful means under other applicable laws.
- I.** Notwithstanding subsection (1)(b) and (d) of this section, a noncompetition agreement is enforceable for the full term of the agreement, for up to two years, if the employer provides the employee, for the time the employee is restricted from working, the greater of:
1. Compensation equal to at least 50 percent of the employee's annual gross base salary and commissions at the time of the employee's termination; or
 2. Fifty percent of the median family income for a four-person family, as determined by the United States Census Bureau for the most recent year available at the time of the employee's termination.
- J.** As used in this section:
1. "Bonus restriction agreement" means an agreement, written or oral, express or implied, between an employer and employee under which:
 2. Competition by the employee with the employer is limited or restrained after termination of employment, but the restraint is limited to a period of time, a geographic area and specified activities, all of which are reasonable in relation to the services described in subparagraph (B) of this paragraph;
 3. The services performed by the employee pursuant to the agreement include substantial involvement in management of the employer's business, personal contact with customers, knowledge of customer requirements related to the employer's business or

knowledge of trade secrets or other proprietary information of the employer; and

4. The penalty imposed on the employee for competition against the employer is limited to forfeiture of profit sharing or other bonus compensation that has not yet been paid to the employee.

K. "Broadcasting" means the activity of transmitting of any one-way electronic signal by radio waves, microwaves, wires, coaxial cables, wave guides or other conduits of communications.

L. "Employee" and "employer" have the meanings given those terms in ORS 652.310.(d) "Noncompetition agreement" means an agreement, written or oral, express or implied, between an employer and employee under which the employee agrees that the employee, either alone or as an employee of another person, will not compete with the employer in providing products, processes or services that are similar to the employer's products, processes or services for a period of time or within a specified geographic area after termination of employment.

Or. Rev. Stat. § 653.295 (2007).

Covenants Entered Into Before January 1, 2008: Covenants executed *prior to* January 1, 2008 are governed by Or. Rev. Stat. § 653.295 (2005), which provides that a covenant not to compete is void and unenforceable unless the agreement is entered into upon the:

- (a) Initial employment of the employee with the employer; or
- (b) Subsequent bona fide advancement of the employee with the employer.

Notably, the statute prior to the 2007 amendment does not require employers to notify prospective employees in writing 2 weeks before the first day of employment that execution of a covenant not to compete is a condition of employment.

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract:

"A non-competition provision in an employment contract is a covenant in restraint of trade.

Three things are essential to the validity of a contract in restraint of trade[:]
(1) it must be partial or restricted in its operation in respect either to time

or place; (2) it must come on good consideration; and (3) it must be reasonable, that is, it should afford only a fair protection to the interests of the party in whose favor it is made, and must not be so large in its operation as to interfere with the interests of the public.”

Volt Services Group v. Adecco Employment Services, Inc., 178 Or. App. 121, 126, 35 P.3d 329 (2001) (internal citations omitted).

The absence of both a geographical and temporal limitation does not make the covenant void as a matter of law; reasonable limitations will be implied, if possible. *Kelite Products, Inc. v. Brandt*, 206 Or. 636, 654-655, 294 P.2d 320(1956); *Lavey v. Edwards*, 264 Or. 331, 334-335, 505 P.2d 342 (1973).

B. Ancillary to the sale of a business:

The absence of both a geographical and temporal limitation does not make the covenant void as a matter of law; reasonable limitations will be implied, if possible. *Renzema v. Nichols*, 83 Or. App. 322, 323, 731 P.2d 1048 (1987) (covenant between competitors).

III. GENERAL COMMENTS

A. Protectable interests:

1. The employer has a protectable interest when the employee has access to (1) trade secrets; or (2) “competitively sensitive confidential business or professional information that otherwise would not qualify as a trade secret, including product development plans, product launch plans, marketing strategy or sales plans.” Or. Rev. Stat. § 653.295(1)(c).
2. General knowledge acquired through training and experience is generally not a protectable interest for purposes of restrictive covenants. See *Rem Metals Corp. v. Logan*, 278 Or. 715, 720-21, 565 P.2d 1080 (1977) (That fact that “general knowledge, skill, or facility acquired through training or experience” were acquired or developed during the employment “does not, by itself, give the employer a sufficient interest to support a restraining covenant, even though the on-the-job training has been extensive and costly.”); *Nike, Inc. v. McCarthy*, 379 F.3d 576, 585 (9th Cir. 2004) (finding that a regional sales manager’s general skills in sales and product development and his industry knowledge acquired during his employment did not constitute protectable interest of the employer to justify enforcement of a noncompete agreement).

3. However, an employer has a protectable interest in “information pertaining especially to the employer’s business.” *Nike, Inc. v. McCarthy*, 379 F.3d 576, 585 (9th Cir. 2004).

“Contacts between an employer’s employees and its customers can create a protectable interest when the nature of the contact is such that there is a substantial risk that the employee may be able to divert all or part of the customer’s business.” *Volt Service Group v. Adecco Employment Services, Inc.*, 178 Or. App. 121, 126-127, 35 P.3d 329 (2001). The extent to which the employee is likely to be identified in the customer’s mind with the employer’s product or service determines whether the risk of customer diversion is “sufficiently great to warrant a restriction, and how broad a restriction will be permitted.” *Id.* at 127. See also *Cascade Exch., Inc. v. Reed*, 278 Or. 749, 565 P.2d 1095 (1977) (enforcing a noncompete agreement when “the employees’ work necessarily involved access to plaintiff’s customer lists, as well as some other specialized information relating to customers, and employees” and “had frequent and close contacts with plaintiff’s customers on a personal basis”); *North Pacific Lumber Co. v. Moore*, 275 Or. 359, 551 P.2d 431 (1976) (upholding a noncompete agreement where the employee had accumulated information about “the type of lumber which filled the special needs of the various buyers”); *Kelite Prods., Inc. v. Brandt*, 206 Or. 636, 294 P.2d 320 (1956) (affirming lower court’s injunction restraining employees from soliciting or selling to customers of the former employer where the employees had access to customer lists that showed the dates of purchases made by such customers and the types of products purchased).

Confidential and valuable proprietary marketing and product information constitutes a protectable interest. *Nike, Inc. v. McCarthy*, 379 F.3d 576, 586 (9th Cir. 2004) (A regional sales manager’s job duties gave him access to valuable proprietary marketing and product information, which justified enforcement of a 1-year covenant not to compete. The court found that it was not necessary to show that the employee actually used any confidential information in his new position for the information to constitute a protectable interest).

- B. Employee and customer non-solicitation provisions:** Provisions prohibiting solicitation of customers or employees are treated in the same way as noncompetition agreements. *First Allmerica Financial Life Insurance Co. v. Sumner*, 212 F. Supp. 2d 1235, 1238-1239 (D. Or. 2002).

C. Terminating employee for refusing to sign noncompete: Or. Rev. Stat. § 653.295 does not prohibit employers from terminating an employee for refusing to sign a noncompetition agreement. *Dymock v. Norwest Safety Protective Equipment for Oregon Industry, Inc.*, 334 Or. 55, 59-60, 45 P.3d 114 (2002) (holding that plaintiff failed to state a claim for wrongful discharge for refusing to sign a noncompete at times other than those that the statute permits because “[n]othing in the statute confers a right to refuse to sign such agreements”).

D. Blue pencil/modification: Courts can modify an overly broad covenant, and even provide a reasonable limit if no time or geographic limitation was provided in the covenant. *Lavey v. Edwards*, 264 Or. 331, 334-35, 505 P.2d 342 (1973).

E. Consideration:

1. A restrictive covenant signed at the inception of employment provides sufficient consideration so long as the employer can demonstrate a legitimate protectable interest. Or. Rev. Stat. §653.295(1)(a); *McCombs v. McClelland*, 223 Or. 475, 480, 354 P.2d 311, 314 (1960). The covenant must be signed at the time the employment commences, with no more than a *de minimus* delay before employment begins. *Konecranes, Inc. v. Sinclair*, 340 F. Supp. 2d 1126, 1129 (D. Or. 2004) (16 day delay in signing noncompete too long); see also *Ikon Office Solutions, Inc. v. American Office Products, Inc.*, 178 F. Supp.2d 1154, 1159-61 (D. Or. 2001) (finding no Oregon decision enforcing noncompete agreement signed more than 3 days after employee commenced work, and holding that 17 days was too long an interval); *Perthou v. Stewart*, 243 F. Supp. 655, 659 (D. Or. 1965) (6 day delay too long); *Miller v. Kroger Co.*, 2001 U.S. Dist. LEXIS 25626 (D. Or. 2001) (7-week delay too long).

2. A “bona fide advancement of the employee with the employer” is sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun. Or. Rev. Stat. §653.295(1)(b). A “bona fide advancement” requires an actual change in the employee’s job status or duties performed, and not merely a raise in salary, an improved benefit package, or some other form of additional compensation. *First Allmerica Fin. Life Ins. Co. v. Sumner*, 212 F. Supp. 2d 1235, 1241 (D. Or. 2002).

In determining the date that a “bona fide advancement” occurs, courts will consider the following factors: (1) the date the offer was made and whether the offer was expressly contingent upon any

other factors; (2) the date of acceptance and whether acceptance was contingent upon any other factors; (3) the company's standard practices and procedures relative to promotions; (4) a title change; (5) an enhancement in job duties and responsibilities; and (6) an enhancement in pay and/or the benefits package. *Nike, Inc. v. McCarthy*, 285 F. Supp. 2d 1242, 1246 (D. Or. 2003), affirmed by *Nike, Inc. v. McCarthy*, 379 F.3d 576, 583-84 (9th Cir. 2004) (finding that the "bona fide advancement" requirement ordinarily includes "new, more responsible duties, different reporting relationships, a change in title and higher pay").

Whether a covenant is "entered into upon" the advancement depends on the totality of the circumstances. "[A]lthough a non-compete agreement need not be entered into at the first instance that the employee assumes any elements of the new job, including new duties, neither does the window of opportunity to ask for a noncompete agreement remain open until the employer sees fit formally to finalize the advancement process." *Nike, Inc. v. McCarthy*, 379 F.3d 576, 584 (9th Cir. 2004) (holding that the covenant was entered into upon a bona fide advancement where it was signed by the employee within 5 days of the final agreement on the new job's terms and conditions, and because the employer had not unreasonably delayed finalizing the process).

- F. **Enforceability of "clawbacks" and other forfeitures of benefits:** "The validity of forfeiture clauses in pension plans "should be determined in much the same way that the validity or invalidity of a noncompetition clause in an employment contract is determined, i.e., by the test of reasonableness-whether the clause is an unreasonable restraint of trade." *Lavey v. Edwards*, 264 Or. 331, 337, 505 P.2d 342 (1973). Continued employment is sufficient consideration to support a bonus restriction agreement under which the penalty imposed is limited to forfeiture of bonus compensation, such as profit sharing, that has not yet been paid to the employee. Or. Rev. Stat. § 653.295(4).
- G. **Assignability:** Noncompetition agreements are not assignable under Oregon law. *Perthou v. Stewart*, 243 F. Supp. 655, 659 (D. Or. 1965).
- H. **Is a noncompete covenant enforceable if the employee is discharged?** Yes. *Nike, Inc. v. McCarthy*, 285 F. Supp. 2d 1242, 1246 (D. Or. 2003) (The fact that the employee was terminated by the company "bears no direct relation to the validity of the contract". The court found that "nothing in the terms of the contract invalidates its provisions based upon the voluntary or involuntary nature of the [employee's] separation from the company.").

- I. Will employer's breach of employment agreement relieve the employee of his obligation not to compete? This issue has not yet been decided in Oregon.
- J. **Will a choice of law provision in a contract be followed?** Probably not unless the covenant complies with Or. Rev. Stat. § 653.295. Oregon has "an unequivocal statement of public policy" voiding any covenant not to compete that does not meet the requirements of the state's noncompetition statute. *Konecranes, Inc. v. Sinclair*, 340 F. Supp. 2d 1126, 1130 (D. Or. 2004) (finding that Oregon's interests were sufficient to apply its own state laws despite an Ohio choice of law provision in the covenant where the employee was a resident of Oregon, was employed there, and was attempting to compete there, and because the agreement was not negotiated between two businesses or an independent contractor with greater who may have greater leeway to establish their own terms).
- K. **Attorneys' fees:** Where an attorney-fees provision provided for "cost of pursuing legal action to enforce" the noncompetition agreement, the fee provision "was legally viable only if the noncompetition agreement was enforced." *Care Med. Equip., Inc. v. Baldwin*, 331 Or. 413, 419, 15 P.3d 561 (2000) (holding that "[o]nce the court determined that the noncompetition provision of the contract was void, no provision of the parties' contract permitted defendant to claim attorney fees.>").
- L. **Trade secrets defined:** Oregon has adopted the Uniform Trade Secrets Act. Or. Rev. State §§ 646.461 to 646.475.
- M. **Noteworthy articles:** Leonard D. DuBoff & Christy O. King, Legal Practice Tips: A New Wrinkle: Non-Competition Agreements in Oregon, 67 Or. St. B. Bull. 36 (Aug.-Sept. 2007) (examining 2007 amendments to the noncompetition statute, Or. Rev. State § 653.295).

PENNSYLVANIA

This chapter was prepared by the law firm of Reed Smith LLP.

For further information about the summary contained in this chapter, please contact:

Frederick H. Colen

Reed Smith LLP
435 Sixth Avenue
Pittsburgh, PA 15219

Main: 412-288-7210
Facsimile: 412-288-3063
bcoyne@reedsmith.com

and

Barry J. Coyne

Reed Smith LLP
435 Sixth Avenue
Pittsburgh, PA 15219

Main: 412-288-4164
Facsimile: 412-288-3063
fcolen@reedsmith.com

PENNSYLVANIA

I. JUDICIAL STATEMENT OF THE LAW

"[Pennsylvania] courts will permit the equitable enforcement of post-employment restraints only where they are incident to an employment relationship between the parties to the covenant, the restrictions are reasonably necessary for the protection of the employer, and the restrictions are reasonably limited in duration and geographic extent." *Sidco Paper Co. v. Aaron*, 351 A.2d 250, 252 (Pa. 1976). See also *New Castle Orthopedic Assocs. v. Burns*, 392 A.2d 1383, 1387 (Pa. 1978) (where the court also looked to societal interests).

"In determining whether to enforce a non-competition covenant, this Court requires the application of a balancing test whereby the court balances the employer's protectible business interests against the interest of the employee in earning a living in his or her chosen profession, trade or occupation, and then balances the result against the interest of the public." *Hess v. Gebhard & Co., Inc.*, 808 A.2d 912, 920 (Pa. 2002).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract

1. *Hess v. Gebhard & Co., Inc.*, 808 A.2d 912, 920 (Pa. 2002) (covenants not to compete ancillary to employment will be subjected to a more stringent test of reasonableness than that applied to covenants ancillary to the sale of a business).
2. *John G. Bryant Co., Inc. v. Sling Testing & Repair, Inc.*, 369 A.2d 1164 (Pa. 1977) (three-year, three-state, no former-customers restriction on salesmen was reasonable); *Blair Design & Constr. Co., Inc. v. Kalimon*, 530 A.2d 1357 (Pa. Super. Ct. 1987) (three-year restriction on contacting customers on list was enforceable); *Records Center, Inc. v. Comprehensive Mgmt., Inc.*, 525 A.2d 433 (Pa. Super. Ct. 1987) (one-year covenant restricting solicitation of former employer's clients within a five-state territory was reasonable); *Robert Clifton Assocs., Inc. v. O'Connor*, 487 A.2d 947 (Pa. Super. Ct. 1985) (one-year, 75-mile restriction on former employment agency specialist was reasonable).
3. *Sidco Paper Co. v. Aaron*, 351 A.2d 250 (Pa. 1976) (court enforced two-year covenant after limiting the geographical restriction to the four-state region that the salesman had formerly covered for the employer); *Reading Aviation Serv., Inc. v. Bertolet*, 311 A.2d 628 (Pa. 1973) (court refused to enforce covenant which attempted to

restrict former president of plaintiff corporation from assisting in a competing business because it lacked time and area limitations); *WellSpan Health v. Bayliss*, 869 A.2d 990, 1001 (Pa. Super. Ct. 2005) (court refused to enforce covenant in geographic area where former employer did not compete).

B. Incidental to the sale of a business

1. "Post-employment restrictive covenants are subject to a more stringent test of reasonableness than such covenants ancillary to the sale of a business." *Thermo-Guard, Inc. v. Cochran*, 596 A.2d 188, 194 (Pa. Super. Ct. 1991) (citing *Morgan's Home Equip. Corp. v. Martucci*, 136 A.2d 838 (Pa. 1957)); see also *Geisinger Clinic v. DiCuccio*, 606 A.2d 509, 518 (Pa. Super. Ct. 1992); *Worldwide Auditing Services, Inc. v. Richter*, 587 A.2d 772, 776 (Pa. Super. Ct. 1991) (a reasonable restrictive covenant ancillary to the sale of stock is enforceable); *Sobers v. Shannon Optical Co., Inc.*, 473 A.2d 1035 (Pa. Super. Ct. 1984) (eight-county, five-year restriction was enforceable); *Ross v. Houck*, 136 A.2d 160 (Pa. Super. Ct. 1957) (five-year, three-mile restrictive covenant reasonable).
2. *Westec Sec. Servs., Inc. v. Westinghouse Elec. Corp.*, 538 F. Supp. 108 (E.D. Pa. 1982) (twenty-year restriction on marketing home security systems was reduced to ten years).

