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The State of Housing Affordability in Philadelphia

Who's cost-burdened—and why

Contents

The Pew Charitable Trusts

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About this report

This report was researched and written by Octavia Howell, an associate manager with the Philadelphia research and policy initiative. It was edited by Larry Eichel, senior adviser with the initiative, along with Erika Compart, Cindy Murphy-Tofig, and Bernard Ohanian.

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This report does not necessarily reflect the opinions of any of these individuals or their institutions.

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Overview

Housing prices and rents in Philadelphia have long been lower than in many other big cities. But over the past decade, as Philadelphia has shifted from a shrinking city to a growing one with an increased demand for housing, officials and advocates have expressed mounting concern about the degree to which the city remains affordable—and for whom. To assess the situation, The Pew Charitable Trusts conducted a detailed examination of housing data from Philadelphia and put the findings in the context of other large cities throughout the country, both the 10 largest high-poverty cities and the 10 most populous.

In analyzing housing affordability, this report focuses on the demand side of the equation—on the price of housing and people's ability to pay for it—more than on the supply of units. In doing so, it relies heavily on the concept of cost burden: As defined by the Census Bureau and the U.S. Department of Housing and Urban Development, cost burden occurs when a household spends 30% or more of its income on housing costs, including rent, mortgage payments, utilities, insurance, and property taxes.

By this standard, about 231,000 Philadelphia households—or about 529,000 people—were cost-burdened in 2018, the last year for which data was available. In that year, 40% of the city's households were cost-burdened, a figure that is in line with many other major cities. Surprisingly, perhaps, that rate has fallen slightly in Philadelphia in the past decade—it was 43% in 2009—largely due to an increase in the number of high-income households, for which cost burden tends to be low.

For homeowners, Pew's research shows, Philadelphia is affordable for a big city but about average for one with a high poverty rate. For renters, it is relatively affordable for a big city but expensive for one with a high poverty rate.

Nationally, researchers have found that there are two distinct kinds of housing affordability issues in urban America: one primarily caused by high housing prices and the other a result of low income levels. In Philadelphia, the issue is more the latter than the former. Among the nation's 10 most populous cities, none has a higher proportion of cost-burdened households with low incomes than Philadelphia. Despite Philadelphia's relatively low housing costs, many city residents simply do not have enough income to find housing they can afford.

The problem is particularly acute for renters with incomes below $30,000 per year; 88% of them are cost-burdened, with 68% severely cost-burdened, meaning they spend at least 50% of their income on housing. The city's supply of low-cost units is inadequate to meet the needs of this large group of households—there are nearly twice as many low-income renter households as housing units they can afford.

So who are the Philadelphians living in housing that they strain to afford? Among the findings, based largely on census data:

- Sixty-nine percent of cost-burdened Philadelphia households have incomes below $30,000 per year. Only 12% have incomes of $50,000 or more. This pattern is quite different from other places. In New York and many West Coast cities, more than a quarter of all cost-burdened households earn at least $50,000 per year.
- Half of all Hispanic households in Philadelphia are cost-burdened, the highest share of any major racial or ethnic group and a reflection, in part, of the city's high poverty rate among Hispanics. By comparison, of those who do not identify as Hispanic, 46% of Black households and 32% of White households are cost-burdened.
- Fifty-four percent of the city's renters are cost-burdened—compared with 28% of homeowners—and renters are making up an increasing share of Philadelphia's housing market. Of the growth in occupied housing units in the city since 2009, three-quarters were rentals.

- Geographically, the cost burden rate is highest in North, West, and Southwest Philadelphia. Over the past decade, North Philadelphia, which is home to many of the city's low-income residents, experienced a larger increase in rents and cost burden—in percentage terms—than any other part of the city.
- Not surprisingly, being cost-burdened is least common among Philadelphia households that own their homes free and clear, without mortgages. But the number of low- and moderate-income homeowners who are mortgage-free has declined in the past decade.

Cost burden

Forty percent of Philadelphia households spent at least 30% of their income on housing costs in 2018, meaning they met the federal standard of being cost-burdened. Ten years ago, 43% of all Philadelphia households were cost-burdened, although the number of cost-burdened households—about 231,000—was about the same in 2018 as it had been previously.[1] Twenty-two percent of Philadelphia households are severely cost-burdened, spending 50% or more of their income on housing costs, a rate that has decreased slightly in the past decade.

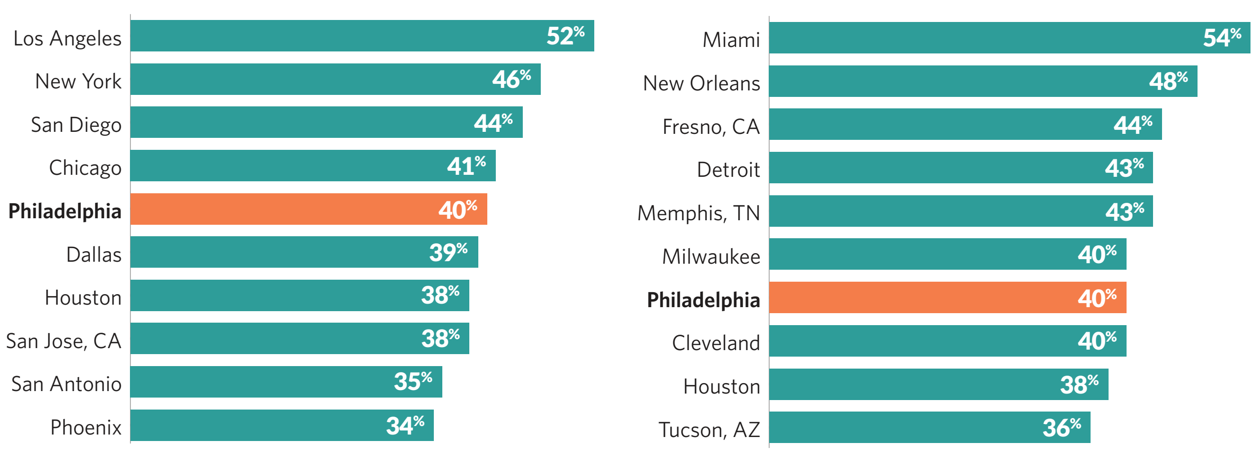
Relative to the cities studied in this report—the nation's 10 most populous cities and 10 largest high-poverty cities—there is nothing particularly unusual about 40% of households being cost-burdened.

Among the most populous cities, Los Angeles and New York both have significantly larger percentages of cost-burdened households, primarily because housing prices are much higher there. Among the high-poverty cities, Miami and New Orleans have much higher cost burden rates as well. On both lists, Philadelphia is at or near the median. (See Figure 1.)

Figure 1

Cost Burden Rate for Philadelphia and Other Large Cities

Most populous vs. highest-poverty big cities



Sources: U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics (2018 one-year estimates)

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The 30% Standard

Since 1981, the federal government has defined a household as cost-burdened if it spends more than 30% of its income on housing. This benchmark, which has its roots in guidelines for the nation's public housing program and mortgage lending standards, is the most widely used method for measuring affordability—and therefore is the one used in this report.[2]

But there is nothing magical about the number, and the use of any income ratio for measuring housing affordability has its critics.

For one thing, because the 30% standard focuses on the relationship between housing costs and income, it obscures which of the two factors is the primary cause of unaffordability in a given market.

Researchers argue that this approach ignores variations in individual household budgets.[3] Many households have major, largely unavoidable expenses—such as those for child care, education, or medical and student loan debt—which may decrease the share of household income that can be dedicated to housing.

The threshold also fails to take into account a household's size or income level. A high-income household spending more than 30% on housing may well have enough income left over to cover other expenses and thus, arguably, should not be considered cost-burdened. Or a household may be able to find a comfortable home while spending far less than 30%.

And very low-income households may have difficulty finding suitable housing even when spending well above the threshold—or may still struggle to make ends meet despite staying below it. Other methods of measuring affordability, which are used less often, explore the makeup of a city's housing supply, consider transportation costs and housing quality, or analyze total household costs and household composition.

