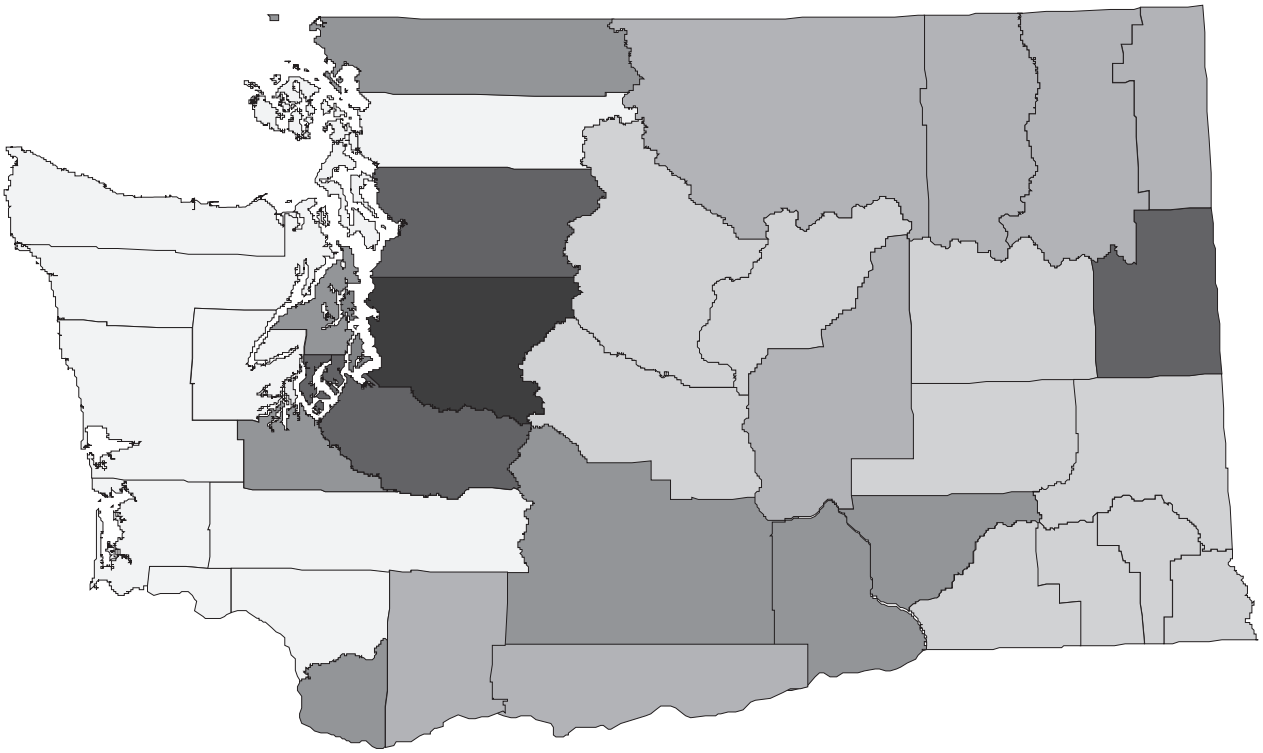
PROFILE ON RISK AND PROTECTION

FOR SUBSTANCE ABUSE PREVENTION PLANNING

IN

WASHINGTON STATE



Washington State Department of Social and Health Services

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Research and Data Analysis

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PROFILE ON RISK AND PROTECTION FOR SUBSTANCE ABUSE PREVENTION PLANNING

WASHINGTON STATE

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EXECUTIVE SUMMARY

Discussion, Analyses, and Data in this Report Focus on:

- *presenting the risk and protective factor framework for adolescent substance abuse prevention*
- *interpreting and comparing state and national trends for measures of risk factors, protective factors, and youth problem behavior related to substance abuse*
- *evaluating geographic patterns and county rankings of measures of risk factors, protective factors, and youth problem behavior related to substance use*

The Need for Substance Abuse Prevention

Recent reports at the state and national level show that substance use among children, adolescents, and young adults has been growing since the early 1990s (Gabriel et al. 1995, National Institute on Drug Abuse, 1996a, 1996b). The reason for the recent resurgence in substance use by young people is not clear. Some suggest that we have relaxed our efforts to adequately convey the negative health and social consequences of drug use to our youth. Others say that today's young people face a more complex and disconcerting social reality than their predecessors.

Whatever the cause, a preventive approach to reducing drug use makes good sense. In too many cases, much damage is already done if we wait until we see the visible signs and signals of an adolescent in trouble with drugs. Furthermore, the costs of effective prevention are likely to be far less than costs associated with either doing nothing or relying only on treatment or incarceration of chronic substance abusers.

Defining an Approach for Substance Abuse Prevention

Possible approaches and strategies for the prevention of substance abuse are numerous and diverse. What is needed is a framework that can help prevention program planners make informed decisions concerning which strategies to implement and where prevention programs are most needed.

Recent developments in prevention science have shown that there are characteristics of individuals and their familial and social environments that seem to affect the likelihood of negative outcomes such as substance abuse. Just as in research on heart disease, strokes and cancer, these characteristics are divided into "risk" and "protective" factors.

Risk factors are characteristics of people or their family, school and community environments which are empirically associated with increases in substance abuse. Other characteristics function as **protective factors**, which serve to reduce or moderate the influence of risk factors.

Professors J. David Hawkins, Richard Catalano, and their associates at the University of Washington have reviewed and synthesized more than three decades of research on risk and protective factors for adolescent substance abuse, leading to the development of a risk and protective factor-based framework for substance abuse prevention.

The application of this research-guided framework calls for interventions which are designed to reduce levels of risk and enhance levels of protection, particularly for those exposed to multiple risks for substance abuse. This framework has been adopted by the Division of Alcohol and Substance Abuse (DASA) as the foundation of its statewide prevention planning approach.

Application of State- and County-level Information to Substance Abuse Prevention Planning

In order to effectively develop, target, fund, and monitor prevention programs using the risk and protective factor approach, state and local prevention planners must be able to assess state and local levels of such factors. Of course, assessment of risk and protection requires measures of risk and protection.

This report provides measures at the county- and state-level in the form of indicators, or proxy measures. At the county-level, 56 indicators of risk factors and 10 additional indicators of youth problem behaviors were identified and collected from over thirty different existing data sources. No county-level indicators of protective factors were obtained. For four risk factors and the protective factors where county-level indicators could not be identified, regional measures from the 1995 school survey are presented. County and regional data are aggregated to provide statewide information as well.

General interpretations on risk and protective factors and of youth problem behaviors in Washington state are provided by comparing state trends to national trends and by analyzing county-level geographic patterns. Findings on the trends and patterns are summarized in three tables following the text of this overview.

More detailed data displays are provided in Chapters 4, 5, and 6 where trend graphs show changes over time in indicators of risk, protection, and youth problem behaviors. Also included are rankings of Washington's thirty-nine counties for each indicator and for each summary measure of risk. An example of such a ranking graph is on the last page of this overview.

While analyzing information in this report, it is important to keep in mind that prevention programs and interventions should be aimed at reducing risk factors or enhancing protective factors rather than reducing or enhancing particular "proxy" measures or indicators.

More detailed county-specific analyses appear in the ***County Profiles on Risk and Protection for Substance Abuse Prevention Planning*** - also produced by DASA. A separate "prevention profile" was produced for each county to assist local prevention planners in identifying which risk factors are highest in their communities. Such information aids county planners in developing and targeting appropriate prevention program strategies.

Important Questions This Report Can Answer

The following questions can be answered from data presented in this report:

- What are the levels for indicators of risk and youth problem behavior in a county, in Washington, or in the nation?
- How does a county compare with other similar counties, Washington State, or the nation as a whole on indicators of risk and problem behavior?
- Do the specific indicators for a single risk factor all follow a similar trend?
- On which risk factors is a county high or low, relative to other similar counties and to the state as a whole?

Important Questions This Report Cannot Answer

In particular, the following questions are not answered in this report:

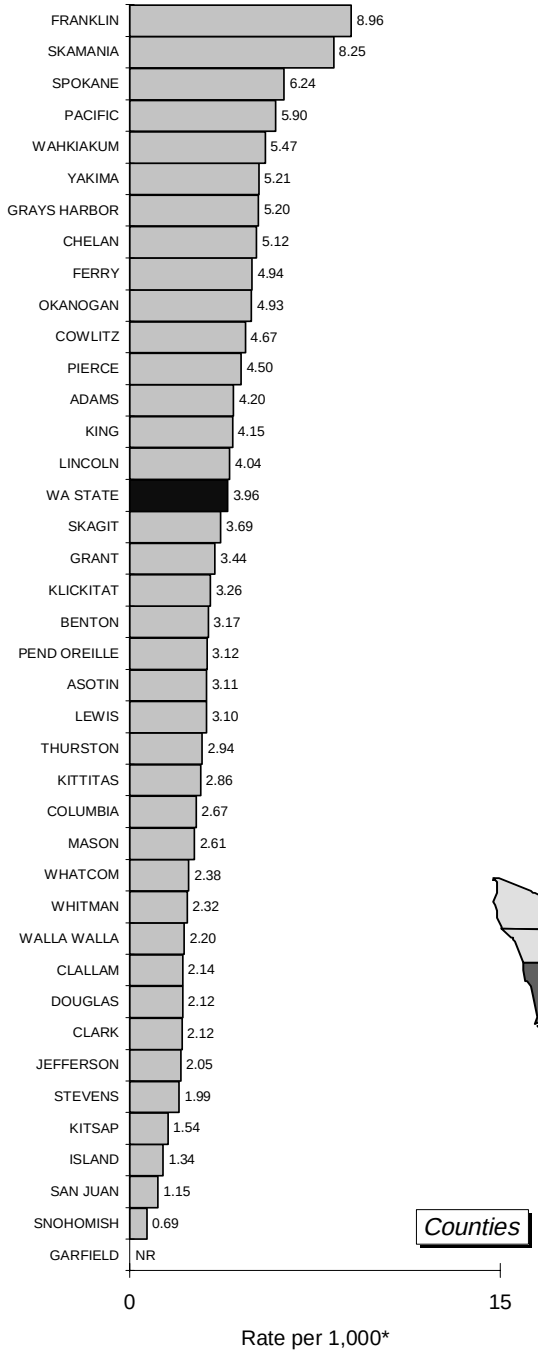
- Why does a county or the state have low levels on one indicator of a risk factor and high levels on another indicator of the same risk factor?
- How do the indicators vary across smaller areas or by demographic subgroups within a county?
- Which risk factors or indicators are most highly associated with substance abuse and thus are the most important ones to consider?
- What is the overall level of substance abuse risk and need for prevention services in one county relative to others or to the state?
- Which risk factors are easiest to modify?

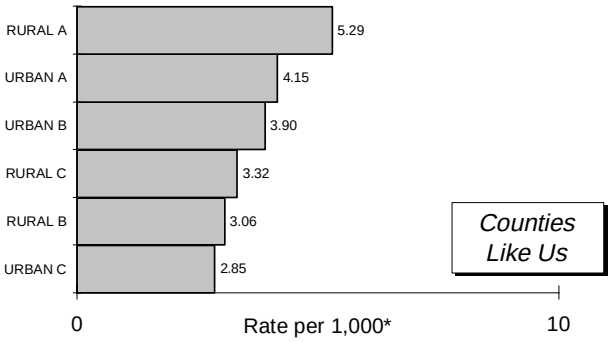
Use the Information in this Report with Care

The risk and protective factor approach does not provide a “cook book” to planning prevention interventions. This report provides some general guidelines for interpretation and use of information on risk and protection. References are provided for those interested in more information. However, understanding how to apply the information presented here within a particular county, or across counties, requires knowledge of local conditions, local risks, and local communities. It also requires knowledge of local prevention services and resources already in place, which may affect the risk levels reported here.

Family Domain

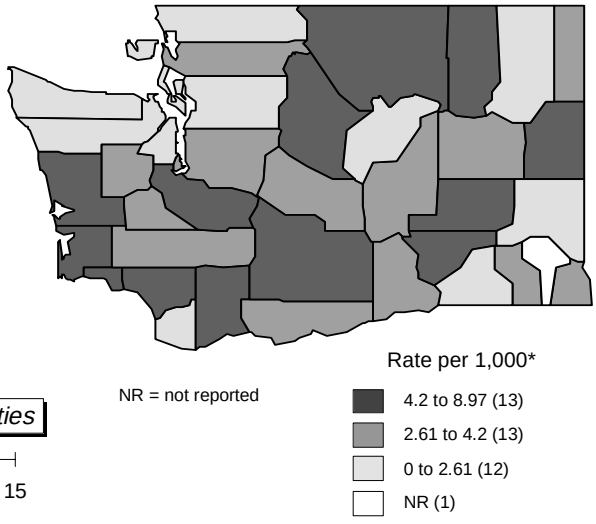
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





Indicator:

Adult (18+) Drug-related Arrests per 1,000 Adults



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

1 INTRODUCTION

Substance Abuse Costs Money, Causes Harm and Is Increasing Among Youth

The lives of many Washington State residents have been impacted by the misuse of alcohol, tobacco, or other drugs -- either their own or that of a family member, close friend, neighbor, or co-worker. Even drug use by complete strangers holds the potential for affecting our own lives, indirectly as in higher health care and insurance costs, or directly as in tragic substance use-related traffic injuries and fatalities.

Because substance abuse is either a direct or contributing factor in so many adverse social and health outcomes, it is difficult to estimate accurately the societal costs for which it is responsible. Somewhat conservative national estimates of the monetary costs of substance use include:

- $58.3 billion in illicit drug use in 1988 (Rice, Kelman, and Miller, 1991)
- $136.3 billion in alcohol use in 1990 (Harwood, 1985)
- $88 billion in cigarette use in 1995 (Harris, 1994)

The direct monetary cost of alcohol, tobacco and illicit drug use is over $1,000 for every man, woman and child in this country.

Adjusted for inflation, these figures translate to a direct monetary cost of over $1,000 attributable to the use of alcohol, tobacco, and other drugs for every man, woman, and child in the country.

At the state level, a 1993 study (Wickizer, Wagner, Atherly, and Beck) estimated that the total economic costs of drug and alcohol abuse for Washington in 1990 were $1.81 billion, with the largest losses resulting from premature death and lost productivity. The study also found that for every $1 that Washington State collects in tax revenue from alcohol sales, over $7 is spent as a result of alcohol abuse.

Added to the economic losses is the incalculable toll on the emotional and physical suffering of those whose well-being and happiness are compromised by the impact of substance abuse.

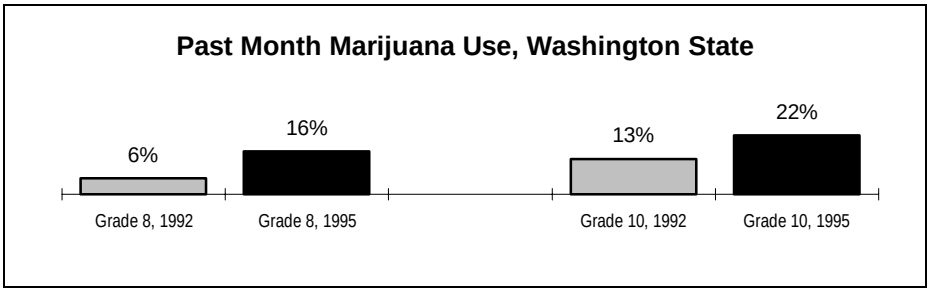
Progress in reducing the levels of substance abuse, and the harm that it causes, has been made on some fronts. Both nationally and in Washington State, alcohol-related traffic fatalities have been reduced substantially over the past two decades, and the overall prevalence of cigarette smoking continues to decline. National surveys have also indicated declining rates of illicit drug use among youth from the late 1970's through about 1990.

Between 1992 and 1995, illicit drug use during the past month more than doubled among U.S. youth aged 12-17.

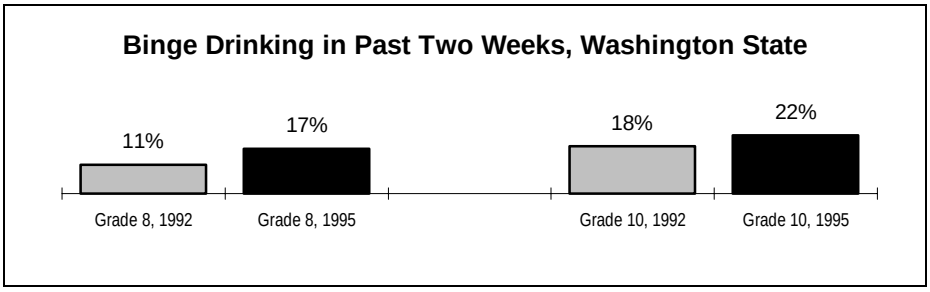
However, in recent years there has been an alarming increase in the prevalence of illicit drug use among our nation's youth. Results from the National Survey on Drug Abuse show an increase in past month use of any illicit drug among youth (ages 12-17) from 5.3% in 1992 to 10.9% in 1995 (U.S. Department of Health and Human Services, 1996). The prevalence of use for marijuana, cocaine, and hallucinogens have all increased substantially within this time span.

Between 1992 and 1995, the percent of students who had used marijuana at least once during the past month more than doubled for 8th graders and almost doubled for 12th graders.

In Washington State, results from the school-based Washington State Survey of Adolescent Behaviors showed similar trends. Between 1992 and 1995, the percent of students who had used marijuana at least once during the past month more than doubled for 8th graders and almost doubled for 12th graders (Gabriel et al. 1995).



During the same period, binge drinking rates increased among Washington students, as did experimental (lifetime) use of tobacco, marijuana, and other illicit drugs.



The Critical Role of Prevention in Reducing Substance Use

Strong measures must be taken quickly to reverse the current trend in substance use increases among youth.

The reason for the recent resurgence in substance use by adolescents is not clear. Some have speculated that we have relaxed our efforts to adequately convey the negative health and social consequences of drug use to our youth. Others have suggested that today's young people face a more complex and disconcerting social reality than their predecessors. Whatever the reasons, it is clear that strong measures must be taken quickly to reverse the current trend.

Whatever the cause, a preventive approach to reducing drug use makes good sense. In too many cases, much damage is already done if we wait until we see the visible signs and signals of an adolescent in trouble with drugs. Most research shows that substance abuse begins in adolescence, and if the use of substances at these ages can be prevented or minimized, then later more serious use and the problems associated with that use may be averted (Kandel, Yamaguchi, and Chen, 1992; Kandel, Single, and Kessler, 1976).

The costs of prevention are likely to be far less than the costs of either doing nothing or relying only on treatment or incarceration.

From a societal perspective, the costs of effective prevention are likely to be far less than costs associated with either doing nothing or relying only on treatment or incarceration of chronic substance abusers.

Choices for prevention approaches and specific strategies are numerous and diverse. What is needed is a framework that can help prevention program planners make informed decisions concerning which strategies to implement and where prevention programs are most needed. Recent developments in prevention science have shown that there are characteristics of individuals and their familial and social environments that seem to affect the likelihood of negative outcomes such as substance abuse. Just as in research on heart attacks, stroke and cancer, these characteristics are divided into "risk" and "protective" factors.

"Risk factors" are characteristics which are associated with increases in substance abuse.

Risk factors are characteristics of people or their family, school and community environments which are empirically associated with increases in substance abuse. Other characteristics function as **protective factors**, which serve to reduce or moderate the influence of risk factors.

"Protective factors" are characteristics which reduce or moderate the influence of risk factors.

In the late 1980's, Professors J. David Hawkins, Richard Catalano and their associates at the University of Washington reviewed and synthesized three decades of research on risk and protective factors for adolescent substance abuse. The application of this research-guided framework to substance abuse prevention calls for interventions which are designed to reduce levels of risk and enhance levels of protection, particularly for those exposed to multiple risks. This framework has been adopted by the Division of Alcohol and Substance Abuse (DASA) as the foundation of its statewide prevention planning approach.

DASA has adopted a risk and protective factor-based framework as the foundation of its statewide prevention planning.

Implementing a Data-Driven Approach to Prevention Planning

To implement the framework at the county level, the levels of specific risk and protective factors in each county need to be assessed.

In 1993, DASA changed its contracting practices with counties and direct service providers (for a brief history of DASA and prevention planning in Washington State, see Appendix F). The change moved contractors to prioritizing risk factors associated with adolescent substance abuse. Once the risk factors were prioritized, the proposed prevention strategies were required to address high-priority risk factors and also to include the enhancement of protective factors.

Research suggests that the pattern of risk and protection varies from county to county (Kabel, Howards, Kohlenberg, *et. al.*, 1996). Therefore, to implement the risk and protective factor framework in prevention planning at the county level, the levels of specific risk and protective factors in each county need to be assessed. This information then can be integrated into the planning process along with the other considerations and sources of information that drive program planning activities. This approach will help to insure that prevention planning will proceed in a rational and effective manner, leading to planning decisions that are empirically justifiable and guided by the findings of scientific research.

During the past three years, Washington State has been involved in a federally funded research project to develop county-level measures of risk and protective factors.

Beginning in 1993, DASA and DSHS's Research and Data Analysis (RDA) section have been involved in a project funded by the federal Center for Substance Abuse Prevention (CSAP) to facilitate this process. In collaboration with five other states plus Professors Hawkins and Catalano and their colleagues at the University of Washington, a set of 17 risk factor constructs and 7 protective factor constructs that have been shown in the research literature to be predictive of substance abuse were identified (Hawkins, Catalano, & Miller, 1992). For each risk and protective factor, two sorts of measurements were defined: (1) indicators to be collected from existing databases at a county level were proposed, and (2) questions to be added to existing school surveys in all six states.

The six states were responsible for implementing the school surveys and collecting the indicator data. The university researchers have carried out preliminary analyses connecting the information on the school surveys with the indicators, thus "validating" the indicators. As a result of these preliminary investigations, some indicators were collected but are not reported here. Although the validation work continues, the indicators presented are ready to use in planning and prevention assessment.

Major Purpose and Organization of This Report

This report provides state and county data on risk and protective factors for alcohol and other drug abuse.

This report provides some general interpretations on risk and protection in Washington state by comparing state trends to national trends and by analyzing geographic patterns within the state of risk, protection, and youth problem behaviors. It also contains rankings of Washington's thirty-nine counties for most indicators of risk and problem behavior and for all risk factor summary measures - a combined measure of a risk factor using all indicators associated with the risk factor.

Chapters that follow:

- review some of the research on risk and protective factors, and connects that research to the indicators presented in this report (Chapter 2),
- explain how the data are presented, and offer some guidelines for interpretation (Chapter 3), and
- present and analyze the collected data on risk factors, protective factors and youth problem behaviors (Chap. 4).

Additional reports for each county provide more county-level detail.

More detailed county-specific analyses appear in the ***County Profiles on Risk and Protection for Substance Abuse Prevention Planning*** - also available from DASA. These "County Prevention Profiles", designed to assist local prevention planners in identifying which risk factors are highest in their communities, were produced for each county. The presentation of information in the profiles was designed to aid county planners in developing and targeting appropriate prevention program strategies.

2 RISK AND PROTECTIVE FACTORS IN THIS REPORT

Research on Risk and Protection

Research suggests that a common core of risk and protective factors underlies the interrelated adolescent problem behaviors of substance abuse, violence, delinquency, suicide, teen parentage and school failure.

The model of risk and protective factors used in this report is based on the work of J. David Hawkins, Richard Catalano and their team of researchers at the University of Washington (Hawkins, Lishner, and Catalano, 1985; Hawkins, Catalano, and Miller, 1992; Hawkins, Arthur, and Catalano, 1995). Brief summaries of the particular risk and protective factors discussed in their model, and their effects on substance abuse, are provided in Tables 1 and 2. Findings from the research studies which identified those factors are summarized in Appendix D.

Hawkins and Catalano have also reviewed risk and protective factors for delinquency (Hawkins, Lishner, Jenson, and Catalano, 1987). Other researchers, including Joy Dryfoos (1990), Robert Slavin (1989), and Richard Jessor (1986), have reviewed the literature on other problem outcomes, including behavior problems, school dropouts and teen pregnancy, and identified risk factors for these problems.

Many of these researchers noted that a teenager who is having trouble in one of these areas is also likely to be having trouble in another area (Jessor and Jessor, 1977; Jessor, 1991; Osgood, 1991). While there are some unique factors influencing each problem, there is a common core of risk and protective factors which seem to underlie the interrelated adolescent problem behaviors of substance abuse, violence, delinquency, suicide, teen parentage and school failure.