III. GENERAL COMMENTS

- A. Protectable interests: The employer's relationship with its customers, confidential information and trade secrets, unique or extraordinary skills, and investments in an employee specialized training program. *John G. Bryant Co., Inc. v. Sling Testing & Repair, Inc.*, 369 A.2d 1164 (Pa. 1977); *Morgan's Home Equip. Corp. v. Martucci*, 136 A.2d 838, 846 (Pa. 1957). See also *WellSpan Health v. Bayliss*, 869 A.2d 990, 996-99 (Pa. Super. Ct. 2005) (summarizing recognized protectable interests and concluding that healthcare provider's patient referral base was protectable); *Thermo-Guard, Inc. v. Cochran*, 596 A.2d 188, 193 (Pa. Super. Ct. 1991) (goodwill); *Blair Design & Constr. Co., Inc. v. Kalimon*, 530 A.2d 1357 (Pa. Super. Ct. 1987) (client lists).
- B. A non-competition covenant applied to a geographical area where the former employer does not compete is unreasonable. *WellSpan Health v. Bayliss*, 869 A.2d 990, 1001 (Pa. Super. Ct. 2005) (refusing to enforce covenant in county where former employer did not compete).

- C. If a covenant is overbroad, but does not indicate "an intent to oppress the employee and/or to foster a monopoly," it may be equitably modified and enforced to the extent reasonably necessary for the protection of the employer. *Sidco Paper Co. v. Aaron*, 351 A.2d 250, 256-57 (Pa. 1976). See also *Hess v. Gebhard & Co., Inc.*, 808 A.2d 912, 920 (Pa. 2002); *WellSpan Health v. Bayliss*, 869 A.2d 990, 996 n.2 (Pa. Super. Ct. 2005) ("It is well-established in Pennsylvania that a court of equity has the authority to reform a non-competition covenant in order to enforce only those provisions that are reasonably necessary for the protection of the employer."); *Davis & Warde, Inc. v. Tripodi*, 616 A.2d 1384, 1388 (Pa. Super. Ct. 1992).
- D. Continued employment is not sufficient consideration for a noncompetition agreement. *George W. Kistler, Inc. v. O'Brien*, 347 A.2d 311, 316 (Pa. 1975). However, a change in the conditions of the employment contract, such as a change in benefits or a change in status, can qualify as sufficient consideration. *Maint. Specialties, Inc. v. Gottus*, 314 A.2d 279, 281-83 (Pa. 1974).
- E. A forfeiture of benefits provision is treated as a restraint of trade, and therefore is subject to the same type of analysis. See, e.g., *Garner v. Girard Trust Bank*, 275 A.2d 359 (Pa. 1971) (two-year noncompetition clause upheld and pensions forfeited); *Bilec v. Auburn & Assocs., Inc. Pension Trust*, 588 A.2d 538, 543 (Pa. Super. Ct. 1991) (the noncompetition clause was void because it contained no time limitation, and thus the pensions were not forfeited); see also *Fraser v. Nationwide Mutual Ins. Co.*, 334 F. Supp. 2d 755, 758, 761 (E.D. Pa. 2004) (considering general standards for enforceability of non-compete agreements from *Hess v. Gebhard & Co., Inc.*, 808 A.2d 912 (Pa. 2002), in enforcing provision forfeiting deferred compensation for competing within 25 miles and one year of leaving former employer).
- F. Restrictive covenants not to compete contained in employment agreements are not assignable in the absence of a specific assignability provision, where the covenant is included in the sale of the business assets. *Hess v. Gebhard & Co., Inc.*, 808 A.2d 912, 922 (Pa. 2002); *Savage, Sharkey, Reiser & Szulborski Eye Care Consultants, P.C. v. Tanner*, 848 A.2d 150, 154-58 (Pa. Super. Ct. 2004) (finding employment contract with non-compete agreement assignable pursuant to assignability provision, but refusing to enforce non-compete provision because employer failed to provide employee with written notice of assignment as required by contract).
- G. Is a noncompete covenant enforceable if the employee is discharged? It depends. Where the employee is wrongfully discharged, the employer

cannot enforce the covenant. See *Ritz v. Music, Inc.*, 150 A.2d 160, 162 (Pa. Super. Ct. 1959).

- H. Will employer's prior material breach of the employment agreement relieve the employee of his obligation not to compete? Yes. See *Ritz v. Music, Inc.*, 150 A.2d 160 (Pa. Super. Ct. 1959).
- I. Will a choice of law provision in a contract be followed? Yes, subject to the limitations set forth in the Restatement (Second) of Conflict of Laws § 187(2). See, e.g., *Shifano v. Shifano*, 471 A.2d 839, 843 (Pa. Super. Ct. 1984); *Aluminum Co. of Am. v. Essex Group, Inc.*, 499 F. Supp. 53, 59 (W.D. Pa. 1980).
- J. Trade secrets defined: 12 Pa. C.S. § 5302 (2004).
- K. Equity will protect an employer from disclosure of trade secrets by a former employee provided the employee entered into an enforcement covenant restricting their use or the duty of secrecy was implied by virtue of a confidential relationship. *Wexler v. Greenberg*, 160 A.2d 430, 434-35 (Pa. 1960); see also *Fralich v. Despar*, 30 A. 521 (Pa. 1894). However, a former employee may "take with him" the experience, knowledge, memory, and skill gained from the former employer. *Van Prods. Co. v. Gen. Welding & Fabricating Co.*, 213 A.2d 769, 776 (Pa. 1965).
- L. Noteworthy articles and/or publications: Angela M. Cerino, A Talent is a Terrible Thing to Waste: Toward a Workable Solution to the Problem of Restrictive Covenants on Employment Contracts, 24 Duq. L. Rev. 777-810 (1986); Case Comment, Enforcement of Restrictive Covenants in Pennsylvania Employment Contracts, 80 Dick. L. Rev. 693 (1976).
- M. Noteworthy case summarizing scope of permissible/impermissible restraints: *Davis & Warde, Inc. v. Tripodi*, 616 A.2d 1384 (Pa. Super. Ct. 1992).

RHODE ISLAND

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP
World Trade Center West
155 Seaport Boulevard
Boston, MA 02210-2604
Main: 617-439-2293
Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

RHODE ISLAND

I. SUMMARY OF THE LAW

In order to be enforceable, a noncompetition covenant must not only be legally valid and supported by adequate consideration, but it must also reasonable and necessary for the protection of those in whose favor it is made. Reasonableness is determined by the limitations on both time and geographic space contained in the agreement. The test applied is whether the "restrictions under the conditions of each case" are reasonable. Reasonableness of an agreement is "determined by its subject matter and the conditions under which it was made; by considerations of extensiveness or localism, of protection to interests sold and paid for, of mere deprivation of public rights for private gain, of proper advantage on one side or useless oppression on the other."

Before a court reaches the question of reasonableness, the party seeking to enforce the covenant must show that (1) the provision is ancillary to an otherwise valid transaction or relationship, (2) the provision is supported by consideration, and (3) there exists a legitimate interest that the provision is designed to protect.

Durapin, Inc. v. American Products, Inc., 559 A.2d 1051 (R.I. 1989); *Oakdale Manuf. Co. v. Garst*, 28 A. 973 (R.I. 1895).

A non-compete covenant that is part of a settlement agreement, rather than an employment contract or a contract for the sale of a business, is nevertheless ancillary to a valid transaction, and may be enforced so long as it meets the general requirements for enforceability. *Cranston Print Works Co. v. Pothier*, 848 A.2d 213 (R.I. 2004).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Covenants Held Reasonable.* *Nestle Food Co. v. Miller*, 836 F. Supp. 69 (D.R.I. 1993) (one-year prohibition on selling for a direct competitor is reasonable and enforceable); *Block v. Vector of Warwick, LLC*, 2000 WL 1634784 (R.I. Super. 2000) (Two-year, ten-mile restriction on practice of veterinary medicine upheld as reasonable. The court noted that "a covenant not to compete should last no longer than necessary for the employees' replacements to have a reasonable opportunity to demonstrate their effectiveness to customers"); *R.J. Carbone Co. v. Regan*, 2008 U.S. Dist. LEXIS 81996 (one-year, 100 mile prohibition on competing with former employer held reasonable as to time, but unreasonable as to geographic scope).

2. *Covenants Held Unreasonable. Durapin, Inc. v. American Products*, 559 A.2d 1051 (R.I. 1989) (three-year, total market restraint unreasonable); *Max Garelick, Inc. v. Leonardo*, 250 A.2d 354 (R.I. 1969) (five-year restraint on purchasing grain from previous supplier of plaintiff unreasonable and unenforceable).

B. Incidental to the sale of a business.

1. *Covenants Held Reasonable. French v. Parker*, 14 A. 870 (R.I. 1888) (unlimited time restraint on physician practicing in same city found reasonable); *In re Givens*, 251 B.R. 11 (D.R.I. 2000) (approving a worldwide, six-year restriction against inventor of life raft and president of company in connection with the sale of assets of a life raft manufacturer. Original covenant not to compete was unlimited in time and in geographic scope, and it was reduced to a six-year time period by the court);
2. *Covenants Held Unreasonable. Mento v. Lanni*, 262 A.2d 839, 842 (R.I. 1970) (unlimited time, two-mile restraint on opening barber shop found unreasonable).

III. GENERAL COMMENTS

- A. Protectible interests:** Sale of good will, trade secrets and other confidential information, confidential customer lists, customer contacts; See *Mento v. Lanni*, 262 A.2d 839, 841 (R.I. 1970); *Durapin Inc. v. American Products, Inc.*, 559 A.2d 1051 (R.I. 1989); *Callahan v. Rhode Island Oil Co.*, 240 A.2d 411, 413 (R.I. 1968). See also *Rego Displays, Inc. v. Fournier*, 379 A.2d 1098, 1101 (1977) (special relationship with customers); *Nestle Food Co. v. Miller*, 836 F. Supp. 69 (D.R.I. 1993) (confidential customer lists, special relationships with customers). The court will recognize a protectible interest in customer lists only if the list is confidential in nature, or if a special relationship is formed between the former employee and the customers due to the employee's knowledge of the customer's specific and otherwise unknown needs. *Durapin, Inc. v. American Products, Inc.*, 559 A.2d 1051 (R.I. 1989).
- B. Covenant reformation:** If covenant is overbroad, it can be modified and enforced to the extent it is reasonably necessary without imposing undue hardship on promisor or adversely affecting the public interest, unless the circumstances indicate bad faith or deliberate overreaching on the part of the employer. *Durapin, Inc. v. American Products, Inc.*, 559 A.2d 1051, 1058 (R.I. 1989). Covenants may be modified whether or not their terms are divisible. Id.

- C. Consideration:** The case law in Rhode Island has not specifically addressed whether continued employment is sufficient consideration to support a covenant not to compete. A sister federal court in Rhode Island, attempting to anticipate how the Rhode Island courts would rule on the issue, found that continued employment is sufficient consideration. *Nestle Food Co. v. Miller*, 836 F. Supp. 69 (D.R.I. 1993), 77 & n.32.
- D. Forfeiture of benefits:** A forfeiture of benefits provision would probably be treated as a restraint of trade and thus be subject to the same analysis as other non-competition covenants. See *Durapin, Inc. v American Products, Inc.*, 559 A.2d 1051, 1056 (R.I. 1989) (court expressly declined to rule on the enforceability of a forfeiture condition but "saw very little difference between" them).
- E. Attorneys' fees:** Attorneys' fees are not recoverable absent specific statutory authority or contract. *R.A. Beaufort & Sons, Inc. v. Trivisonno*, 403 A.2d 664, 668 (1979). Under the Rhode Island Uniform Trade Secrets Act, the court may award reasonable attorneys' fees to the prevailing party if a claim of misappropriation of trade secrets is made in bad faith, a motion to terminate an injunction is made or resisted in bad faith, or willful and malicious misappropriation exists. R.I. Gen. Laws 1956, §6-41-4.
- F. Choice of law:** Rhode Island will enforce choice of law provisions contained in contracts, so long as the jurisdiction selected has a "real relation to the contract." *Carcieri v. Creative Servs.*, 1992 R.I. Super. LEXIS 25 (citing *Owens v. Hagenbeck-Wallace Shows Co.*, 58 R.I. 162 (1937)). Where the contract does not contain a choice of law provision, Rhode Island courts will apply the "interest weighing" test to determine which state has the more significant interest in the resolution of the issues presented in the case, and will also consider as a factor the place of contract. *R.J. Carbone v. Regan*, 2008 U.S. Dist. Ct. LEXIS 81996 (R.I. 2008). Under the interest weighing test, the court considers the following factors: (1) predictability of result; (2) maintenance of interstate and international order; (3) simplification of the judicial task; (4) advancement of the forum's governmental interests; and (5) application of the better rule of law. Id.
- G. Trade secrets defined:** Information that "derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use" and concerning which the owner has made "reasonable" efforts to "maintain its secrecy." R.I. Gen. Laws 1956, §6-41-1.

- H. **Remedies:** The remedy for a breach of a covenant not to compete may include both an injunction and damages, although an injunction may suffice. If the breach is not egregious, a court should grant an injunction alone. *Eastern Container Corp. v. Craine*, 624 A.2d 833, 835 (R.I. 1993).
- I. **Noteworthy cases summarizing scope of permissible/impermissible restraints:** *Durapin, Inc. v. American Products*, 559 A.2d 1051 (R.I. 1989); *Max Garelick, Inc. v. Leonardo*, 250 A.2d 354 (R.I. 1969); *Nestle Food Co. v. Miller*, 836 F. Supp. 69 (D.R.I. 1993).
- J. **Noteworthy article:** Mark W. Freel, Matthew T. Oliver, When Commercial Freedoms Collide: Trade Secrets, Covenants Not to Compete and Free Enterprise, 47 May R.I. B.J. 9 (1999).

SOUTH CAROLINA

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett

Venable LLP

575 7th Street, NW

Washington, DC 20004-1601

Direct: 202-344-4893

Facsimile: 202-344-8300

jrburdett@venable.com

SOUTH CAROLINA

I. SUMMARY OF THE LAW

Covenants against competition are disfavored and will be examined critically. A restrictive covenant will be enforced, however, if: (1) it is necessary to protect the legitimate business interests of the employer; (2) it is ancillary to a valid contract; (3) it is reasonably limited with respect to place and time; (4) it is neither unduly harsh nor oppressive; and (5) it is supported by valuable consideration. Geographic limitations must be based on what is reasonably-necessary to protect the employer. Prohibitions against contacting existing customers can be a valid substitution for a geographic limitation. *Rental Unif. Serv., Inc. v. Dudley*, 301 S.E.2d 142 (S.C. 1983).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Dudley*, 301 S.E.2d 142 (three-year restriction from working for competitor upheld); *Caine & Estes Ins. Agency, Inc. v. Watts*, 293 S.E.2d 859 (S.C. 1982) (agreement whereby employee must split commissions received on sales to former employer's clients for three years was reasonable); *Oxman v. Profitt*, 126 S.E.2d 852 (S.C. 1962) (covenant preventing employee from inducing or attempting to induce policyholders to terminate insurance upheld); *Standard Register Co. v. Kerrigan*, 119 S.E.2d 533 (S.C. 1961) (covenants of one to three years restricting employee from operating in former territory are reasonable); *Collins Music Co. v. Parent*, 340 S.E.2d 794 (S.C. Ct. App. 1986) (restriction allowing employee to work anywhere so long as employee does not contact former employer's customers is valid).
2. *Sermons v. Caine & Estes Ins. Agency, Inc.*, 273 S.E.2d 338, 339 (S.C. 1980) (statewide, unlimited time restriction invalid); *Oxman v. Sherman*, 122 S.E.2d 559 (S.C. 1961) (covenant restricting employee from working for any competitor in state unreasonable where employee formerly worked in only two counties); *Delmar Studios of the Carolinas v. Kinsey*, 104 S.E.2d 338 (S.C. 1958) (geographic restriction extending beyond territory where employee worked unenforceable).

B. Incidental to the sale of a business.

1. *Moser v. Gosnell*, 513 S.E.2d 123 (S.C. Ct. App. 1999) (three years, three counties as to "same business" enforced); *Cafe Assocs. Ltd. v. Gerngross*, 406 S.E.2d 162 (S.C. 1991) (five-year, five-mile radius covenant upheld); *South Carolina Fin. Corp. v.*

West Side Fin. Co., 113 S.E.2d 329 (S.C. 1960) (25 mile restriction upheld).

2. *Somerset v. Reyner*, 104 S.E.2d 344 (S.C. 1958) (twenty-year statewide restriction invalid where buyer operated in only two cities).

III. GENERAL COMMENTS

- A. Protectable interests: legitimate business interests-include goodwill, trade secrets, customer lists and other confidential information. *Almers v. South Carolina Nat'l Bank of Charleston*, 217 S.E.2d 135 (S.C. 1975); *Sermons*, 273 S.E.2d at 339.
- B. Where there are several restrictive provisions in an agreement, court will enforce some even if others are unenforceable. *Cafe Assocs.*, 406 S.E.2d at 165. But see *Somerset*, 104 S.E.2d at 348 (if the contract is not severable, court will not make a new agreement for the parties); *E. Bus. Forms Inc. v. Kistler*, 189 S.E.2d 22 (S.C. 1972) (same).
- C. When a covenant is entered into after inception of employment, separate consideration, in addition to continued at-will employment, is required for the covenant to be enforceable. *Poole v. Incentives Unlimited, Inc.*, 548 S.E.2d 207 (S.C. 2001).
- D. A forfeiture of benefits provision will be construed as strictly as a covenant against competition. *Almers*, 217 S.E.2d 135; *Wolf v. Colonial Life & Acc. Ins. Co.*, 420 S.E.2d 217, 220 (S.C. Ct. App. 1992).
- E. Is non-competition covenant enforceable if the employee is discharged? Depends on whether the discharge was justified or wrongful (i.e., not enforceable if employer breached). See *Williams v. Riedman*, 529 S.E.2d 28 (S.C. Ct. App. 2000) (state court case of first impression) (determining that employer breach of an employment contract, such as by wrongfully discharging the employee, operates to preclude the employer from enforcing a restrictive covenant contained in the contract).
- F. Attorneys' fees recoverable? Yes, if agreement provides for recovery.