Cost burden and household income

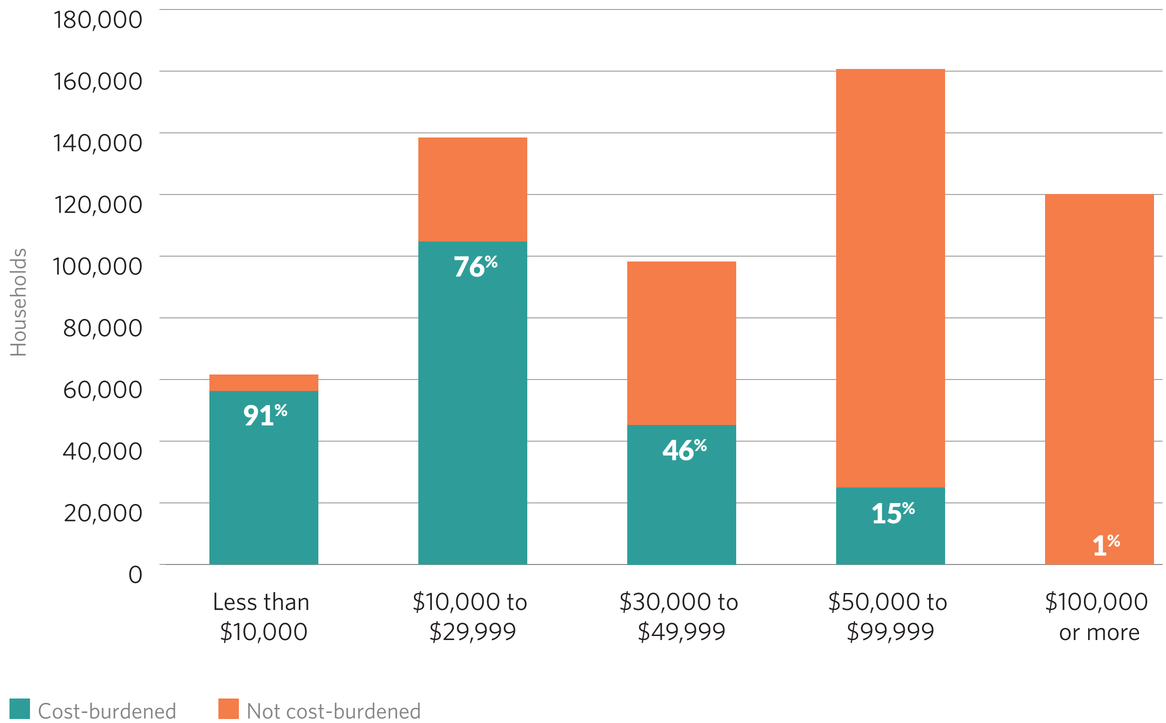
In any community, cost burden is determined by two factors: housing costs and household incomes. For that reason, cost-burdened households and low-income households are not always one and the same. If housing prices are high enough, as they are in some cities, middle-income households may also wind up being cost-burdened.

In Philadelphia, however, low incomes are the key factor. As shown in Figure 2, relatively few Philadelphia households with incomes of $50,000 or more live in an unaffordable unit.[4] But 91% of households with incomes below $10,000 are housing cost-burdened, as are 76% of those with incomes of $10,000 to $29,999.

Figure 2

Household Cost Burden by Income in Philadelphia

Rates are highest for households with incomes below $30,000



Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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Polling Results

In a 2019 Pew survey, 40% of Philadelphians said they sometimes had trouble making their mortgage or rent payments. Thirty-four percent said they had a problem a few months out of the year, while 6% said they have difficulties in many months.

The percentages were higher for lower-income residents. Among households with incomes below $30,000, 55% reported trouble making payments, including 10% experiencing difficulties in many months. There were similar findings for those with incomes of $30,000 to $49,999.

At the same time, 78% of respondents described themselves as "very" or "somewhat" satisfied with how much they pay for housing, while only 21% said they were "not very" or "not at all" satisfied.

Not surprisingly, residents with higher incomes reported greater levels of satisfaction with their housing costs. Among households with incomes of $100,000 or more, 92% described themselves as satisfied, while 73% of those with incomes of less than $30,000 did so.

Another way of examining the relationship between cost burden and household income is to look at it across a range of cities. In this regard, Philadelphia looks different than many of the nation's nine other most populous cities.

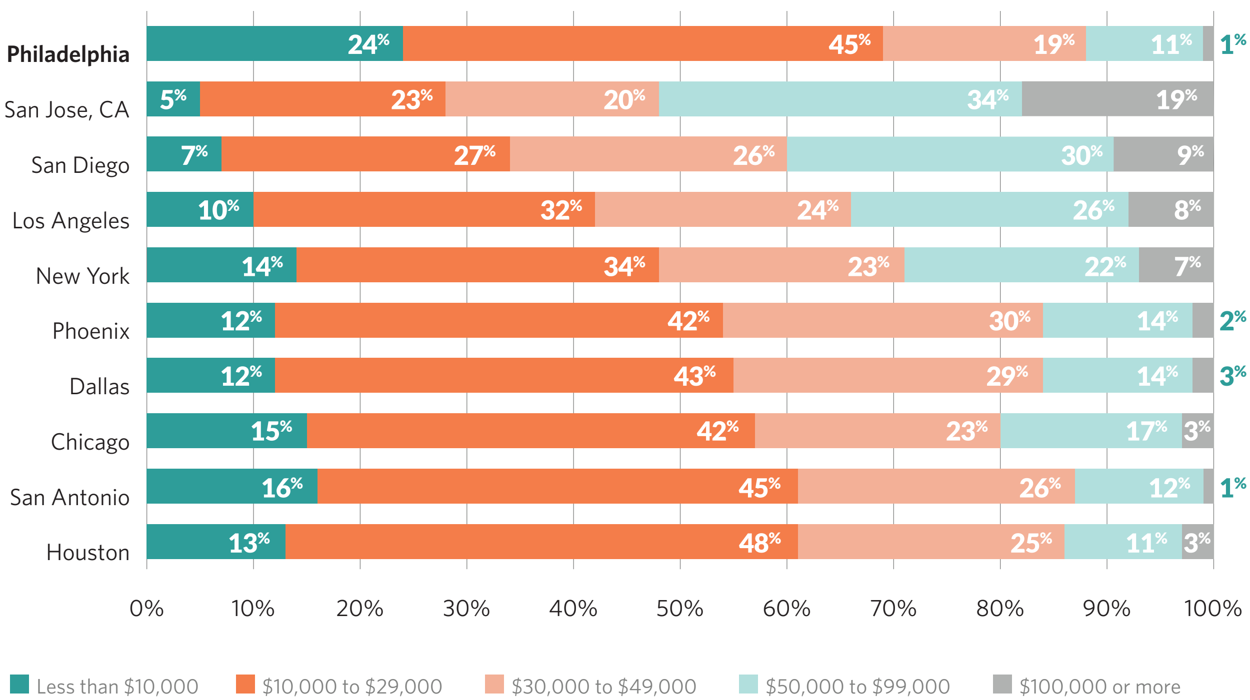
Figure 3 looks at the share of cost-burdened households that fall into various income ranges in each of the 10 cities. In Philadelphia, 69% of cost-burdened households have annual incomes below $30,000—24% with incomes under $10,000 and 45% with incomes of $10,000 to $29,999. Among these cities, 69% is the highest such percentage by a substantial margin.

On the other hand, households with incomes of $50,000 or more represent only 12% of cost-burdened households in Philadelphia, a much smaller percentage than in some of the other cities. The figure is 29% in New York, 34% in Los Angeles, and 53% in San Jose, California. In these cities, relative to Philadelphia, affordability challenges are driven more by high housing costs than by low incomes.

Figure 3

Income Distribution of Cost-Burdened Households in the Nation's 10 Most Populous Cities

Cities ranked by percentage of such households with incomes below $30,000



Note: Income-category figures for some cities do not add up to 100% due to rounding.

Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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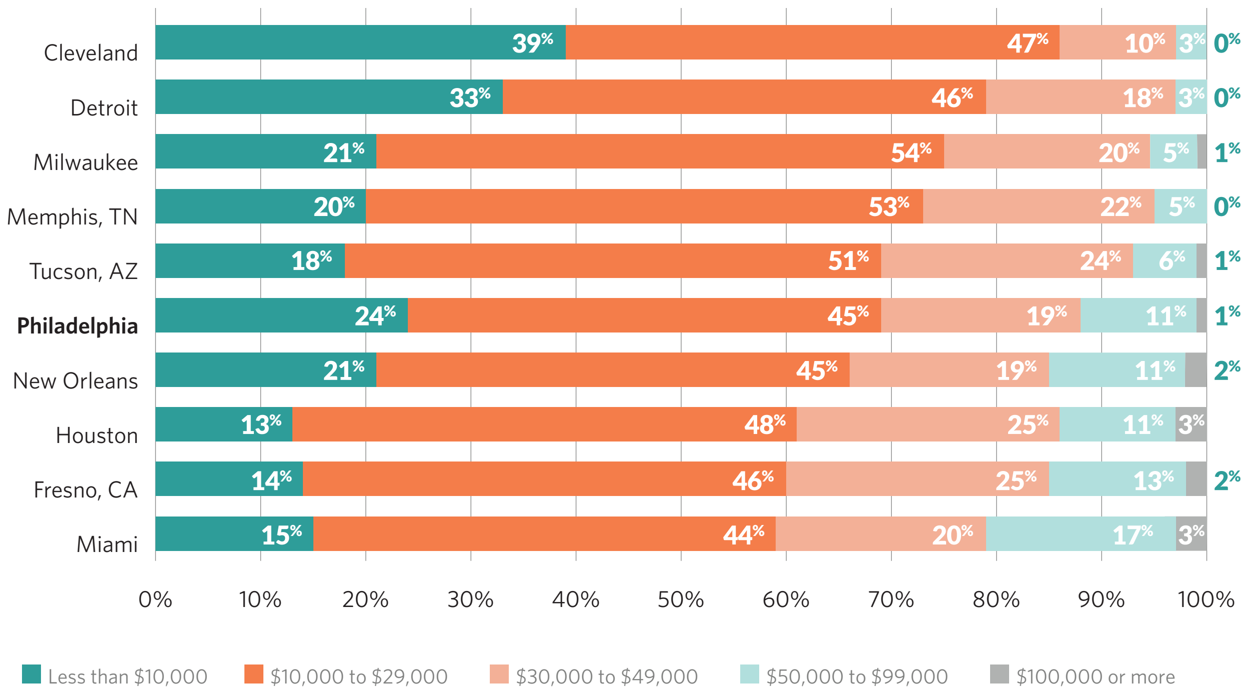
Although the income composition of Philadelphia's cost-burdened households stands out among the largest cities, it is not atypical among large high-poverty cities, as shown in Figure 4.