This report concentrates upon providing information on risk and protective factors which are empirically related to early initiation of substance use or to substance abuse in young people. However, because these same risk factors also influence other problem behaviors, it also includes some indicators of other problem behaviors among young people (such as early pregnancy and violence). This information may be useful in joint planning for prevention interventions which affect multiple outcomes.

Human Development Within Nested Social Environments

Substance abuse risk is a developmental outcome, influenced by events and processes which happen many years before the substance use or misuse occurs.

Two basic structuring ideas are woven through the risk and protective factor model. First is the development over time of the individual human being: from infant to toddler to school age child to adolescent to adult. Substance abuse risk is best understood as a developmental outcome, influenced by events and processes which happen many years before the substance use or misuse occurs.

There are many overlapping social environments where people are exposed to certain risks and protections. These environmental domains also help define and influence smaller domains that are nested within.

Second is the notion of nested social environments. The family, the neighborhood, the school, the church or synagogue, the peer group, the tribe, and the community are all social environments for young people. Each environmental domain exposes those within it to certain risks and protections and also helps to define and influence whatever smaller domains are nested within. Even risk and protective factors which pertain to individuals (such as poor school performance) are influenced by features of the past and present school, family and community environments in which those individuals live. Effective prevention planning must take into account risks and protections built into **all** environments in which young people participate.

Effective prevention planning must take into account risks and protections built into all environments in which young people participate.

In the past, much substance abuse prevention activity has concentrated on altering individual behavior and attitudes of young people in school settings, at the age just before substance use begins (Emshoff, 1996). This is still an important area for prevention planning, but the risk and protective factor model suggests that there are other important times and areas of intervention. Some may be addressed to earlier stages in individual development (attempting to reduce early grade school failure rates, for example). Others may be aimed directly at altering environments (decreasing substance availability, for example) rather than individuals.

It is the reality of nested environments which makes the community level so important in prevention planning. This level includes families, schools and neighborhoods, so it provides the broadest and most inclusive platform from which to mobilize prevention activities at multiple levels. Strategies targeted directly to individuals, families or schools must be cognizant of the broader community context in which they operate and the importance of addressing risk factors through multiple levels and strategies. Beginning with schools or families, it is much more difficult to move to communities.

Conceptual and Operational Risk and Protective Factors in This Report

Surveys of individuals provide the most direct measures of risk and protection.

The empirical research on risk and protective factors has stemmed from survey or longitudinal data on individuals. The best "match" between existing research and data would be to collect survey data from a representative sample of the youth and adults in each county. However, such household surveys would be quite expensive to administer and manage, especially on an ongoing basis.

School surveys offer a less expensive method of collecting individual data from adolescents than household surveys.

School surveys offer a potential and less expensive method of collecting individual data, but to offer reliable county estimates for all counties, more than half the school districts in the state would need to participate.

This report provides either direct or proxy measures for risk factor constructs which are drawn from existing state and local archival databases, collected by state agencies as part of their on-going business.

The approach taken in this report is, wherever possible, to provide either direct or proxy measures for risk factors, protective factors, and problem outcomes. Most such measures are drawn from existing state and local archival databases, collected by state agencies as part of their on-going business. These databases often directly count some event -- for example, "Number Of Children Reported As Abused Or Neglected In County X." These events can be matched with population-based data to produce a county rate – for example, "Children Reported As Abused And Neglected Per 1000 Children In County X." The underlying assumption in presenting these data is that people in different communities (counties, etc.) experience different levels of risk, and that some of this risk can be measured, albeit imperfectly, with uniform data that are already available.

No state agency collects data on protective factors, so regional school survey data were used..

If no archival data source could be identified as a reasonable proxy for a risk or protective factor, then state and regional school survey data are presented. Archival indicators were not available for any protective factors. Note that while each county within a school survey region might have quite different rates, the regional school survey measure is a weighted average of those differences.

Risk and protective factor constructs were identified based upon their empirical relationship with substance abuse or early onset of use.

Risk Factors. The conceptual and operational risk factors presented in this report are defined in Table 1. They are divided into four domains: Community, Family, School and Individual/Peer. Each risk factor presented in this table has an empirically demonstrated relationship to substance abuse or to early onset of use. Again, findings from the research studies which identified these factors are shown in Appendix D. More detailed discussion may be found in Hawkins, Lishner, and Catalano (1985), Hawkins, Catalano, and Miller (1992), a report by the Institute of Medicine edited by Mrazek and Haggerty (1994), and Hawkins, Arthur, Catalano (1995).

Table 1: Conceptual and *Operational* Measures of Risk Factors

Community Domain	
AVAILABILITY OF SUBSTANCES	
Both actual availability and perceived availability influence consumption and initiation of alcohol and other drug use.	*Alcohol Sales Licenses per 1,000 persons.* *Tobacco Sales Licenses per 1,000 persons.*
COMMUNITY LAWS AND NORMS	
Community policies and laws which affect alcohol and other drug use include tax rates, drinking ages, drug offenses and legalization.	*Average Length of Prison Sentence for Drug Offenses.*
LOW NEIGHBORHOOD ATTACHMENT & COMMUNITY DISORGANIZATION	
Higher rates of drug problems occur in areas where people have little attachment to their communities, where residents feel little motivation to improve their surroundings These conditions occur in high as well as low-income areas.	*Population Registered to Vote as a Percent of All Adults.* *Residential Vacancies as a Percent of All Housing Units.*
TRANSITIONS & MOBILITY	
Neighborhoods characterized by high rates of transition and mobility disrupt social networks and require schools to constantly deal with new students	*Existing Home Sales per 1,000 Persons.* *Residential Building Permits per 1,000 Persons.* *Rental Households as a Percent of All Households.* *Moved Within County in Last 5 Years as Percent of 1990 Persons.* *Moved from Outside County in Last 5 Years as Percent of 1990 Persons.*
EXTREME ECONOMIC & SOCIAL DEPRIVATION	
Being poor is a risk factor for substance abuse, but living in a neighborhood where many people are extremely poor and have little hope for the future is also a risk factor, even for those who are better off.	*Children in AFDC Families per 1,000 Children, Aged 0-17.* *Food Stamps Recipients per 1,000 Persons.* *Free/Reduced Lunch Students as Percent of All Students.* *Unemployed Persons as Percent of the Civilian Labor Force.* *Exhausted Unemployment Benefits as a Percent of Unemployed Persons.* *Persons Below the Poverty Level as Percent of all Persons.* *Children Below the Poverty Level as Percent of all Children.* *Families Below the Poverty Level as Percent of all Families.* *Female Headed Households as Percent of Family Households with Children.* *Per Capita Income.* *Low Birthweight Babies Born per 1,000 Live Births.*
School Domain	
LACK OF COMMITMENT TO SCHOOL	
Teenagers who are not "invested" in school, or in what completing school might mean for their future, are more likely to abuse substances.	*High School Dropouts as Percent of all Persons, Aged 16-19*
ACADEMIC FAILURE IN GRADE SCHOOL	
Children who fail in elementary school are at risk for substance abuse when they become teenagers. The persistent experience of failure in school, rather than low ability, is the major risk factor.	*GED Certificates Issued per 1,000 Persons.* *Low Grade 4 Battery Tests as a Percent of all Test-Takers.* *Low Grade 8 Battery Tests as a Percent of all Test-Takers.*
EARLY, PERSISTENT BEHAVIOR PROBLEMS	
Aggressive, hyperactive, antisocial, "difficult" children aged 5 to 10 are more likely to use and abuse substances as adolescents and adults.	*Regional School Survey Scores on Antisocial Behavior.*

Table 1 ***(continued)***

Family Domain	
FAMILY HISTORY OF SUBSTANCE ABUSE AND OTHER HIGH RISK BEHAVIORS	
Children raised in a family with a prior history of alcoholism or other chemical dependency are at greater risk for substance abuse. Genetic factors and family dynamics probably interact to explain this increase.	*Alcohol and Drug-related Deaths as a Percent of all Deaths.* *Adults in Alcohol and Other Drug Treatment Programs per 1,000 Adults.* *Less than High School Graduate as Percent of all Adults.* *High School Graduate Only as a Percent of all Adults.* *Prisoners in State Correctional System per 100,000 Persons.*
FAMILY MANAGEMENT PROBLEMS	
Family management practices which increase the risk of substance abuse include unclear behavioral expectations, failure to monitor the whereabouts and activities of children, and severe or inconsistent punishment.	*Victims in Reported Child Abuse and Neglect Referrals per 1,000 Children.* *Victims in Accepted Child Abuse and Neglect Referrals per 1,000 Children.* *Children Living Away from Parents per 1,000 Children.* *Children Living in Foster Care per 1,000 Children.*
FAMILY CONFLICT	
Persistent serious conflict between primary caregivers or caregivers and children increases the risk of substance use in the children. Conflict matters more than being a single-parent family.	*Divorce Rate - Number of Divorces per 1,000 Adults.* *Single Parent Family Households as Percent of Family Households with Children.* *Domestic Violence Arrests per 1,000 Adults.*
FAVORABLE PARENTAL ATTITUDES AND INVOLVEMENT IN CRIME AND DRUGS	
Parental attitudes and behavior towards drugs influence the attitudes and behaviors of their children. The parent's own use is important, and so is his or her attitudes towards usage in young people. Most risky is involving the child in the parent's behavior (e.g. "bring me a beer").	*Alcohol-related Traffic Fatalities as a Percent of All Traffic Fatalities.* *Adult Drunken Driving Arrests per 1,000 Adults.* *Adult Alcohol-related Arrests per 1,000 Adults.* *Adult Drug-related Arrests per 1,000 Adults.* *Adult Violent Crime Arrests per 1,000 Adults.* *Adult Property Crime Arrests per 1,000 Adults.* *Women Using AOD Treatment During Pregnancy per 1,000 Babies Born.*
Individual / Peer Domain	
ALIENATION, REBELLIOUSNESS, AND LACK OF SOCIAL BONDING	
Young people who do not feel part of society, neither bound by society's rules nor interested in its rewards, are at higher risk of substance abuse.	*Youth Suicides and Suicide Attempts per 100,000 Youth, Ages 10-17.*
EARLY INITIATION OF PROBLEM BEHAVIOR	
The younger a person is when using a substance for the first time, the more likely the occurrence of chemical dependency problems later.	*Regional School Survey Results on Personal Attitude Toward Substance Use.*
FRIENDS WHO ENGAGE IN THE PROBLEM BEHAVIOR	
Having friends who use/abuse precedes and predicts teen use and abuse.	*AOD-related Arrests per 1,000 Children, Ages 10-14.* *Violent Crime Arrests per 1,000 Children, Ages 10-14.* *Property Crime Arrests per 1,000 Children, Ages 10-14.* *Vandalism Arrests per 1,000 Children, Ages 10-14.*
ATTITUDES FAVORABLE TOWARD THE PROBLEM BEHAVIOR	
Changes in substance use patterns are almost always preceded by changes in attitudes towards substance use.	*Regional School Survey Results on Substance Use by Peers.*
CONSTITUTIONAL FACTORS	
Constitutional factors related to substance abuse include sensation-seeking, low harm-avoidance and lack of impulse control.	*Regional School Survey Results on Sensation-Seeking.*

Protective Factors. Some children seem to emerge unscathed from exposure to multiple high risks. The research of Brook and her colleagues (1990); Werner (1989), Rutter (1987), Garmezy (1985), Hansen and Graham (1991) and others identified four broad categories of protective influences including individual characteristics, family bonding, bonding to others who support non-drug use, and healthy beliefs and clear standards.

Several individual characteristics that protect against substance abuse include being female, having a resilient temperament, and being generally positive and optimistic. Having warm and supportive relationships with parents or other primary caregivers (family bonding) who expect the child to succeed in society protects against substance abuse. Bonding to teachers, other adults, and peers who both (1) reinforce the individual's competence by providing opportunities for positive involvement and (2) support not using drugs appears to lower drug use. Finally, healthy beliefs and clear standards or norms which oppose the use of illegal drugs or alcohol by teenagers have been associated with less substance use. The research supporting these conceptual levels of protection is summarized in Appendix E.

Each of the broader categories of protection contains component protective factors. Some of the protective factors are relatively resistant to change (for example, gender, temperament, etc.). Hawkins, Arthur, and Catalano, (1995) concentrated upon defining and measuring protective factors which could be modified to provide more protection to persons exposed to risk.

The component protective factors and their measures are described in Table 2.

How Can Prevention Interventions Modify Protective Factors?

Research shows that young people who are "bonded" to persons and groups who deliver clear messages and standards opposing the use of alcohol or other drugs are less likely to approve of or use alcohol or other drugs. These youth internalized and acted upon a clear moral standard.

Bonding takes place when people are given chances to participate in a group and are recognized by the group for their activities, efforts and successes. Increasing opportunities for conventional social participation and recognition is an important prevention strategy.

Research also showed that young people were better protected if they had the social skills to negotiate with friends who pressed them to use drugs or alcohol or engage in other problem behaviors. Therefore, the groups and individuals to which young people are bonded reinforce their moral standards, and "social skills and resistance" may need reinforcing, particularly for high risk youth.

Table 2: Conceptual and *Operational* Measures of Component Protective Factors

Individual Characteristics	
Social Skills	*Regional School Survey Results on negotiation and peer pressure*
Bonding to Family	
Family Rewards for Conventional Involvement	*Regional School Survey Results on praise or encouragement from parents, siblings, and other family members*
Opportunities for Positive Involvement in the Family	*Regional School Survey Results on family activity and on participation in family decision-making and planning*
Bonding to Others Who Support Non-Drug Use	
Community Rewards for Conventional Involvement	*Regional School Survey Results on praise or encouragement for community or neighborhood activities or achievements*
School Rewards for Conventional Involvement	*Regional School Survey Results on praise or encouragement of academic accomplishments and other school activities*
Opportunities for Positive Involvement in School	*Regional School Survey Results on developing student-teacher bonds and participating in class decision-making*
Healthy Beliefs and Clear Standards	
Belief in the Moral Order	*Regional School Survey Results on attitudes toward cheating, lying, stealing, and fighting*

Additional Youth Problem Behaviors Presented in This Report

A number of additional youth problem behaviors are presented in this report. Some of the risk factors discussed earlier could also be viewed as "problem behaviors" – for example, youth suicide rates (defined in this report as an indicator of alienation and rebelliousness). Together, these behaviors can be viewed as interrelated responses to more general risk and protective factors. These behaviors and the indicators that measure them are:

Table 3: Measures of Additional Youth Problem Behaviors

Additional Youth Problem Behaviors	
Substance Abuse Problem Behavior	Adolescents in Alcohol and Other Drug Treatment Juvenile Arrests for Alcohol Violations Juvenile Arrests for Drug Law Violations
Sexual Problem Behavior	Adolescent Sexually Transmitted Diseases Birthrate Among Adolescents
Delinquent and Criminal Problem Behavior	Juvenile Arrests for Violent Crimes Juvenile Arrests for Property Crimes Juvenile Arrests-Curfew, Loitering, Vandalism, Disorderly Conduct Guilty Adjudications of Juveniles Juvenile Diversions

Important Questions This Report Can Answer

The following questions can be answered from data presented in this report:

- What are the levels for indicators of risk and youth problem behavior in a county, in Washington, or in the nation?
- How does a county compare with other similar counties, Washington State, or the nation as a whole on indicators of risk and problem behavior?
- Do the specific indicators for a single risk factor all follow a similar trend?
- On which risk factors is a county high or low, relative to other similar counties and to the state as a whole?

Important Questions This Report <u>Cannot</u> Answer

In particular, the following questions are not answered in this report:

- Why does a county or the state have low levels on one indicator of a risk factor and high levels on another indicator of the same risk factor?
- How do the indicators vary across smaller areas or by demographic subgroups within a county?
- Which risk factors or indicators are most highly associated with substance abuse and thus are the most important ones to consider?
- What is the overall level of substance abuse risk and need for prevention services in one county relative to others or to the state?
- Which risk factors are easiest to modify?

Use the Information in this Report with Care

The risk and protective factor approach does not provide a "cook book" to planning prevention interventions.

The risk and protective factor approach does not provide a "cook book" to planning prevention interventions. This report provides some general guidelines for interpreting data on risk and protection, and some references for those interested in more information. However, understanding how to apply the information presented here to a particularly county requires knowledge of local conditions, local risks and local communities. It also requires knowledge of local prevention services already in place, which may affect the risk levels reported here.

3 UNDERSTANDING AND USING THE INFORMATION

Presentation of Indicators of Risk and Protective Factors

This report complements the existing *County Profiles on Risk and Protection for Substance Abuse Prevention Planning* produced for county prevention planners. The county profiles were designed to help individual counties evaluate levels of risk, protection, and other problem behaviors in their county to improve targeting of prevention resources and justify requests for funding. The county reports did not address changes in indicators over time nor did they discuss county to county variation in measures of risk, protection, and the additional indicators of problem behavior.

This report addresses risk factors, protective factors, and other problem behaviors at the state level four ways:

- to look at state-level trends over time in indicators,
- to compare state figures to national or regional figures,
- to use county-level data for analysis of regional patterns,

  and
- to publish an inventory of the data collected.

The presentation of data on **risk factors** (Chapter 4) is organized by domain (Community, Family, School, and Individual/Peer) and by risk factor within domains. Actual rates for indicators of risk are presented in state and national trend charts, graphs of county rankings, and maps of county distribution.

For each risk factor, an additional graph and map are presented for risk factor summary measures. Summary measures were created as a way to collapse, or "average", information from several indicators of a risk factor into a single measure for the risk factor.

Information on risk includes information for:

- 53 state- and county-level indicators of risk,
- 17 summary measures of risk factor constructs
- 4 regional-level school survey measures of risk,

All **protective factors** (Chapter 5) are measured by school survey results and include:

- 7 regional-level school survey measures of protection,

With the exception of risk factor summary measures, information similar to that presented for each risk indicator is presented for the **additional indicators** of substance abuse and other problem behaviors (Chapter 6), which include:

- 10 state- and county-level indicators of substance abuse and other problem behaviors

Description and Analysis of Risk and Protective Factors, Other Problem Behaviors and the Indicators Related to them.

Information presented for each risk factor, protective factor, and additional indicator includes:

- **Concepts and Proxy Measures**

  Risk and protective factors are theoretical constructs describing community, family, school, and individual/peer characteristics that impact substance use and abuse. A short discussion of the risk or protection concept is provided for each risk or protective factor and followed by comment on the indicators chosen to represent the construct.

- **Indicator Definitions**

  Each indicator for a particular risk factor, protective factor, or additional indicator of problem behavior is succinctly defined. Distinctions between State and National definitions are made if necessary. The years for which data were available and reference to the data source(s) are provided. Additional indicator and source descriptions appear in Appendix A1: State Data Sources and Appendix A2: National Data Sources. The data source references are listed numerator first followed by denominator when more than one source was required.

- **Discussion and Graphs of State and National Trends**

  Trends in state-level indicators are compared to national trends and trends across indicators are evaluated for consistency. Statements on statewide levels of risk are also provided where appropriate. Charts of state and national data are provided where possible. All years of data between 1988 and 1995 that were available at the time of collection are used for trend analysis.

- **Discussion, Graphs, and Maps of Geographic Findings**

  County rankings for each indicator and for risk factor summary measures (based on all indicators of the risk factor) are presented and discussed. Regional patterns and urban/rural dichotomies are presented if found. Rankings of

the “Counties Like Us” county groups contribute to the information here as well (see description of “Counties Like Us” on next page). For risk factors only, the graphs and map for the risk factor summary measure are presented before data on individual indicators.

All years of data between 1990 and 1995 that were available at the time of collection were averaged to obtain the measures presented in the county graphs and maps.

Where did the Data Come From?

Federal support from the Center for Substance Abuse Prevention (CSAP) made possible the collection of county-level risk and protective factor indicators and the production of this report by the Department of Social and Health Services. The data collection effort was also supported by the Youth Violence Reductions Programs Act (ESHB 2319), which charged the Department of Health with providing an assortment of indicators empirically related to eight problem outcomes to the newly organizing Community Public Health and Safety Networks.

Since the CSAP-funded project had already begun collecting data under a similar mandate, the two agencies agreed to jointly develop a comprehensive indicator database for youth problem behaviors, risks and protection. The resulting database is called the Community Risk and Evaluation - Geographic Information System (CORE-GIS). Reports for the networks containing data drawn from the CORE-GIS were completed in 1994 and 1995 (Flewelling, Kohlenberg, and Howards, 1994; Zechmann, Flewelling, and VanEenwyck, 1995).

Data from over thirty separate sources are now included in CORE-GIS (a complete list of indicators, years collected, geographic level and sources may be found in Appendix G.) These data were requested at the finest available geographic level (such as test scores by school district or youth arrests by police jurisdiction) and with demographic breakdowns if possible. Once received, data were transformed into county-level files using GIS software. Where source areas cross county boundaries, the events in question were “apportioned” to each county based upon the geographic and demographic distribution of the population in the area of overlap.

Using Rates for Comparisons

Information about one community is most useful when it can be compared to other communities like itself or to a larger region of which it is a part, such as the state or nation. Comparisons, of course, require the calculation of rates which show the extent of the problem within a population and control for differences in population size.

Rates are calculated by dividing a numerator (the number of events or occurrences) by a denominator (the total population or universe that is relevant to the numerator) and multiplying by a constant. Multiplying by 100 provides a rate per hundred, or percentage. Other multipliers are 1,000 or 100,000, providing rates per 1,000 or 100,000, respectively.

Comparing State and National Trends Through Time

Rates may be used to compare indicator levels in Washington against some other regional or national benchmark. It is often desired to know whether rates in Washington are higher or lower than a national average. It is also of interest to know if rates are increasing or decreasing - are things getting better, worse, or staying about the same. State and national trends are compared and evaluated whenever possible in this report. All years of data available (from1988 through 1995) during the collection phase of this project are presented in the trend graphs.

For those risk and protective factors where 1995 Washington school survey data are presented, 1994 school survey data from Oregon are shown for comparison. There currently are no national surveys asking the same questions on risk and protection.

Comparing Rates for Counties, "Counties Like Us", and the State

Having controlled for differences in population size by using rates, counties may compare their rates to the rates of other areas. Typically, counties compare themselves to a state rate, even though the state rate is heavily influenced by the large populations of a few large counties - a bias that is important when urban rates differ substantially from rural rates. Because of this limitation, this report provides additional comparison groups for counties, called "Counties Like Us." These county groupings are as follows:

- ***Urban A.*** King County.
- ***Urban B.*** Pierce, Snohomish, and Spokane Counties.
- ***Urban C.*** Benton, Clark, Kitsap, Thurston, Whatcom, and Yakima Counties.
- ***Rural A.*** Ferry, Franklin, Grant, Klickitat, Okanogan, Pend Oreille, and Skamania Counties
- ***Rural B:*** Adams, Asotin, Chelan, Columbia, Douglas, Garfield, Kittitas, Lincoln, Stevens, Walla Walla, and Whitman Counties.
- ***Rural C:*** Clallam, Cowlitz, Grays Harbor, Island, Jefferson, Lewis, Mason, Pacific, San Juan, Skagit, and Wahkiakum Counties.

The county groupings for "Counties Like Us" used county characteristics that were related to the scope of prevention planning. A variety of groupings were examined, but the one finally chosen was based upon three distinguishing county attributes: population of young persons, alcohol- and drug-related deaths as a percent of all deaths, and the geographic Eastern/Western Washington split (see Appendix H).

Regions of Analysis for School Survey Results

Analysis regions in the school survey differ from the groups of counties chosen as "Counties Like Us." Regions for the school survey were designed to have similar student counts for sampling purposes while balancing urbanicity and geographic contiguity. Regional groupings of counties for analysis of school survey include:

- ***Puget Sound*:** King, Kitsap, and Pierce Counties
- ***Northwest*:** Island, San Juan, San Juan, Snohomish, and Whatcom Counties
- ***Southwest*:** Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Skamania, Thurston, and Wahkiakum Counties
- ***Eastern*:** Adams, Asotin, Benton, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman, and Yakima Counties

While measures based on the regional school survey data for protective factors and four risk factor are included in this report, it should be noted that these are not county-specific measures, but average measures across the counties in the region, weighted by county enrollment. Indicator levels may vary substantially across the counties used to create the regional estimates.