See *South Carolina Fin. Corp.*, 113 S.E.2d at 335 (attorneys' fees recoverable for breach of covenant against competition where agreement provided for recovery of fees if any provision of contract breached).
- G. Under South Carolina law, compensation given for a covenant not to compete is considered "nonmaterial in nature." *McElveen v. McElveen*, 506 S.E.2d 1, 5 (S.C. Ct. App. 1998).

- H. Will a choice of law provision in contract be followed? Unclear, but possibly so. See *Standard Register*, 119 S.E.2d at 536.
- I. Trade secrets defined: *Lowndes Products, Inc. v. Brower*, 191 S.E.2d 761 (S.C. 1972).
- J. Noteworthy articles/publications: (a) Keith A. Roberson, South Carolina's Inevitable Adoption of the Inevitable Disclosure Doctrine: Balancing Protection of Trade Secrets with Freedom of Employment, 52 S.C. L. Rev. 895 (2001); (b) Kirk T. Bradley, Employees Beware: Employer Rights Under the South Carolina Trade Secrets Act, 49 S.C. L. Rev. 597 (1998).
- K. Noteworthy case summarizing scope of permissible/impermissible restraints: See *Dudley*, 301 S.E.2d 142.

SOUTH DAKOTA

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Roy A. Ginsburg

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-340-8761
Facsimile: 612-340-2868
ginsburg.roy@dorsey.com

and

Todd W. Schnell

Dorsey & Whitney LLP
50 South Sixth Street, Suite 1500
Minneapolis, MN, USA 55402-1498
Main: 612-343-2199
Facsimile: 612 340-2868
schnell.todd@dorsey.com

SOUTH DAKOTA

I. OVERVIEW OF THE LAW

A. Statutory Statement of the Law

1. S. D. Codified Laws Ann.
 - (a) Contracts in restraint of trade void, exceptions. Every contract restraining exercise of a lawful profession, trade, or business is void to that extent, except as provided by §§53-9-9 to 53-9-11, inclusive. S.D. Codified Laws Ann. §53-9-8.
 - (b) Sale of good will.—Seller’s agreement with buyer to refrain from carrying on similar business, validity. Any person who sells the good will of a business may agree with the buyer to refrain from carrying on a similar business within a specified county, city, or other specified area, as long as the buyer or person deriving title to the good will from the seller carries on a like business within the specified geographical area. S. D. Codified Laws Ann. §53-9-9.
 - (c) Dissolution of partnership – Agreement of partners to refrain from carrying on a similar business, validity. Partners may, upon or in anticipation of a dissolution of the partnership, agree that none of them will carry on a similar business within the same municipality where the partnership business has been transacted or within a specified part thereof. S. D. Codified Laws Ann. §53-9-10.
 - (d) Employment contract – Covenants not to compete. An employee may agree with an employer at the time of employment or at any time during his employment not to engage directly or indirectly in the same business or profession as that of his employer for any period not exceeding two years from the date of termination of the agreement and not to solicit existing customers of the employer within a specified county, city or other specified area for any period not exceeding two years from the date of termination of the agreement, if the employer continues to carry on a like business. S. D. Codified Laws Ann. §53-9-11.

B. Judicial Statements of the Law

1. Protectable interests: “same business or profession,” trade secrets, unfair competition, customers, confidential information and

business practices, and price lists. See S.D. Codified Laws Ann. §53-9-11; *Central Monitoring Serv., Inc. v. Zakinski*, 553 N.W.2d 513, 516 n.7 (S.D. 1996); *Control, Inc. v. Morrow*, 489 N.W.2d 890, 894-95 (S.D. 1992); *Hot Stuff Foods v. Mean Gene's Enterprises, Inc.*, 468 F. Supp. 1078 (D.S.D. 2006).

2. It appears that if a non-compete covenant meets the requirements of the South Dakota statutory provisions, the court will not further require a showing of reasonableness. *Control, Inc. v. Morrow*, 489 N.W.2d 890, 893 (S.D. 1992); *American Rim & Brake, Inc. v. Zoellner*, 382 N.W.2d 421, 424 (S.D. 1986). It therefore appears that an employer need only demonstrate compliance with S.D. Codified Laws Ann. §53-9-11. Generally, an employer is not required to demonstrate that the restraints imposed are reasonably necessary to protect its legitimate interests (as in most states), except in limited circumstances, such as employee discharge.

II. CONSIDERATION ISSUES

A. Adequate Consideration

1. A covenant not to compete signed at the inception of employment or at any time during employment is sufficient consideration. S.D. Codified Laws Ann. §53-9-11 (“An employee may agree with an employer at the time of employment or at any time during his employment...”); *Central Monitoring Service, Inc. v. Zakinski*, 553 N.W.2d 513, 517 n.9 (S.D. 1996). Under S.D. Codified Laws Ann. §53-8-7, additional consideration such as a change in the terms of employment is not necessary.⁶ *Control, Inc. v. Morrow*, 489 N.W.2d 890,893 (S.D. 1992).

III. PARAMETERS OF THE GOVERNING STATUTE AND THE “REASONABLENESS TEST” AS APPLICABLE

A. Non-competes Ancillary to an Employment Contract

1. Held Enforceable
 - Reasonableness of restrictions received based on circumstances surrounding employee’s termination from employment. No balancing of interests necessary where

⁶ S.D. Codified Laws §53-8-7—Alteration of a written contract without new consideration. A contract in writing may be altered by a contract in writing without a new consideration or by an executed oral agreement, and not otherwise.

employee voluntarily quits job and goes into competition, and agreement complies with statutory requirements. See *American Rim & Brake, Inc. v. Zoellner*, 382 N.W.2d 421 (S.D. 1986); *Central, Inc. v. Morrow*, 489 N.W.2d 890 (S.D. 1992). However, if employee is fired through no fault of his own, the court must determine if agreement is reasonable based on a balancing test. See *Central Monitoring Service, Inc. v. Zakinski*, 553 N.W.2d 573 (S.D. 1996);

- Two-year term prohibiting competition in Kansas, Missouri, and surrounding areas held reasonably necessary to protect interest in confidential information *Hot Stuff Foods v. Mean Gene's Enterprises, Inc.*, 468 F. Supp. 1078, 1100, 1102 (D.S.D. 2006);
- See S.D. Codified Laws Ann. § 53-9-11. The statute restricts a covenant not to compete to a two-year term and must have a defined geographical term limiting its application.

2. Held Unenforceable or Modified

- If a non-compete covenant is overbroad, it can at least be “blue penciled.” *Simpson v. C & R Supply, Inc.*, 598 N.W.2d 914 (S.D. 1999); *Ward v. Midcom, Inc.*, 575 N.W. 2d 233 (S.D. 1998); *1st Am. Sys., Inc. v. Rezatto*, 311 N.W.2d 51, 59 (S.D. 1981).

B. Non-competes Incidental to the sale of a business

- *Franklin v. Forever Venture, Inc.*, 696 N.W.2d 545 (S.D. 2005) (Seller’s contractual non-compete clause was void in part as against public policy to the extent it prevented more than “carrying on a similar business” as allowed by statute; yet, because South Dakota allows modification and because the contract had a savings clause, the court enforced the non-compete covenant, but only to the extent it prevented the seller from “carrying on a similar business.”);
- The absence of a geographic term in a contract incidental to the sale of a business does not necessarily void the contract where a geographic term may be implied. *Ward v. Midcom, Inc.*, 575 N.W.2d 233 (S.D. 1998).
- See S. D. Codified Laws Ann. §53-9-9.

IV. GENERAL COMMENTS

A. Specific Issues

1. Is a covenant not to compete enforceable if the employee is discharged? It depends. If an employee is terminated for reasons that are not the employee's fault, the court must determine whether the agreement is reasonable. *Central Monitoring Serv., Inc. v. Zakinski*, 553 N.W.2d 513, 521 (S.D. 1996). The Reasonable test is a balancing test drawn from RESTATEMENT (SECOND) OF CONTRACTS § 188. *Id.* at 519-20.
2. Are attorneys' fees recoverable? Generally, yes. Attorney's fees are available where they are authorized through a statutory provision or a contractual agreement. *Crisman v. Determan Chiropractic, Inc.*, 687 N.W.2d 507, 512 (S.D. 2004); *See also Midcom, Inc. v. Oehlerking*, 722 N.W.2d 722, 723, 728-29 (S.D. 2006) (awarding attorney's fees based on the contractual provisions); *Centrol, Inc. v. Morrow*, 489 N.W.2d 890, 896 (S.D. 1992) (awarding attorneys' fees based on S.D. Codified Laws Ann. §37-29-4(iii), from South Dakota's adoption of the Uniform Trade Secrets Act).
3. Will a choice of law provision in contract be followed? It depends on whether enforcement of the particular contract is consistent with South Dakota public policy. *Overholt Crop Inc. Service Co. v. Travis*, 941 F.2d 1361, 1366-68. (8th. Cir. 1991).

B. Miscellaneous

1. Trade secrets defined: S.D. Codified Laws Ann. §37-29-1 (from South Dakota's adoption of the Uniform Trade Secrets Act). *See also Centrol, Inc. v. Morrow*, 489 N.W.2d 890, 894 (S.D. 1992).
2. Noteworthy articles and/or publications: Comment, *Employee Restrictive Covenants: Unscrupulous Employees v. Overreaching Employers*, 27 S.D.L. Rev. 220 (1982).
3. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Simpson v. C & R Supply, Inc.*, 598 N.W.2d 914 (S.D. 1999); *Ward v. Midcom, Inc.*, 575 N.W. 2d 233 (S.D. 1998); *Central Monitoring Service, Inc. v. Zabinski*, 553 N.W.2d 573 (S.D. 1996); *Centrol, Inc. v. Morrow*, 489 N.W.2d 890 (S.D. 1992); *Am. Rim & Brake, Inc. v. Zoellner*, 382 N.W.2d 421 (S.D. 1986); *1st Am. Sys., Inc. v. Rezatto*, 311 N.W.2d 51 (S.D. 1981).

TENNESSEE

This chapter was prepared by the law firm of Barnes & Thornburg LLP.

For further information about the summary contained in this chapter, please contact:

Dwight Lueck

Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
Main: 317-236-1313
Facsimile: 317-231-7433
dlueck@btlaw.com

TENNESSEE

I. JUDICIAL STATEMENT OF THE LAW

A. Ancillary to an employment contract:

Covenants not to compete, because they are in restraint of trade, are disfavored in Tennessee. As such, they are construed strictly in favor of the employee. However, when the restrictions are reasonable under the circumstances, such covenants are enforceable. The factors that are relevant in determining whether a covenant not to compete is reasonable include "the consideration supporting the agreements; the threatened danger to the employer in the absence of such an agreement; the economic hardship imposed on the employee by such a covenant; and whether or not such a covenant should be inimical to public interest."

Vantage Technology, LLC v. Cross, 17 S.W.3d 637, 644 (Tenn. Ct. App. 1999) (citations omitted), quoting in part *Allright Auto Parks, Inc. v. Berry*, 409 S.W.2d 361, 363 (Tenn. 1966); see also *Hasty v. Rent-A-Driver, Inc.*, 671 S.W.2d 471 (Tenn. 1984) (mere loss of employees insufficient to support enforcement).

B. Incidental to the sale of a business:

Outside the employer/employee relationship, covenants restricting competition have generally been upheld when they are incidental to the sale of a business. *Hogan v. Coyne International Enterprises Corp.*, 996 S.W.2d 195, 204 (Tenn. Ct. App. 1998).

"[A] covenant which is incidental to the sale and transfer of a trade or business, and which purports to bind the seller not to engage in the same business in competition with the purchaser, is lawful and enforceable," provided such covenants are reasonable and go no further than affording a fair protection to the buyer. *Greene County Tire and Supply, Inc. v. Spurlin*, 338 S.W.2d 597, 599-600 (Tenn. 1960) (citations omitted).

C. The Tennessee Supreme Court held in 2005 that physicians' employment-related covenants not to compete were unenforceable as against public policy. *Murfreesboro Med. Clinic, P.A. v. Udom*, 166 S.W.3d 674, 683 (Tenn. 2005). However, in 2008 the *Udom* decision was superseded by statute. Tenn. Code Ann. § 63-1-148(a) allows covenants not to compete ancillary to a physician's employment contract if they are two years or less in duration and comply with permissible geographic restrictions. These restrictions may forbid a physician from practicing within the greater of a ten-mile radius of the physician's primary practice site or the county in which that practice site is located, or prevent him or her from practicing at any facility at which the employing or contracting entity provided services

while the physician was employed or contracted with the employing or contracting entity. *Id.* In connection with the sale of a medical practice, the statute provides no specific limitations on the scope of a covenant not to compete, but states that reasonable restrictions will be enforceable, and a rebuttable presumption exists that the duration and area of restriction agreed upon by the parties are reasonable. Tenn. Code Ann. § 63-1-148(b).

- D. The state's Code of Professional Responsibility may impose restrictions on the enforcement of covenants not to compete within the legal profession because such covenants operate to restrict the right to practice law. A.B.A. Sec. Lab. Emp. L. Rep. 451 (Supp. 1996)

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract:

1. Restraints upheld: *Vantage Technology, LLC v. Cross*, 17 S.W.3d 637, 638 (Tenn. Ct. App. 1999) (three-year covenant enforced against physician—area reduced to 50 miles from hospitals in which physician provided services); *Medical Education Assistance Corp. v. Tennessee*, 19 S.W.3d 803 (Tenn. Ct. App. 1999) (five-year covenant enforced against physician faculty member); *Dabora, Inc. v. Kling*, 884 S.W.2d 475, 478 (Tenn. App. 1994) (three-year nationwide restriction on accepting employment, owning, or being interested in, directly or indirectly, in any capacity with any other company or organization publishing a Saddlebred or Morgan horse publication, magazine, newspaper, trade journal, or any publication in competition with employer's magazine; court noted, "in the field of equestrian publishing, the relevant territorial inquiry does not involve geography so much as it does breed." *Thompson, Breeding, Dunn, Creswell & Sparks v. Bowlin*, 765 S.W.2d 743, 74546 (Tenn. Ct. App. 1987) (three-year restriction on working for or soliciting present clients upheld against staff accountant); *William B. Tanner Co. v. Taylor*, 530 S.W.2d 517 (Tenn. Ct. App. 1974) (enforcing two-year restriction in North America on manager of sales of musical productions to radio and television stations); *Ramsey v. Mutual Supply Co.*, 427 S.W.2d 849 (Tenn. Ct. App. 1968) (enforcing covenant for five years in the four states which employer could reasonably anticipate including within salesman's coverage, though salesman had not made contacts in all the restricted territory at time of his resignation); *Koehler v. Cummings*, 380 F. Supp. 1294, 1308-09 (M.D. Tenn. 1971) (two-year, 31-state restraint on "idea man" responsible for marketing and research of safety garments is enforceable).

2. Restraints found unenforceable: *Girtman & Assocs. v. St. Amour*, 26 I.E.R. Cas. (BNA) 187, 2007 Tenn. App. LEXIS 271 (Tenn. Ct. App. Apr. 27, 2007) (covenant unenforceable because employer failed to prove it had a protectible business interest that would justify preventing former employee from using the knowledge and skill he gained through the generalized training he received); *Central Adjustment Bureau, Inc. v. Ingram*, 678 S.W.2d 28, 36 (Tenn. 1984) (covenant covering customers nationwide for two years reduced to one year and limited to customers as of date certain before resignation in areas where defendants worked before); *Allright Auto Parks*, 409 S.W.2d at 364 (covenant restricting competition in business beyond cities in which employee worked unreasonable; "noncompetition covenants, which embrace territory in which the employee never performed services for his employer, are unreasonable and unenforceable."); *Baker v. Hooper*, 50 S.W.3d 463, 469-70 (Tenn. Ct. App. 2001) (six-month covenant for nail technician too long - reduced to two months, "a sufficient time restriction to protect the plaintiff's business").

B. Incidental to the sale of a business:

1. Restraints upheld: *Hogan v. Coyne Int'l Enterprises Corp.*, 996 S.W.2d 195, 204 (Tenn. Ct. App. 1998) (ten-year covenant against soliciting former customers reduced to three years and enforced); *Greene County Tire*, 338 S.W.2d at 599-600 (enforcing seller's covenant not to engage in similar business within 100 miles for five years); *Rogers v. Harrell*, 1993 WL 305927 (Tenn. Ct. App. Aug. 11, 1993) (in sale of dental practice, upholding restriction on treating patients of record for five years and within 10 miles and on soliciting patients of record with no time limitation), op. modified, 1993 WL 350173 (Tenn. Ct. App. Sep. 9, 1993); *Butts v. Birdwell*, 503 S.W.2d 930, 937 (Tenn. Ct. App. 1973) (covenant not to sell oil products along three county route enforceable while buyer continues to serve the same route).

III. GENERAL COMMENTS

- A.** Protectible interests: goodwill, present customers and customer contacts (where employee may influence customer's decision), trade secrets, other confidential information not rising to level of a trade secret, an employee's unique or extraordinary services, and specialized training. See *Hasty v. Rent-A-Driver, Inc.*, 671 S.W.2d 471, 473 (Tenn. 1984) (protectible interests only arise where there are "special facts present over and above ordinary competition," such as: customer contact where employee has had special opportunity to cultivate customer; exclusive customer list; trade or

business secrets; other confidential information; and specialized training); *Thompson*, 765 S.W.2d at 745 (present clients); *Central Adjustment*, 678 S.W.2d at 32 (trade secrets or confidential information); *Selox, Inc. v. Ford*, 675 S.W.2d 474, 475 (Tenn. 1984) (trade secrets or confidential information and specialized training); *Cam Int'l. L.P. v. Turner*, 1992 WL 74567 (Tenn. Ct. App. April 15, 1992) (confidential information about customers); *Rogers*, 1993 WL 305927 (goodwill); *Koehler*, 380 F. Supp. at 1299 ("mad scientist's" ideas and services).