Figure 4

Income Distribution of Cost-Burdened Households in the Nation's 10 Largest High-Poverty Cities

Cities ranked by percentage of such households with incomes below $30,000



Note: Income-category figures for some cities do not add up to 100% due to rounding.

Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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Cost burden and housing tenure

Affordability challenges in Philadelphia are much greater for renters than for homeowners. Citywide, 54% of renters are cost-burdened. For homeowners, the figure is 28%—32% for those with mortgages and 22% for households that own their homes free and clear.

In all, about 142,000 city renters are cost-burdened, an increase of about 10% over the past decade.[5] Interestingly, the number of cost-burdened renters with household incomes of $50,000 to $99,999 more than doubled—from 5,000 to 13,000—over the same period.

Even so, the affordability problem in the rental market exists primarily at the low end of the income scale. Some 92% of renters with incomes under $10,000 are cost-burdened. (See Figure 5.) The percentage is 86% for those with incomes of $10,000 to $29,999, or 88% for the two groups combined.

Figure 5

Household Cost Burden by Income for Renters in Philadelphia

Rates are highest for households with incomes below $30,000

Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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Severe cost burden is also more prevalent among those with low incomes. Sixty-eight percent of the city's renters making less than $30,000 per year spend at least half of their incomes on housing costs. Only 15% of those with incomes of $30,000 to $49,999 are severely cost-burdened, along with less than 1% of those with incomes above that level. The citywide figure is 34%.

Among homeowners, severe cost burden is much less common, affecting 13% of all households, including 46% of homeowners with incomes below $30,000 and only 2% of owners with higher incomes.

Philadelphia is not unique in having higher cost burdens for renters than for homeowners. In some ways, the homebuying process, in Philadelphia and elsewhere, is designed to prevent households from getting themselves into unaffordable situations; lenders generally will not issue a mortgage that consumes more than 28% of a borrower's income.[6] And for a typical homeowner with a fixed-rate mortgage, the monthly payment does not change for up to 30 years. So a homeowning household is unlikely to become cost-burdened during the life of the mortgage, barring significant decreases in household income or increases in property tax payments.

Affordability standards within the rental housing market are less stringent. While many landlords require that tenants earn at least three times the monthly rent, others do not. And rents, unlike fixed-rate mortgage payments, rise on a regular basis, without regard to tenant income.

According to the latest census numbers, 53% of Philadelphia households own their homes. This homeownership rate, which is higher than in most large cities in the Northeast and Midwest, has helped to keep Philadelphia relatively affordable, even as its overall housing prices rise. And homeownership rates among low-income Philadelphians are high. Thirty-eight percent of them live in owner-occupied homes, one of the highest rates among the nation's largest and poorest cities.

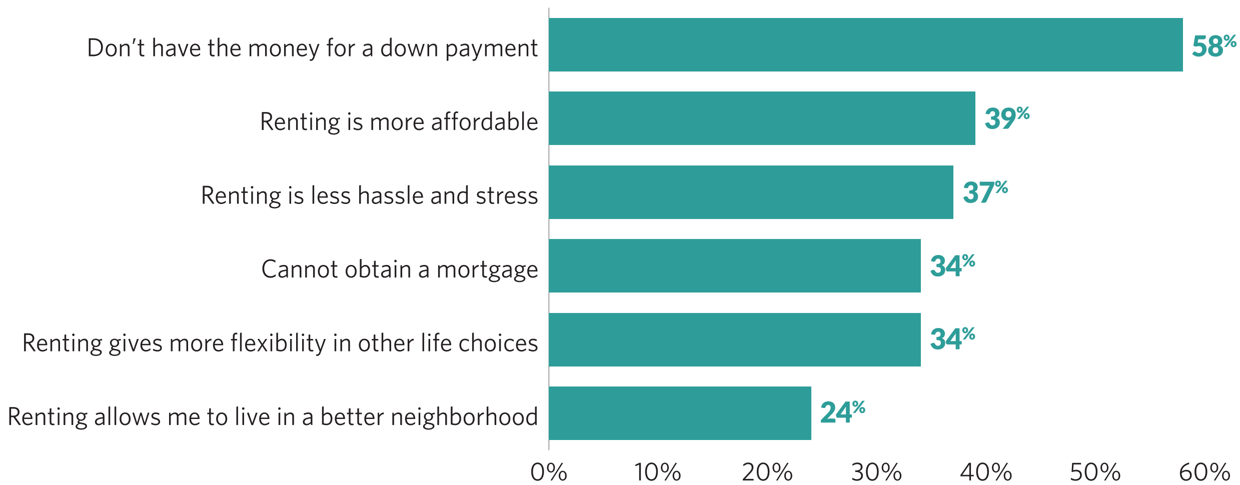
In recent years, however, the overall proportion of homeowners in the city has been shrinking, and the share of renters—a group with high rates of cost burden—has been rising. In 2018, the city had roughly 37,900 more units of occupied housing than in 2009, and rentals accounted for three-fourths of the increase.

Why do households rent rather than own? In Pew's 2019 poll, 58% of Philadelphia renters said that not having enough money for a down payment was a major reason why they continue to rent rather than own, and 34% cited the inability to obtain a mortgage.[7] (See Figure 6.) Others saw advantages to renting, including less stress, more flexibility, and the ability to live in a better neighborhood.

Figure 6

Reasons Tenants Rent Instead of Own

Renters identify down payment as leading barrier to ownership



Sources: The Pew Charitable Trusts, Philadelphia Residents Survey (2019)

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Over the past decade, there was a 12% decline in the number of owner-occupied households in Philadelphia considered to be cost-burdened. Why this happened is not altogether clear, although the finding is consistent with national trends.[8]

Possible explanations include cost-burdened owners selling or losing their homes due to foreclosure and some owners seeing their costs decrease as banks modified loans in the aftermath of the foreclosure crisis or as the city implemented property tax relief programs for some households.[9] In addition, over the past decade, the city has had a 13% increase in the number of high-income homeowners, who generally are not cost-burdened.

Whatever the reasons, the decrease in the number of cost-burdened homeowners was a key factor in the overall decrease in cost-burdened households in Philadelphia.

Cost burden by race and ethnicity

The percentage of Philadelphia households that are cost-burdened varies by race and ethnicity.