Small Numbers and Years of Data Used in Rate Calculations

A primary consideration when developing comparative rates is which year, or years, of data to use in the calculation. A first assumption might be to use only the most recent year of available data since the most recent year would be more likely to reflect the current status of the community. However, the desire for recency must also be balanced with a desire for reliable and stable rates.

Small numbers. Indicator rates based upon small numbers of events will result in substantial year to year variation and confound comparisons to other areas. Such instability is more pronounced in smaller counties where the number of indicator

events (such as felony drug arrests, adults or adolescents in drug treatment, violent crimes, births to teen mothers, and others) are often small in actual number. Rates among indicators collected for this report appeared reasonably stable when there were at least 30 events recorded in the numerator.

Years of data used in trend analysis. At the state level, the problem of small numbers does not pose a problem. There are at least 30 events, and usually many more, of each indicator for every year of available data. Thus, state and national data are shown for each year of available data in the trend plots.

Years of data used in geographic analysis. For the county rankings and maps of indicators and summary measures, recency of data and the problem of small numbers are balanced by basing all rates on data from 1990 forward. Thus, if data are available from 1990 through 1993, the rate presented is calculated by summing the four annual numerators and dividing by the sum of the four annual denominators. Still, in a few situations, rates are not available or not reliable for smaller counties.

Not Reported: While rates for most indicators can be reported reliably in most counties, there are still some indicators which have fewer than 30 total events over the years of available data for that indicator. Since rates based on so few events are considered unstable, the rate is not reported and 'NR' appears in place of the rate. Risk factor summary measures are based only upon indicators where data were reported.

Notes of Caution

There are some cautions which should be kept in mind when using these data for planning. They include:

Changes in Public Awareness of Problem Behavior. Sometimes, increases in reporting of a problem behavior may be in part due to an enhanced public awareness of a problem. For example, after a highly publicized child abuse death in 1986, calls to Child Protective Services increased dramatically for six months, and then dropped to pre-1986 levels. Similarly, a highly publicized domestic murder often leads to increased reports of domestic violence. These increases, however, probably do not signal dramatic changes in the underlying rate of child abuse or domestic violence. Instead, increased reporting probably reflects growing public awareness of these problems and an increased willingness to report them or ask for help.

Other External Influences on Indicator Levels. Changes in the supply of services when services are in demand may also result in increased rates without actually changing problem levels. For example, in an area of high demand for substance

abuse treatment, a new or expanded treatment facility would allow more persons to be served. Although the number of persons served rises, the underlying need for treatment may not have changed.

Undetected Errors in the Source Data. Large volumes of information are included in the source databases from which these data are drawn. Some errors in these data are to be expected. Errors may include:

- events not reported and therefore not included in the database;
- misclassification or incorrect coding of events; and
- errors incurred in the compilation and processing of the data.

Because this report relies on data collected by others, it is not possible to check and edit the source data. The project staff took steps to minimize the possibility of error in compiling and processing source data and translation to county totals. First, state totals provided by the sources were matched with the state totals from the CORE-GIS database. Second, CORE-GIS county totals were compared to county reports published by the source where possible.

Non-reporting of Arrest Data. The arrest data in this report were obtained from the Washington Association of Sheriffs and Police Chiefs (WASPC), which serves as the reporting agency for the state to the FBI's Uniform Crime Reporting (UCR) Program. Most, but not all, law enforcement agencies report arrest data to WASPC. The list of non-reporting agencies may change from year to year, and in some instances, agencies have reported only adult arrests or only juvenile arrests. Furthermore, there are some cases in which agencies reported for some but not all months of the year.

For most counties, non-reporting agencies only cover a small percentage of the population and, therefore, are not expected to significantly influence the reported arrest rates. However, there are some counties for which, in certain years, non-reporting agencies cover a significant percentage of the county. For these counties, the reported arrest rates probably do not reflect the county as a whole. Appendix I lists the counties where arrest rates are based on less than 80% of the population.

Two additional cautions concerning UCR data should also be kept in mind. Arrests are reported according to the location of the incident rather than the place of residence of the person arrested. Therefore, individuals arrested do not necessarily live within the jurisdiction or even the county in which they were arrested. Counties in which there are a relatively large number of arrests of non-residents may tend to have higher arrest rates, because the rates are based on the resident population.

Secondly, the number of arrests for the age groups aged 10-14 and 10-17, by definition, does not include arrests of children under age 10 and therefore will not match exactly with published data on juvenile arrests, which include all juveniles including those under age 10.

Guidelines for Interpreting the Data

Inventory of Indicator Data: A relatively straightforward function of this report is to present as much of the information collected as is practical and useful. This is accomplished in Chapters 4, 5, and 6 on risk, protection, and other problem behaviors and in Appendices K1 and K2, where state and national figures, respectively, are tabulated.

Trends in Rates: Beyond the inventory function, or "data dump", a first interpretive step is to look at the trend graphs for indicators that represent a risk factor. Where a consistent pattern of increase or decrease is observed across indicators of a risk factor, it likely means the risk factor is rising or falling as well. How rates for Washington indicators compare to national rates also may be informative toward understanding risk in Washington.

Geographic Patterns in Summary Measures and Indicators: Since most of the indicators were available at the county level, some analysis of regional or urban/rural differences in high and low rates is often possible. For each risk factor, the county and "Counties Like Us" risk factor summary measures are examined for geographic patterns in overall risk, followed by discussion of the geographic distribution of the associated individual indicators.

The analyses focus on a set of graphics for each summary measure and indicator that include:

- a bar graph of the counties ranked from high to low on the summary measure or indicator
- a bar graph of the "Counties Like Us" ranked in the same way as the counties
- a map of the county distribution of the summary measure or indicator

Standardized Risk Factor Summary Measures[1]: For prevention planning, it is often important to compare all the indicators in a county with each other, and determine which rates deviate most from the state measures. Standardized measures transform the original absolute rates to a common scale of measure, and allow indicators to be compared readily with each other.

Transformation to a common scale of measure also allows standardized measures to be averaged, forming a summary measure for a group of related indicators. Thus, a single summary measure was calculated for every risk factor having more than one associated indicator. Furthermore, risk factor summary measures can then be compared with each other - remembering, of course, that each summary measure is only as strong as the indicators that were used in its creation.

For individual counties, it is also important to note that risk factor summary measures are calculated using only indicators for data that are reported ('NR's are excluded) . Thus, the number of indicators averaged to create a county summary measure will vary depending on the number of indicators reported for the county. When the number of counties affected is substantial for a risk factor, it is noted in the section on geographic findings.

Remember That School Surveys are Regional Rates Rather than County Rates: In Washington State, the school survey on drug use and other health-related behaviors is designed only to produce estimates for four regions consisting of combinations of counties. However, because no archival data sources for measuring four of the risk factors or any of the protective factors were identified, we have included in this report some state and regional-level risk and protective factor measures derived from the 1993-94 school survey. Counties and smaller communities could obtain individually based measures of risk and protection at the local level by encouraging participation of local schools in the biannual school survey.

Think About Comparative versus Absolute Rates: National, state, "Counties Like Us", and county rates are presented in Chapters 4, 5, and 6. These comparisons help to flag indicators rates that are relatively high or low.

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[1] Creating a standardized measure involves subtracting an observed rate (a county rate or a "Counties Like Us" rate) from the rate to which it is compared (the state rate) and then dividing that difference by a value that controls for the amount of variation in the indicator. The formula used to standardize indicator values in this report appears below. This formula is similar to the commonly-used z-score. Calculation of a z-score would use the average of all counties rather than the state rate for comparison. It seems more meaningful, however, for counties to be able to compare themselves to the state rate than an average rate where counties of very different size are given equal weight.

$$std_measure = \frac{county_{rate} - state_{rate}}{\sqrt{\frac{\sum_{i=1}^{N}(county_{rate_i} - state_{rate})^2}{N}}}$$

, where N = 39 counties

However, information about an area's relative standing on particular risk and protective factors need not be the only criterion on which needs assessment and planning decisions are made. Another consideration is the absolute level of each risk factor. For example, even if a county or the state high school dropout rate is below average, it may still be unacceptably high. To the extent that this risk factor is known or believed to be a strong predictor of future drug use and other problem behaviors, and affects a significant number of individuals in a county, it may still be an appropriate target for prevention.

Relative Importance of Risk or Protective Factors. In this report, no attempt is made to evaluate or rank the importance of individual risk or protective factors. The determination of which risk or protective factors are targeted for prevention services should be based on information provided herein, but also on the mix of existing services, available resources, local support, and the numbers of persons potentially impacted.

4 RISK FACTORS: ANALYSIS OF SUMMARY MEASURES AND INDICATORS

Summary of Risk Trends and Patterns

Community Domain

Family Domain

School Domain

Individual/Peer Domain

Summary of Risk Trends and Patterns

The tables below present a summary of trends and patterns across the seventeen risk factors for substance abuse identified for this study. Detailed comment and analysis for each risk factor and for each indicator of risk follow in this chapter. Trends and comparisons are not evaluated for statistical significance.

Risk Factors	Trend in State Risk	Trend in National Risk	State Risk Compared to National Risk	Geographic Risk
Community Domain				
Availability of Drugs	↘	NA	NA	Greater in Rural Counties
Community Laws and Norms	↘	→	Better	Greatest in Some Rural Counties
Low Neighborhood Attachment and Community Disorganization	NA	NA	Better	Greater in Rural A Counties
Transitions and Mobility	→	→	Worse	Greater in Metropolitan, Urban "Bedroom", and University Counties
Extreme Economic and Social Deprivation	↗	↗	Better	Greater in Rural Counties
Family Domain				
Family History of High Risk Behavior	↗	↗	Better	Greater in Rural Counties
Family Management Problems	→	↗	Same	Greater in Some Rural Counties
Family Conflict	↗	→	Same	Mixed
Favorable Parental Attitudes and Involvement in Crime and Drugs	→	→	Same	Greater in Rural A Counties

↗ - evidence of increasing risk
↘ - evidence of decreasing risk
→ - appears unchanging
NA - not available

Risk Factors	Trend in State Risk	Trend in National Risk	State Risk Compared to National Risk	Geographic Risk
School Domain				
Lack of Commitment to School	NA	NA	NA	Greater Mostly in Rural Counties
Academic Failure	➔	➔	Same	Greater Mostly in Rural Counties
Early and Persistent Antisocial Behavior	NA	NA	Same as Oregon*	High: Eastern Low: Puget Sound
Individual /Peer Domain				
Alienation, Rebelliousness, and Lack of Social Bonding	➔	➔	Same	Inconclusive
Early Initiation of the Problem Behavior	↗	↗	Worse	Mixed
Friends Who Engage in Substance Use	NA	NA	Worse than Oregon*	High: Eastern Low: Puget Sound
Favorable Attitudes Toward Substance Use	NA	NA	Better than Oregon*	High: Northwest Low: Puget Sound
Constitutional Factors	NA	NA	Worse than Oregon*	High: Southwest Low: Puget Sound

↗ - evidence of increasing risk
↘ - evidence of decreasing risk
➔ - appears unchanging
NA - not available

* Since comparable survey measures of risk factors are currently not available from a national survey, risk factor measures from the 1995 Washington School Survey are compared to those obtained in the 1996 Oregon School Survey.

COMMUNITY DOMAIN

Risk Factor: Availability of Drugs

The more available drugs are in a community, the higher the risk that young people will abuse drugs. Perceived availability of drugs is also associated with risk . Even when children 'just think' that drugs are available, a higher rate of drug use is often observed (Appendix D; DRP, 1996).

Indicators chosen as proxy measures for this risk factor are presented in the graphs following this page and include rates for alcohol retail licenses and for tobacco sales licenses. No archival data source for illicit drug availability was located. Higher rates for these indicators likely reflect higher levels of availability for these substances in the community.

Indicators / Definitions

- **Alcohol Retail Licenses**

  Washington State - The number of active alcohol retail licenses per 1,000 persons (all ages). The numerator includes all retail licenses that are active during a single year.

  Retail licenses include all places that sell alcohol (such as restaurants, grocery stores, and wine shops) except liquor stores and agencies. Both on and off premise licenses are counted. Sources: 14, 08.

  National - Policies on licensing distributors, taxing the proceeds, and determining who can sell alcohol varies substantially from state to state. Consequently, there is no consistent comparable archival data source for national data.

- **Tobacco Sales Licenses**

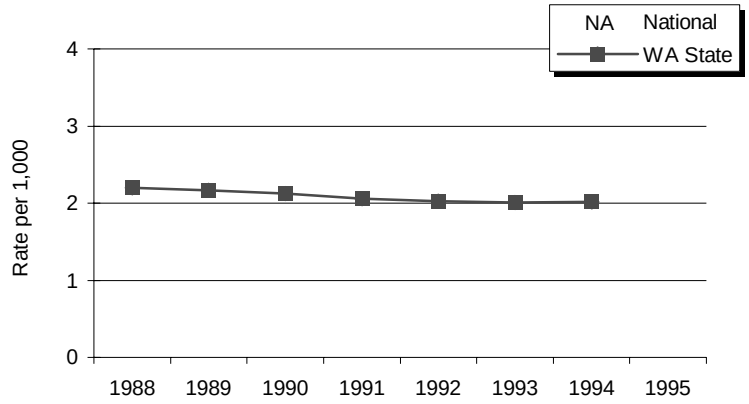
  Washington State - The number of tobacco sales licenses current in the month of November per 1,000 persons (all ages). Tobacco sales licenses include tobacco retailer licenses (stores that sell tobacco products) and tobacco vending machines. Sources: 05, 08.

- *National* - The federal government has begun a program (SYNAR) to assist states in monitoring tobacco sales. However, the program is still in its infancy and little consistency in collecting information on outlets across states has been achieved. Thus, no archival data source for comparable national data was obtained.

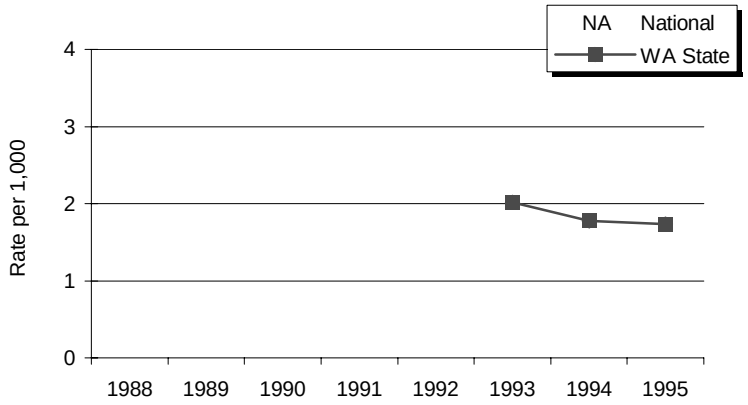
State Trends

Trends for both indicators show some decrease in the number of licenses per 1,000 persons in Washington.

Persons (all ages) per Active Retail Alcohol Sales License



Persons (all ages) per Tobacco Sales License



The number of active retail alcohol licenses actually increased by 5% (10,170 to 10,746) between 1988 and 1994. However, population grew 15% over the same period resulting in a decreasing rate of active licenses. Thus, the number of active alcohol retail licenses per 1,000 persons dropped 9% (2.20 to 2.01) between 1988 to 1994.

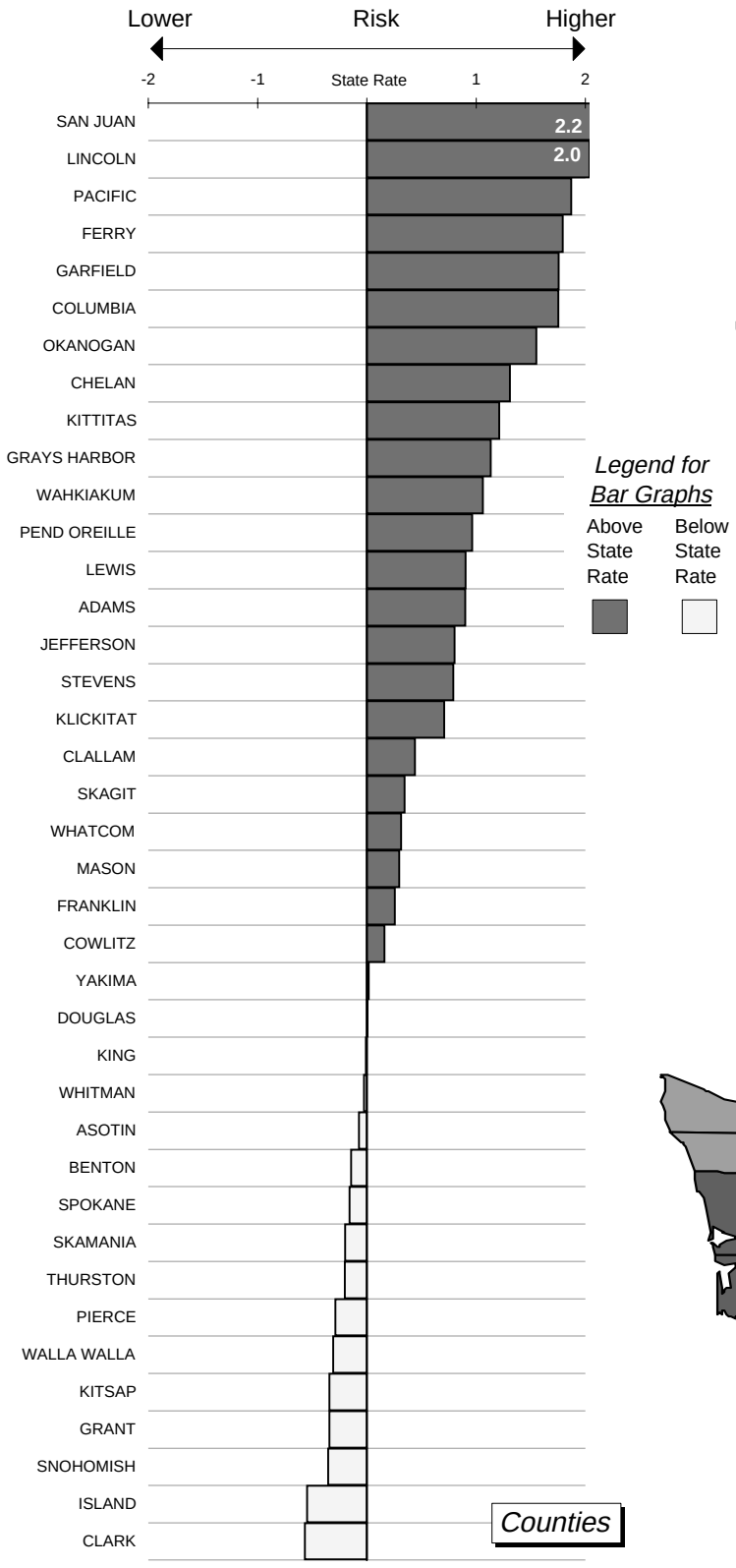
The rate of tobacco licenses per 1,000 persons dropped 14% (2.02 to 1.74) between 1993 and 1995. The drop, occurring mostly between 1993 and 1994, is likely due to stricter regulation and greater licensing fees for vending machine operators implemented several months before November 1993.

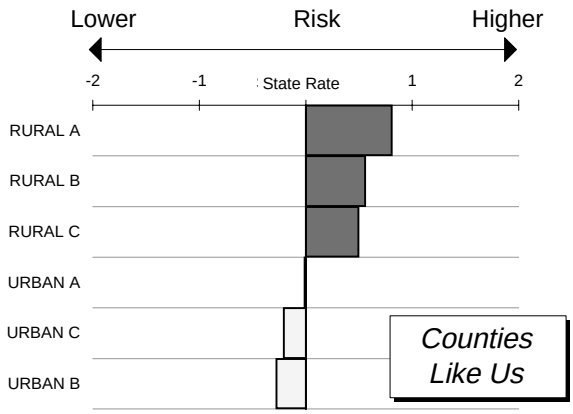
Such drops may suggest a slight decrease in statewide risk for availability of alcohol and tobacco products.

Geographic Findings

Summary measures and individual indicators. Both risk indicators, and consequently the summary measure, suggest greater risk for availability of alcohol and tobacco in rural counties than in urban counties. In fact, summary measures for nine of ten urban counties are below the state measure. This finding is counterintuitive to the notion that substances are more available in urban areas. These findings may not apply to the availability of illicit drugs.

Risk Factor: Availability of Drugs



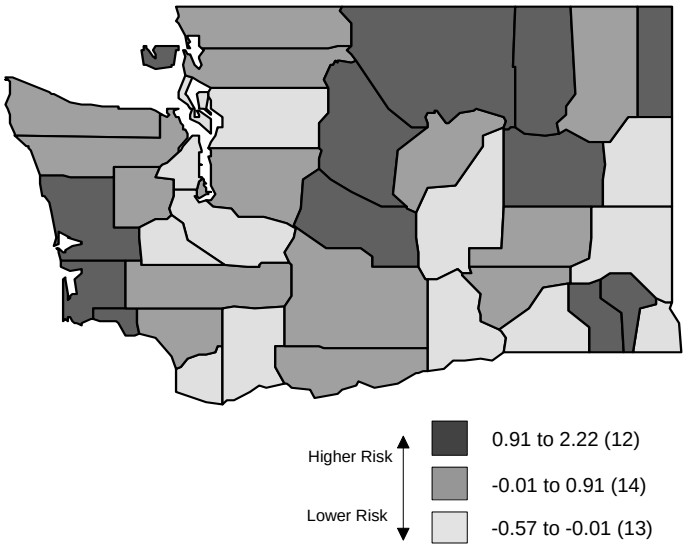


Legend for Bar Graphs

Above State Rate	Below State Rate

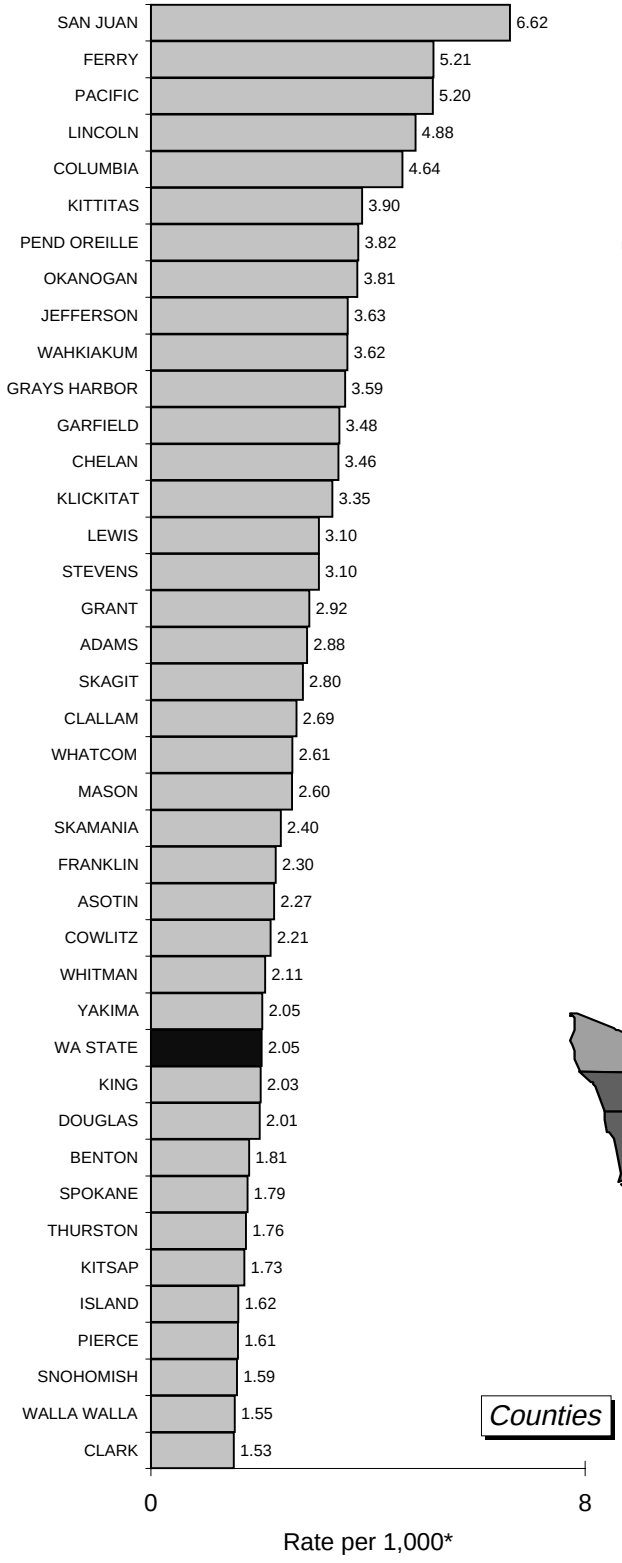
Summary Measure for:

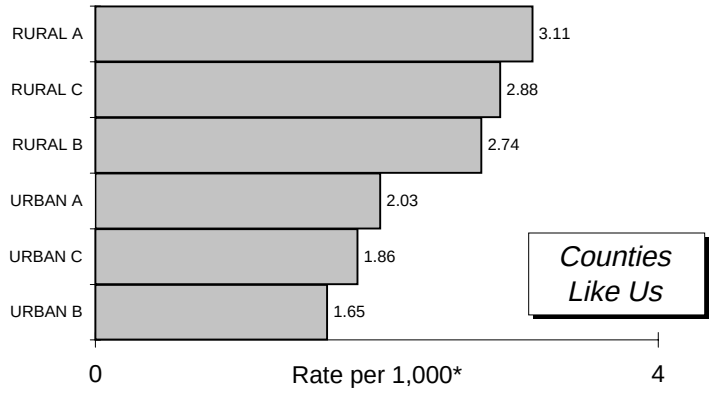
Availability of Drugs



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

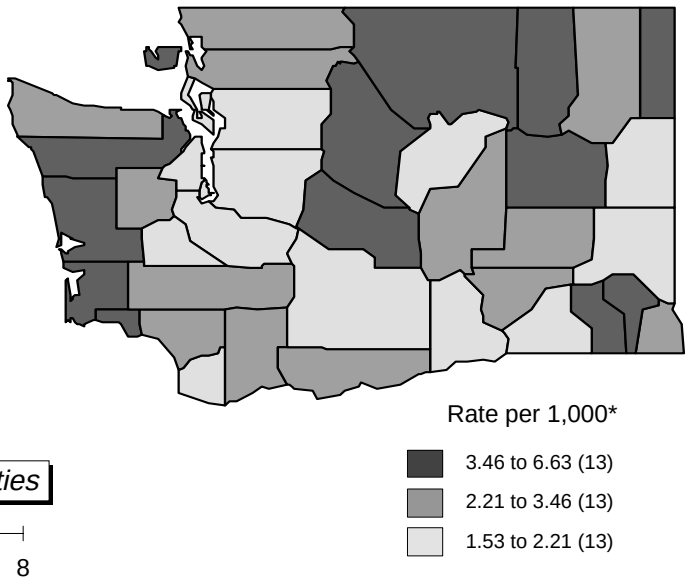
Risk Factor: Availability of Drugs





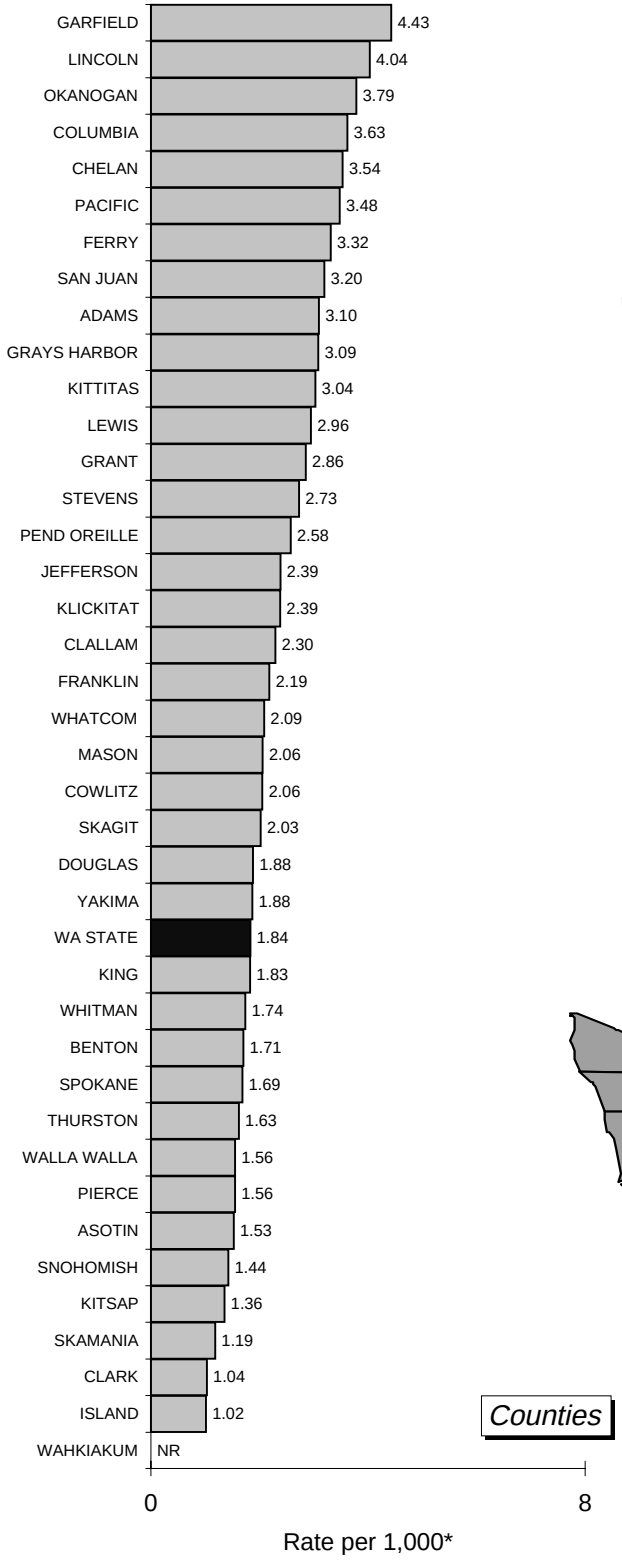
Indicator:

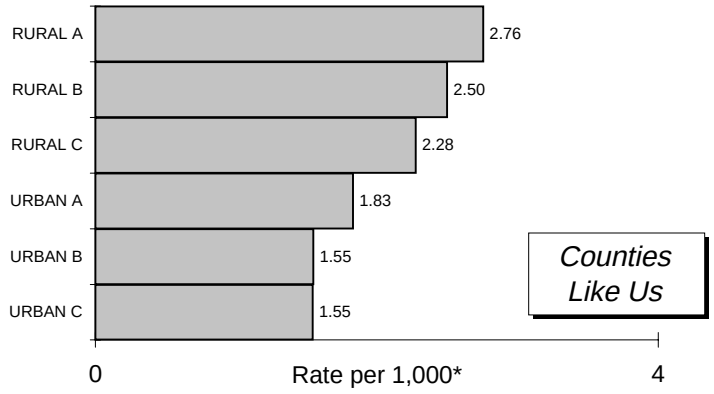
Persons (all ages) per Active Retail Alcohol Sales License



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

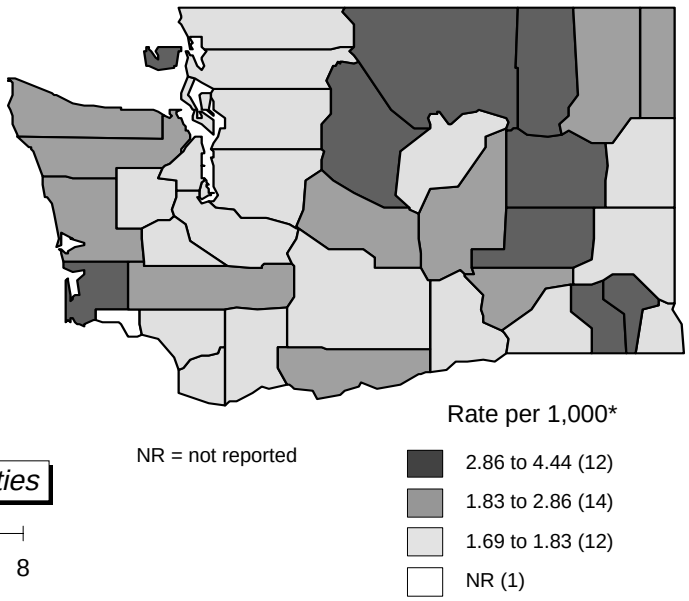
Risk Factor: Availability of Drugs





Indicator:

Persons (all ages) per Tobacco Sales License



NR = not reported

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1993 to 1995.

Risk Factor: Community Laws and Norms Favorable to Drugs

Attitudes and policies a community holds about drug use are communicated in a variety of ways: through the laws and written policies, informal social practices, and through the expectations parents and other members of the community have of young people (Appendix D; DRP, 1996).

The average length of prison sentence for felony drug offenders was chosen as a proxy measure for community norms where the longer (or stricter) the average sentence, the stronger the community norms against drug use.

Indicator / Definition

- **Average Length of Prison Sentence for Drug Offenses**

  Washington State - The total number of months of all sentences for felony drug crimes divided by the total number of adults (ages 18 and over) who were convicted of felony drug crimes. Drug crimes are defined as such in the Revised Code of Washington. All drug felons in Washington are sentenced to prison or jail. The data are based on the county of conviction. The year is the year that the person was sentenced not necessarily the year when the crime was committed. Source: 22.

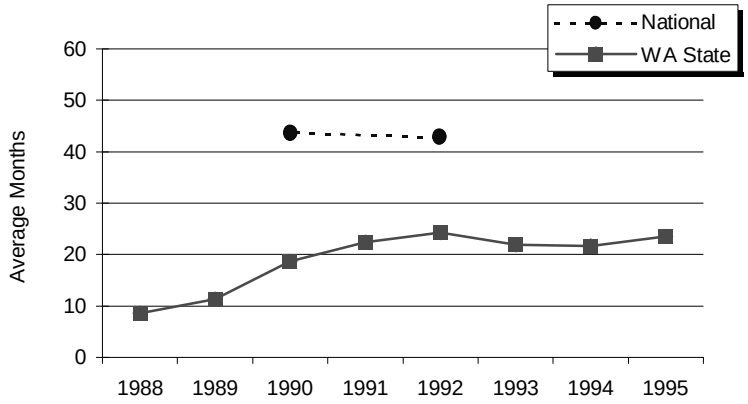
  National - same as for Washington State, but determined from a sample of prison or jail sentencings in 300 counties across the nation. Source: QQ.

State and National Trends

One indicator cannot possibly serve as a proxy for all aspects of Community Laws and Norms. However, the average length of prison sentences indicator does account for some aspects of the community risk factor. Since sentence lengths have increased over the last eight years, risk levels, to a certain extent, are likely to have decreased.

The average length of prison sentences for felony drug offenses in Washington tripled between 1988 and 1992, from 8 months to 24 months, and has remained at a relatively high level ever since (23 months in 1995). This is consistent with a heightened focus on the “war on drugs” since the late 1980s, including increased punishments for drug offenders.

Average Length of Prison Sentence for Felony Drug Offenses



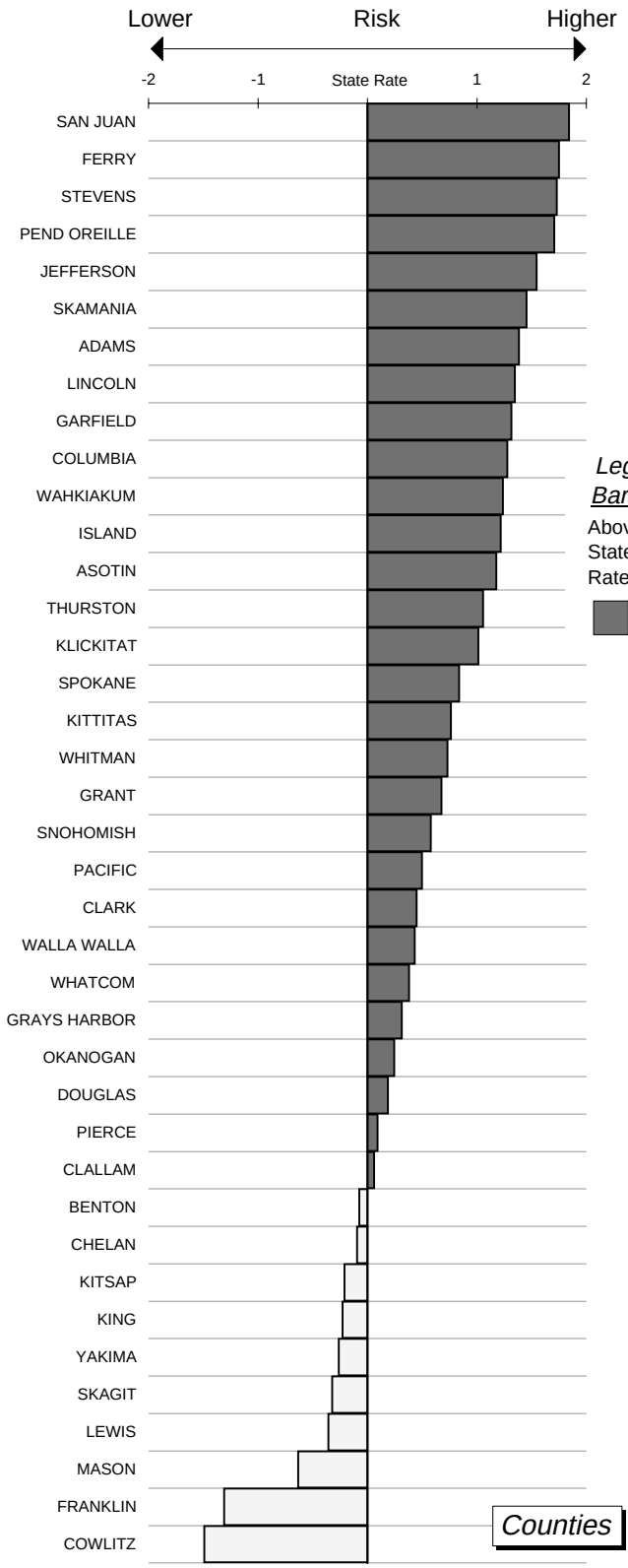
Nationally, the average length of prison sentences for felony drug offenders is longer than in Washington and was stable between 1988 and 1992 at about 44 months. A longer average sentence at the national level likely is due, in part, to the concentration of the most serious drug felons (who receive the longest sentences) in the nations largest urban areas.

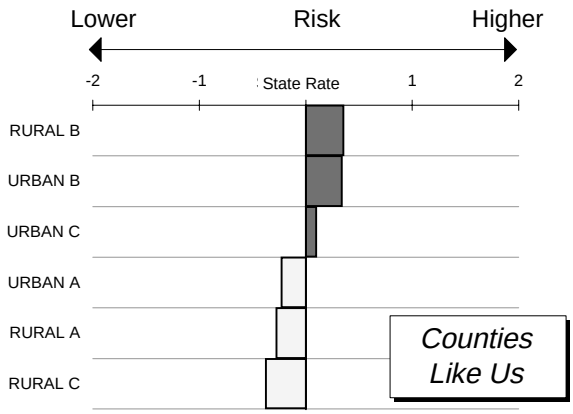
The national sample is also biased toward longer sentences since many states sentence some drug felons to probation instead of prison or jail. In fact, nearly 30% of drug felons nationwide are sentenced to probation rather than to prison or jail. Thus only the "worst" 70% contribute to the national average.

Geographic Findings

Summary measure and individual indicator. Since only one indicator was chosen for this risk factor, the summary measures are simply the standardized values of the single indicator. The counties with higher levels of risk on this factor (i.e. shorter average sentences) are generally rural though there is some clustering of lower sentence lengths, or higher risk, in the eastern third of the state.

Risk Factor: Community Laws & Norms Favorable to Crime and Drugs



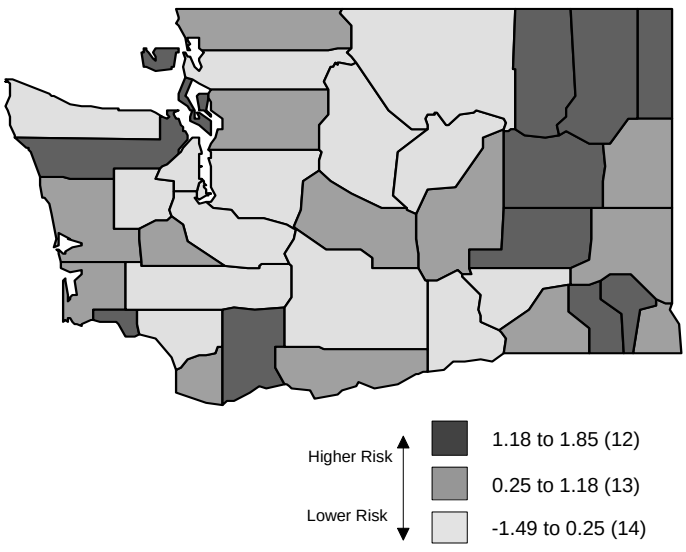


Legend for Bar Graphs

Above State Rate	Below State Rate

Summary Measure for:

Community Laws & Norms Favorable to Crime and Drugs



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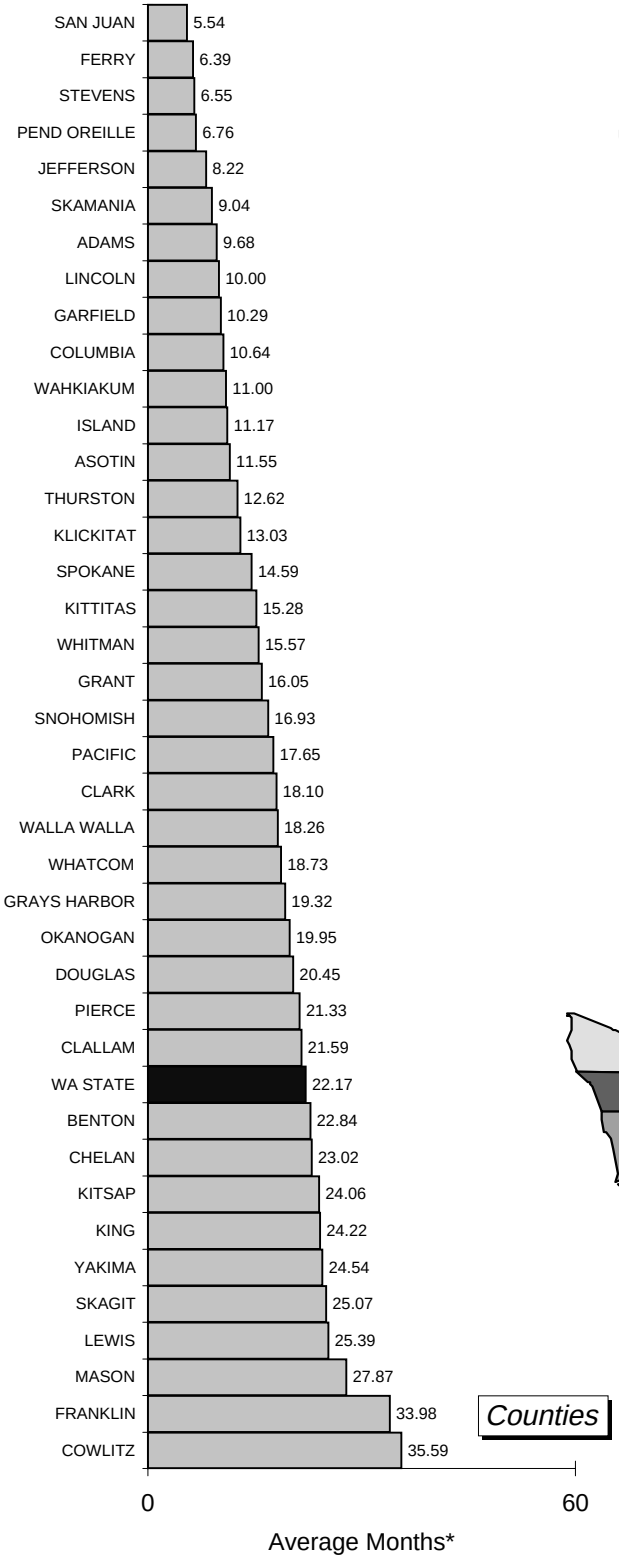

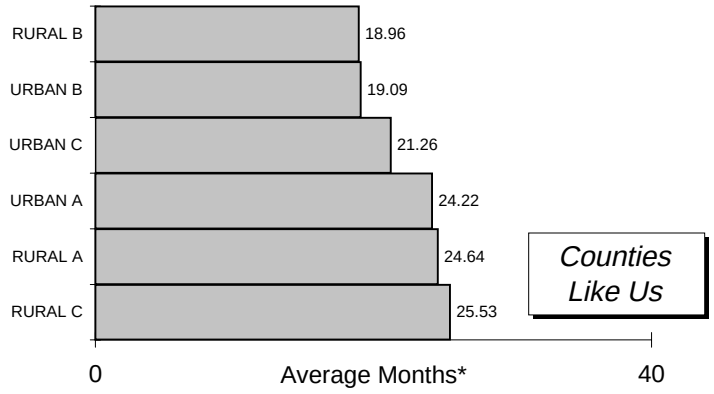

Indicator:

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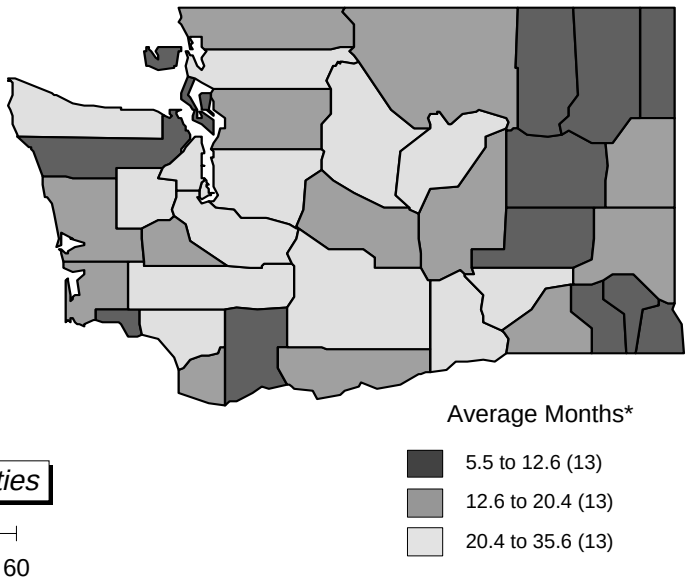

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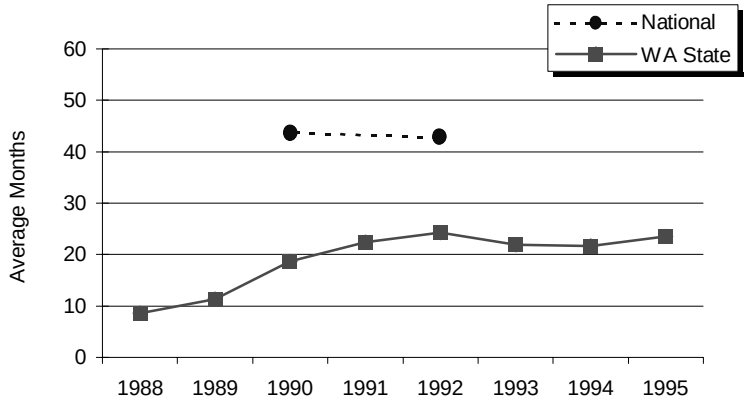