- B. If a covenant is overbroad, it can be modified and enforced to the extent it is reasonable, especially when the covenant expressly provides for modification (unless there is evidence of employer bad faith). *Vantage Technology, LLC*, 17 S.W.3d at 647; *Central Adjustment*, 678 S.W.2d at 36-37; *Thompson*, 765 S.W.2d at 745.
- C. Consideration must be reasonable. *Central Adjustment*, 678 S.W.2d at 35. Continued employment is sufficient consideration for a non-competition agreement, at least if the employment continues for "an appreciable period of time" afterward. *Id.* at 34. Covenant signed before, with or "shortly after" employment begins is considered part of original employment agreement and thus supported by adequate consideration. *Id.* at 33.
- D. A forfeiture of benefits provision may be treated as a restraint of trade and thus subject to the same type of analysis. See *Spiegel v. Thomas, Mann & Smith, P.C.*, 811 S.W.2d 528, 531 (Tenn. 1991) (by rule, attorney may not agree to restriction except as condition to payment of retirement benefits; withholding deferred compensation "significant monetary penalty . . . [which] constitutes an impermissible restriction The forfeiture-for-competition provision would functionally and realistically discourage and foreclose a withdrawing partner from serving clients") (citations omitted). *But see Simmons v. Hitt*, 546 S.W.2d 587, 591 (Tenn. Ct. App. 1976) ("the provision that an employee who leaves and goes into direct competition with his employer forfeits his participation in the fund might be enforced, assuming notice and acceptance of such provision by the employees").
- E. A non-compete may be enforceable if the employee is discharged. A court of equity will consider the circumstances under which the employee leaves. Where the employer discharges the employee in bad faith, a court may refuse to enforce the non-competition covenant, even where the discharge does not breach the employment agreement. *Central Adjustment*, 678 S.W.2d at 35. *But see Dearborn Chem. v. Rhodes*, 1985 Tenn. App. LEXIS 2809, *9 (Tenn. Ct. App. Apr. 19, 1985) (non-compete enforceable when employee was terminated for just cause).

- F. Attorney's fees. In an unpublished decision, the Tennessee Court of Appeals affirmed an award of attorney's fees to the defendant's former employer, though the text of the non-compete is not included in the court's decision. *Outfitters Satellite, Inc. v. CIMA, Inc.*, No. M2003-02074-COA-R3-CV, 2005 Tenn. App. LEXIS 86, *9-10, 22 I.E.R. Cas. (BNA) 765 (Tenn. Ct. App. Feb. 8, 2005). However, the Court of Appeals has also stated that attorney's fees are not recoverable unless there exists an independent basis for such an award, such as if provided for in the covenant, *Hogan*, 996 S.W.2d at 204-05; *Central Adjustment*, 678 S.W.2d at 39; or for disobeying court order, *Kuydendall v. Latham*, 1991 WL 10178 (Tenn. Ct. App. 1991). A statute provides treble damages against a party procuring a breach of contract. Tenn. Code Ann. § 47-50-109 (1993) ("It shall be unlawful . . . to induce or procure the breach or violation, refusal or failure to perform any lawful contract . . . and . . . the person so procuring or inducing the same shall be liable in treble the amount of damages resulting from or incident to the breach of the contract.").
- G. Will employer's breach of the employment agreement relieve the employee of his obligation not to compete? Yes, if the prior breach is material. See *Rogers*, 1993 WL 305927.
- H. Will a choice of law provision in contract be followed? Yes, if law chosen is materially connected to transaction. *Goodwin Bros. Leasing, Inc. v. H & B, Inc.*, 597 S.W.2d 303, 306 (Tenn. 1980).
- I. In 2000, Tennessee adopted the Uniform Trade Secrets Act (UTSA). See *Tenn. Code Ann. § 47-25-1701 et seq.* Prior to the adoption of the UTSA, Tennessee courts defined trade secrets via common law. See *Hickory Specialties, Inc. v. B & L Lab., Inc.*, 592 S.W.2d 583, 586 (Tenn. Ct. App. 1979) (adopting language similar to that in Restatement of Torts § 757); accord *Venture Express, Inc. v. Zilly*, 973 S.W.2d 602, 606 (Tenn. Ct. App. 1998); *Heyer Jordan & Assoc. v. Jordan*, 801 S.W.2d 814, 821 (Tenn. Ct. App. 1990).
- J. Noteworthy articles and/or publications: Krumm, Covenants Not to Compete: Time for Legislative and Judicial Reform in Tennessee, 35 U. Mem. L. Rev. 447 (2005); Rettinger, Covenants Not to Compete in Tennessee, 3 Transactions 25 (2001); Comment, Covenants Not to Compete in Tennessee Employment Contracts: Almost Everything You Wanted to Know But Were Afraid to Ask, 55 Tenn. L. Rev. 341 (Winter 1988).
- K. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Central Adjustment Bureau, Inc. v. Ingram*, 678 S.W.2d 28

(Tenn. 1984); *Hasty v. Rent-A-Driver, Inc.*, 671 S.W.2d 471 (Tenn. 1984);
Vantage Technology, LLC v. Cross, 17 S.W.3d 637 (Tenn. Ct. App. 1999).

TEXAS

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson
Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson
Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

TEXAS

COVENANTS NOT-TO-COMPETE UNDER TEXAS LAW

I. STATUTORY CRITERIA FOR NON-COMPETE AGREEMENTS

Sections 15.50-15.52 of the Texas Business and Commerce Code govern the enforceability of covenants not-to-compete. A covenant is enforceable if: (i) it is *ancillary* to or part of an *otherwise enforceable agreement* at the time the agreement is made; (ii) it contains reasonable limitations as to time, geographic area, and (iii) the scope of activity restrained does not impose a greater restraint than necessary to protect the goodwill or other business interest of the promisee.

If the primary purpose of the agreement to which the covenant is ancillary is for the rendering of personal services (i.e., an employment contract), the promisee/employer has the burden of establishing that the covenant meets the statutory criteria. If, however, the agreement has a different primary purpose, the promisor has the burden of establishing that the covenant does not meet those criteria. TEX. BUS. & COM. CODE ANN. § 15.51(b).

II. LEADING CASE LAW

The leading case in the non-compete arena in Texas is *Alex Sheshunoff Mgmt. Servs., L.P. v. Johnson*, 209 S.W.3d 644, 651-655 (Tex. 2006), in which the Texas Supreme Court delineates the analytical framework for non-competes.

III. ELEMENTS OF ENFORCEABILITY

A. Agreements Arising in an Employment Context

Information or training given to the employee before the execution of the agreement will be considered past consideration, and thus will not support a covenant not to compete. *Light*, 883 S.W.2d at 645 n.6; *CRC-Evans Pipeline Int'l, Inc. v. Myers*, 927 S.W.2d 259, 265 (Tex. App. – Houston [1st Dist.] 1996, *no writ*). Accordingly, the employee should sign the non-competition agreement at the inception of employment. The threshold question the court will ask in considering the enforceability of a covenant not-to-compete is this: is there an enforceable agreement between the parties, separate and apart from the employee's promise not to compete? To constitute an "otherwise enforceable agreement" there must be a bilateral contract in which *each* party makes binding promises to the other. However, a covenant not to compete is not unenforceable solely because the "employer's promise [in the underlying agreement] is executory when made." *Alex Sheshunoff Mgmt.* at 655. A non-compete covenant may become enforceable in the future (assuming all other requirements are met) at the moment the employer performs its promise. *Alex Sheshunoff*

Mgmt. at 651. There are three critical points to keep in mind:

1. An employment at-will relationship is not an “otherwise enforceable agreement” that will support a covenant not-to-compete. *Light*, 883 S.W.2d at 444-45; *CRC-Evans*, 927 S.W.2d at 263. This does not mean there can be no enforceable covenant not-to-compete in the employment at-will context. It simply means there must be some other agreement between the employer and employee to which the covenant not-to-compete is ancillary. *Light*, 883 S.W.2d at 444-45.
2. The promises comprising the “otherwise enforceable agreement” cannot be dependent on any period of continued employment. The court will consider any such promise illusory because the employer can always avoid performance by simply terminating the employment. *Light*, 883 S.W.2d at 444-45; *CRC-Evans*, 927 S.W.2d at 262.
3. The “otherwise enforceable agreement” must give rise to the employer’s protectable interest. *Light*, 883 S.W.2d at 647. The Texas Supreme Court has held that the “otherwise enforceable agreement” may be merely the employer’s implied promise to provide confidential information to the employee “if the nature of the employment for which the employee is hired will reasonably require the employer to provide confidential information to the employee.” *Mann Frankfort Stein & Lipp Advisors, Inc. v. Fielding*, 289 S.W.3d 844, (Tex. 2009). The Fifth Circuit has similarly held that the employee’s actual receipt of confidential information during employment is sufficient to support a non-solicitation or non-competition agreement. *Carpenter v. Provenzale*, 334 F.3d 459, 466 (5th Cir. 2003).

B. Geographic Territory Restrictions: Relevant factors courts consider in assessing the reasonableness of the covenant’s geographic scope include: (i) the area in which the employer does business; (ii) the nature and scope of the employer’s business; (iii) the true significance of geography to the employer’s business; (iv) the physical location of the employer’s customer/clients; (v) the geographic area from which the company pulls its customers/clients; (vi) the location/area in which the employee worked and performed services for the employer. Courts have generally held reasonable geographic restrictions include the territory/area in which the employee worked and performed services for the employer. See e.g., *Curtis v. Ziff*, 12 S.W.3d 114 (Tex. App. - Houston [14th Dist.] 1999, *no writ*); *Evan’s World Travel, Inc. v. Adams*, 978 S.W.2d 225, 232 (Tex. App. - Texarkana 1998, *no writ*).

- C. Time Limitations:** The shorter the time period, the more likely the covenant will be enforced. Generally speaking, time limitations up to two years are enforced more readily than longer periods.⁷ See, e.g., *Alex Sheshunoff Mgmt.* at 657 (enforcing covenant prohibiting employee from providing consulting services to employer's clients for one year and from selling competing product for two years); *Property Tax Assoc. v. Staffeldt*, 800 S.W.2d 349, 350 (Tex. App.--El Paso, writ denied) (finding two-year restriction to be reasonable). Some of the factors relevant to assessing whether a court will consider the duration of the agreement reasonable include: (i) the length of the time the employee worked for the employer; (ii) the exact nature of the employee's duties and responsibilities; (iii) whether the relationship with customers/clients existed before the employee began work for the employer; (iv) the extent of the employee's contact with customers; (v) whether the employee maintained complete customer contact to the exclusion of others within the employer's organization; (vi) the applicable business cycle; and (vii) the rate of progress or innovation in the industry.
- D. Scope of Activity Restrained:** Most non-compete agreements contain one or both of the following: (1) a prohibition against engaging in a competing business; or (2) a prohibition against soliciting or doing business with the employer's customers. Generally, a prohibition against engaging in a competing business should be limited to not only the type of business in which the company is engaged, but also, the specific type of business in which the employee worked. Thus, if the employer engages in different types of businesses, the restriction should be limited to the specific type of business in which the employee worked. See *Diversified Human Resources Group, Inv. v. Levinson-Polakoff*, 752 S.W.2d 8 (Tex. App. - Dallas 1998, no writ).

As for a prohibition against soliciting customers, courts have held that these non-solicitation provisions are "covenants not-to-compete" subject to the requirements of the non-compete statute and *Light v. Centel*. See *Miller Paper Co. v. Roberts Paper Co.*, 901 S.W.2d 593, 599 (Tex. App. - Amarillo 1995, no writ); *Shoreline Gas, Inc. v. McGaughey*, 2008 WL 1747624 (Tex. App. Corpus Christi Apr. 17, 2008). Prohibitions against soliciting customers must be reasonable to be enforceable. To be considered reasonable, such a restriction should generally be limited to customers with whom the employee actually worked or had some contact or involvement during employment. See *Hardy v. Mann Frankfort Stein &*

⁷ Courts are more likely to enforce restrictions of a longer period if the covenant is executed in connection with the sale of a business.

Lipp Advisors, Inc., 263 S.W.3d 232, 250 (Tex. App. Houston 1st Dist. 2007); *Peat Marwick Main & Co. v. Hauss*, 818 S.W.2d 381 (Tex. 1991).

- E. Protectable Interests:** The simple payment of money in exchange for signing the non-compete will not be considered sufficient consideration, as it does not give rise to a protectable interest. By contrast, special training involving confidential or proprietary information may constitute a legitimate, protectable interest. See *Light*, 883 S.W.2d at 647. General training, knowledge, skills and experience acquired by the employee during employment are not protectable interests. *Evan's World Travel, Inc. v. Adams*, 978 S.W.2d 225, 231 (Tex. App. - Texarkana 1998, *no writ*).

An employer's confidential information and trade secrets are protectable interests. Thus, an express or implied promise by the employer to provide such information may be the "otherwise enforceable agreement" to which a covenant not-to-compete is ancillary. See *Frankfort Stein & Lipp Advisors, Inc. v. Fielding*, 289 S.W.3d 844, (Tex. 2009); *Curtis v. Ziff Energy Group, Ltd.*, 12 S.W.3d 114 (Tex. App. - Houston [14th Dist.] 1999, *no writ*); *Ireland v. Franklin*, 950 S.W.2d 155, 158 (Tex. App. - San Antonio 1997, *no writ*).

An employment agreement for a specific term, or by which the employee may be terminated only "for cause," is, by itself, insufficient to support a non-compete. The mere fact of employment does not give rise to any interest protectable through a covenant not-to-compete. See *Light*, 883 S.W.2d 646 n.10 (covenant not-to-compete would not be ancillary to contract for a term of two weeks). In other words, while a term contract of employment is an "otherwise enforceable agreement," it, by itself, does not give rise to a protectable interest.

- F. Consideration:** Even if there is an "otherwise enforceable agreement," it must still be established that the covenant not-to-compete is "ancillary" to that agreement. The Texas Supreme Court's interpretation of "ancillary" means that many of the forms of consideration ordinarily sufficient to support a covenant not-to-compete are not sufficient. The Texas Supreme Court addressed in *Alex Sheshunoff Mgmt.* the statutory language requirement that a covenant not to compete be ancillary to "an otherwise enforceable agreement at the time the agreement is made" and concluded that the phrase "at the time the agreement is made" refers not to whether the agreement is enforceable, but rather to whether the covenant is ancillary to or part of the agreement. *Alex Sheshunoff Mgmt.* requires *two* things to have an enforceable covenant not-to-compete. First, the employer must give consideration in an otherwise enforceable agreement. Second, the non-compete covenant must be designed to

enforce the employee's consideration or return promise. Without both requirements, the covenant is void as not ancillary to or part of an otherwise enforceable agreement.

Thus, an employer may not enforce a non-compete covenant merely by promising to pay a sum of money to the employee or by agreeing to give the employee at least two weeks notice before terminating the employee because that would mean that an employer could enforce a covenant merely by promising to give notice or to pay a sum of money to an employee, a result that is inconsistent with both requirements. *W Insulation Co., Inc. v. Dickey*, 144 S.W.3d 153, 158 (Tex. App.--Fort Worth 2004, *pet. withdrawn*) As other example, if an employer promised to give employee trade secrets but employee did not promise not to disclose them after leaving employment, the non-compete covenant would be void. *Light v. Centel Cellular Co. of Texas*, 883 S.W.2d 642, 647 (Tex. 1994).

Given the requirements of *Alex Sheshunoff Mgmt.* and the problems with past consideration, it is usually impossible to fashion an enforceable covenant not-to-compete in the context of a severance agreement. Payment of severance pay does not give rise to any interest worthy of protection through a covenant not-to-compete.

G. Judicial modification: Texas courts are empowered to reform overbroad covenants to the extent necessary to bring them into compliance with the statute. TEX. BUS. & COM. CODE ANN. § 15.51(c). Because of this, some employers take the approach that the covenant should be drafted broadly to have the maximum deterrent effect, and then rely on the court to reform and enforce the covenant to the extent deemed reasonable. There are several reasons, however, why this is not a good idea:

1. The court may not award the employer damages for a breach of the covenant before its reformation, and any relief granted is limited to injunctive relief. TEX. BUS. & COM. CODE ANN. § 15.51(c).
2. If the employee can prove the employer knew at the time the agreement was executed that the restrictions were not reasonable and necessary, and the employer sought to enforce a covenant to a greater extent than necessary to protect its goodwill and business interest, the court may award the employee attorney's fees and costs incurred in defending an action to enforce the covenant. TEX. BUS. & COM. CODE ANN. § 15.51(c).

IV. AGREEMENTS ANCILLARY TO THE SALE OF BUSINESS

Generally, covenants not to compete which are made at the sale of a business follow the same provisions and guidelines as covenants not to compete in the employer/employee context. See *Light*, 883 S.W.2d at 644 n.4. (agreement not to compete must be ancillary to an otherwise valid transaction or relationship.... Such a restraint on competition is unreasonable unless it is part of and subsidiary to an otherwise valid transaction or relationship, which gives rise to an interest worthy of protection.... Such transactions or relationships include the purchase and sale of a business, and employment relationships) (quoting *DeSantis v. Wackenhut Corp.*, 793 S.W.2d 670, 681-82 (Tex.1990)).