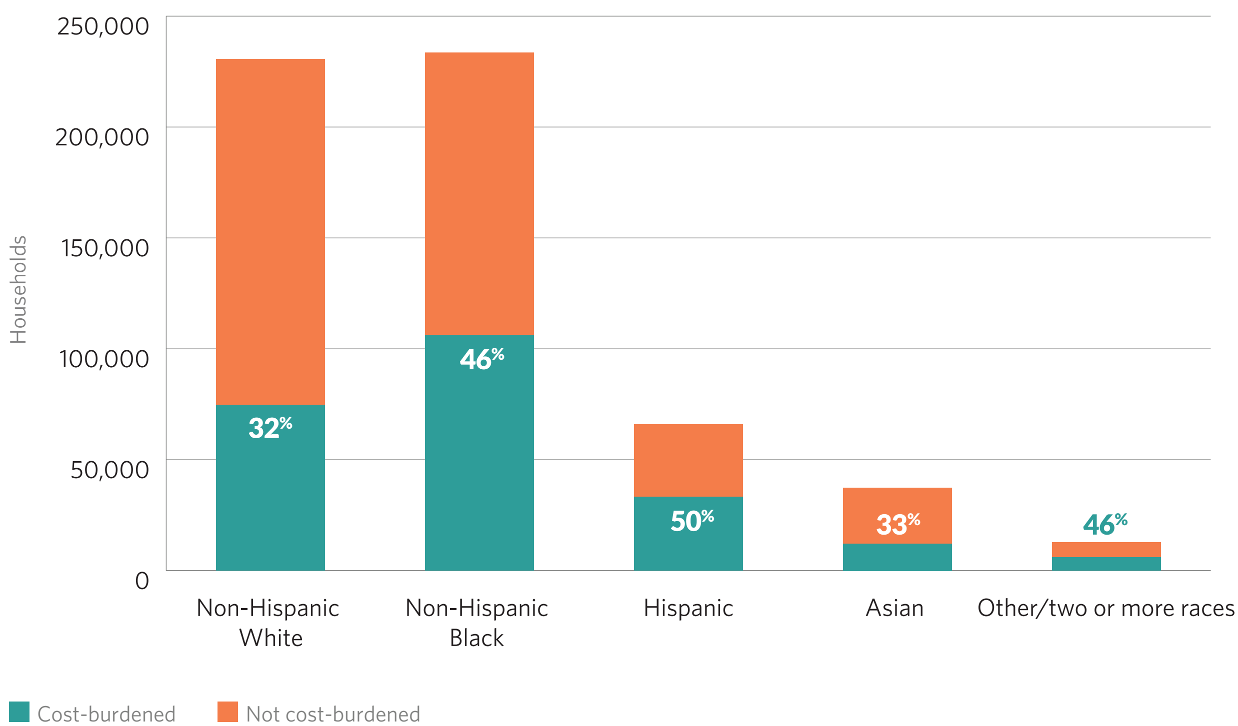
Fifty percent of households headed by Hispanics are spending at least 30% of their incomes on housing costs, the highest rate among the major ethnic and racial groups in the city. In 2018, Hispanics also had the highest poverty rate among those groups.[10]

The cost burden rate for non-Hispanic Black households, 46%, is also well above the citywide average of 40%, while the rates for non-Hispanic White and Asian households are lower. (See Figure 7.)

Figure 7

Cost Burden by Race and Ethnicity in Philadelphia

Rates are higher for Black and Hispanic households



Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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Cost burden and geography

In terms of geography, housing cost burden is well above the citywide average of 40% in much of North, West, and Southwest Philadelphia.[11] (See Figure 8.) These sections of the city are also home to a large share of the city's lower-income, Black, and Hispanic populations, all of which have high rates of cost burden.[12] Center City, Northwest Philadelphia, and South Philadelphia are the least cost-burdened; these areas have both housing costs and household incomes that are higher than citywide averages. The burden rates decreased in these parts of the city over the past decade because household incomes rose more than housing costs did.

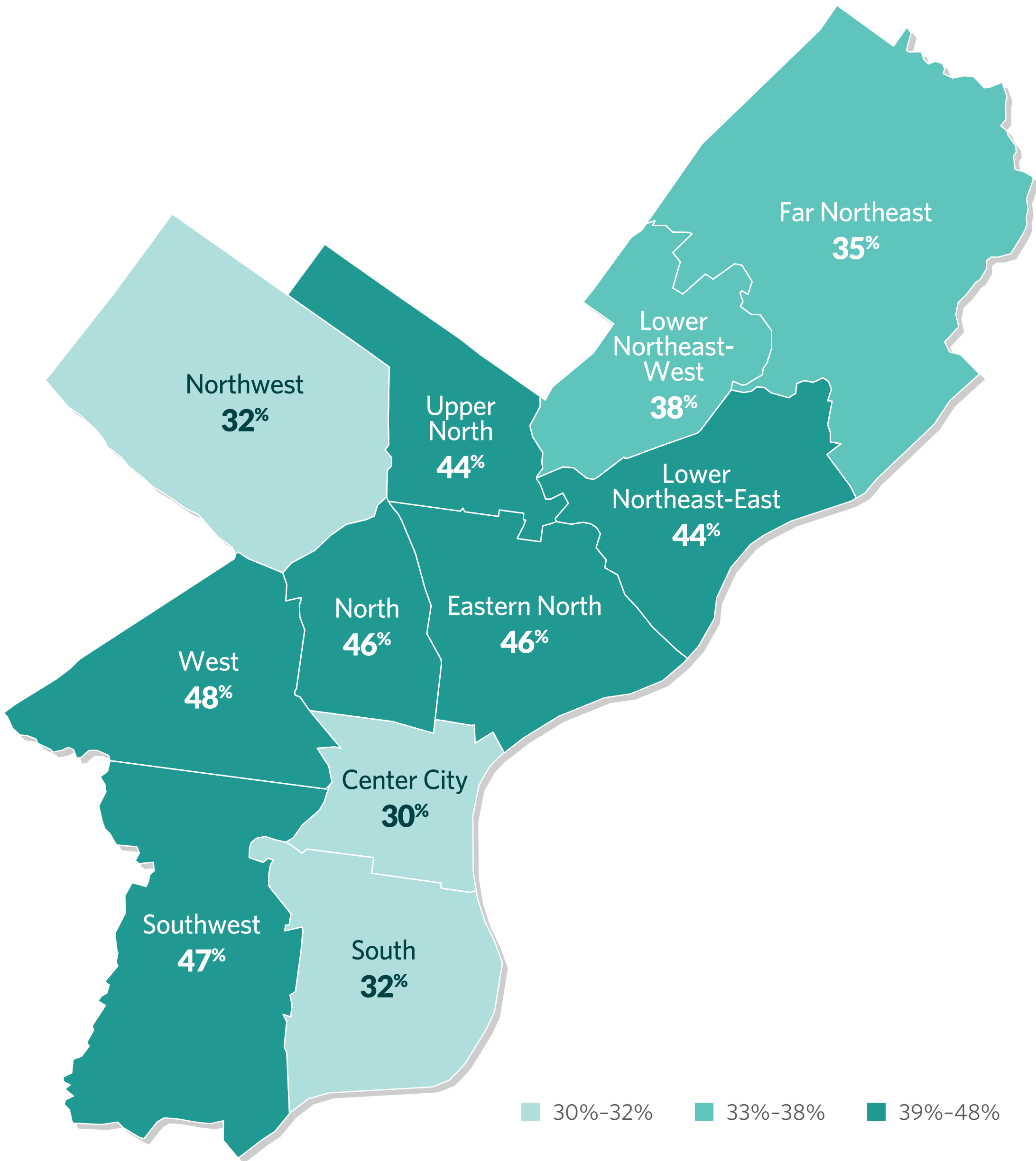
North Philadelphia experienced a 4 percentage point increase in cost burden over the past decade, meaning that it became less affordable. This was caused by a slight decline in median household income there, combined with a substantial increase in housing costs. According to David Waxman, a Philadelphia housing developer, some parts of North Philadelphia, including Brewerytown and Francisville, have seen an increase in development activity during the past decade, which has intensified in the past five years, driving up rents and home sale prices.[13]

The areas of the city where the percentage of cost-burdened households declined the most in the decade were Lower Northeast-West, down about 9%, and Eastern North, down about 7%.

Figure 8

Cost Burden in Philadelphia's Census Public Use Microdata Areas, 2018

Levels are highest in North, West, and Southwest Philadelphia



Source: U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics (2018 one-year estimates)

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Owner costs

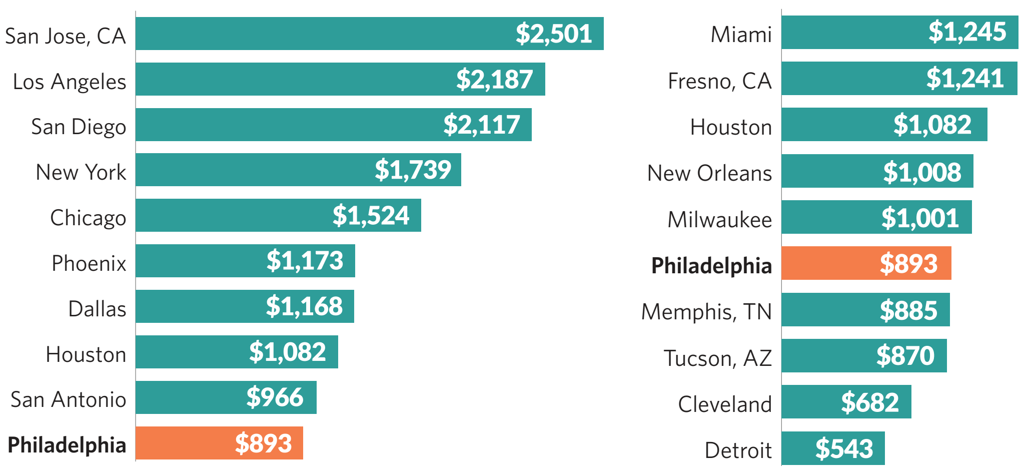
With a median cost of $893 per month, Philadelphia's owner-occupied housing is the least expensive among the nation's most populous cities. Median costs for homeowners in San Jose, California, are nearly three times higher, and those in Los Angeles and San Diego are more than twice as high.

Compared with the nation's poorest large cities, owner costs in Philadelphia are lower than average, far below those in Miami and Fresno, California, and well above those in Detroit and Cleveland. (See Figure 9.)