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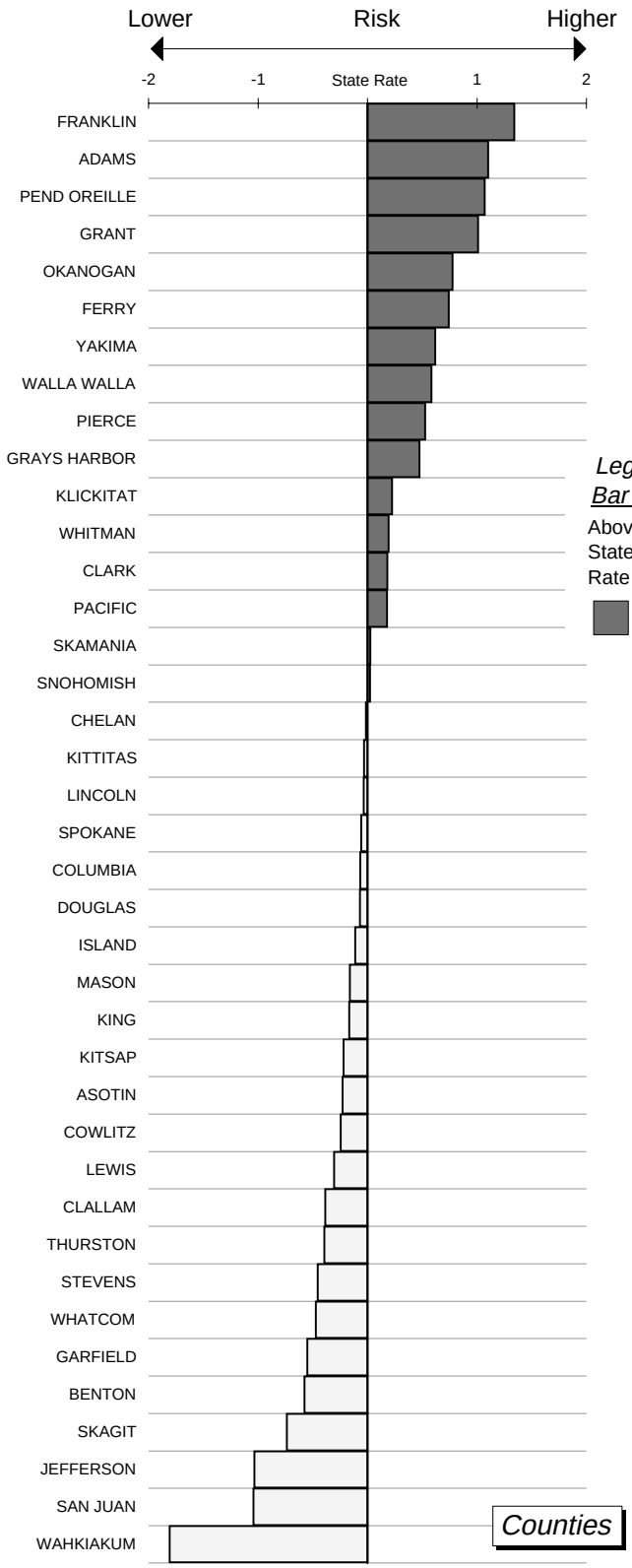
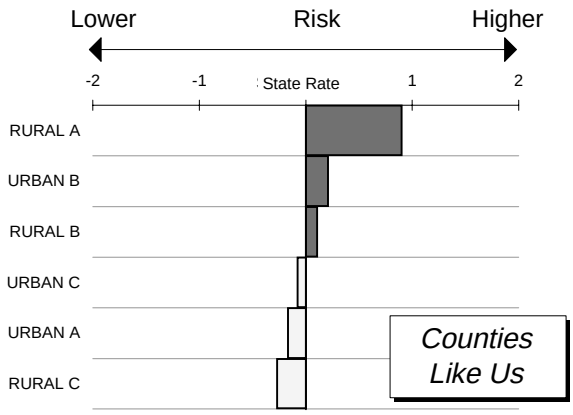
Risk Factor: Low Neighborhood Attachment & Community Disorganizatior



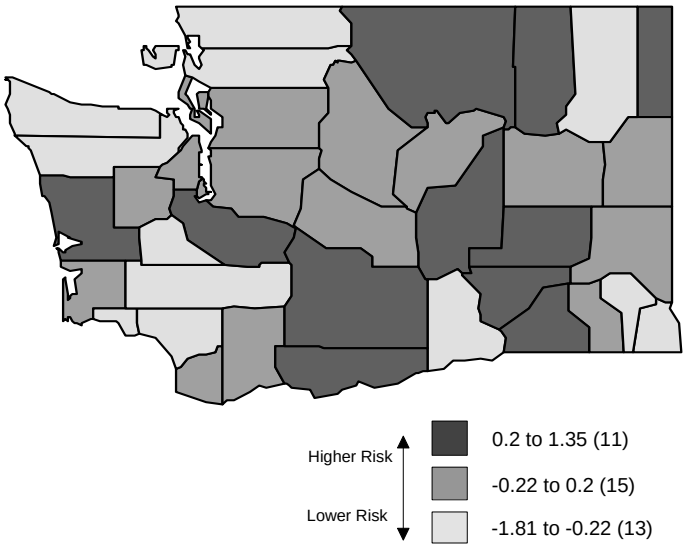


Legend for Bar Graphs

Above State Rate	Below State Rate

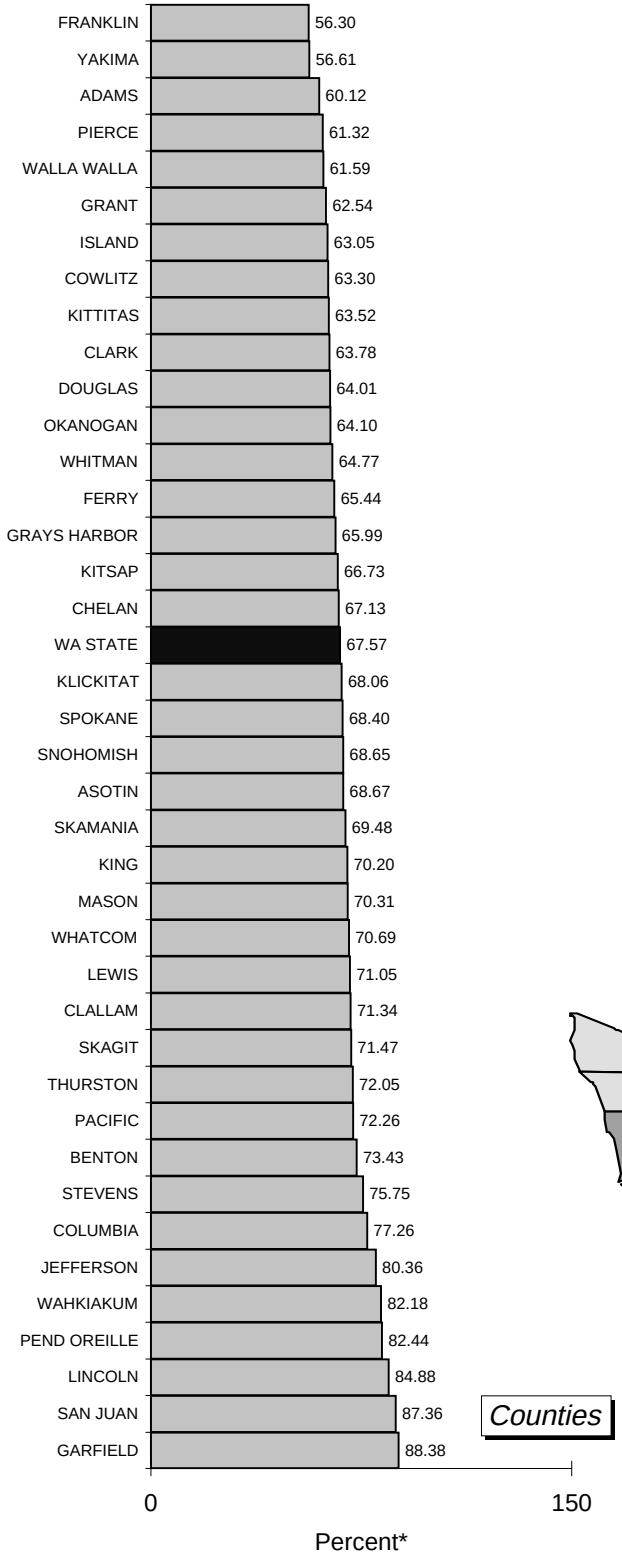
Summary Measure for:

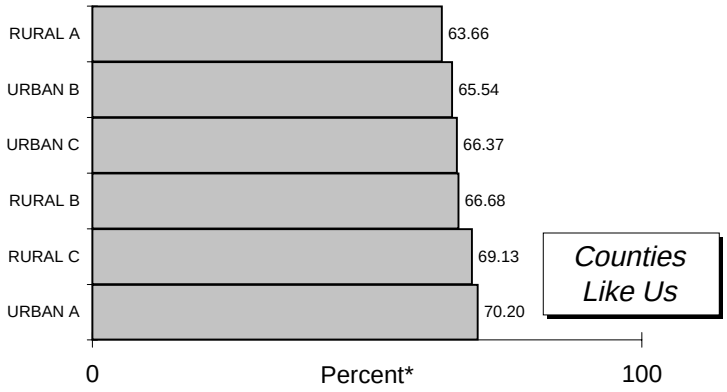
Low Neighborhood Attachment & Community Disorganization



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

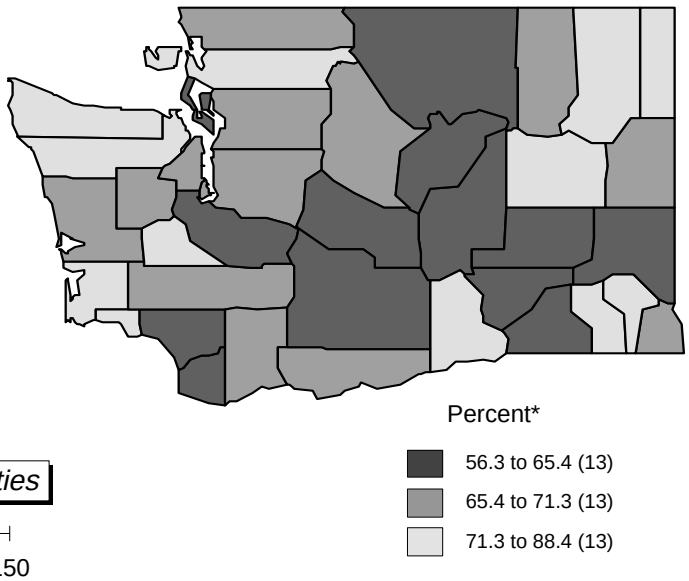
Risk Factor: Low Neighborhood Attachment & Community Disorganization





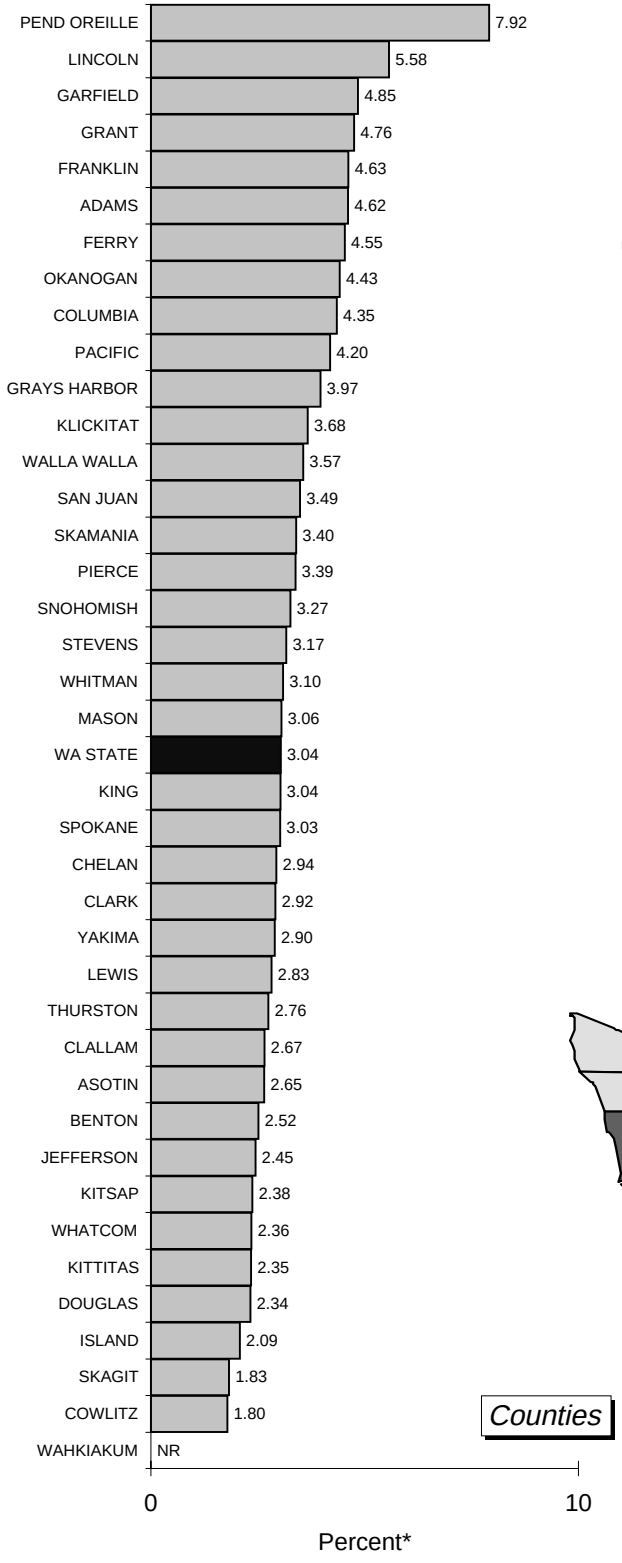
Indicator:

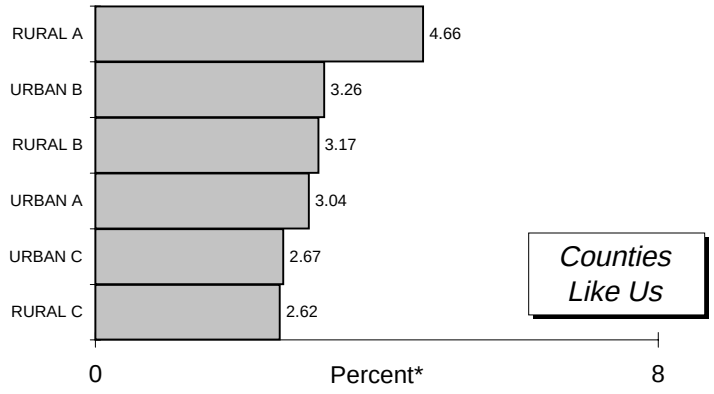
Percent of Population (18+) Registered to Vote



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1990 to 1993.

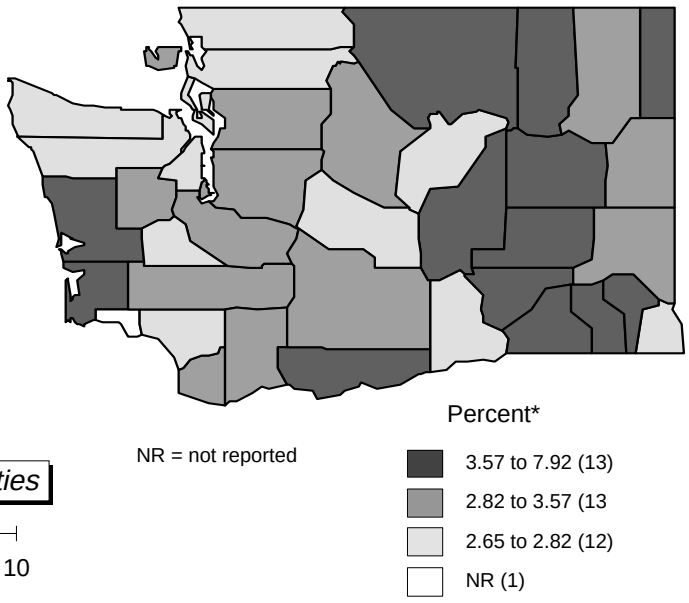
Risk Factor: Low Neighborhood Attachment & Community Disorganization





Indicator:

Percent of Housing Units that are Vacant



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

Risk Factor: Transitions and Mobility

Communities with higher rates of mobility also appear to be linked to an increased risk of drug use. The more often people in a community move, the greater the risk of drug-related problems in families. High rates of transition and mobility may also impede neighborhood attachment and community organization (Appendix D; DRP, 1996).

While some people find buffers against the negative effects of mobility by making connections in new communities, others do not have the resources to deal with the effects of frequent moves, and are more likely to have problems.

Proxy measures for this risk factor are presented in the graphs on the following pages and include rates of existing home sales, residential building permits, households in rental properties, persons moving within a county during the last five years, and persons moving from outside the county during the last five years. Higher rates for these indicators suggest increased transitions beyond those normally encountered by young people in school (i.e. grade school to junior high and junior high to high school) and also reflect increased levels of mobility within the community.

Indicators / Definitions

- **Existing Home Sales**

  Washington State - The number of previously-owned homes sold per 1,000 persons (all ages). The numerator in this rate is rounded to the tens. Existing homes sold are estimated based on data from multiple listing services, firms that monitor deeds, and local Realtors associations. Sources: 29, 08.

  National - Same as Washington State. Sources: BB, GG.

- **Residential Building Permits**

  Washington State - The number of building permits for single and multi-family dwellings per 1,000 persons (all ages). Each unit in a multi-family dwelling (for example, each apartment in a building) has a separate building permit. Sources: 29, 08.

  National - Same as Washington State. Sources: II, GG.

- **Households in Rental Properties**

  Washington State - The number of rental households as a percentage of all households. For this indicator, a household is defined as an occupied residential housing unit. Source: 25.

  National - Same as Washington State. Source: EE.

- **Moved Within County During Last 5 Years**

  Washington State - The number of persons (ages 5 and over) who moved within the county between 1985 and 1990 as a percentage of all persons (ages 5 and over). Source: 26.

  National - Same as Washington State. Source: FF.

- **Moved From Outside County During Last 5 Years**

  Washington State - The number of persons (ages 5 and over) who moved from outside the county between 1985 and 1990 as a percentage of all persons (ages 5 and over). Moving from outside the county includes moving from a different county, state, or country. Source: 26.

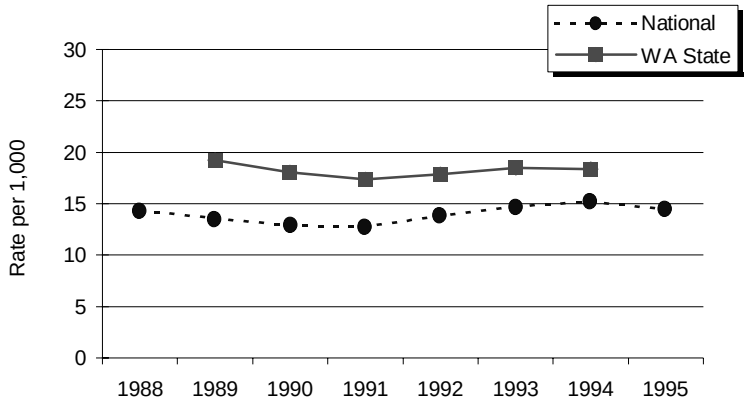
  National - Same as Washington State. Source: FF.

State and National Trends

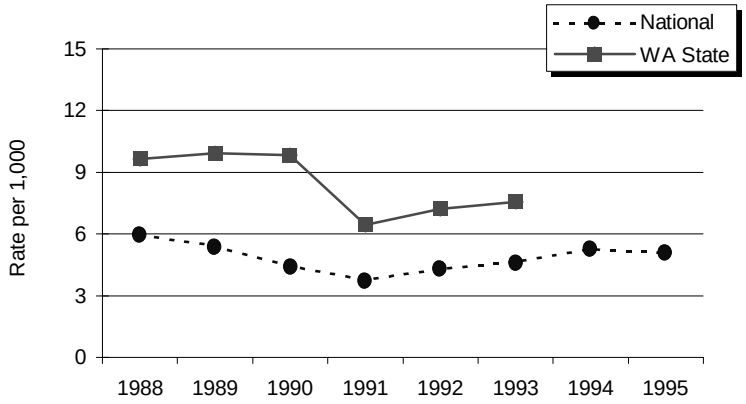
All five indicators suggest that risk related to transitions and mobility is greater in Washington than for the nation. This is consistent with the fact that Washington's economy has grown at a faster pace than the national average. More economic activity results in more relocations of new and current residents. Some counties in Washington also encounter a sizable seasonal migration of workers, though the exact locations and sizes of such groups are not easily quantified.

The rates for sales of existing homes and for residential building permits issued were available over time and show consistent patterns at the state and national level. The lowest point for these indicators occurred in 1991 with rates rising again through 1993 and 1994. In Washington, residential building permits have dropped substantially from highs in the late 1980s. National data for 1995 show a decrease again from 1994 highs.

Sales of Existing Homes per 1,000 Persons (all ages)

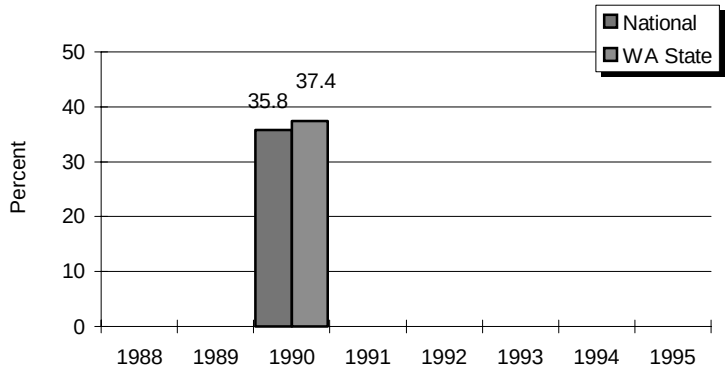


Residential Building Permits Issued per 1,000 Persons (all ages)

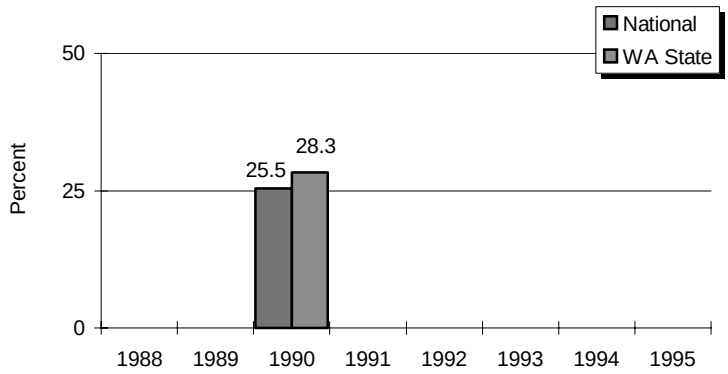


The last three indicators listed above were obtained from the 1990 census and cannot be analyzed for trends. They do show Washington with rates higher than those for the nation.