In *Wells v. Powers*, 354 S.W.2d 651 (Tex. Civ. App.—Dallas 1962, *no writ*), the Dallas Court of Appeals held that the term “engage in a competitive business,” as used in non-competitive clause of a contract for sale of a business, includes activities of seller in working as an employee of party operating a competing business. See also *Comer v. Burton-Lingo Co.*, 58 S.W. 969 (Tex. Civ. App. 1900) (an agreement by an owner, on sale of his business and good will, not to re-enter such business within a specified time at a certain place, is not void as in restraint of trade). Nevertheless, covenants not to compete must not impose greater restraint than is reasonably necessary to protect business conveyed. *Barrett v. Curtis*, 407 S.W.2d 359 (Tex. App.—Dallas 1966, *no writ*); see also *T. E. Moor & Co. v. Hardcastle*, 421 S.W.2d 126 (Tex. App.—Beaumont 1967, *ref. n.r.e.*) (a seller of a business may validly agree not to compete with buyer, and employee may validly agree not to compete with employer, as long as restraint imposed is reasonable).

V. **SUMMARIZATION OF TEXAS LAW WITH REGARD TO THE USE OF CONFIDENTIAL INFORMATION**

Employees have a common law duty not to use or disclose confidential information received from a former employer. Even without an enforceable contractual restriction, “a former employee is precluded from using for his own advantage, and to the detriment of his former employer, confidential information or trade secrets acquired by or imparted to him in the course of his employment.” *Johnston v. American Speedreading Academy, Inc.*, 526 S.W.2d 163, 166 (Tex. App.—Dallas 1975, *no writ*). See also *Rugen v. Interactive Business Systems, Inc.*, 864 S.W.2d 548 (Tex. App.—Dallas 1993 *rehearing denied*). Injunctive relief is recognized as a proper remedy to protect confidential information and trade secrets. *Hyde Corp. v. Huffines*, 358 U.S. 898 (1958). See also *Keystone Life Ins. Co. v. Marketing Management, Inc.*, 687 S.W.2d 89, 93 (Tex. App.—Dallas 1985, *no writ*) (an injunction is appropriate when necessary to prohibit an employee from using confidential information to solicit his former employer's clients).

UTAH

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson
Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson
Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

UTAH

I. STATUTORY AUTHORITY

Utah has no statute governing the enforceability or reasonableness of covenants not to compete.

II. SUMMARY OF LAW

Covenants not to compete are enforceable if narrowly drafted to protect only the legitimate interests of the employer. See *Robbins v. Finlay*, 645 P.2d 623, 627 (Utah 1982). To be enforceable the covenant not to compete must be: a) supported by consideration, b) negotiated in good faith, c) necessary to protect a company's good will, and d) reasonably limited in time and geographic area. See *TruGreen Cos., L.L.C. v. Mower Brothers*, 2008 UT 81 (2008) (citing *Allen v. Rose Park Pharmacy*, 237 P.2d 823, 828 (Utah 1951)). The primary consideration is the covenant's reasonableness. See *Robbins* at 627. "The reasonableness of a covenant depends upon several factors, including its geographical extent; the duration of the limitation; the nature of the employee's duties; and the nature of the interest which the employer seeks to protect such as trade secrets, the goodwill of his business, or an extraordinary investment in the training or education of the employee." See *Robbins* at 627. Utah law "balances the nature of the interest of one seeking to enforce such a covenant . . . against the hardship imposed on the employee as the result of the restraint." *Id.* Those covenants not to compete that are designed primarily to limit competition are not enforceable. See *id.*; see also *Allen* at 826.

III. ELEMENTS OF ENFORCEABILITY

A. Protectable Interest

Covenants not to compete are enforceable "only if carefully drawn to protect the legitimate interests of the employer." *Robbins* at 623. Protectable interests include trade secrets, the goodwill of a business, or the investment in education or training of an employee. See *System Concept Inc. v. Dixon*, 669 P.2d 421, 426 (Utah 1983); *Robbins* at 627-28; *Allen* at 823. While some courts have held that goodwill, standing alone, is a protectable interest, *Allen* at 823, other courts have held that in order to justify an injunction enforcing a restrictive employment covenant, the former employer must show not only goodwill, but also that the services rendered by the employer were special, unique or extraordinary. See *Robbins* at 627-628 (court denied injunction where plaintiff employer could not demonstrate that former salesman had unique knowledge of plaintiff's business and covenant did nothing more "than baldly restrain competition.").

B. Burden on Employee

Utah courts analyze the burden on the employee by looking at the type of activity restricted by the covenant not to compete. For example, in *System Concepts, Inc.*, the court found that there no undue hardship on former employee because covenant not to compete was limited to the employee rendering services to a competitor or dealing in “conflicting products.” *System Concepts* at 429. The agreement did not restrict employment within the entire industry. *Id.* See also *Allen* at 826 (restrictive covenant which prohibited pharmacist/store manager from competing with former employer within a two-mile radius of employer’s pharmacy for a period of five years did not create a sufficient hardship to justify voiding the contract).

C. Reasonableness Requirements

“The reasonableness of the restraints in a restrictive covenant is determined on a case-by-case basis, taking into account the particular facts and circumstances surrounding the case and the subject of the covenant. Of primary importance in the determination reasonableness are the location and nature of the employer’s clientele.” *System Concepts* at 427 (court upheld a covenant not to compete that had no geographic restriction where the business and clientele of the employer were national rather than local). *Allen v. Rose Park Pharmacy*, 237 P.2d 823 (Utah 1951) (court upheld restrictive covenant which prohibited pharmacist/store manager from competing with former employer within a two-mile radius of employer’s pharmacy).

Time restrictions in covenants not to compete must be reasonable, which is determined on a case by case basis. *Kasco Services Corp. v. Benson*, 831 P.2d 86 (Utah 1992) (eighteen-month covenant not to compete by a salesman in sales territory upheld); *Robbins* at 623 (restrictive covenant that prohibited competition for one year was unreasonable because former employee lacked unique skills or knowledge and agreement was designed solely to stifle fair competition); *Allen* at 823 (court upheld restrictive covenant which prohibited pharmacist/store manager from competing with former employer for a period of five years).

D. Scope of Activity

An employer seeking to enforce a covenant must show that the services of the employee were special, unique or extraordinary. *Allen v. Rose Park Pharmacy*, 237 P.2d 823, 828 (Utah 1951); *overruled on other grounds, System Concepts, Inc. v. Dixon*, 669 P.2d 421 (Utah 1983). Further, the type of activity limited by the covenant not to compete is important in

determining whether the agreement should be enforced. See *System Concepts, Inc.* at 429 (no undue hardship on former employee because covenant not to compete was limited to the employee rendering services to a competitor or dealing in “conflicting products”).

E. Consideration

The promise of at-will employment is sufficient consideration to support a covenant not to compete. See *Allen* at 825. A change in the terms and conditions of employment will provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has already begun. See *Systems Concepts* at 429 (covenant not to compete signed more than two months after defendant began her employment was supported by consideration; defendant received raises and promotions after beginning her employment and before signing the agreement).

IV. ADDITIONAL COMMENTS

A. Court Reformation

Utah courts have not specifically addressed the question of whether a court may modify an overbroad covenant not to compete and then enforce it.

B. Enforceability if Employee Terminated

A covenant not to compete may be enforceable even though the employee is discharged. See *Allen* at 823. However, the termination must be in good faith. *Id.* at 826.

C. Choice of Law Provisions

The Tenth Circuit Court of Appeals determined that Utah would look to general contract principles as enunciated in Restatement (Second) of Conflict of Laws § 187 in resolving whether parties can agree upon on a choice of law provision. *Electrical Distribs., Inc. v. SFR, Inc.*, 166 F.3d 1074, 1083-84 (10th Cir. 1999). Accordingly, parties may agree to a choice of law provision unless either “(a) the chosen state has no substantial relationship to the parties or the transaction and there is no other reasonable basis for the parties choice, or (b) application of the chosen state law would be contrary to a fundamental policy of a state which has a materially greater interest than the chosen state ...”. *Id.*

D. Sale of Business

Covenants not to compete upon the sale of a business are enforceable under same legal principles that govern such agreements in the employer-employee context. See *Electrical Distribs., Inc. v. SFR, Inc.*, 166 F.3d 1074, 1085-86 (10th Cir. 1999) (applying Utah law, the court held that a seven year prohibition on competing in the electrical distribution business throughout the entire state of Utah was enforceable); *Rudd v. Park*, 588 P.2d 709 (Utah 1978) (covenant not to compete incidental to the sale of a business was unenforceable on seller's death within the 5 year restricted period because covenant was a personal covenant); *Valley Mortuary v. Fairbanks*, 225 P.2d 739 (Utah 1950) (court upheld covenant in connection with the sale of a funeral business which required the seller not to operate such a business in Utah for a period of 25 years).

E. Attorneys' Fees

Utah prescribes to the American rule regarding the recovery of attorneys' fees, which is that each party generally is responsible for its own attorneys' fees. Under Utah law "attorneys' fees are awardable only if authorized by statute or contract." *R.T. Nielson Co. v. Cook*, 40 P.3d 1119, 1125 (Utah 2002) (citations omitted). Accordingly, attorneys' fees may be available if provided for in the covenant not to compete.

VERMONT

This chapter was prepared by the law firm of Nutter McClennen & Fish, LLP.

For further information about the summary contained in this chapter, please contact:

Stephen Andress

Nutter McClennen & Fish, LLP

World Trade Center West

155 Seaport Boulevard

Boston, MA 02210-2604

Main: 617-439-2293

Facsimile: 617-310-9000

SANDRESS@NUTTER.COM

VERMONT

I. SUMMARY OF THE LAW

Covenants not to compete are enforced "subject to scrutiny for reasonableness and justification." Non-competition agreements are valid and enforceable unless found contrary to public policy, unnecessary for protection of the employer, or unnecessarily restrictive of the employee's rights. Both the subject matter of the contract and surrounding circumstances are relevant considerations in making this determination. An employee who is trying to avoid enforcement of a covenant not to compete has the burden of proving that the covenant is unreasonable.

Roy's Orthopedic, Inc. v. Lavigne, 454 A.2d 1242, 1244 (Vt. 1982); *Vermont Elec. Supply Co. v. Andrus*, 315 A.2d 456, 458 (Vt. 1974).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Vermont Electric Supply Co., Inc. v. Andrus*, 315 A.2d 456 (Vt. 1974) (upholding five-year, one-county, non-competition agreement; the court emphasized that employee's voluntary departure with the intention to compete with employer was a substantial consideration in determining the enforceability of covenants not to compete); *Dyar Sales & Mach. Co. v. Bleiler*, 175 A. 27, 30 (Vt. 1934) (upholding non-competition agreement that extends to territory wherein employer's trade may be likely to go).
2. *Roy's Orthopedic, Inc. v. Lavigne*, 454 A.2d 1242, 1243 (Vt. 1982) (refusing to enforce, and remanding for a new trial a case involving, a covenant that restricted an employee of a manufacturing company from competing for three years in any "territories presently served by corporation and those additional territories to which the [employee] knows the corporation intends" to extend its business, on the basis that the geographical restrictions were insufficiently developed in the court below).

B. Incidental to the sale of a business.

1. *Fine Foods, Inc. v. Dahlin*, 523 A.2d 1228 (Vt. 1986) (finding reasonable a restriction imposed on seller of restaurant to not engage in any similar business within a 25-mile radius for five years); *Cf. Addison County Automotive, Inc. v. Church*, 481 A.2d 402 (Vt. 1984) (stating that covenant in lease agreement giving lessee exclusive right to sell automotive accessories on the

premises was neither overly broad nor unreasonable); *Clark v. Crosby*, 37 Vt. 188 (1864) (finding valid an agreement whereby dentist bought artificial teeth on condition that manufacturer would not sell such teeth to any person in the town where the dentist resided).

III. GENERAL COMMENTS

- A. **Protectible interests:** Sale of goodwill, confidential information, customer relations, and investment in special training. See *Vermont Elec. Supply Co. v. Andrus*, 315 A.2d 456, 458 (Vt. 1974); *Abalene Pest Control Serv. v. Hall*, 220 A.2d 717 (Vt. 1966); *Dyar Sales & Mach. Co. v. Bleiler*, 175 A. 27 (Vt. 1934).
- B. **Covenant Reformation:** Vermont courts will not modify an overbroad covenant to make it enforceable. *Roy's Orthopedic, Inc. v. Lavigne*, 487 A.2d 173, 175 (Vt. 1985) (emphasizing that the terms of the non-competition agreement were a matter of contract between the parties that the court would not alter).
- C. **Consideration:** Continued employment is sufficient consideration for a non-competition agreement regardless of when the agreement was presented to and signed by the employee. See, *Dyar Sales & Mach. Co. v. Bleiler*, 175 A. 27, 28 (Vt. 1934) (court enforced covenant entered into two years after inception of employment); *Summits 7, Inc. v. Staci Kelly*, 886 A.2d 365 (Vt. 2005) (A noncompetition agreement presented to an employee at any time during the employment relationship is ancillary to that relationship and thus requires no additional consideration other than continued employment. Regardless of what point during the employment relationship the parties agree to a covenant not to compete, legitimate consideration for the covenant exists as long as the employer does not act in bad faith by terminating the employee shortly after the employee signs the covenant).
- D. **Attorneys' fees:** Attorneys' fees ordinarily are unrecoverable in absence of statutory authority or specific agreement of the parties. *Highgate Associates Ltd. v. Merryfield*, 597 A.2d 1280 (Vt. 1991); *Myers v. Ambassador Ins. Co., Inc.*, 508 A.2d 689 (Vt. 1986); *Cameron v. Burke*, 572 A.2d 1361 (Vt. 1990) (yet equity court may grant fees in exceptional cases as justice requires, as where litigants act in bad faith or their conduct is unreasonably obstinate).
- E. **Trade secrets defined:** "Information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (A) derives independent economic value, actual or potential, from not being

generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (B) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.” 9 V.S.A. § 4601(3). See also *Dicks v. Jensen*, 768 A.2d 1279 (Vt. 2001).

- F. **At-will employees:** If not otherwise subject to a noncompetition contract, at-will employees may plan to compete with their employer even while still employed there and may freely compete with the employer once they are no longer employed there. This is not a breach of a duty of loyalty. But, at-will employees are still restricted from misappropriating trade secrets and soliciting customers for their new venture while still employed by the former employer, even if not subject to confidentiality, nondisclosure or noncompetition restrictions. When an employer does not take steps to protect information, such as customer lists, competition for those customers by such former employees is legitimate. *Omega Optical, Inc. v. Chroma Technology Corp.*, 800 A.2d 1064 (Vt. 2002).
- G. **Noteworthy cases summarizing scope of permissible/impermissible restraints:** See *Abalene Pest Control Serv. v. Hall*, 220 A.2d 717 (Vt. 1966); *Dyar Sales & Mach. Co. v. Bleiler*, 175 A. 27 (Vt. 1934).
- H. **Noteworthy articles and/or publications:** P. Jerome Richey, American Bar Association, Covenants Not to Compete, 588-95 (1991); William G. Porter II and Michael C. Griffaton, Using Noncompete Agreements to Protect Legitimate Business Interests, 69 Def. Couns. J. 194 (Apr. 2002).

VIRGINIA

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett

Venable LLP

575 7th Street, NW

Washington, DC 20004-1601

Direct: 202-344-4893

Facsimile: 202-344-8300

jrburdett@venable.com

VIRGINIA

I. SUMMARY OF THE LAW

A covenant restraining an employee will be enforced if its restrictions are no greater than necessary to protect the employer's legitimate business interests, if it is not unduly harsh or unreasonable in curtailing the employee's ability to earn a living and if the agreement does not violate public policy. Since a non-competition covenant is a restraint on trade, it will be strictly construed before it is enforced. *Blue Ridge Anesthesia & Critical Care, Inc. v. Gidick*, 389 S.E.2d 467 (Va. 1990); *Paramount Termite Control Co. v. Rector*, 380 S.E.2d 922, 925 (Va. 1989).

Under Virginia law, the employer bears the burden of showing that the restraint is reasonable and no greater than necessary to protect the employer's legitimate business interests. *Omniplex World Servs. Corp. v. US Investigations Servs.*, 618 S.E.2d 340 (Va. 2005); *Motion Control Sys., Inc. v. East*, 546 S.E.2d 424 (Va. 2001); *Simmons v. Miller*, 544 S.E.2d 666 (Va. 2001).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Mutual Funding, Inc. v. Collins*, No. CH02-947, 2003 WL 21057572 (Va. Cir. Ct. May 5, 2003) (three year, 60 mile radius from each city where former employer has office is "not unenforceable per se"); *Auto-Chlor Sys. of Northern Virginia v. Church*, No. CH00-698, 2000 WL 33340687 (Va. Cir. Ct. Sept. 28, 2000) (restricting former employee from working for any competitor in any city, county, or state serviced by former employer for 1 year); *Advanced Marine Enterprises, Inc. v. PRC, Inc.*, 501 S.E.2d 148 (Va. 1998) (enforcing non-compete agreement of eight month, fifty miles from former employer's office; geographic limitation not too burdensome even though former employer has approximately 300 offices worldwide); *New River Media Group, Inc. v. Knighton*; 429 S.E.2d 25 (Va. 1993) (60-mile, one-year restriction upheld); *Blue Ridge Anesthesia*, 389 S.E.2d 467 (three-year restriction from territory serviced by employee held reasonable); *Paramount Termite Control*, 380 S.E.2d at 925 (two-year restriction in counties where employer operated was reasonable); *Roanoke Eng. Sales v. Rosenbaum*, 290 S.E.2d 882, 884 (Va. 1982) (restricting employee from selling in employer's territory reasonable where territories virtually co-extensive).
2. *Omniplex World Servs. Corp.*, 618 S.E.2d 340 (Va. 2005) (covenant overbroad and unenforceable where covenant restricts employment even in a capacity that is not in direct competition with

former employer); *Modern Env'ts, Inc. v. Stinnett*, 561 S.E.2d 694 (Va. 2002) (covenant prohibiting former employee from being employed in any capacity by employer's competitor was unenforceable because employer did not carry its burden of showing that the covenant was reasonable and no greater than necessary to protect a legitimate business interest); *Motion Control Sys., Inc.*, 546 S.E.2d 424 (covenant overbroad and unenforceable where restricted activities could include a wide range of enterprises unrelated to business of former employer); *Simmons*, 544 S.E.2d 666 (refusing to enforce covenant which contained an expansive list of restrictive functions and had no geographical limitation); *John J. Wilson Assocs., Inc. v. Smith*, No. CH00-18002, 2000 WL 1915928 (Va. Cir. Ct. Oct. 20, 2000) (covenant overbroad and unenforceable where geographic limitation was the Commonwealth of Virginia); *Lawrence v. Bus. Communics. Of Virginia*, No. CH99-1134, 2000 WL 33340626 (Va. Cir. Ct. May 5, 2000) (finding restrictive covenant geographically and functionally overbroad); *Nida v. Bus. Advisory Sys., Inc.*, Law No. 95-248, 1998 WL 972125 (Va. Cir. Ct. Mar. 2, 1998) (finding covenant that prohibits employee from providing independent services to a lender anywhere in the world to be overbroad and unenforceable); *Alston Studios, Inc. v. Lloyd V. Gress & Assocs.*, 492 F.2d 279 (4th Cir. 1974) (covenant too broad where it covered activities in which employee had not been engaged and had no geographic limitation); *Richardson v. Paxton Co.*, 127 S.E.2d 113, 117 (Va. 1962) (three-year non-competition agreement held unduly harsh, overbroad and unenforceable because it prohibited employee from competing in areas in which the employer had no legitimate business activities).