Figure 9

Median Ownership Costs in Philadelphia and Other Large Cities

Most populous vs. highest-poverty big cities



Sources: U.S. Census Bureau, American Community Survey, Table B25088-Median Selected Monthly Owner Costs by Mortgage Status (2018 one-year estimates)

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And in Philadelphia, homeowner costs are 13% lower than renter costs, which is not the norm in the cities studied. Only in three of these other cities—Cleveland, Detroit, and San Antonio—is owning less expensive than renting.

One driver of the low homeowner costs in Philadelphia is the fact that 40% of owners in the city—130,000 in all—own their properties outright. The median monthly housing expense for units with this ownership status is $448, with the largest share spending $250 to $499. (See Figure 10.)

Figure 10

Monthly Costs of Housing Units in Philadelphia

By tenure

Sources: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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For the 60% of Philadelphia homeowners who do have mortgages, housing costs tend to be higher than those of renters. But at $1,243 per month, the median cost of mortgaged properties in Philadelphia is the lowest among the nation's most populous cities and below average for the large high-poverty cities.

Census calculations of monthly housing costs do not account for home maintenance and repair expenses.[14] But these costs are an important consideration for existing and potential owners of Philadelphia's housing stock—more than half of which was built before 1949.[15] In Pew's 2019 poll, 56% of homeowners reported that they had made significant improvements to their homes, such as roof or heating system upgrades or repairs, in the previous two years. This finding was consistent across income groups.

According to the poll, lower-income households reported forgoing repairs, abandoning projects in progress, or having to make sacrifices in other areas to cover the cost of home maintenance. Those with higher incomes paid for home repairs with money from their savings accounts; few reported deferring or abandoning necessary home repairs.

Affordability and Mortgage-Free Properties

Seventy-two percent of housing units in Philadelphia with costs below $500 are owner-occupied homes for which the mortgages have been paid off, meaning the monthly expense consists primarily of property taxes and utilities. For many households, this arrangement makes housing affordable.

Roughly 48,000 households with incomes below $30,000 occupy homes with no mortgage obligations—accounting for 38% of free and clear owners in Philadelphia. Well over half of these households are headed by individuals over age 64.

In many of the city's low-income neighborhoods, free and clear homes are the primary mode of homeownership. In North Philadelphia, for example, where overall homeownership is low, mortgage-free homes represent 52% of all owner-occupied properties, a higher share than in any other part of the city. (See Figure 11.) And 1 in 4 of the city's free and clear homes are estimated by their owners to have market values of $70,000 or less.

While mortgage-free homes play an important role in Philadelphia's overall affordability, their presence is of little value to households looking for places to live, unless households acquire a home through inheritance, can purchase it without taking out a loan, or are able to obtain mortgages that do not make them cost-burdened. Some of these homes are passed down informally, without recorded deed transfers, a practice that creates problems of its own. Such structures are ineligible for many publicly funded home maintenance programs and home repair loans, making them vulnerable to loss through deferred maintenance. And they can be extremely difficult to sell.

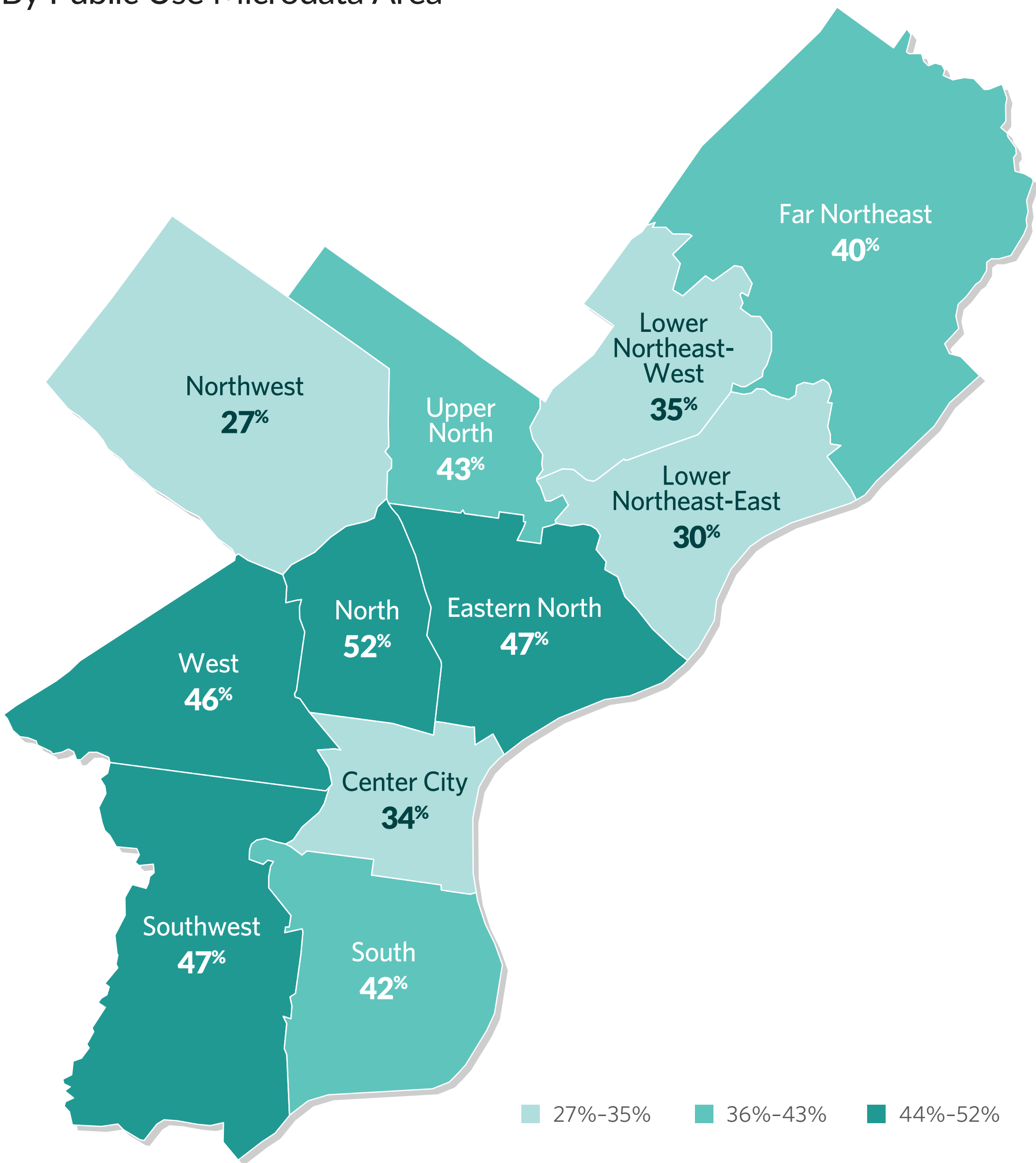
In addition, it can be challenging to get a mortgage to purchase a low-cost home, particularly if the purchase price is below $70,000. Lenders are reluctant to issue low-dollar mortgages; the fixed costs for originating and servicing a mortgage of any size make these loans less profitable.[16] And this makes it hard for low-income households to become first-time homeowners.

In the past decade, mortgage-free ownership has risen slightly, fueled by higher-income homeowners, while the number of low- and moderate-income homeowners without mortgages has gone down.

Figure 11

Percentage of Owner-Occupied Units in Philadelphia That Are Owned Free and Clear

By Public Use Microdata Area



Source: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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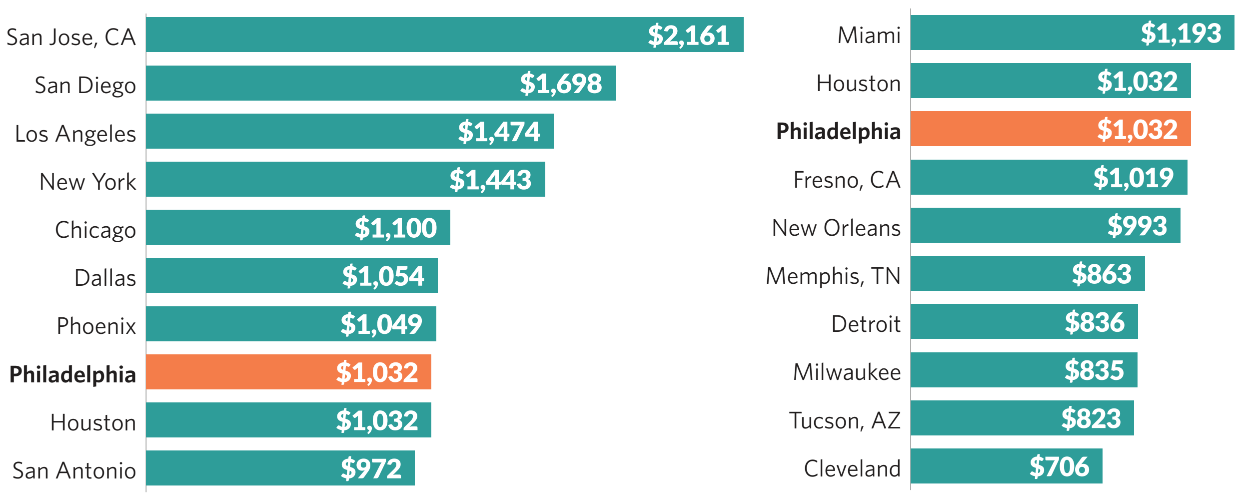
Renter costs

The median monthly cost for rental properties in Philadelphia is $1,032 per month. Among the nation's most populous cities, this number is low; only San Antonio has lower rents than Philadelphia. Among the largest high-poverty cities, the number is high, with only Miami having higher rents. Median rents in Houston, the only city besides Philadelphia that is on both lists, are the same as in Philadelphia. (See Figure 12.)