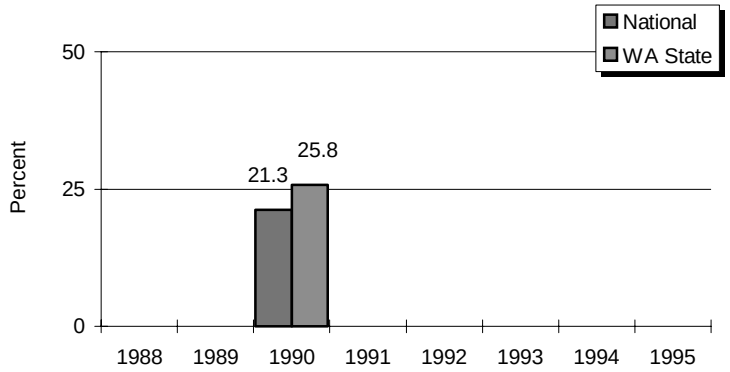
Percent of Households in Rental Properties



Percent of Persons Moving Within the County, between 1985 and 1990



Percent of Persons Moving from Outside the County, between 1985 and 1990



Geographic Findings

Summary measures. Summary measures for transitions and mobility show the highest levels in three types of counties:

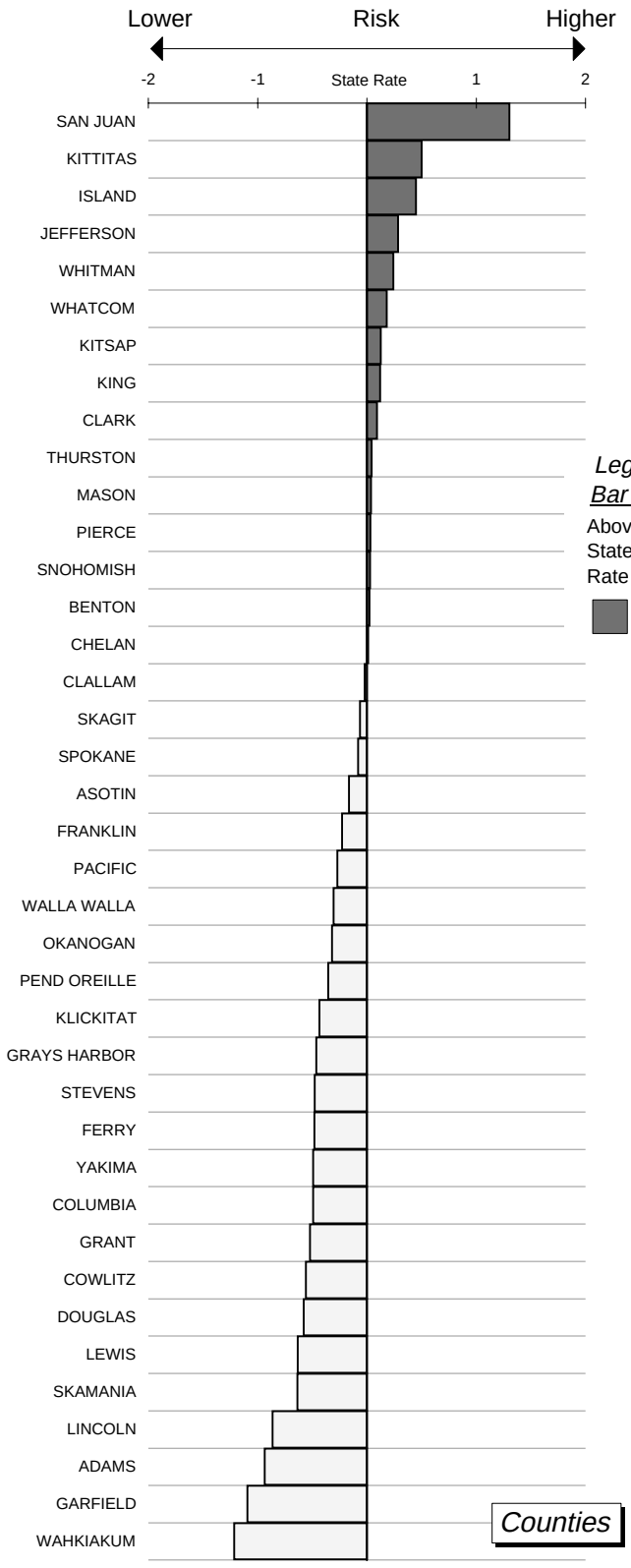
- the state's major metropolitan counties, where economic growth is centered
- the counties that receive much of the residential spillover from the metropolitan counties (mostly circling the Puget Sound), and
- three rural counties with a large university present (Kittitas, Whatcom, and Whitman Counties)

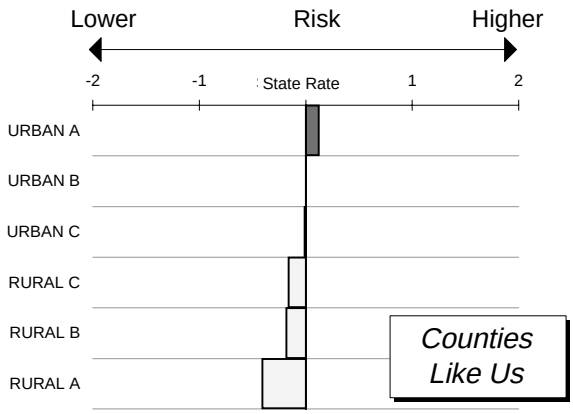
Individual indicators. Individual indicators show some interesting variation. New issues of residential building permits are concentrated primarily around Seattle and the Puget Sound region, though Clark County, a suburb of Portland, Oregon also has a very high rate. Sales of existing homes are not so concentrated and show some additional counties where existing housing can absorb new residents.

Households in rental properties are prevalent in metropolitan counties and in central and southeastern Washington where seasonal migrants are more common. This indicator appears to be more sensitive to migrant populations.

The two variables concerning residential relocation also show interesting patterns. The percent of the population living in a different location in 1990 than in 1985 yet still living within the same county (intra-county movers) was more likely to be high in urban counties. The percent of the population living in the county in 1990 that had lived outside the county (or state) in 1985 is more suggestive of in-migration. Kittitas and Whitman counties, rural counties with large university populations, continuously have lots of new residents. Several other counties, such as Thurston, Mason, Kitsap, and Island, Franklin, and Skamania Counties, are growing as "bedroom" communities for larger metropolitan counties and show substantial migration from outside the county.

Risk Factor: Transitions and Mobility



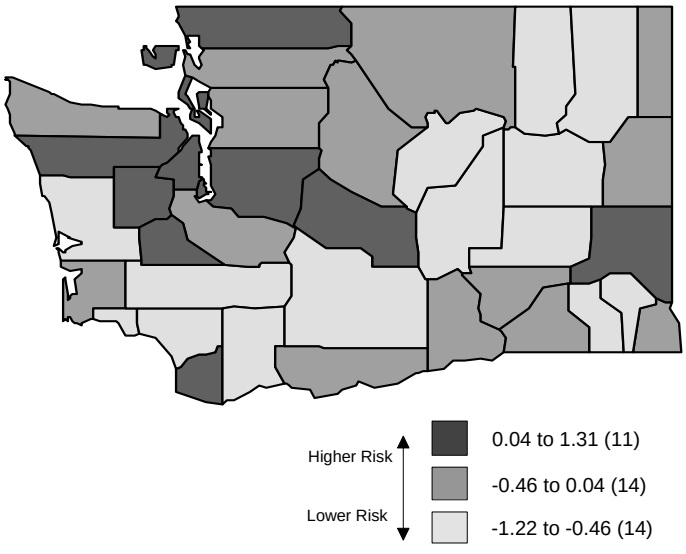


Legend for Bar Graphs

Above State Rate | Below State Rate

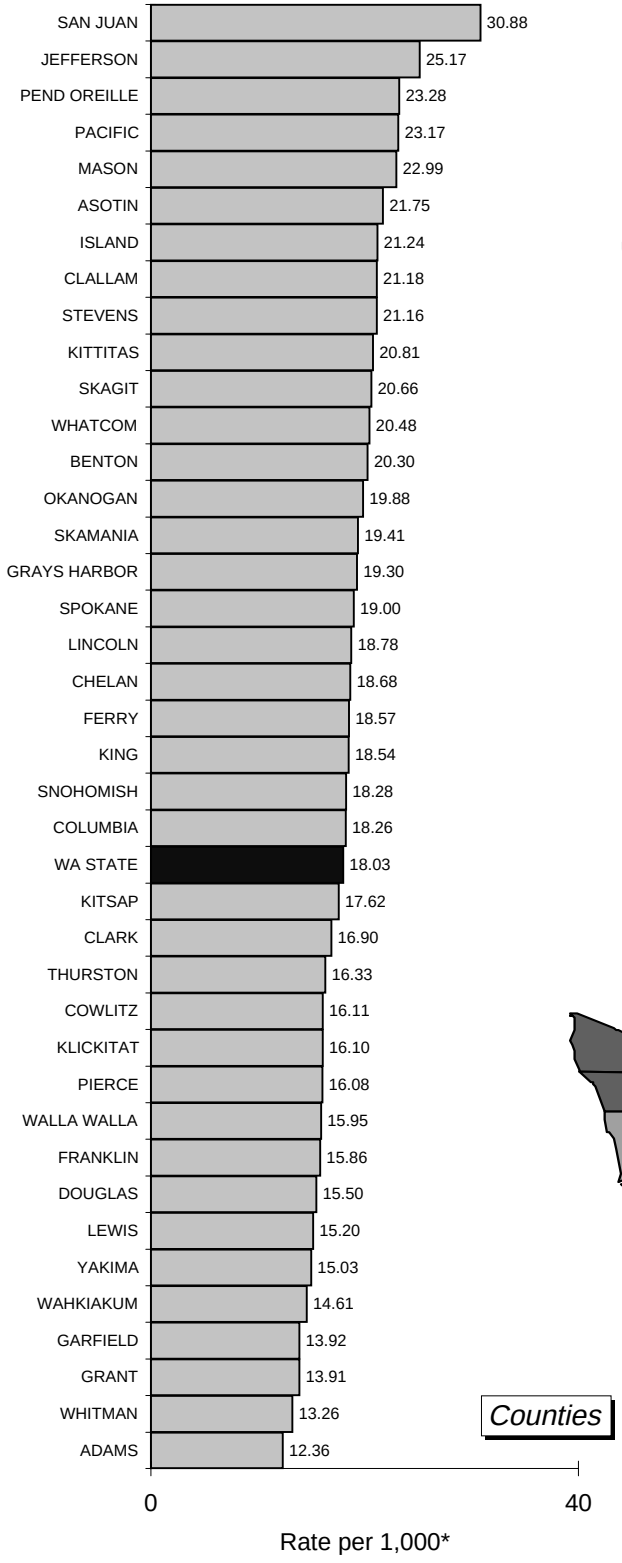
Summary Measure for:

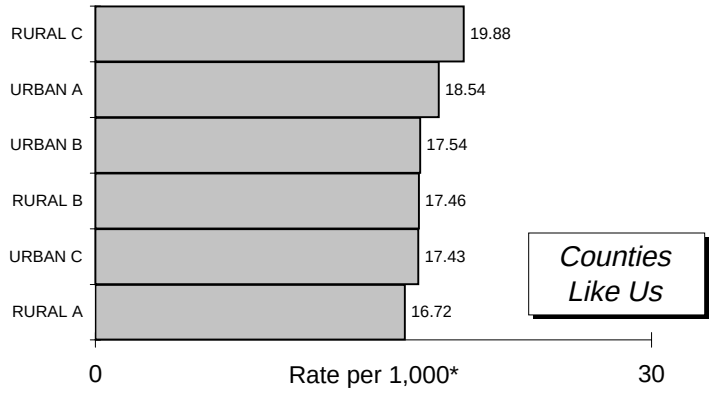
Transitions and Mobility



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

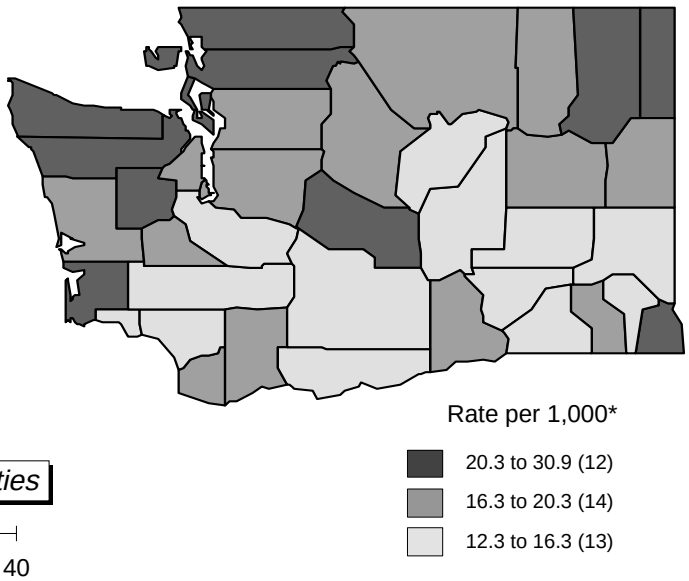
Risk Factor: Transitions and Mobility





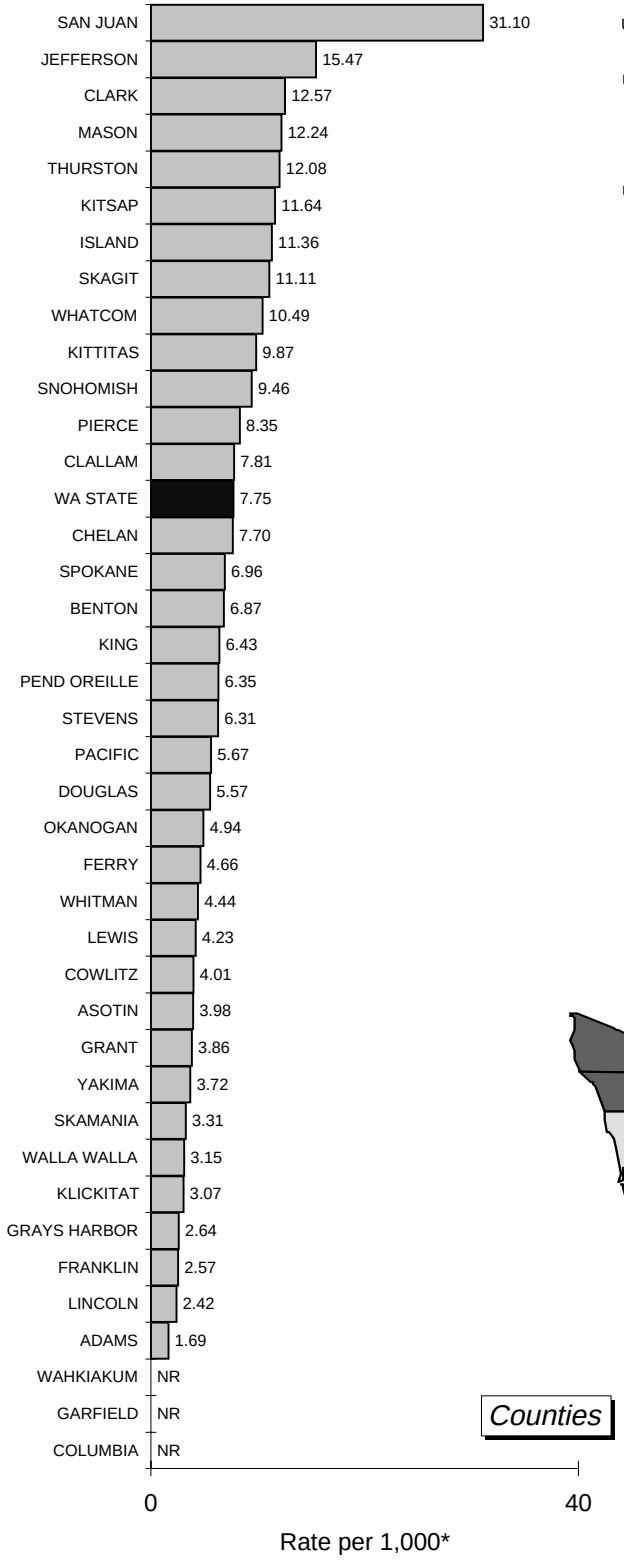
Indicator:

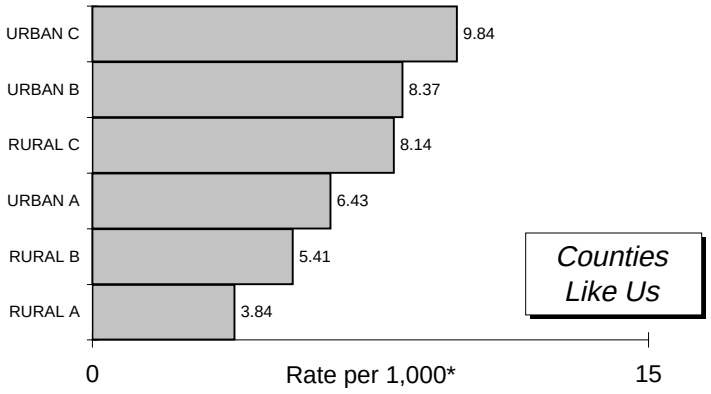
Sales of Existing Homes per 1,000 Persons (all ages)



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

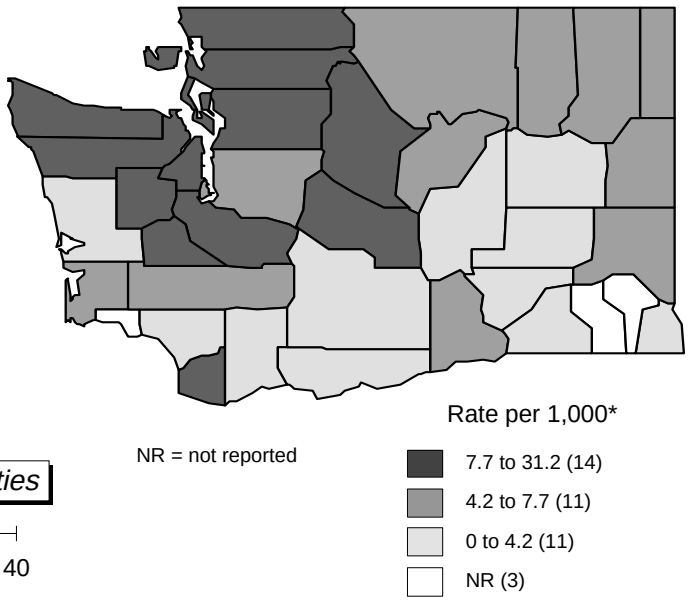
Risk Factor: Transitions and Mobility





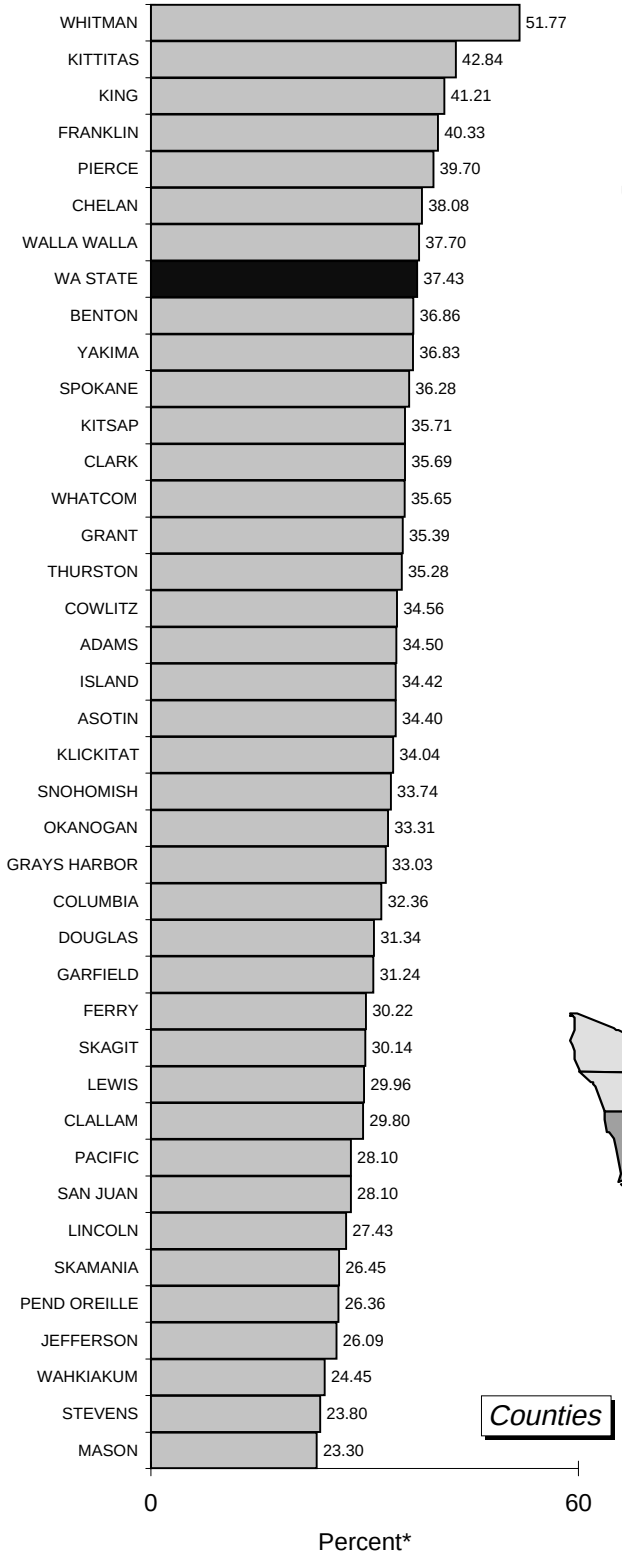
Indicator:

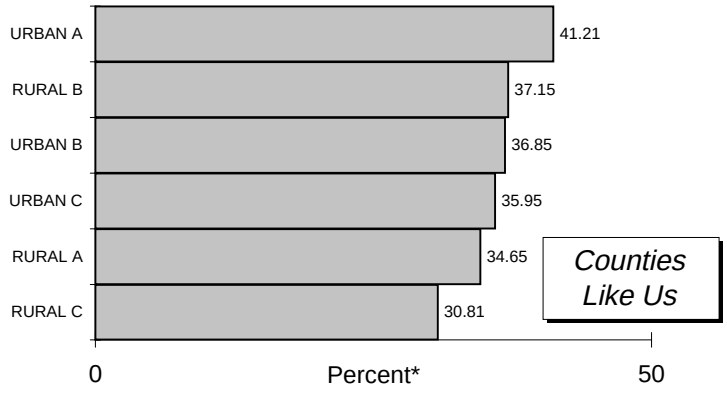
Residential Building Permits Issued per 1,000 Persons (all ages)



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

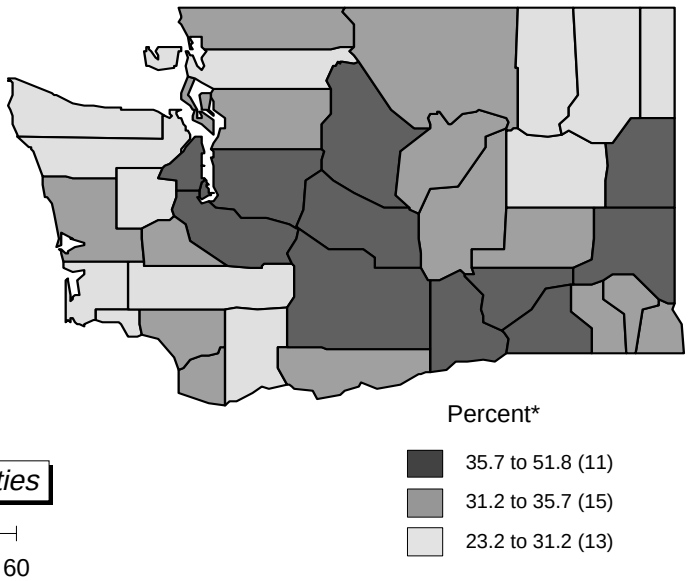
Risk Factor: Transitions and Mobility





Indicator:

Percent of Households in Rental Properties



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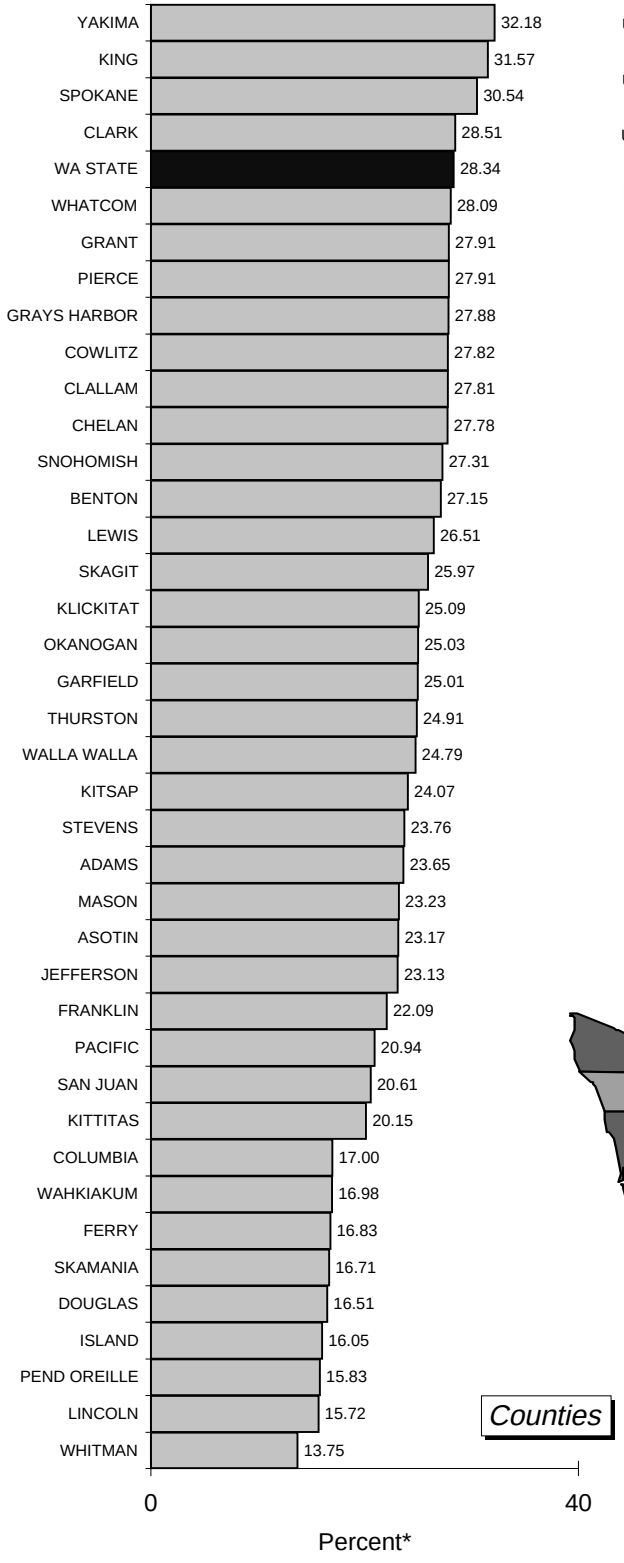
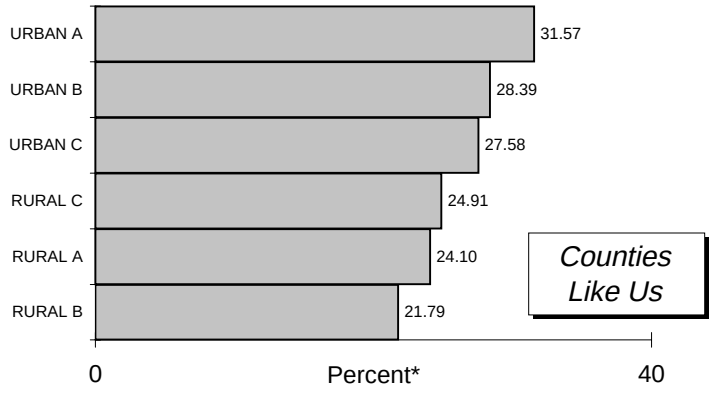
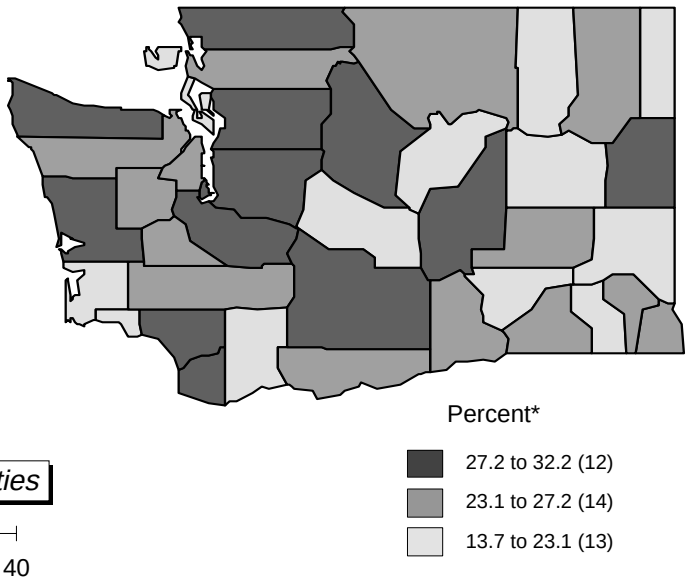
Risk Factor: Transitions and Mobility





Indicator:

Percent of Persons Moving Within the County, between 1985 and 1990



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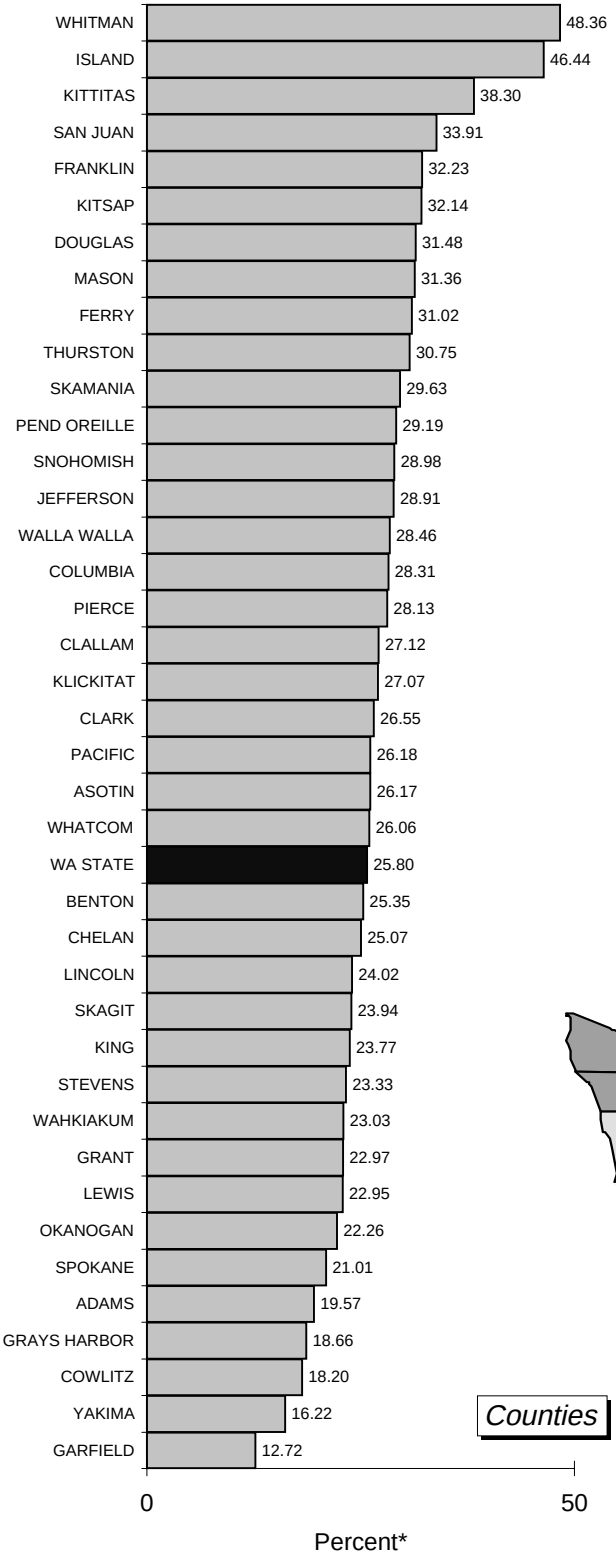
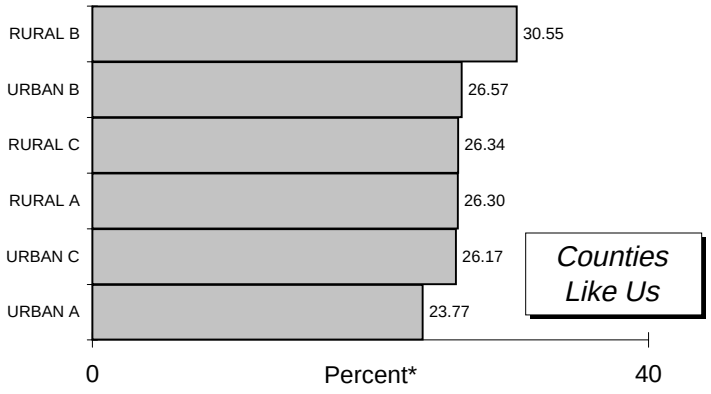
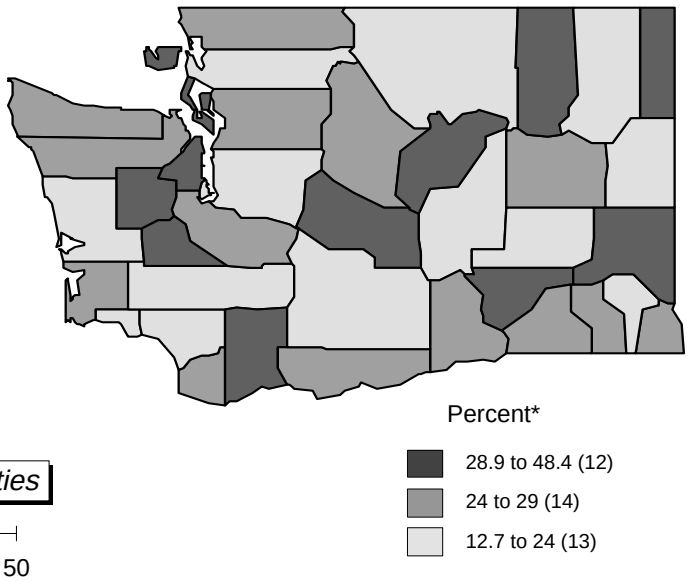
Risk Factor: Transitions and Mobility





Indicator:

Percent of Persons Moving from Outside the County, between 1985 and 1990



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

Risk Factor: Extreme Economic and Social Deprivation

Children who live in a poor, deteriorating neighborhood where the community perceives little hope for the future are more likely to develop problems with drug use. Children who live in these areas - and have behavior adjustment problems early in life - are also more likely have problems with drugs later on (Appendix D; DRP, 1996).

Proxy measures for this risk factor are presented in the graphs below and include a collection of indicators based on poverty status, unemployment status, aid programs for low income families, and other data associated with deprivation. Higher rates for these indicators indicate higher levels of economic and social deprivation.

Indicators / Definitions

- **Children in Aid to Families with Dependent Children (AFDC)**

  Washington State - the number of children (ages 0-17) participating in AFDC programs in the month of April as a rate per 1,000 children (ages 0-17). Sources: 11, 08.

  National - the one-year monthly average number of children (ages 0-17) participating in AFDC programs as a rate per 1,000. Sources: KK, GG.

- **Food Stamp Recipients**

  Washington State - The number of persons (all ages) receiving food stamps in the month of April as a rate per 1,000 persons (all ages). Sources: 11, 08.

  National - Same as Washington State. Sources: CC, GG.

- **Free and Reduced Lunch Program**

  Washington State - The number of students in public schools (K-12) whose applications have been approved for free and reduced lunch programs as a percentage of all students enrolled in public schools (K-12). Children are eligible for free lunches if their family income is at or below 130% of the federal poverty level or for reduced price lunches if their family income is at or below 185% of the federal poverty level. Sources: 16, 17.

  National - Same as Washington State. Source: DD.

- **Unemployment**

  Washington State - The number of unemployed persons (ages 16 and over) as a percentage of the civilian labor force. Unemployed persons are individuals (ages 16 and over) who have actively looked for work, are currently available for work, and do not have a job. The civilian labor force includes persons (ages 16 and over) who are working or looking for work. Source: 13.

  National - Same as Washington State. Source: UU.

- **Exhausted Unemployment Benefits**

  Washington State - The number of persons (ages 16 and over) who have exhausted their regular unemployment benefits as a percentage of the total number of unemployed persons. Unemployed persons are individuals (16 and over) who have actively looked for work, are currently available for work, and do not have a job. Sources: 12, 13.

  National - Same as Washington State. Sources: VV, UU.

- **Persons Living Below the Poverty Level**

  Washington State - The number of persons (all ages) whose 1989 income was below the federal poverty level as a percentage of all persons. Source: 26.

  National - Same as Washington State. Source: FF.

- **Children Living Below the Poverty Level**

  Washington State - The number of children (ages 0-17) whose 1989 income was below the federal poverty level as a percentage of all children (ages 0-17). Source: 26.

  National - Same as Washington State. Source: FF.

- **Families Living Below the Poverty Level**

  Washington State - The number of families whose 1989 income was below the federal poverty level as a percentage of all families. For this indicator, a family consists of at least two related persons (one of whom is the head of household) living in the same house. They may be related by marriage, birth, or adoption. Source: 26.

  National - Same as Washington State. Source: FF.

- **Female Headed Family Households**

  Washington State - The number of female headed households with children (ages 0-17) and no spouse present as a percentage of all family households with children (ages 0-17). For this indicator, a family consists of at least two related people (one of whom is the head of household) living in the same house. They may be related by birth or adoption. Source: 25.

  National - Same as Washington State. Source: EE.

- **Per Capita Income**

  Washington State - The average per capita income rounded to the nearest dollar. Per capita income is total personal income divided by total population. Source: 27.

  National - Same as Washington State. Source: JJ.

- **Low Birthweight Babies Born**

  Washington State - The number of babies born with low birthweight as a rate per 1,000 live births. Low birthweight is less than 2,500 grams. Source: 02.

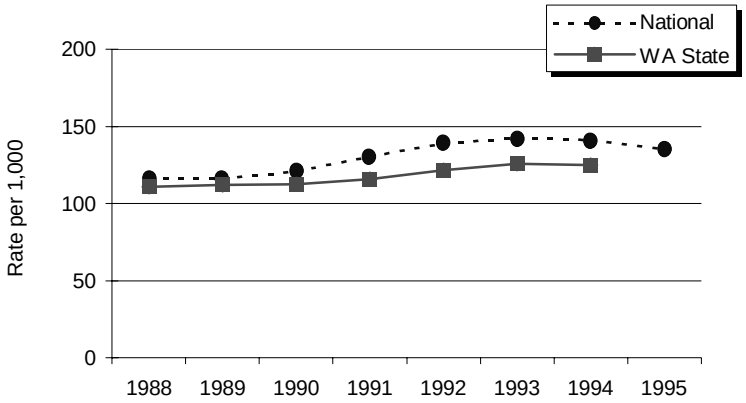
  National - the number of babies born with low birthweight as a rate per 1,000 live births where the weight of the baby is known. Low birthweight is less than 2,500 grams. Source: NN.

State and National Trends

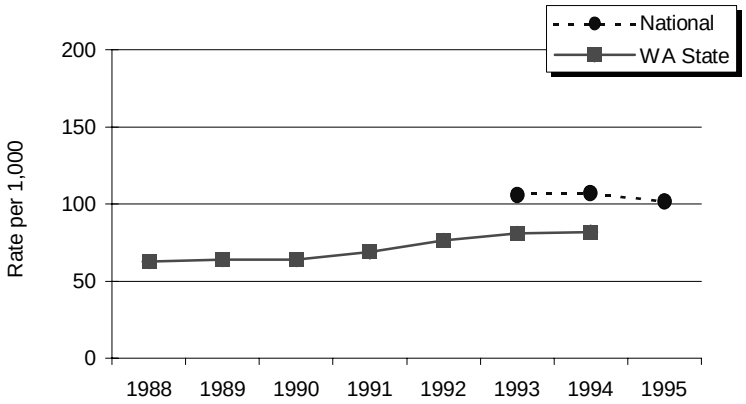
For all but one of the above measures of social and economic deprivation, Washington State fares better than the nation. How these indicators are changing over time is less clear.

Increases in the rates for Children in AFDC (up 13%, 110 to 125 per 1,000, between 1988 and 1994), Persons Receiving Food Stamps (up 30%, 62.6 to 81.6 per 1,000, between 1988 and 1994), and Students Approved for Free and Reduced Lunches (up 35.4% between 1989 and 1995) might suggest greater numbers of young persons are experiencing economic hardship.

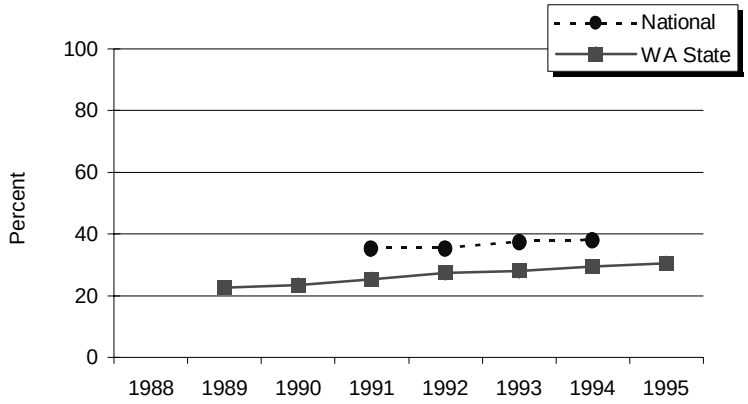
Children (0-17) in AFDC per 1,000 Children



Persons (all ages) Receiving Food Stamps per 1,000 Persons



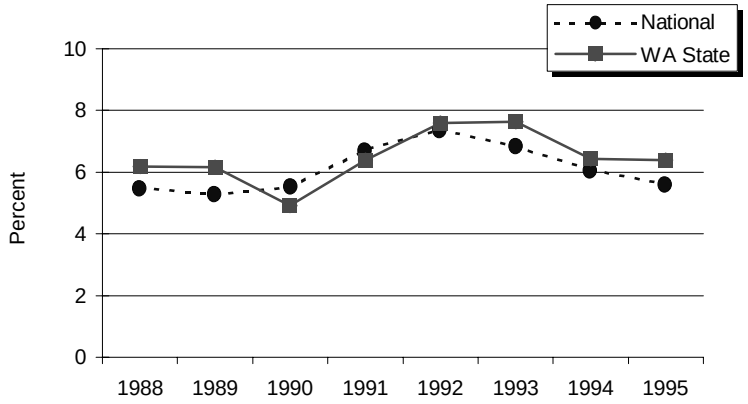
Percent of Students (K-12) Approved for Free and Reduced Lunch Program



However, the federal Family Support Act in 1991 encouraged increased access to AFDC which means that some of the increase in AFDC clients is due to changes in enrollment procedures rather than increasing economic difficulty. Changes in the number of persons receiving food stamps often parallel changes in AFDC populations, thus a partial explanation for the increase food stamps recipients. The rise in free and reduced lunches also can be tied partially to increases in the AFDC and food stamps populations (As a way to ease barriers to enrollment, AFDC and food stamps clients are directly solicited by mail to enroll their children in the free and reduced lunch program). Thus, it is difficult to say how much of the increase in these indicators is program-related and how much represents true increases in the number of persons in need of financial assistance.

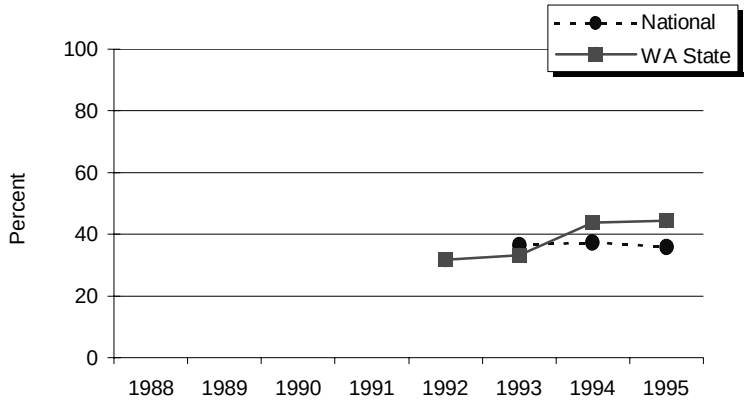
The cyclical nature of persons unemployed is evident in both the state and national figures. The trend in Washington's unemployment rate is consistent with the national trend, averaging near 6% for both, peaking near 8% for the state and 7% nationally and falling to as low as 5% for both.

Percent of the Civilian Labor Force Who Are Unemployed



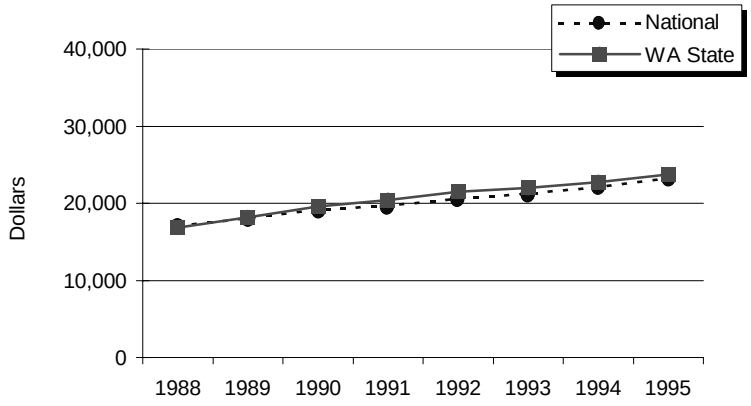
Rates of exhausted unemployment benefits between the state and the nation are more different. In 1994 and 1995 in Washington, more persons are exhausting their unemployment benefits relative to the number of unemployed persons than are such persons nationwide. This may suggest that more job losses in Washington are long-term and possibly "permanent". Although not likely the complete explanation for the increasing rates, job losses in timber, fishing, and agriculture are often long term or permanent.

Percent of Unemployed Persons Who Have Exhausted Their Unemployment Benefits

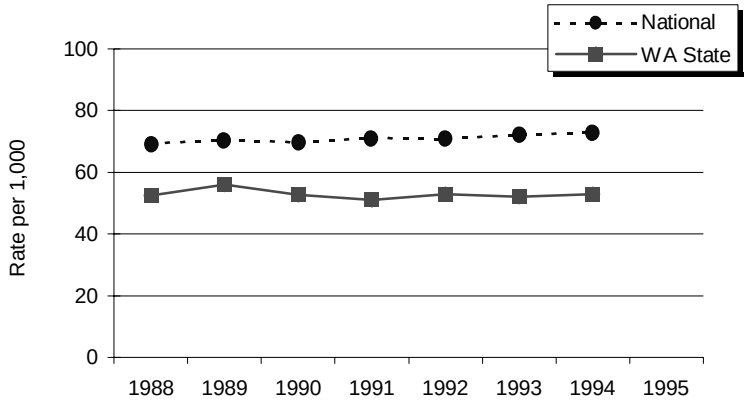


Other indicators are more stable over time. Per capita income in Washington increased approximately 5% per year between 1988 and 1995, barely beating the estimated 4% annual increase in inflation over the same period. The number of low birthweight babies born in Washington has also remained relatively constant, rising in 1989 to 56 low birthweight babies per 1,000 live births, dropping to 51 per 1,000 in 1991, and remaining around 53 per 1,000 since then.

Per Capita Income

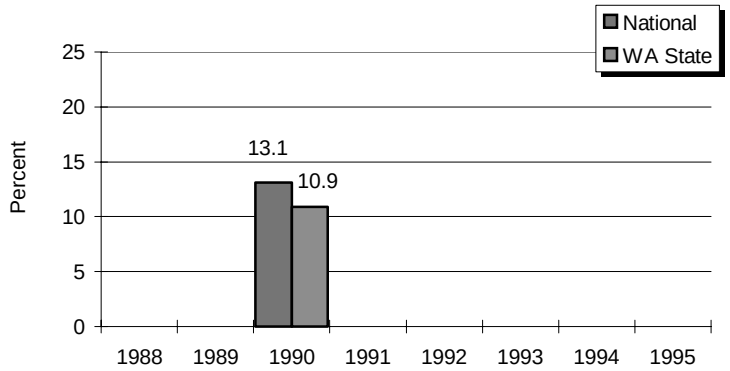


Number of Low Birthweight Babies Born per 1,000 Live Births

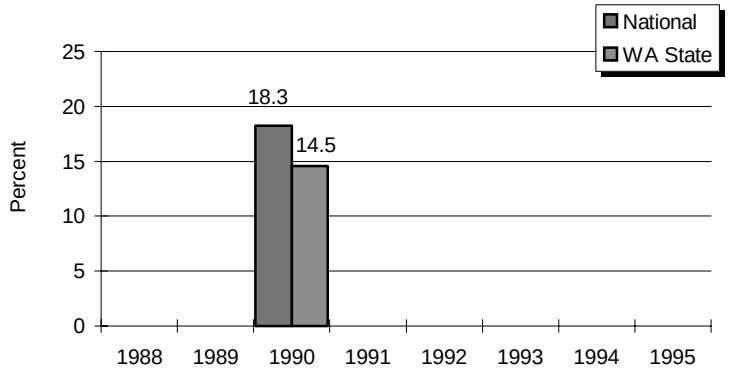


The remaining indicators come from the 1990 census and cannot be analyzed for trends. They do show Washington rates below national rates.