B. Incidental to the sale of a business.

1. *In re: Property Technologies Ltd.*, 296 B.R. 701 (E.D. Va. 2002) (failure to make the non-compete payments as specified in the agreement rendered the non-compete agreements void 30 days after the payments were due); *Musselman v. Glass Works*, 533 S.E.2d 919 (Va. 2000) (purchase agreement and 5 year, 100 mile radius non-compete agreement were integrated and enforceable); *Stoneman v. Wilson*, 192 S.E. 816 (Va. 1937) (reasonable restraints will be enforced). See also *Nat'l Homes Corp. v. Lester Indus., Inc.*, 293 F. Supp. 1025 (W.D. Va. 1968), *aff'd in part and rev'd in part*, 404 F.2d 225 (4th Cir. 1968).

III. GENERAL COMMENTS

- A. Protectable interests: customer contacts, methods of operation, trade secrets and other confidential information that does not rise to the level of a trade secret. *Paramount Termite Control*, 380 S.E.2d at 925; *Roanoke Eng'g Sales*, 290 S.E.2d at 885; *Blue Ridge Anesthesia*, 389 S.E.2d at 469.
- B. Virginia state courts have thus far declined to adopt the "blue pencil" rule or any other rule for modifying non-competition covenants. However, the United States District Court for the Western District of Virginia, in *Orkin Exterminating Co., Inc. v. Farmer*, 1988 U.S. Dist. Lexis 16432 (W.D. Va. 1988), revised an overbroad geographic restriction in an agreement the court found severable.
- C. Continued employment may be sufficient consideration for a non-competition agreement, but it depends on the facts and circumstances of the case. *Mona Elec. Group, Inc. v. Truland Serv. Corp.*, 193 F.Supp.2d 874 (E.D. Va. 2002), *aff'd*, 2003 WL 40748 (4th Cir. 2003) (applying Virginia law and finding that the restrictive covenant was unenforceable because it lacked consideration); *Paramount Termite Control*, 380 S.E.2d at 926 (finding that continued employment is sufficient consideration for a non-competition agreement).
- D. Covenant not to compete survives expiration of employment agreement when a reasonable offer of continued employment is made and rejected. *Carilion Healthcare Corp. v. Ball*, Nos. CH00-732, CH01-78, 2001 WL 1262362, at *5 (Va. Cir. Ct. Feb. 23, 2001).
- E. Will a choice of law provision in contract be followed? While Virginia courts generally uphold contractual choice of law provisions, it is unclear if they would do so if the non-competition agreement would be overbroad and unenforceable in Virginia. See *Paul Bus. Sys. v. Canon, U.S.A.*, 397 S.E.2d 804, 807 (Va. 1990).
- F. Trade secrets defined: *Dionne v. Southeast Foam Converting & Packaging, Inc.*, 397 S.E.2d 110 (Va. 1990).
- G. Noteworthy articles and/or publications: Thomas M. Winn, III, Annual Survey of Virginia Law: Labor and Employment Law, 37 U. Rich. L. Rev. 241 (2002) (published annually and includes recent developments in Virginia regarding covenants not to compete); Boyette & Billingsley, Employment Law, 24 U. Rich. L. Rev. 567-81 (1990); Hill, Covenants Not-to-Compete: Are They Enforceable in Virginia?, 16 Va. B.A.J. 4(7) (1990).

- H. Noteworthy cases summarizing scope of permissible/impermissible restraints: See *Omniplex World Servs. Corp.*, 618 S.E.2d 340; *Blue Ridge Anesthesia*, 389 S.E.2d 467.

WASHINGTON

This chapter was prepared by the law firm of Fenwick & West LLP.

For further information about the summary contained in this chapter, please contact:

Daniel J. McCoy

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
dmccoy@fenwick.com

and

Mary Wang

Fenwick & West LLP
801 California Street
Mountain View, CA 94041
Main: (650) 988-8500
Facsimile: (650) 938-5200
mwang@fenwick.com

WASHINGTON

I. JUDICIAL STATEMENT OF THE LAW

It is well established that covenants not to compete upon termination of employment are enforceable if they are reasonable. Whether a covenant is reasonable involves a consideration of three factors: (1) whether restraint is necessary for the protection of the business or goodwill of the employer, (2) whether it imposes upon the employee any greater restraint than is reasonably necessary to secure the employer's business or goodwill, and (3) whether the degree of injury to the public is such loss of the service and skill of the employee as to warrant nonenforcement of the covenant.

Knight v. McDaniel, 37 Wn. App. 366, 369 (1984) (internal quotations omitted); see also *Alexander & Alexander, Inc. v. Wohlman*, 19 Wn. App. 670, 578 P.2d 530 (1978); *Sheppard v. Blackstock Lumber Co.*, 85 Wn.2d 929, 540 P.2d 1373 (1975); *Wood v. May*, 73 Wash. 2d 307, 438 P.2d 587 (1968); *Racine v. Bender*, 141 Wash. 606, 252 P.115 (1927).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract:

Racine v. Bender, 141 Wash. 606, 615, 252 P. 115 (1927) (upholding a 3-year restriction on soliciting or performing services for former clients).

Wood v. May, 73 Wash. 2d 307, 310, 438 P.2d 587 (1968) (upholding 5-year, 100-mile restriction on a horseshoer).

Pacific Aerospace & Electronics, Inc. v. Taylor, 295 F. Supp. 2d 1205 (E.D. Wash. 2003) (upholding covenant barring senior engineer from "directly or indirectly" contacting former employer's customers for 2 years after termination, or for 6 months if employee was terminated for cause).

Seabury & Smith v. Payn Fin. Group, Inc., 393 F. Supp. 2d 1057 (E.D. Wash. 2005) (finding a 1-year restrictive covenant covering clients and prospective clients of former employer who were solicited or serviced during the employee's term of service to be reasonable and enforceable).

B. Ancillary to the sale of a business:

Under Washington law, covenants not to compete in the franchise context "are evaluated under the same standards as covenants in the employment context." *HomeTask Handyman Serv., Inc. v. Cooper*, 2007 U.S. Dist. LEXIS 84708, *9 (D. Wash. 2007) (modifying 2-year non-compete

restricting a former handyman service franchisee from operating a home repair business within 100-mile “buffer zone” and limiting to 25 miles of former franchisee territory).

In the context of a noncompete provision that precluded competition in the city of Vancouver, the court found that the seller’s opening of a competing business just outside the city limits could reasonably be interpreted to be a violation of the covenant. *Rippe v. Doran*, 4 Wn. App. 952, 486 P.2d 107 (1971).

III. GENERAL COMMENTS

A. Protectable Interest:

1. *Wood v. May*, 73 Wn. 2d 307, 310, 438 P.2d 587 (1968) (“It is clear that if the nature of the employment is such as will bring the employee in personal contact with the patrons or customers of the employer, or enable him to acquire valuable information as to the nature and character of the business and the names and requirements of the patrons or customers, enabling him, by engaging in a competing business in his own behalf, or for another, to take advantage of such knowledge of or acquaintance with the patrons or customers of his former employer, and thereby gain an unfair advantage, equity will interfere in behalf of the employer and restrain the breach of a negative covenant not to engage in such competing business”).
2. *Pacific Aerospace & Electronics, Inc. v. Taylor*, 295 F. Supp. 2d 1205, 1216-17 (E.D. Wash. 2003) (non-solicitation provision reasonably protects employer from immediate competition from employee who was given access to customers’ internal operations and business relationships).
3. However, Washington courts have found that a covenant not to compete is not necessary “to protect a business from the advantage a former short-time employee may have by reason of the skills and training acquired during his or her employment.” *Copier Specialists, Inc. v. Gillen*, 76 Wn. App. 771, 774 (1995) (holding that the training a photocopy repairman acquired during employment, without more, did not warrant enforcement of a restrictive covenant where he was terminated after 6 months of employment, had “very limited contact” with customers, and “there were no client lists to protect”).

B. Customer restriction: *Perry v. Moran*, 109 Wn. 2d 691, 748 P.2d 224, 230 (1987) (upholding covenant restricting former employee from

performing accounting work for former clients for a reasonable time and within a reasonable territory); *Knight, Vale & Gregory v. McDaniel*, 37 Wn. App. 366, 680 P.2d 448 (1984) (covenant enforceable with respect to restrictions on working for former clients of the employer with whom former employees had come into contact as a consequence of their employment); *Alexander & Alexander v. Wohlman*, 19 Wn. App. 670, 578 P.2d 530 (1978) (enforcing covenant to preclude solicitation and diversion of customers within greater Seattle area for a 2-year period); *Pacific Aerospace & Electronics, Inc. v. Taylor*, 295 F. Supp. 2d 1205 (E.D. Wash. 2003) (upholding covenant barring senior engineer from “directly or indirectly” contacting former employer’s customers for 2 years after termination, or for 6 months if employee was terminated for cause).

C. Blue pencil/modification: Washington courts “will enforce covenants to the extent it is reasonable.” *Wood v. May*, 73 Wn. 2d 307, 312-313, 438 P.2d 587 (1968). A court may impose partial enforcement of an otherwise defective covenant where doing so is possible without injury to the public and without injustice to the parties. *Sheppard v. Blackstock Lumber Co., Inc.*, 85 Wn. 2d 929, 934, 540 P.2d 1371 (1975); see also *Armstrong v. Taco Time Int’l*, 30 Wn. App. 538, 635 P.2d 1114 (1981) (finding 5-year nation-wide covenant unreasonable in time and geographic scope, and therefore limited to 2.5 years and within an area covered by the franchise agreement or any other franchise agreement); *HomeTask Handyman Services, Inc v. Cooper*, 2007 U.S. Dist. LEXIS 84708, *11-13 (D. Wash. 2007) (modifying 100-mile geographic restriction to apply only over 25-mile area).

D. Consideration:

1. The general rule in Washington is that consideration exists if the employee enters into a non-compete agreement when he or she is first hired. *Wood v. May*, 73 Wn.2d 307, 310-11, 438 P.2d 587 (1968); see also *Racine v. Bender*, 141 Wash. 606, 609, 252 P. 115 (1927); *Knight, Vale & Gregory v. McDaniel*, 37 Wn. App. 366, 368, 680 P.2d 448 (1984).
2. A noncompete agreement entered into *after* employment commences will be enforced only if it is supported by independent consideration. *Rosellini v. Banchemo*, 83 Wn.2d 268, 273, 517 P.2d 955 (1974); *Schneller v. Hayes*, 176 Wn. 115, 118, 28 P.2d 273 (1934). Independent consideration involves new promises or obligations previously not required of the parties, and may include increased wages, a promotion, a bonus, a fixed term of employment, or perhaps access to protected information. *Schneller*, 176 Wash. at 118-19.

3. Continued employment will generally not provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun. *Labriola v. Pollard Group, Inc.*, 152 Wn. 2d 828 (2004). The Washington Supreme Court held in *Labriola* that “independent consideration is required at the time promises are made for a noncompete agreement when employment has already commenced.” *Id.* at 838. Independent consideration involves new promises or obligations previously not required of the parties. Although continued employment or training may serve as sufficient consideration in some cases, it was held to be insufficient by the court in *Labriola* where the employee signed only one subsequent noncompete agreement almost 5 years after beginning his employment and received no new benefits or training in exchange beyond what he was entitled to under his original employment agreement.

The Court in *Labriola* distinguished *Racine v. Bender*, 141 Wash. 606, 252 P. 115 (1927), finding that a warranty not to compete signed by the employee on a weekly basis for 260 consecutive weeks created a valid contract. In *Racine*, at the time of hire, the parties made no mention of restrictions on the employee’s future employment. However, at the end of each week during the employment, the employee was required to prepare a report and sign a warranty agreeing not to compete against the company for three years after the conclusion of his employment. *Racine v. Bender*, 141 Wn. at 607. In upholding the covenant, the court in *Racine* reasoned as follows:

[W]hen each week [the employee] signed the warranty which expressly provides in the first three provisions in words that no man may misunderstand, "(a) my entire time shall be devoted; (b) during such employment I shall not do[;] and (c) either during or after leaving such employment I will not take any action," such a warranty contained in each report was certainly a basis and a part consideration for future employment.

Id. at 609. Although signed after the completion of one week’s worth of work, the warranty not to compete signed by the employee served as consideration for future employment based upon the conduct of the parties each week for 260 weeks.

- E. **Enforceability of “clawbacks” and other forfeitures of benefits:** The validity of a non-compete clause that affects the forfeiture of retirement benefits is determined based on the same reasonableness test as non-

competition clauses in employment contracts. *Sheppard v. Blackstock Lumber Co.*, 85 Wn. 2d 929, 540 P. 2d 1373 (1975).

- F. Will an employer's breach of the employment agreement relieve the employee of his obligation not to compete?

Where an employer's termination of the employee constitutes a breach of the employment contract, the restrictive covenant may not be enforced. *Comfort & Fleming Ins. Brokers v. Hoxey*, 26 Wn. App. 172, 613 P.2d 138 (1980) (refusing to enforce restrictive covenant where the employee's written contract precluded termination except for good cause, and where the employee was fired without good cause); see also *Parsons Supply v. Smith*, 22 Wn. App. 520, 523 591 P.2d 821, 823 (1979) (noting that generally "a breaching party cannot demand performance from the nonbreaching party").

- G. **Will a choice of law provision in a contract be followed?**

Generally yes. Washington courts generally will give effect to an express choice of law clause unless application of the law of the chosen state would be contrary to a fundamental policy of Washington and Washington has a materially greater interest in the determination of the particular issue. *O'Brien v. Shearson Hayden Stone, Inc.*, 90 Wash. 2d 680, 685-86, 586 P.2d 830 (1978) (did not involve a covenant not to compete).

- H. **Trade secrets defined:** Uniform Trade Secrets Act, Wash. Rev. Code Ann. § 19.108.010, et. seq.

- I. **Protection of confidential or trade secret information (absent a non-compete)?**

A former employee, "even in the absence of an enforceable covenant not to compete, remains under a duty not to use or disclose, to the detriment of the former employer, trade secrets acquired in the course of previous employment [with that employer]. Where the former employee seeks to use the trade secrets of the former employer in order to obtain a competitive advantage, then competitive activity can be enjoined or result in an award of damages" *Ed Nowogroski Ins., Inc. v. Rucker*, 137 Wn. 2d 427, 437, 971 P. 2d 936 (1999).

WEST VIRGINIA

This chapter was prepared by the law firm of Venable LLP.

For further information about the summary contained in this chapter, please contact:

James R. Burdett

Venable LLP

575 7th Street, NW

Washington, DC 20004-1601

Direct: 202-344-4893

Facsimile: 202-344-8300

jrburdett@venable.com

WEST VIRGINIA

I. JUDICIAL STATEMENT OF THE LAW

A restraint is reasonable only if it (1) is no greater than is required for the protection of the employer, (2) does not impose undue hardship on the employee, and (3) is not injurious to the public. *Reddy v. Community Health Found. of Man*, 298 S.E.2d 906, 911 (W. Va. 1982) (citing *Harlan Blake, Employee Agreements Not to Compete*, 73 Harv. L. Rev. 625, 648 (1960)).

To be inherently reasonable under West Virginia law, the time or area limitations of a covenant not to compete "must not be excessively broad and the covenant must not be designed to intimidate employees rather [than] protect the employer's business." *Del Giorno v. Gateway Reg'l Health Sys., Inc.*, 64 F.Supp.2d 604, 606 n.2 (N.D. W.Va. 1999) (dicta; not a covenant case).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Ancillary to an employment contract.