Figure 12

Median Rental Costs in Philadelphia and Other Large Cities

Most populous vs. highest-poverty big cities



Sources: U.S. Census Bureau, American Community Survey, Table B25064-Median Gross Rent (2018 one-year estimates)

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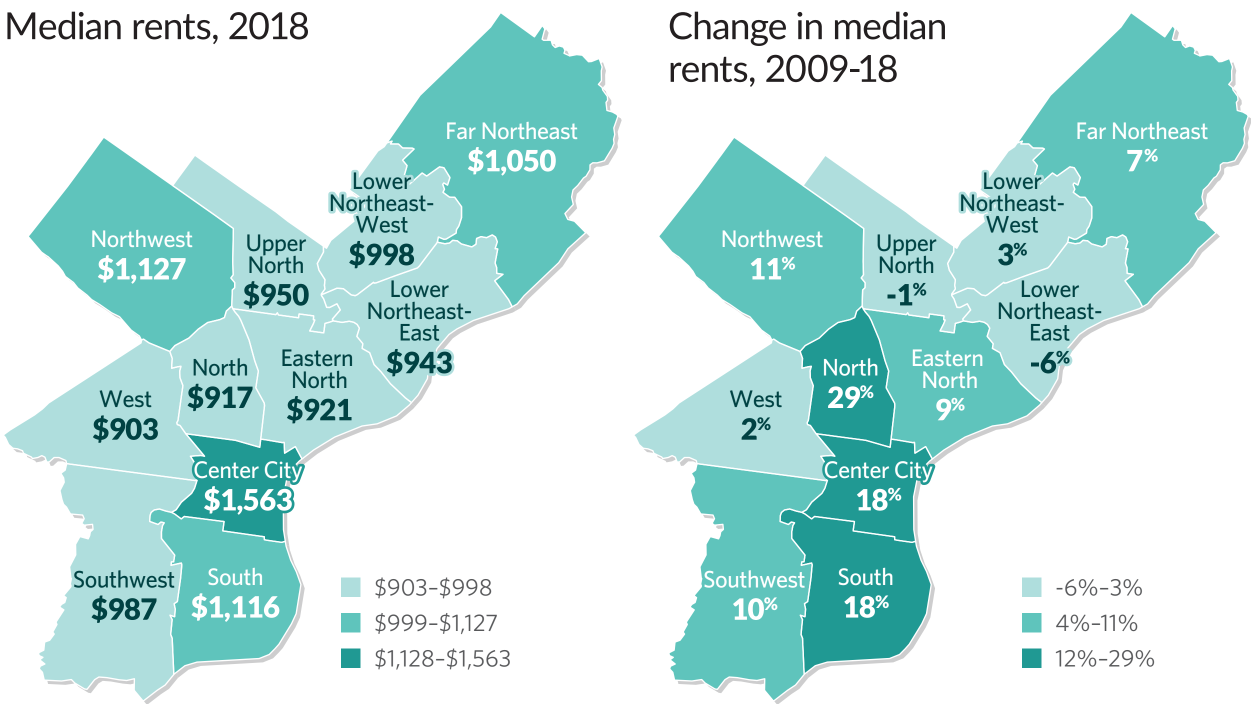
The median monthly rent in Center City—$1,563—is significantly higher than in any other part of Philadelphia. (See Figure 13.) This section of the city, where incomes are high, also has the lowest level of housing cost burden.

In most other parts of the city, median rents range from $903 to $1,127 per month—a price point that is unaffordable to many of the city's lowest-income residents. Units with rents priced below $750 per month—and therefore affordable to many low- and moderate-income renters—are most numerous in North and West Philadelphia, where they account for 39% and 35% of all rental units, respectively.

Citywide, rents increased 7% in the past decade, controlled for inflation. Nearly every part of the city was affected. Rents rose the most in Center City, roughly $240 from 2009. But the increase was steepest in percentage terms, 29%, in North Philadelphia, where the median rent increased from $713 per month in 2009 to $917 in 2018. The Federal Reserve Bank of Philadelphia found that from 2000 to 2014, several census tracts within that area experienced significant losses of rental units priced below $750 per month.[17] And the median household income in this area, $28,500, remains lower than in any other part of the city and has gone down in the past decade.[18]

Figure 13

Median Rents in Philadelphia Public Use Microdata Areas



Sources: U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics (2009 and 2018 one-year estimates)

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Undersupply of affordable units

In Philadelphia, there simply isn't enough affordable housing for the large number of residents at the low end of the income scale.

Based on the 30% affordability threshold, a household earning $10,000 annually should spend no more than $250 in monthly housing costs ($3,000 per year). Each increase of $10,000 in earnings raises the amount that can affordably be spent on monthly housing expenses by $250.

Figure 14 depicts the cost distribution of the city's rental units. It shows, for instance, that there are roughly 24,000 units with monthly costs below $250 per month—a price range that is affordable to those with annual incomes of less than $10,000. As shown in Figure 15, there are 2.5 times as many renting households in the city, 60,000, with incomes this low. At incomes under $30,000, there are nearly twice as many households as affordable rental units.

Figure 14
Monthly Cost Distribution of Philadelphia Rental Units

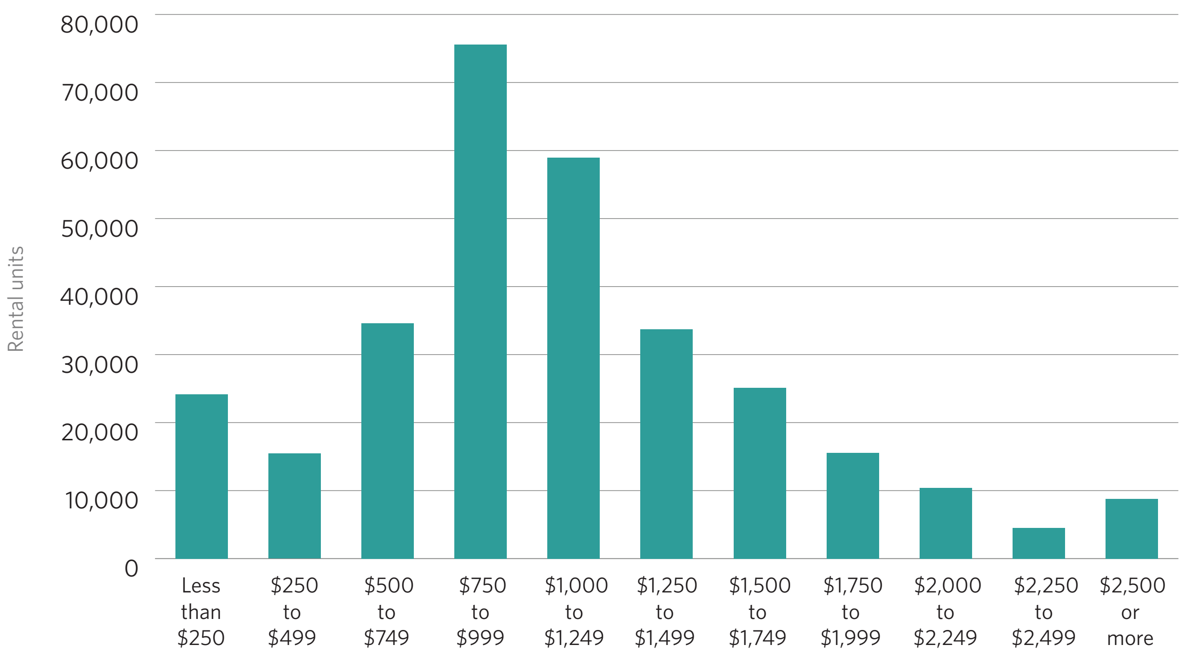
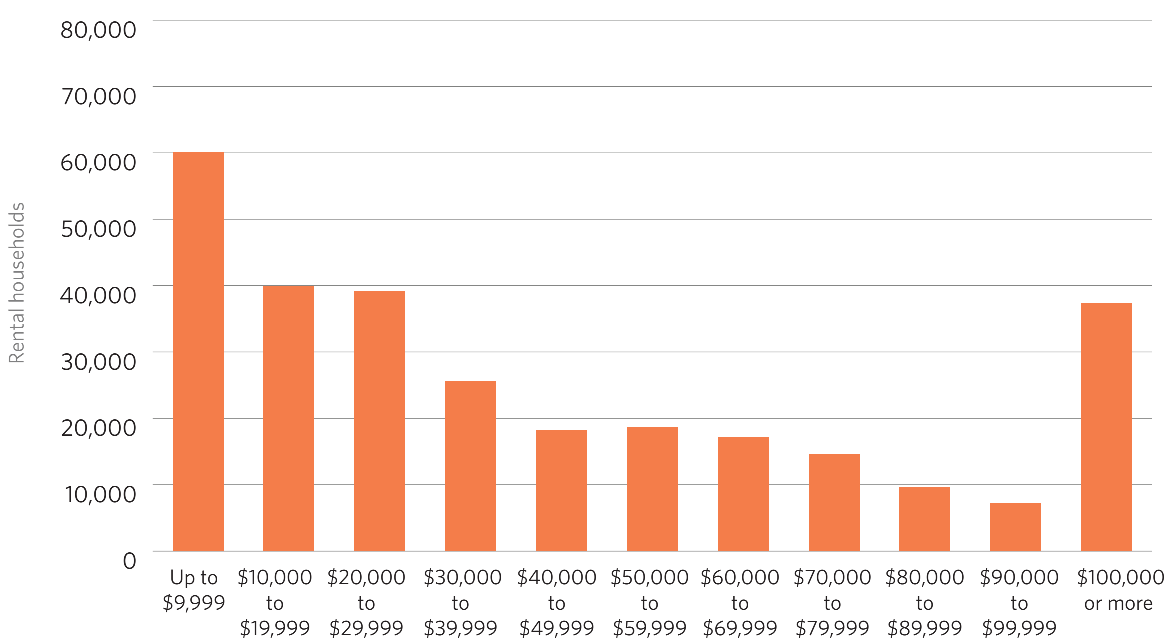