1. *Huntington Eye Assocs., Inc. v. LoCascio*, 553 S.E.2d 773 (W.Va. 2001) (restriction of 2 years, 50 miles from any of former employer's offices "not facially unreasonable"); *Gant v. Hygeia Facilities Found., Inc.*, 384 S.E.2d 842 (W. Va. 1989) (three-year, thirty-mile radius restriction was reasonable); *Appalachian Labs., Inc. v. Bostic*, 359 S.E.2d 614 (W. Va. 1987) (restraint covering five-years, ten-county region where employer conducts business found reasonable, but covenant not enforced where employer's customer list was readily available from independent sources); *Reddy*, 298 S.E.2d 906 (three-year, thirty-mile radius restriction found reasonable); *Wycoff v. Painter*, 115 S.E.2d 80 (W. Va. 1960) (one-year, statewide restriction found reasonable); *Chicago Towel Co. v. Reynolds*, 152 S.E. 200 (W. Va. 1930) (five-year, any city where employee worked for employer restriction found reasonable).
2. *Moore Bus. Forms, Inc. v. Foppiano*, 382 S.E.2d 499, 502 (W. Va. 1989) (restrictive covenant will not be enforced where employee lacks specialized skills and customer information is readily available from other services); *McGough v. Nalco, Co.*, 496 F. Supp. 2d 729, 755 (N.D.W. Va. 2007) (holding that a two-year, nationwide covenant not to compete was unreasonable on its face because the geographic area was too large and refusing to "blue-pencil" the covenant because it was facially unreasonable). *Pancake Realty Co. v. Harber*, 73 S.E.2d 438 (W. Va. 1952) (one-year, everywhere restriction was void and unenforceable); *O. Hommel Co., Inc. v. Fink*, 177 S.E. 619, 620 (W. Va. 1934) (three-year restriction covering Canada and the

portion of the United States east of the Mississippi was enforced only as to those states and provinces in which the employer operated).

B. Incidental to the sale of a business.

1. *Axford v. Price*, 61 S.E.2d 637, 640 (W. Va. 1950) (restriction unlimited as to time found enforceable to the extent necessary for the protection of plaintiff's business).
2. *Huddleston v. Mariotti*, 102 S.E.2d 527 (W. Va. 1958) (ten-year, ten-mile covenant not to "engage" in the hotel business did not prevent sellers of hotel from constructing a hotel within close proximity to the sold hotel because the newly constructed hotel was to be sold to a third party before operation).

III. GENERAL COMMENTS

- A. Protectable interests: Confidential information unique to an employer, including customer lists and trade secrets, *Reddy*, 298 S.E.2d 906; *Gant*, 384 S.E.2d at 846 (goodwill).
- B. If a covenant is overbroad, but not lacking in, consideration, it may be "blue-penciled" and enforced to the extent necessary, but courts should be reluctant to "blue-pencil" if such action will produce a tendency to overreach in future cases. See *Reddy*, 298 S.E.2d at 914-15.
- C. Continued employment is probably not sufficient consideration for a non-competition agreement. See *Env'tl. Prods. Co. v. Duncan*, 285 S.E.2d 889, 890 (W. Va. 1982); *Pemco Corp. v. Rose*, 257 S.E.2d 885, 889 (W. Va. 1979) (applying Virginia law); *McGough*, 496 F. Supp. 2d at 746.
- D. Will a choice of law provision in contract be followed? West Virginia courts have not addressed the issue of choice of law provisions in covenant not to compete cases. However, choices of law provisions in contracts generally have been upheld unless: (1) the chosen state has no substantial relationship to the parties to the transaction or (2) the application of the law of the chosen state would be contrary to the fundamental policy of the state whose law would apply in the absence of a choice of law provision. See, e.g., *Nadler v. Liberty Mut. Fire Ins. Co.*, 424 S.E.2d 256, 261 n.8 (W. Va. 1992); *Bryan v. Massachusetts Mut. Life Ins. Co.*, 364 S.E.2d 786 (W. Va. 1987).
- E. Injunctive relief to enforce a covenant not to compete is available if the covenant protects a legitimate business interest of the employer and it does not impose an undue hardship on the employee. *Merrill Lynch*,

Pierce, Fenner & Smith, Inc. v. Coffindaffer, 183 F.Supp.2d 842, 852 (N.D. W.Va. 2000).

- F. Trade secrets defined: *Reddy*, 298 S.E.2d at 912.
- G. Noteworthy articles and/or publications: (a) Walt Auvil, *Covenants Not to Compete*, 2001 W. Va. Lawyer 20 (Nov. 2001); (b) Note, *Employment Restrictive Covenants (Survey of Developments in West Virginia Law 1983)*, 86 W. Va. L. Rev. 574 (1983).
- H. Noteworthy case summarizing scope of permissible/ impermissible restraints: *Reddy*, 298 S.E.2d 906.

WISCONSIN

This chapter was prepared by the law firm of Dorsey & Whitney LLP.

For further information about the summary contained in this chapter, please contact:

Darren M. Mungerson

Jenner & Block, LLP
One IBM Plaza
Chicago, IL 60611-7603
Main: 312-923-2888
Facsimile: 312-840-7288
dmungerson@jenner.com

WISCONSIN

I. LEGISLATIVE/JUDICIAL STATEMENTS OF THE LAW

A. Covenants ancillary to an employment contract:

Wis. Stat. Ann. § 103.465 (1988) provides:

A covenant by an assistant, servant, or agent not to compete with his employer or principal during the term of the employment or agency, or thereafter, within a specified territory and during a specified time is lawful and enforceable only if the restrictions imposed are reasonably necessary for the protection of the employer or principal. Any such restrictive covenant imposing an unreasonable restraint is illegal, void and unenforceable even as to so much of the covenant or performance as would be a reasonable restraint.

In addition, restrictive covenants in employments are also subject to common law contract principles requiring that a contract be supported by consideration. *NBZ, Inc. v. Pilarski*, 185 Wis. 2d 827, 520 N.W.2d 93, 94 (Wis. Ct. App. 1994) (finding covenant unenforceable for lack of consideration). However, a promise of initial employment is sufficient consideration for a restrictive covenant even if the employment is at will. *Id.* at 96 n. 4.

B. Covenants ancillary to the sale of a business:

In determining the reasonableness of a covenant incidental to the sale of a business, Wisconsin courts examine "whether the covenant is (1) reasonably necessary for the protection of the beneficiary; (2) reasonable as between the parties and particularly as to the party restrained, considering time, space, purpose, and scope; and (3) not specially injurious to the public." *Reiman Assoc., Inc. v. R/A Advertising Inc.*, 102 Wis. 2d 305, 306 N.W.2d 292, 295 (Wis. Ct. App. 1981).

II. PARAMETERS OF THE "REASONABLENESS" TEST

A. Covenants Ancillary to an employment contract:

A valid restrictive covenant not to compete after a term of employment must be reasonably necessary for the protection of legitimate business interests of the employer and should not be oppressive and harsh on the employee or injurious to the interests of the general public. *Rollins Burdick Hunter of Wis. v. Hamilton*, 101 Wis. 2d 460, 304 N.W.2d 752 (Wis. 1981). The restraints imposed on the employee must be reasonably limited in terms of geographic area or time. *Gary Van Zeeland Talent, Inc. v. Sandas*, 84 Wis. 2d 202, 267 N.W.2d 242 (Wis. 1978).

There are no flat rules of reasonableness for restrictive covenants, *Fields Found. v. Christensen*, 103 Wis. 2d 465, 309 N.W.2d 125, 132 (Wis. Ct. App. 1981), and the determination as to whether particular restrictions as to time and area are reasonable is a question of law to

be resolved on the basis of the facts. *Geocaris v. Surgical Consultants*, 100 Wis. 2d 387, 388, 302 N.W.2d 76,77-78 (Wis. Ct. App. 1981).

As a practical matter, Wisconsin courts have consistently upheld covenants restricting competition for one or two years after the termination of employment. See, e.g., *Farmers Ins. Exhc. v. Sorenson*, 99 F. Supp. 2d 1000, 1007 (E.D. Wis. 2000) (one year restriction enforceable); *Pollack v. Calimag*, 157 Wis. 2d 222, 45 N.W.2d 591 (Wis. Ct. App. 1990) (one year restriction enforceable); *Fields Found. v. Christensen*, 103 Wis.2d 465, 309 N.W.2d 125 (Wis. Ct. App. 1981) (two years found reasonable).

A restrictive covenant generally must be limited geographically to the area in which the employer does business. *Pollack*, 458 N.W.2d at 599 (upholding covenant imposing restriction in 20-mile radius from medical clinic because advertising generated numerous patients from within a 20-mile radius); *Fields Found.*, 309 N.W.2d at 132 (upholding covenant imposing restriction in 50-mile radius where employer obtained 62 percent of its business from that area).

A covenant which restricts competition by customers, rather than geographically, is valid in Wisconsin. *Chuck Wagon Catering Inc. v. Raduege*, 88 Wis.2d 740, 277 N.W.2d 787, 793 (Wis. 1979); *Rollins Burdick Hunter v. Hamilton*, 101 Wis. 2d 460, 304 N.W.2d 752, 755-56 (Wis. 1981).

However, a covenant that lacks any temporal or geographic limitation is unreasonable and void. *Gary Van Zeeland Talent, Inc. v. Sandas*, 84 Wis.2d 202, 267 N.W.2d 242, 250 (Wis. 1978). In addition, agreements that constitute nationwide prohibitions where the employer's business was not nationwide have been found unenforceable. See, e.g., *Union Central Life Ins. Co. v. Balistrieri*, 19 Wis.2d 265, 120 N.W.2d 126 (Wis. 1963) (agreement that effectively prohibited the former employee from competing anywhere in the United States, when he had only worked in one county, was unenforceable); *Equity Enters., Inc. v. Milosch*, 247 Wis. 2d 172, 178-79, 633 N.W.2d 662, 666 (Wis. Ct. App. 2001) (court found language of restriction to be "functionally equivalent" to nationwide restriction and therefore overly broad); *Behnke v. Hertz Corp.*, 70 Wis. 2d 818, 235 N.W.2d 690 (Wis. 1975) (territorial restriction covering all of Milwaukee geographically overbroad and invalid when employer's sole place of business was located at the Milwaukee airport).

If there is no protectable interest, the courts will not enforce the agreement even if the time and geographic restrictions are reasonable. See, e.g., *NBZ, Inc. v. Pilarski*, 185 Wis. 2d 827, 520 N.W.2d 93 (Wis. Ct. App. 1994)(1-year, 5-mile covenant not to compete was not reasonably necessary for the protection of an employer's interests where employer – a hair salon studio – did not execute covenants in a systematic manner, employee's relationships with employer's customers corresponded to only 2 percent of employer's gross revenues, and employee's new employment did not render former employer unable to compete).

B. Ancillary to the sale of a business:

Wisconsin courts will allow for more expansive restrictions when the restrictive covenant is incidental to the sale of a business. See, e.g., *Reiman Assoc., Inc. v. R/A Advertising, Inc.*, 102 Wis. 2d 305, 306 N.W.2d 292, 296 (Wis. Ct. App. 1981) (where defendant produced ads for one of plaintiff's six publications, court enforced non-compete for six years limited to that publication); *General Bronze Corp. v. Schmeling*, 208 Wis. 565, 243 N.W. 469 (Wis. 1932) (enforcing 15-year non-compete throughout United States, although court struck provisions restricting competition in Mexico and Canada under "blue pencil" doctrine, as plaintiff had done no business in either country).

III. GENERAL COMMENTS

A. Protectable interests:

Wisconsin courts will enforce covenants to protect goodwill, customer relationships, trade secrets, and business-related information. *Pollack v. Calimag*, 157 Wis. 2d 222, 45 N.W.2d 591, 598-99 (Wis. Ct. App. 1990) (employer's stock of patients); *Chuck Wagon Catering, Inc. v. Raduege*, 88 Wis.2d 740, 277 N.W.2d 787, 792 (Wis. 1979) (customer relationships; goodwill); *Fields Found. v. Christensen*, 103 Wis.2d 465, 309 N.W.2d 125, 129 (Wis. Ct. App. 1981) (customer relationships; business information; trade secrets); *Rollins Burdick Hunter v. Hamilton*, 101 Wis.2d 460, 304 N.W.2d 752 (Wis. 1981) (business information); *Lakeside Oil Co. v. Slutsky*, 8 Wis. 2d 157, 98 N.W.2d 415 (Wis. 1959) (customer relationships); *General Bronze Corp. v. Schmeling*, 208 Wis. 565, 243 N.W. 469, 471 (Wis. 1932) (goodwill); but see *Wausau Medical Center, S.C. v. Asplund*, 182 Wis. 2d 274, 415 N.W.2d 34 (Wis. Ct. App. 1994) (while referral contacts, reputation enhancement, and unique skills acquired through employment with covenantor could constitute legitimate protectable interests, court found no such interests to exist where employee surgeon only employed for three-and-one-half months).

B. Severability /Modification of Overly Broad Restrictions:

Under Wisconsin law, if a restrictive covenant in the employment context is overbroad, the covenant is void. Wis. Stat. Ann. § 130.465; *Lakeside Oil Co. v. Slutsky*, 8 Wis. 2d 157, 98 N.W.2d 415, 419 (Wis. 1959); *General Med. Corp. v. Kobs*, 179 Wis. 2d 422, 507 N.W.2d 381, 385 (Wis. Ct. App. 1993).

Although one Wisconsin court appeared to hold that § 130.465 only prohibited the modification of language in the contract (as opposed to striking overly broad provisions and enforcing the remaining provisions), *Streiff v. American Family Mut. Ins. Co.*, 118 Wis. 2d 602, 348 N.W.2d 505 (Wis. 1984), subsequent decisions have held that § 130.465 goes further to prohibit the striking, or "blue penciling," of provisions that are severable from the rest. *General Med. Corp. v. Kobs*, 179 Wis. 2d 422, 507 N.W.2d 381, 385 (Wis. Ct. App. 1993). Thus, any unreasonable portion of the covenant not to compete voids the entire covenant even if severable portions exist that would

otherwise be enforceable. *Wausau Medical Center, S.C. v. Asplund*, 182 Wis. 2d 274, 415 N.W.2d 34 (Wis. Ct. App. 1994); *General Medical Corp. v. Kobs*, 179 Wis. 2d 422, 507 N.W.2d 381 (Wis. Ct. App. 1993).

In contrast to covenants in the employment context, “covenants incidental to the sale of a business benefit from full application of the rule of partial enforcement: Even an unreasonable-restraint will be enforced to the extent necessary and reasonable under the circumstances.” *Reiman Assoc., Inc. v. R/A Advertising, Inc.*, 102 Wis. 2d 305, 306 N.W.2d 292, 295-96 (Wis. Ct. App. 1981) (citing *Fullerton Lumber Co. v. Torbora*, 270 Wis. 133, 142-48, 70 N.W.2d 585, 589-92 (Wis. 1955)).

C. Continued Employment as Consideration:

Wisconsin courts have not clearly addressed whether continued employment is sufficient consideration for a covenant not to compete in the employment context. However, restrictive covenants are subject to common law contract principles requiring consideration for the covenant. One court opined that continued employment will not provide sufficient consideration to support a covenant not to compete, at least where there is no indication that the former employer conditioned continued employment or promised to do anything in exchange for the employee’s signing the covenant. *NBZ, Inc. v. Pilarski*, 185 Wis. 2d 827, 520 N.W.2d 93, 97 (Wis. Ct. App. 1994). However, that court did not say that continued employment could *never* suffice as consideration for a restrictive covenant, and the issue remains open under Wisconsin law.

- D.** A forfeiture of benefits provision is treated as a restraint of trade and thus is subject to the same analysis as other noncompetition covenants. See, e.g., *Streiff v. American Family Mut. Ins. Co.*, 118 Wis.2d 602, 348 N.W.2d 505, 510 (Wis. 1984) (invalidating provision that insurance agent would forfeit “extended earnings” if agent competed after termination of employment); *Union Central Life Ins. Co. v. Balistrieri*, 19 Wis. 2d 265, 120 N.W.2d 126, 129 (Wis. 1963) (invalidating requirement to repay the excess of advances over credit).
- E.** Attorneys’ fees appear to be recoverable under Wisconsin law for breach of a noncompete agreement if the contract so provides. See, e.g., *Klinefelter v. Dutch*, 161 Wis. 2d 28, 467 N.W.2d 192, 196 (Wis. Ct. App. 1991) (“a prevailing litigant is not entitled to collect attorney fees from the opposing party, *absent contractual or statutory provisions authorizing recovery*” (emphasis added)); *Watkins v. Labor and Industry Review Common*, 117 Wis. 2d 753, 345 N.W.2d 482 (Wis. 1984) (same). However, Wisconsin courts have not considered this question other than in dicta in the noncompete context.
- F.** Wisconsin has adopted the Uniform Trade Secrets Act, with some modifications. Wis. Stat. Ann. § 134.90. Thus, attorneys’ fees are

recoverable in the circumstances set out in § 4 of the UTSA, including willful and malicious misappropriation of a trade secret.

Wisconsin has adopted the Uniform Trade Secret Act's definition of a trade secret as "information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." Wis. Stat. Ann. § 134.90.