Figure 15
Income Distribution of Philadelphia Rental Households



Source: Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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The demand for low-cost rentals is reflected in the city's vacancy rates. Vacancy rates are 4% for rentals priced below $750 per month, 6% for rental units priced from $750 to $1,249, and 9% for those priced at $1,250 and above.

At the other end of the income scale, as shown in Figures 14 and 15, households making $100,000 and up are hard-pressed to spend 30% of their income on housing, even if they want to; there simply isn't enough rental housing in that price range, $2,500 a month and above. And, presumably, many of them don't want to spend that amount. The choice of where to live is often a tradeoff between overall costs and location or housing amenities—and households with higher incomes have greater flexibility in making these choices.

Besides, the data suggests that as incomes rise, households spend less of their incomes on housing expenses. While most rental households earning $10,000 to $30,000 in Philadelphia are severely cost-burdened—spending a median of 59% of their income on housing—households earning $50,000 to $99,999 spend 22% and those earning $100,000 or more 14%.

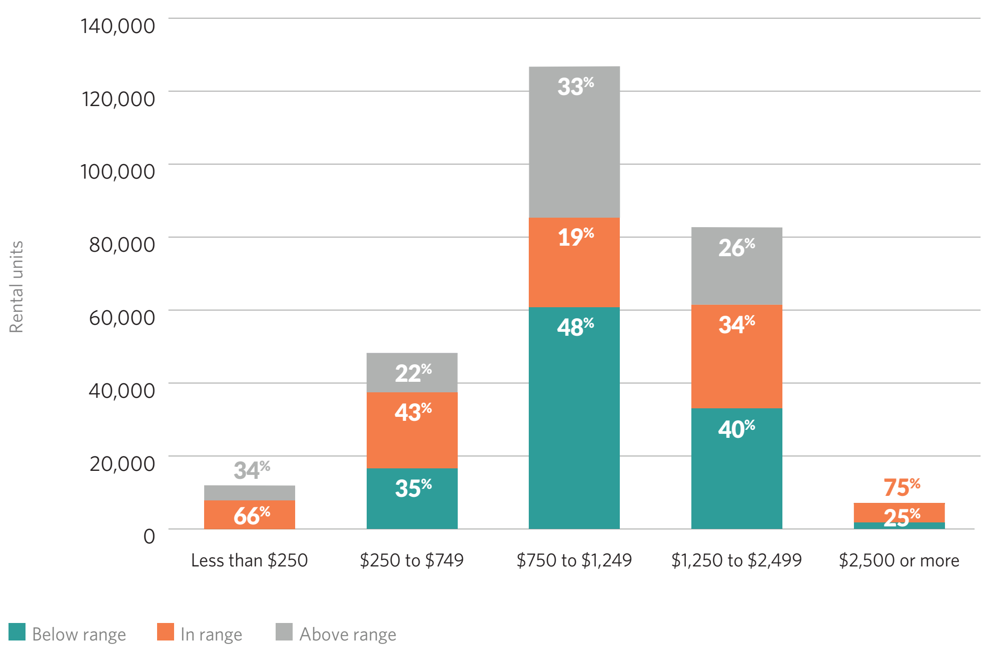
It is interesting to note that many units in the city that would be affordable to people with lower incomes are occupied by people with higher incomes.

Consider what happens to rental units priced from $750 to $1,249 per month, as shown in Figure 16. Based on the 30% cost burden threshold, these units are suitably priced for households earning $30,000 to $49,999 per year. Yet only 19% of these units are occupied by households with those incomes. Another 48% of rental units in this price range are occupied by households with lower incomes—those that are cost-burdened—while the other 33% are occupied by households with higher incomes. Similar patterns exist in other price ranges.

Figure 16

Monthly Cost Distribution of Philadelphia Rental Units

By income range of occupants



Sources: U.S. Census Bureau, American Community Survey, Public Use Microdata Sample (2018 one-year estimates)

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Conclusion

For many, the concept of affordable housing is often equated with low-cost housing, which may or may not be subsidized by government programs. But this view is incomplete. The concept of affordability involves both a household's financial means and the cost of available housing. When these two factors are not aligned for a given household, cost burden occurs.

In Philadelphia, 40% of all households are cost-burdened. That figure has decreased slightly in the past decade, although housing costs have increased, because there are more high-income households in the city than there once were. In fact, the parts of the city with the smallest share of cost-burdened residents also have the highest housing costs—because the wealthiest residents reside there. At the same time, cost burden is highest in some low-income parts of the city where housing costs, while relatively low, have been rising and incomes have been falling.

Homeownership remains a path to affordability for some, and high ownership has been a hallmark of Philadelphia's reputation for affordability. But access to homeownership for those seeking low-cost housing is more limited than it once was, as overall home prices have risen and the availability of low-dollar mortgages has declined. If Philadelphia continues to grow, it will be increasingly challenging for households to find housing sufficiently affordable to prevent them from becoming cost-burdened.

Methodology

This report relies heavily on the Census Bureau's American Community Survey one-year estimates for 2018 and 2009. In addition to the tabulations available on American Factfinder and data.census.gov, the report utilizes the Public Use Microdata Sample estimates provided by the Census Bureau.

Adjusting for inflation

In many places in this report, census estimates of dollar figures for years prior to 2018 were inflation-adjusted to 2018 dollars, the year from which the most recent census data in this report is selected. To do this, Pew used the U.S. Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers (CPI-U). The multiplier applied to the nominal dollar figures from 2009 is 1.1732.

Adjusting for changing boundaries

This report examines home price changes from 2009 through 2018 within Philadelphia's 11 Public Use Microdata Areas (PUMAs). These are Census Bureau-created areas containing at least 100,000 people. During this time frame, several PUMAs' boundaries changed. To take this into account, allocation factors were obtained from the Missouri Census Data Center's geographic correspondence engine. Using this engine, Pew generated a correspondence table identifying the degree to which old and new PUMAs overlap, and the extent to which population or housing units are affected by these overlaps. In most parts of the city, PUMA boundary changes were small, with at least a 98% overlap between the old and new PUMA. In an instance in which the 2018 PUMA covers only 98% of the populated area it had covered in 2009, its allocation factor would be .98 and all values for 2009 would be multiplied by this factor.

2009 estimate in 2009 PUMA boundary	X	allocation factor	=	2009 estimate in 2018 PUMA boundary

In an instance in which a new PUMA overlaps with more than one 2009 PUMA, values are multiplied by the allocation factor for each underlying PUMA and then added together.

PUMA naming conventions

For the purpose of this report, Pew modified the names of Philadelphia's 11 PUMA areas to better align with local naming conventions. The table below shows the correspondence between Pew's and the Census Bureau's names for these sections of the city.