- G. An employer's substantial or material breach of the employment agreement will relieve the employee of contractual obligations not to compete. A material breach of contract discharges the nonbreaching party from any obligation. The breaching party may not sue on the contract. *Jolin v. Oster*, 55 Wis. 2d 199, 198 N.W.2d 639, 647 (Wis. 1972). To be material, the breach must be substantial and sufficiently serious to destroy the essential purpose of the contract. *Appleton State Bank v. Lee*, 33 Wis. 2d 690, 148 N.W.2d 1, 2-3 (Wis. 1967).
- H. It is a long-standing rule in Wisconsin that parties can "expressly" state a choice of law provision in contract choosing which state's law will apply to their contractual relationship. See *Bush v. Nat'l School Studios, Inc.*, 139 Wis. 2d 635, 642-43, 407 N.W.2d 883, 886-87 (Wis. 1987). However, it is likely that a Wisconsin court would not honor a choice of law clause in an employment-related noncompete agreement if the noncompete agreement would be unenforceable under Wisconsin law. *General Med. Corp. v. Kobs*, 179 Wis. 2d 422, 428, 507 N.W.2d 381, 383-84 (Wis. Ct. App. 1993). Generally, Wisconsin courts will honor a choice of law clause unless (1) the parties have no substantial relationship to the chosen state or there is no reasonable basis to choose that state, or (2) the chosen state's law is contrary to Wisconsin public policy. *Sersted v. American Can Co.*, 535 F. Supp. 1072, 1078 (E.D. Wis. 1982). In *Bush v. Nat'l School Studios, Inc.*, 139 Wis.2d 635, 407 N.W.2d 883, 886 (Wis. 1987), the court stated in dicta that "laws prohibiting covenants not to compete . . . are likely to embody an important state policy." As noted in Section I, *supra*, Wisconsin has a statute restricting noncompete agreements in the employment context.
- I. The state's Code of Professional Responsibility imposes restrictions on the enforcement of covenants not to compete within the legal profession.
- J. Noteworthy articles and/or publications: Nettesheim & Broomfield, Restrictive Covenants and the Wisconsin Service Professional, 66 Wis. Law. 20 (Feb. 1993); Nettesheim, Drafting Enforceable Covenants Not to Compete, 59 Wis. B. Bull. 29 (Oct. 1986); Olson, Restrictive

Covenants in Wisconsin Employment Contracts, 53 Wis. B. Bull. 24 (March 1980); Richards, Drafting and Enforcing Restrictive Covenants Not to Compete, 55 Marq. L. Rev. 241 (1972).

- K.** Noteworthy cases summarizing the scope of permissible/impermissible restraints: *Streiff v. American Family Mut. Ins. Co.*, 118 Wis. 2d 602, 348 N.W.2d 505, 510 (Wis. 1984); *Reiman Assoc., Inc. v. R/A Advertising, Inc.*, 102 Wis. 2d 305, 306 N.W.2d 292, 295 (Wis. Ct. App. 1981); *Fields Found. v. Christensen*, 103 Wis.2d 465, 309 N.W.2d 125 (Wis. Ct. App. 1981); *Chuck Wagon Catering, Inc. v. Raduege*, 88 Wis.2d 740, 277 N.W.2d 787 (Wis. 1979); *Wausau Medical Center, S.C. v. Asplund*, 182 Wis. 2d 274, 415 N.W.2d 34 (Wis. Ct. App. 1994).

WYOMING

This chapter was prepared by the law firm of Haynes and Boone, LLP.

For further information about the summary contained in this chapter, please contact:

Jonathan C. Wilson

Haynes and Boone, LLP
2323 Victory Avenue
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
jonathan.wilson@haynesboone.com

and

Randy Colson

Haynes and Boone, LLP
2323 Victory Ave
Suite 700
Dallas, Texas 75219
Main: 214-651-5000
Facsimile: 214-651-5940
randy.colson@haynesboone.com

WYOMING

I. STATUTORY AUTHORITY

Wyoming has no statute governing the enforceability or reasonableness of covenants not to compete.

II. JUDICIAL STATEMENTS OF THE LAW

“[T]he legitimate interests of the employer . . . which may be protected from competition include: a) the employer’s trade secrets which have been communicated to the employee during the course of employment; b) confidential information communicated by the employer to the employee, but not involving trade secrets, such as information on a unique business method, and; c) special influence by the employee obtained during the course of employment over the employer’s customers.” *Hopper v. All Pet Animal Clinic, Inc.*, 861 P.2d 531, 540 (Wyo. 1993). However, an employer is not entitled to protection against ordinary competition. See *id.* Covenants not to compete are sustained if they “are no wider than reasonably necessary for the protection of the employer’s business, and do not impose the undue hardship on the employee, due regard being had to the interest of the public.” *Ridley v. Krout*, 180 P.2d 124, 127 (1947). The employer has the burden to prove the covenant is fair, reasonable and necessary for the protection of the employer’s business. See *Tench v. Weaver*, 374 P.2d 27, 29 (Wyo. 1962).

III. ENFORCEABILITY

- A. “A valid and enforceable covenant not to compete requires a showing that the covenant is: a) in writing; b) part of a contract for employment; c) based on reasonable consideration; d) reasonable in duration and geographical limitations; and e) not against public policy.” *Hopper* at 540.
- B. The signing of a covenant not to compete at the inception of the employment relationship provides sufficient consideration to support a covenant not to compete. See, e.g., *Hopper* at 541. However, the Wyoming Supreme Court has analyzed such agreements in terms of whether the covenant not to compete is ancillary to an otherwise enforceable agreement. *Id.*
- C. A change in the terms and conditions of employment will provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun. *Id.*
- D. Continued employment alone will not provide the necessary consideration to support a covenant not to compete entered into after the employment relationship has already begun. Instead, separate

consideration, such as a change in the terms and conditions of employment, must be given contemporaneously with the making of the covenant. This requirement apparently applies whether the employment is at-will or not. *Id.*

- E. For at-will employees, the employer must terminate the employment relationship in good faith; otherwise, any covenant not to compete is unenforceable. *Id.* According to the Wyoming Supreme Court, “[s]imple justice requires that a termination by the employer of an at will employee be in good faith” if a covenant not to compete is to be enforced. *Id.*; see also *Dutch Maid Bakeries v. Schleicher*, 131 P.2d 630, 635 (Wyo. 1942) (“an injunction to enforce the ancillary promise of the employee not to compete with the employer may be denied on the ground that the conduct of the employer in discharging the employee without just or adequate cause is ‘savored with injustice’”).

IV. PARAMETERS OF THE “REASONABLENESS” TEST

To enforce a covenant not to compete, the moving party must show the restrictions on the former employee are reasonable. The reasonableness determination regarding the type of activity, geography and durational restrictions is made on a case-by-case basis. *Hopper* at 543 (Wyo. 1993). In *Hopper*, the Wyoming Supreme Court reaffirmed its adherence to the “rule of reason inquiry” contained in Restatement (Second) of Contracts, § 188 and noted that the essence of the rule was that “a restraint is reasonable only if it (1) is no greater than is required for the protection of the employer, (2) does not impose undue hardship on the employee, and (3) is not injurious to the public.” *Hopper* at 539 (citation omitted).

Numerous factors for evaluating reasonableness were set out in *Hopper*. Such factors to be balanced may include: the degree of inequality in bargaining power; risk of the promisee losing customers; extent of participation by the parties in securing and retaining customers; good faith of promisee; general knowledge regarding the identity of customers; nature and extent of business position held by the promisor; promisor’s training, health, education, and needs of family; current conditions of employment; need for promisor to change residence or professions; and the correspondence of the restraint with the need for protecting the legitimate interests of the promisee. *Hopper* at 540 (citation omitted).

A. Reasonableness test applied:

1. *Hopper v. All Pet Animal Clinic, Inc.*, 861 P.2d 531, 544-545 (Wyo. 1993) (one year restriction on competing business, revised by court down from three years, within a five mile radius from city’s corporate limits was enforceable).

2. *Mott v. England*, 604 P.2d 560, 561 (Wyo. 1979) (covenant in employment contract prohibiting practice of medicine in Jackson, Wyoming was enforceable).
3. *Ridley v. Krout*, 180 P.2d 124, 126-133 (Wyo. 1947) (seven year duration and three county limitation in covenant not to compete were unreasonable and held unenforceable).
4. *Dutch Maid Bakeries v. Schleicher*, 131 P.2d 630, 635-636 (Wyo. 1942) (a 5-year covenant not to compete in employer's trade territories held unreasonable based on employer's unclean hands).
5. *Tench v. Weaver*, 374 P.2d 27, 29 (Wyo. 1962) (covenant not to compete held unreasonable where former employee left private practice to work for the federal government; employer could not demonstrate that covenant was "necessary for the protection of his business").

V. GENERAL COMMENTS

A. Protectable interests include:

1. Trade secrets and confidential information communicated to the employee by the employer during the course of employment. See *Hopper v. All Pet Animal Clinic, Inc.*, 861 P.2d 531, 540 (Wyo. 1993).
2. Special influence by the employee over the employer's customers obtained during the course of employment. See *Dutch Maid Bakeries v. Schleicher*, 131 P.2d 630, 635 (Wyo. 1942).
3. The sale of good will. *Ridley v. Krout*, 180 P.2d 124, 129 (Wyo. 1947).

B. If the covenant is overbroad, it can be equitably modified. *Hopper* at 545-47. "We believe the ability to narrow the term of a covenant not to compete and enforce a reasonable restraint permits public policy to be served in the most effective manner." *Id.* at 546.

C. Noteworthy cases summarizing scope of permissible/impermissible restraints: *Hopper v. All Pet Animal Clinic, Inc.*, 861 P.2d 531 (Wyo. 1993); *Tench v. Weaver*, 374 P.2d 27 (Wyo. 1962); *Ridley v. Krout*, 180 P.2d 124 (Wyo. 1947); *Dutch Maid Bakeries v. Schleicher*, 131 P.2d 630 (Wyo. 1942).

VI. TRADE SECRETS

- A. Wyoming has not adopted the Uniform Trade Secrets Act.
- B. The Wyoming Supreme Court has recognized a common law cause of action for misappropriation of trade secrets and/or confidential information when former employees of a company are alleged to have misappropriated their former employer's trade secrets and/or confidential information to start a competing business. The elements of the cause of action are those contained in Restatement (Third) of Unfair Competition, supra, §§ 39 through 45. *Briefing.com v. Jones*, 126 P.3d 928, 936 (Wyo. 2006).

BRAZIL

This chapter was prepared by Pinheiro Neto Advogados.

For further information about the summary contained in this chapter, please contact:

Raphael de Cunto

Rua Hungria, 1100,

01455-000, São Paulo, SP.

Main: (55 11) 3247-8575

Facsimile: (55 11) 3247-8600

rapdecunto@pinheironeto.com.br

BRAZIL

I. BACKGROUND

Labor relationships are highly regulated by Brazilian law and, consequently, contractual freedom between the employer and the employee is limited. The rights and duties of employers and employees are set out in the Federal Constitution, the Consolidated Labor Laws (CLT), collective bargaining agreements and collective labor conventions, as well as in some specific laws on certain matters.

Brazilian law, however, does not specifically address non-compete obligations in connection with labor relationships and legal precedents on the matter are still scarce.

II. NON-COMPETE CLAUSES

The Brazilian Federal Constitution guarantees the freedom of work and for this reason, non-compete obligations may be construed as a limitation of a constitutional right. Accordingly, for the obligation to be deemed valid and enforceable under Brazilian law certain essential conditions must be complied with:

A. Term

It is necessary to define a reasonable and fixed term for the non-compete obligation. Although the law is silent on this regard, one or two years should be generally accepted by the courts. It is possible to negotiate a longer term depending on the position occupied by the employee and other specific characteristics of the case, but if a very long term is established, the non-compete obligation will be more exposed to challenges based on the abovementioned constitutional provision.

B. Indemnification

A reasonable compensation must be paid to the employee in consideration for the non-compete obligation. This payment must be treated as an indemnification to the employee and expressions like “salary” or “remuneration” must be avoided when referring to such payment. An indemnification equivalent to ½ to one monthly salary paid to the employee for each month of duration of the non-compete obligation is usually acceptable (for this purpose, only the “base salary”, excluding bonuses and other benefits paid to the employee, should be considered).

Although there is no rule on whether the indemnification must be paid in one lump sum or in installments, it is usually recommended to pay it

monthly or quarterly installments (or in any other periodicity) so that the payment can be interrupted if the employee ceases to comply with the obligation at any time. The non-compete clause must expressly provide for this possibility.

C. Geographic and business limitation

The non-compete obligation must be limited to a defined geographic area and/or to a specific business. It is possible to establish that the obligation is valid throughout the Brazilian national territory and even expand it to other countries - this definition will very much depend on the area in which the company carries out its business. A clear and detailed definition of the business(es) in which the employee will not be allowed to act also helps to guarantee the validity and enforceability of the non-compete obligation.

III. OTHER ITEMS

In addition to the conditions described above, other provisions may be included in non-compete clauses:

A. Penalty for breach

In order to discourage the employee to breach the non-compete obligation, it is possible to establish a penalty to be paid by the employee in the event of non-compliance with his/her obligations. This penalty does not prevent the company from claiming supplementary damages in court, if this is the case, but the non-compete clause must expressly allow it to do so.

B. Release

The non-compete clause may authorize the company to release the employee from the obligation, thereby also releasing the company from the payment of the corresponding indemnification. This condition gives the company more flexibility should it later determine that the non-compete obligation is not necessary. The employee could challenge this condition claiming that it is arbitrary and depends on the sole discretion of the company, but we understand the condition is defensible provided that it is expressly foreseen in the non-compete clause.

FRANCE

This chapter was prepared by Denton Wilde Sapte.

For further information about the summary contained in this chapter, please contact:

Jacques Salès

Denton Wilde Sapte

5 avenue Percier

75008 Paris

Main: +33 (0)1 53 05 16 00

Facsimile: +33 (0)1 53 05 79 20

jacques.sales@dentonwildesapte.com

FRANCE

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I. BACKGROUND

Under French labor law, employer-employee relationships are highly regulated and, consequently, contractual freedom between the employer and the employee is severely restricted in comparison to American labor law. Two main sources that greatly affect labor relations are the Labor Code (*Code du Travail*) and collective bargaining agreements (*conventions collectives*), which are signed at the national level by both employers and employee trade unions for a given sector of activity.

When provisions on a given subject are contained in either the Labor Code and/or a collective bargaining agreement, the parties can only deviate from such principles if such deviation is more favorable to the employee.

II. NON-COMPETITION CLAUSES

A. General principles of validity

The validity of non-compete clauses in employment contracts has been recognized by French courts. Such a clause is normally valid under the condition that the clause: (i) does not unduly restrict the ability of the employee to work in his or her field of expertise, and (ii) provides for the payment of financial compensation to the employee.

1. No unlimited clauses

The determination of whether a clause is unduly restrictive is a question of fact that will be decided by the court assessing the validity of the non-compete clause. Generally, the court will examine whether the clause is limited:

- (a) in time, *i.e.*, there must be a limit on the period during which the affected employee cannot undertake an activity that competes with that of his or her former employer;⁸ and
- (b) in space, *i.e.*, there must be a limit on the territory in which any competitive activity has been forbidden to the employee; and
- (c) with respect to the scope of the activities that may not be undertaken by the employee.

⁸ Most collective bargaining agreements provide that this period cannot exceed two years.

Even if a clause explicitly contains all of the above limits and is intended to protect the legitimate interests of the employer, the court nevertheless can further limit or cancel any such clause that in its opinion unduly restricts or effectively prohibits the ability of an employee to hold a job consistent with his or her professional training.

Moreover, certain collective bargaining agreements provide for specific limits on the duration of the non-compete obligation and the territory over which the non-compete obligation may be enforced.

2. Financial compensation

In addition to the above, a Supreme Court ruling in three separate decisions of July 10, 2002⁹ now requires that all non-compete clauses provide for the payment of financial compensation as a condition to the validity of the clause. Such financial compensation is normally paid on a monthly basis to the employee during the entire period during which the non-compete clause is in effect. While these cases do not establish the amount of compensation that must be paid, they require that such compensation not be so ridiculously low as to be tantamount to an absence of compensation. The applicable collective bargaining agreement may contain a provision on the amount of the compensation, which is then compulsory. In most collective bargaining agreements, the amount of the financial compensation is a percentage of the remuneration received by the employee before the termination of his or her employment contract.

The employee is legally entitled to demand the payment of this compensation when the non-compete clause enters into force. No compensation therefore is due if the employer waives the non-compete clause, but such waiver should be expressly provided. Moreover, it can only take place after notice of termination of the contract has been given, and subject to the conditions and time limits contained in the applicable collective bargaining agreement, if any, or pursuant to the terms of the non-compete clause itself. In the absence of any provision relating to the time limit within which the waiver must be exercised, the employer may waive the non-compete clause at the latest on the date of termination of the employment

⁹ See Cass. Soc. July 10, 2002, n° 2723 FP-PBRI, Salembier v/ SA La Mondiale; Cass. Soc. July 10, 2002, n° 2724 FP-PBRI, Barbier v/ SA Maine Agri; Cass. Soc. July 10, 2002, n° 2725 FP-PBRI, Moline et autres v/ Société MSAS Cargo.

agreement.

The Supreme Court ruling of July 10, 2002 did not contradict previous cases pursuant to which clauses forbidding either the solicitation of customers or the hiring away of personnel by former employees do not require financial compensation. Presently, therefore, it appears these clauses are valid without financial compensation; however, the July 10, 2002 decisions could indicate a trend, and it is not impossible that within the next few years the Supreme Court could rule that financial compensation is required in these cases as well.

The July 10, 2002 ruling also would not apply to a covenant pursuant to which the seller of a business would undertake not to compete with the business being sold. This type of covenant would not be subject to labor law, but could be regulated under French competition law if the non-compete undertaking were to last more than three years.

B. Enforcement of the non-compete clause

If the employer considers that the terms of the non-compete clause have been violated, the lawsuit would have to be brought initially before a Labor Court, which is composed of representatives of employers and employees, and whose decisions often favor employees. Appeals of decisions from the Labor Court are heard before the Court of Appeals, where decisions are normally unbiased.

If the employee is found to have violated the terms of a valid non-compete clause, the employee would be required by the court to reimburse any financial compensation received and/or pay damages to his or her former employer. The amount of damages due by the employee could also be set forth in a liquidated damages clause included in the employment agreement when the employee is hired. However, such liquidated damages clauses may be revised at the court's discretion according to the judge's assessment of the actual harm suffered by the employer.

GERMANY

This chapter was prepared by the law firm of Taylor Wessing.

For further information about the summary contained in this chapter, please contact:

Dr. Thomas Griebe

Taylor Wessing

Am Sandtorkai 41

20457 Hamburg

Main: 0 40-3 68 03-0

Facsimile; 0 40-3 68 03-2 80

t.griebe@taylorwessing.com