U.S. Census Bureau Public Use Microdata Areas in Philadelphia (2010 Census)

Pew name	Census Bureau ID	Census Bureau name
Far Northeast	4203201	Far Northeast
Lower Northeast-West	4203202	Near Northeast-West
Lower Northeast-East	4203203	Near Northeast-East
Upper North	4203204	North
Eastern North	4203205	East
Northwest	4203206	Northwest
North	4203207	Central
West	4203208	West
Center City	4203209	Center City
Southwest	4203210	Southwest
South	4203211	Southeast

Source: https://www.census.gov/geographies/reference-maps/2010/geo/2010-pumas/pennsylvania.html

Generating microdata estimates for cities with irregular boundaries

The American Community Survey microdata is composed of a sample of anonymized individual census records that allow researchers to make custom queries while preserving individual census respondents' privacy. The geographic units of analysis for this data are PUMAs. In many cities, including Philadelphia, PUMA boundaries are contiguous with city boundaries and can be aggregated for city-level analysis. But in cities with irregular or changing boundaries, PUMA boundaries sometimes do not align with city borders. In these cities, including Los Angeles, several PUMAs include individuals living within city limits as well as those living outside the city.

To generate city-level estimates, allocation factors from the Missouri Census Data Center's geographic correspondence engine were used to determine what proportion of each PUMA was inside a given city's boundaries. Values in each PUMA were multiplied by these allocation factors before aggregation to the city level.

Identifying comparison cities

Two sets of cities were used for comparison with Philadelphia. The first set includes the 10 most populous U.S. cities, based on the 2018 American Community Survey one-year population estimates. The second includes the 10 cities with the highest poverty rates among those with populations above 350,000. Philadelphia and Houston are the only two cities on both lists. The poverty rate was determined to be an appropriate metric because its inclusion of family size is a better proxy than median income for household financial capacity.

Pew’s 2019 Philadelphia residents survey

This survey was conducted in English and Spanish in April and May of 2019. A total of 703 participants were contacted through address-based sampling, with 70% completing the survey online and 30% on paper. Statistical results are weighted to correct known demographic discrepancies. The margin of error for the complete set of weighted data is ± 4 percentage points. In some cases, due to rounding, totals do not add up to 100%. An asterisk indicates that less than 1% of those polled gave the corresponding answer.

Q. How satisfied are you with your current housing?

Very satisfied	43%
Somewhat satisfied	42%
Not very satisfied	15%
Refused/blank	*

Q. Do you own or rent your apartment or house?

Own	46%
Rent	48%
Live rent-free with parents/other	6%
Refused/blank	*

Q. How satisfied are you with how much you pay for your current housing?

Very satisfied	32%
Somewhat satisfied	46%
Not very satisfied	15%
Not at all satisfied	6%
Refused/blank	1%

Q. How difficult is it for you to make your mortgage/rent payment every month?

It is never a problem	57%
It is a problem a few months out of the year	34%
It is a problem many months out of the year	6%
Refused/blank	2%

Q. How satisfied are you with your landlord in keeping the property up and responding to any requests?

Very satisfied	43%
Somewhat satisfied	31%
Not very satisfied	15%
Not at all satisfied	10%
Refused/blank	1%

Q. Below are some reasons why people rent rather than own. For each, please indicate whether it is a major reason, a minor reason, or not a reason you rent.

	Major reason	Minor reason	Not a reason	Refused/blank
a. Renting is more affordable	39%	31%	25%	4%
b. Renting allows you to live in a better neighborhood	24%	22%	48%	6%
c. Renting is less hassle and stress	37%	35%	23%	5%
d. You cannot obtain a mortgage	34%	21%	39%	6%
e. You don't have the money for a down payment	58%	22%	15%	5%
f. Renting gives you more flexibility in other life choices	34%	32%	29%	5%

Q. Have you made any significant repairs or improvements in your home over the last two years, like the roof or the heating system?

Yes	56%
No	43%
Refused/blank	1%

Q. Why have you not made any significant repairs or improvements to your home in the last two years?

My home did not need any improvements or repairs	50%
I could not afford to make the improvements or repairs	43%
I did not have time to complete any improvements or repairs	3%
Another reason	3%
Refused/blank	-

Q. You indicated that you made significant repairs or improvements to your home over the last two years. Please indicate if you did any of the following to help pay for the repairs or improvements you have done to your home over the last two years.

	Yes	No	Refused/blank
a. Take money out of savings	61%	26%	13%
b. Take out a loan or borrow money	37%	46%	17%
c. Not complete a job because you ran out of money	28%	51%	20%
d. Have to make sacrifices in other areas to pay for the home projects	52%	32%	16%

Endnotes

1 Pew analysis of U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics, 2009 and 2018 one-year estimates.

2 Z. Cai, "Analyzing Measurements of Housing Affordability" (thesis submitted in partial fulfillment of requirements for the degree of Master of Urban Planning, University of Washington, 2017), http://hdl.handle.net/1773/40314.

3 N.K. Kutty, "A New Measure of Housing Affordability: Estimates and Analytical Results," *Housing Policy Debate* 16, no. 1 (2005): 113-42, http://dx.doi.org/10.1080/10511482.2005.9521536.

4 Housing assistance programs often use Area Median Income (AMI) measures generated by the U.S. Department of Housing and Urban Development to determine program eligibility. HUD estimates that the 2019 median family income in the Philadelphia metropolitan statistical area was $90,100 for a family of four. Housing subsidies are often targeted at households with incomes at 30%, 50%, or 80% of the area median income, which correspond to an annual income of $27,050, $45,050, and $72,100, respectively, for a family of four. These values can be found at HUD User, "FY 2019 Income Limits Summary," accessed April 22, 2020, https://www.huduser.gov/portal/datasets/il/il2019/2019summary.odn?states=%24states%24&data=2019&inputname=METRO37980M37980*Philadelphia-Camden-Wilmington%2C+PA-NJ-DE-MD+MSA&stname=%24stname%24&statefp=99&year=2019&selection_type=hmfa.

5 Pew analysis of U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics, 2009 and 2018 one-year estimates.

6 M. Calabria, "Mortgage Reform under the Dodd Frank Act" (working paper, Cato Institute, Washington, 2014), https://www.cato.org/publications/working-paper/mortgage-reform-under-dodd-frank-act. For Federal Housing Administration loans, the recommended debt-to-income limit is 31%. P. daCosta, "Why Debt to Income Matters in Mortgages," Bankrate, accessed April 22, 2020, https://www.bankrate.com/finance/mortgages/why-debt-to-income-matters-in-mortgages-1.aspx.

7 The reasons high-income households choose to rent are different than the reasons given by renters overall. Households with incomes of $100,00 or more said they rent to live in nicer neighborhoods and for flexibility in other areas of their lives. Not having enough money for a down payment and mortgage issues were among the least-cited reasons tenants in this income group choose to rent.

8 Pew analysis of U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 2018 one-year estimates.

9 The Pew Charitable Trusts, "Philadelphia's Progress on Its Property Tax Overhaul: The Actual Value Initiative" (2015), https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2015/09/philadelphias-progress-on-its-property-tax-overhaul-the-actual-value-initiative; M. Schmeiser and M. Gross, "Philadelphia's Progress on Its Property Tax Overhaul: The Actual Value Initiative," *Journal of Real Estate Finance & Economics* 52, no. 1 (2016): 1-27, DOI:10.1007/s11146-015-9500-9.

10 The poverty rate for Hispanics was 37.8. For non-Hispanic White people, the rate was 14.1, and it was 27.8 for non-Hispanic Black people, according to the U.S. Census Bureau, American Community Survey, 2018 one-year estimates.

11 Based upon the Census Bureau-defined Public Use Microdata Area boundaries.

12 The Pew Charitable Trusts, "Philadelphia 2017: The State of the City" (2017), https://www.pewtrusts.org/en/research-and-analysis/reports/2017/04/philadelphia-2017.

13 D. Waxman (co-founder and managing partner, MMPartners), interview with The Pew Charitable Trusts, Feb. 17, 2020.

14 Census figures also do not account for the tax benefits of homeownership in the form of federal mortgage deductions for mortgage interest and property taxes paid each year.

15 U.S. Census Bureau, American Community Survey, Table DP04-Selected Housing Characteristics.

16 L. Goodman and B. Bai, "Why Do Lenders Deny Small-Dollar Mortgages at Higher Rates?," Urban Wire (blog), Urban Institute, July 31, 2018, https://www.urban.org/urban-wire/why-do-lenders-deny-small-dollar-mortgages-higher-rates.

17 S. Chizeck, "Gentrification and Changes in the Stock of Low-Cost Rental Housing in Philadelphia, 2000 to 2014," *Cascade Focus,* Federal Reserve Bank of Philadelphia, January 2017, https://www.philadelphiafed.org/community-development/publications/cascade-focus.

18 The citywide median income in 2018 was $46,116, according to the U.S. Census Bureau, American Community Survey, Table S1901, 2018 one-year estimates.

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