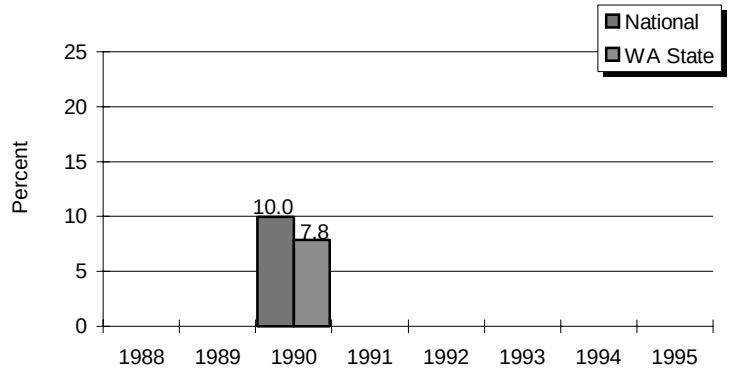
Percent of Persons (all ages) Living Below the Federal Poverty Level



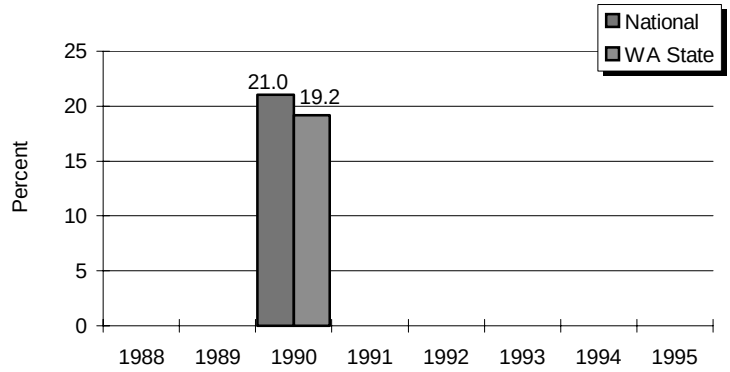
Percent of Children (0-17) Living Below the Federal Poverty Level



Percent of Families Living Below the Federal Poverty Level



Percent of Family Households with a Female Head, Children, and No Spouse



Geographic Findings

Summary measures. The summary measures for "Counties Like Us" show all three Urban groups to have lower risk levels for social and economic deprivation than any of the three Rural groups. Of the eighteen counties having the highest standardized summary measure of risk, all but one (Yakima County) are rural.

Individual indicators. For most of the indicators, urban counties fare better than rural counties. Eight of the eleven indicators also show all three rural "Counties Like Us" groups with higher indicator levels than any of the urban groups, though the order among the urban or the rural groups is not always the same. Urban Yakima County is generally an exception to the rule, showing high levels on most indicators.

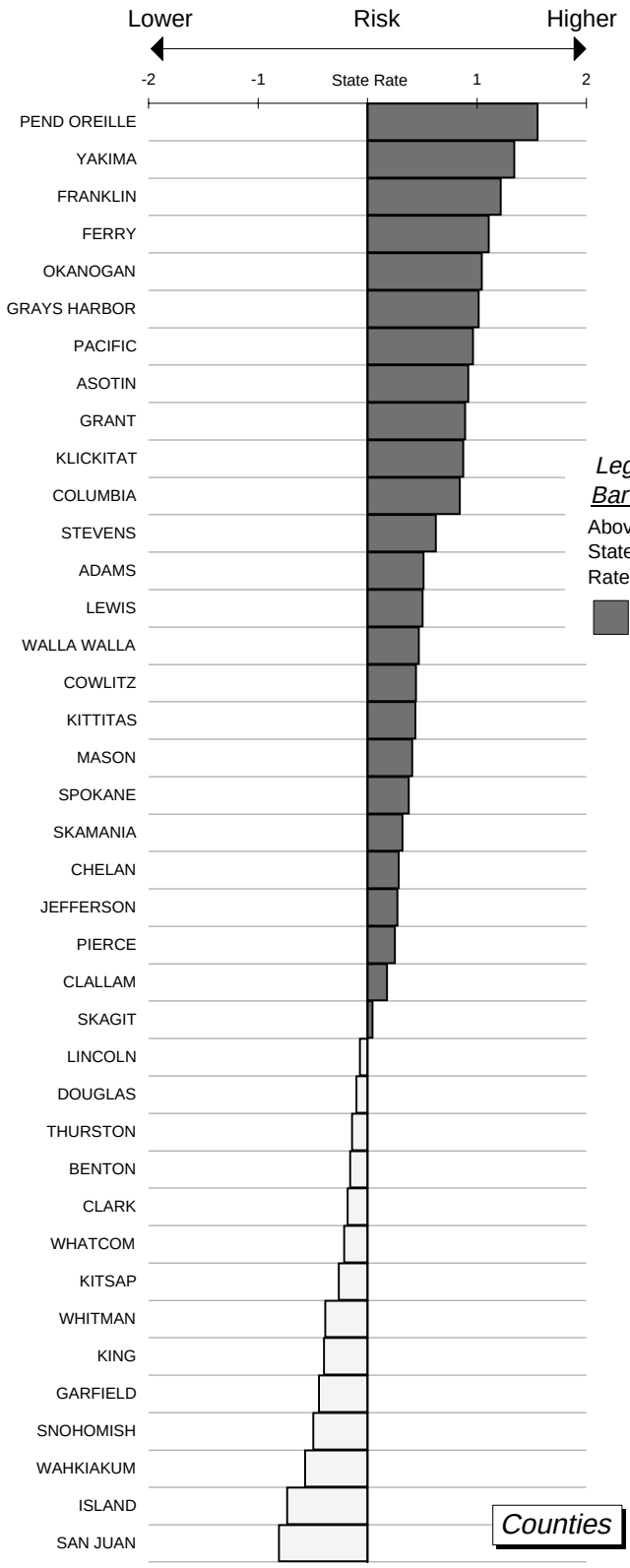
Three indicators show different patterns where urban counties rank somewhat higher. Percent of Persons Who Have Exhausted their Unemployment Benefits attempts to measure longer-term, or "chronic", unemployment. Urban counties may have a larger "core" of such persons. A number of counties more dependent on timber jobs also appear high on this measure. Longer-term unemployment may be less prevalent in some of the eastern, heavily agricultural counties, due to the seasonal nature of work opportunities in agriculture. The fact

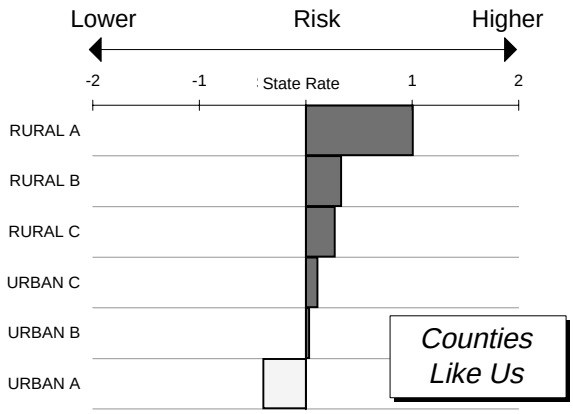
that some seasonal workers in agriculture migrate to different states when work in Washington is finished would also work to reduce this measure.

Urban counties also show higher percents of Households with a Female Head, Children, and No Spouse. Interestingly, many of the counties with the lowest levels of this indicator are found in rural eastern Washington suggesting that traditional family structures may be more likely to be maintained in some rural areas.

Except for the Rural A counties, rates of Low Birthrate Babies are higher, on average, for the Urban county groups. However, with a number of rural counties high on this indicator, it would be hard to label this indicator an urban phenomenon.

Risk Factor: Extreme Economic and Social Deprivation



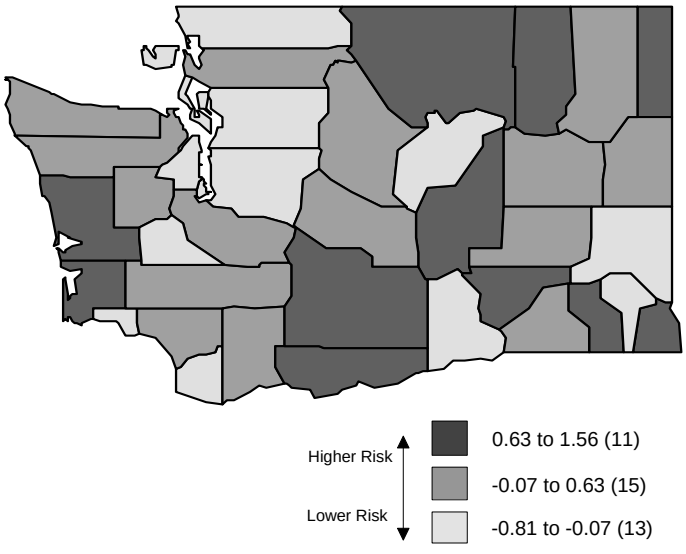


Legend for Bar Graphs

Above State Rate	Below State Rate

Summary Measure for:

Extreme Economic and Social Deprivation



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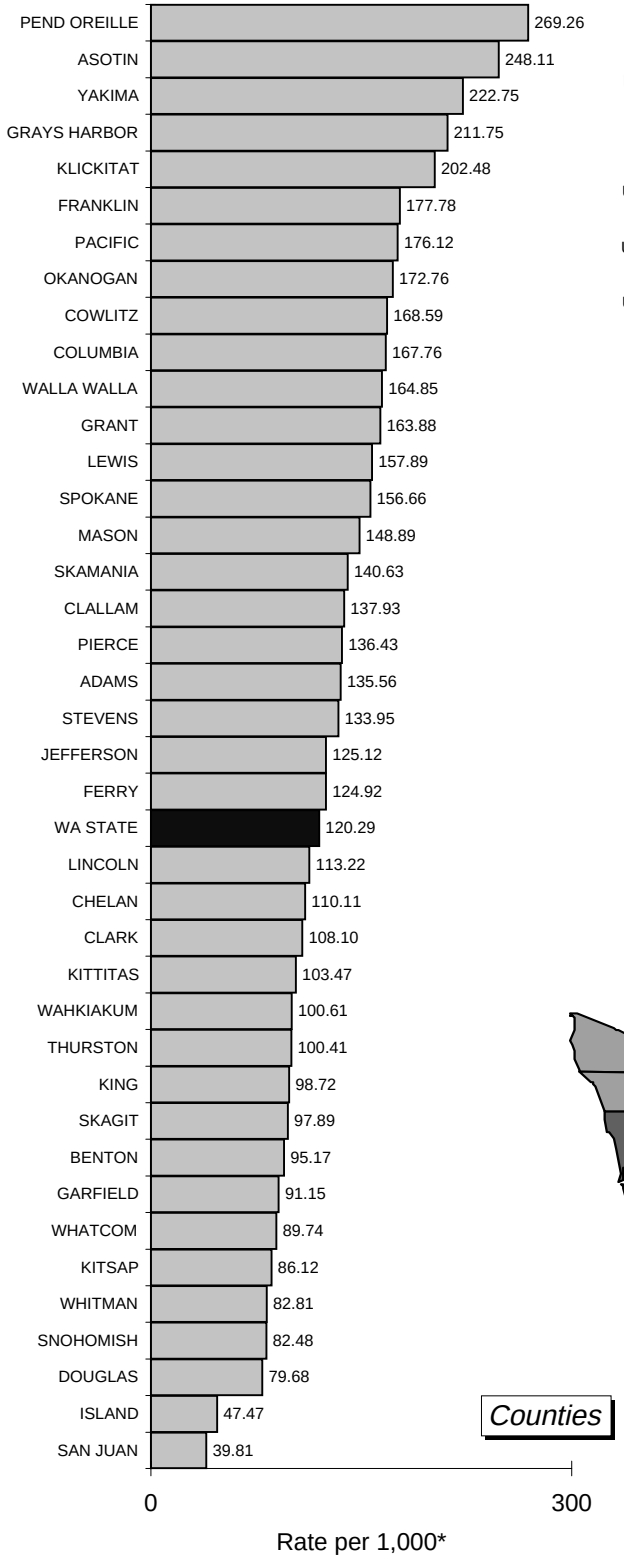
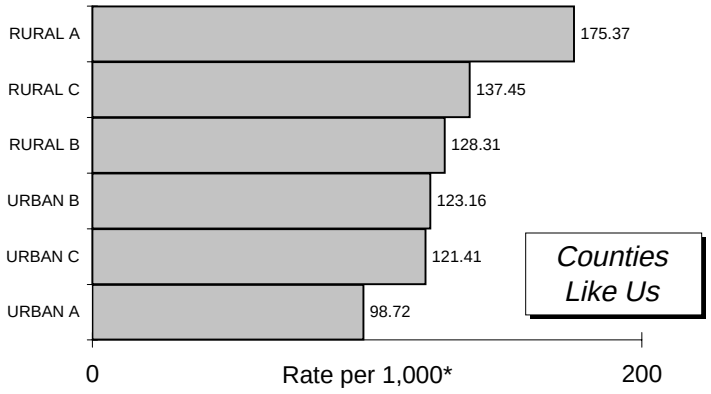
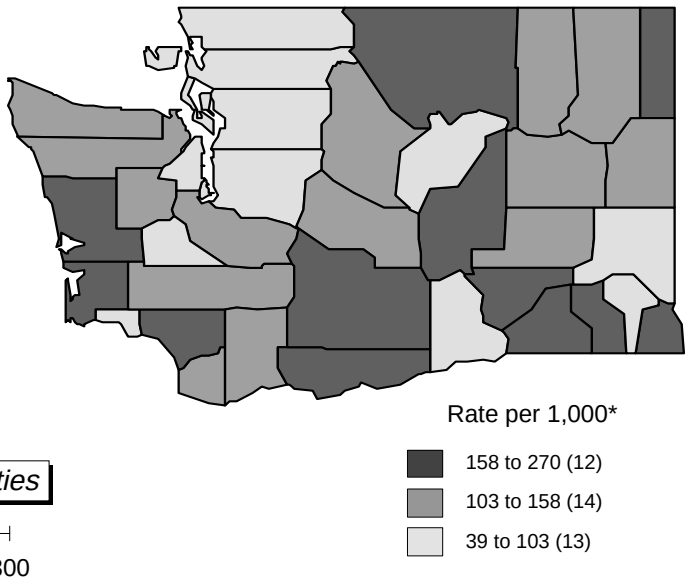
Risk Factor: Extreme Economic and Social Deprivation





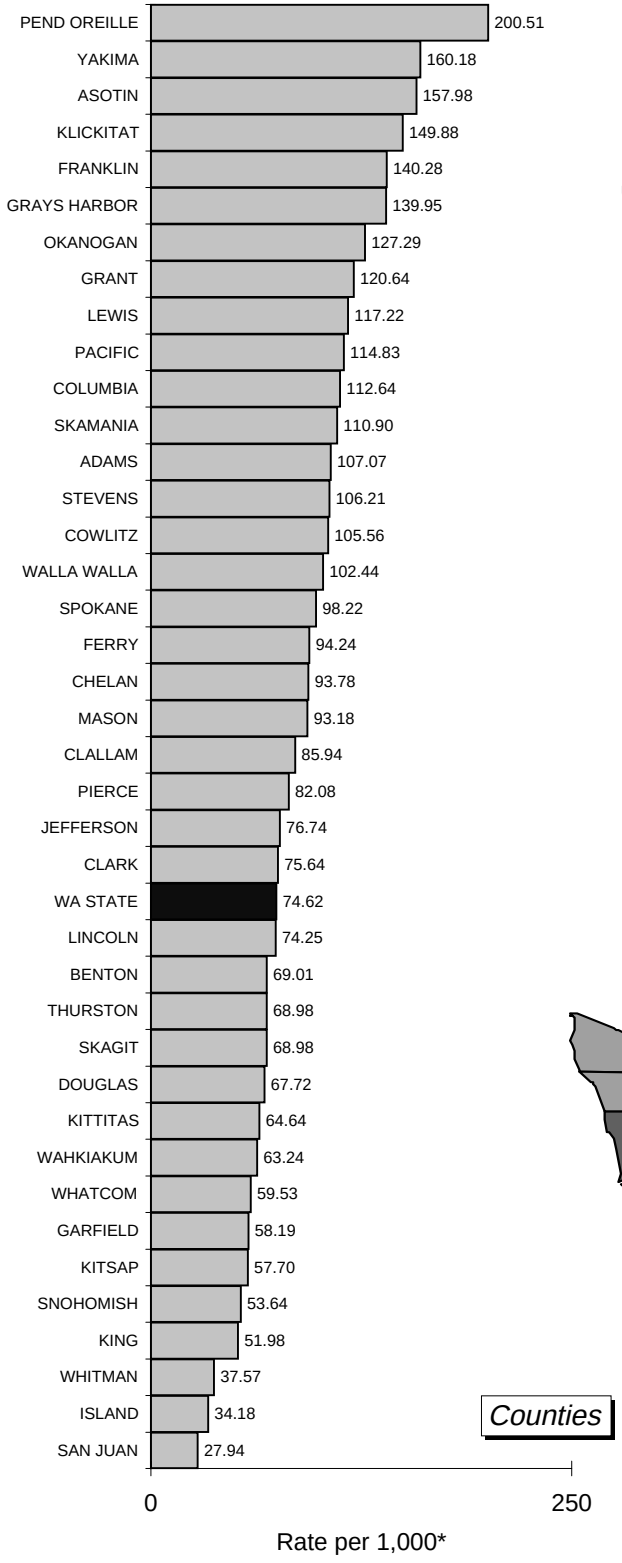
Indicator:

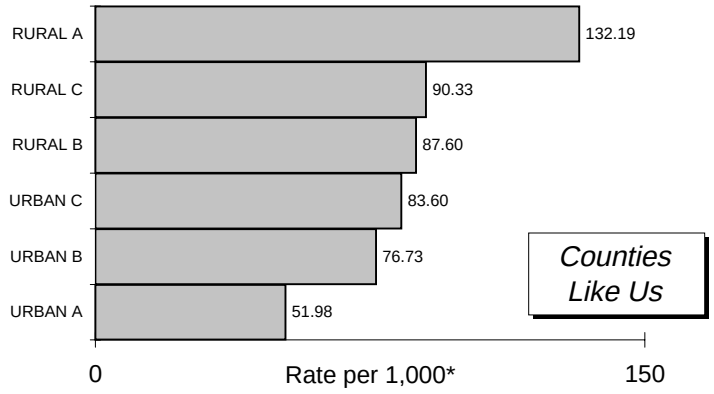
Children (0-17) in AFDC per 1,000 Children



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

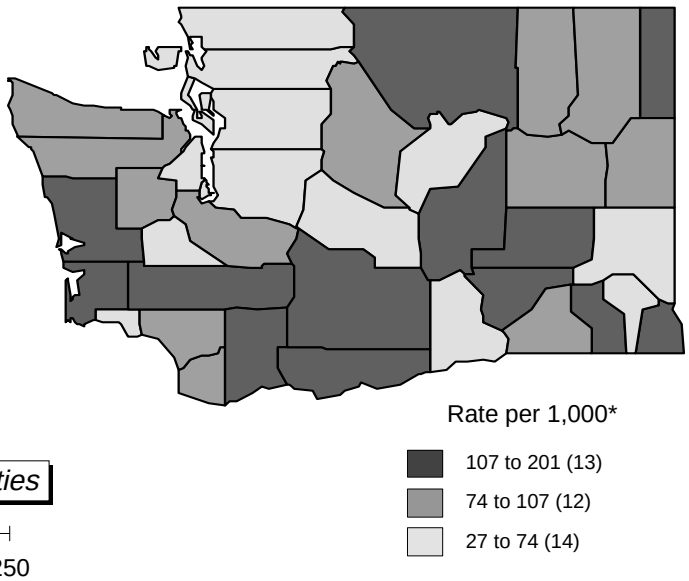
Risk Factor: Extreme Economic and Social Deprivation





Indicator:

Persons (all ages) Receiving Food Stamps per 1,000 Persons



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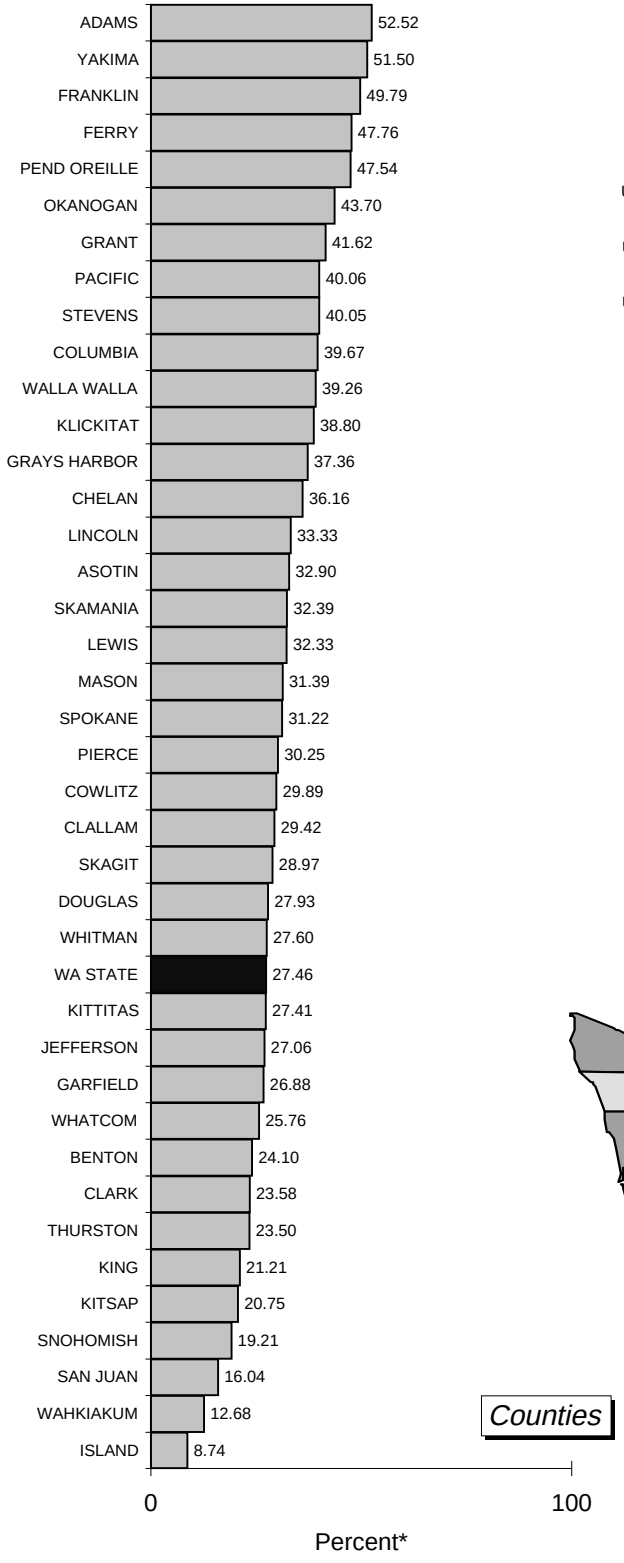
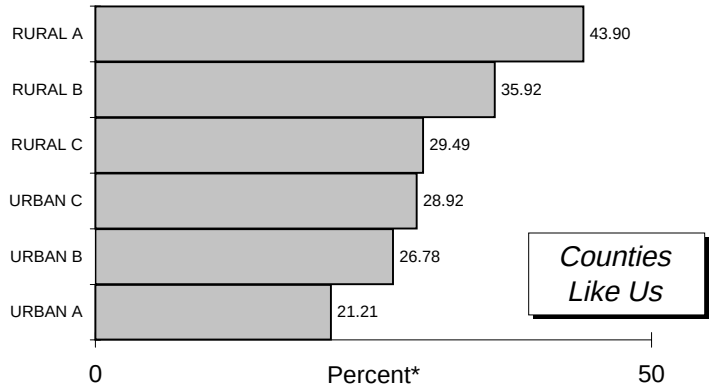
*Average rate for 1990 to 1994.

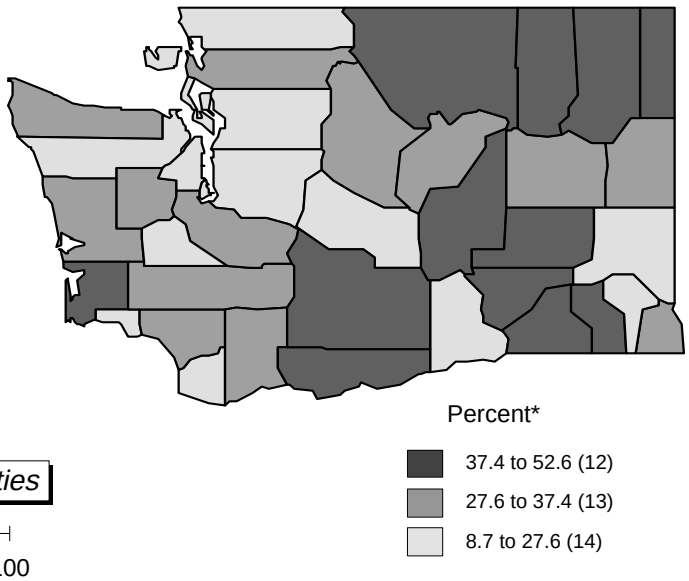
Risk Factor: Extreme Economic and Social Deprivation





Indicator:

Percent of Students (K-12) Approved for Free and Reduced Lunch Program



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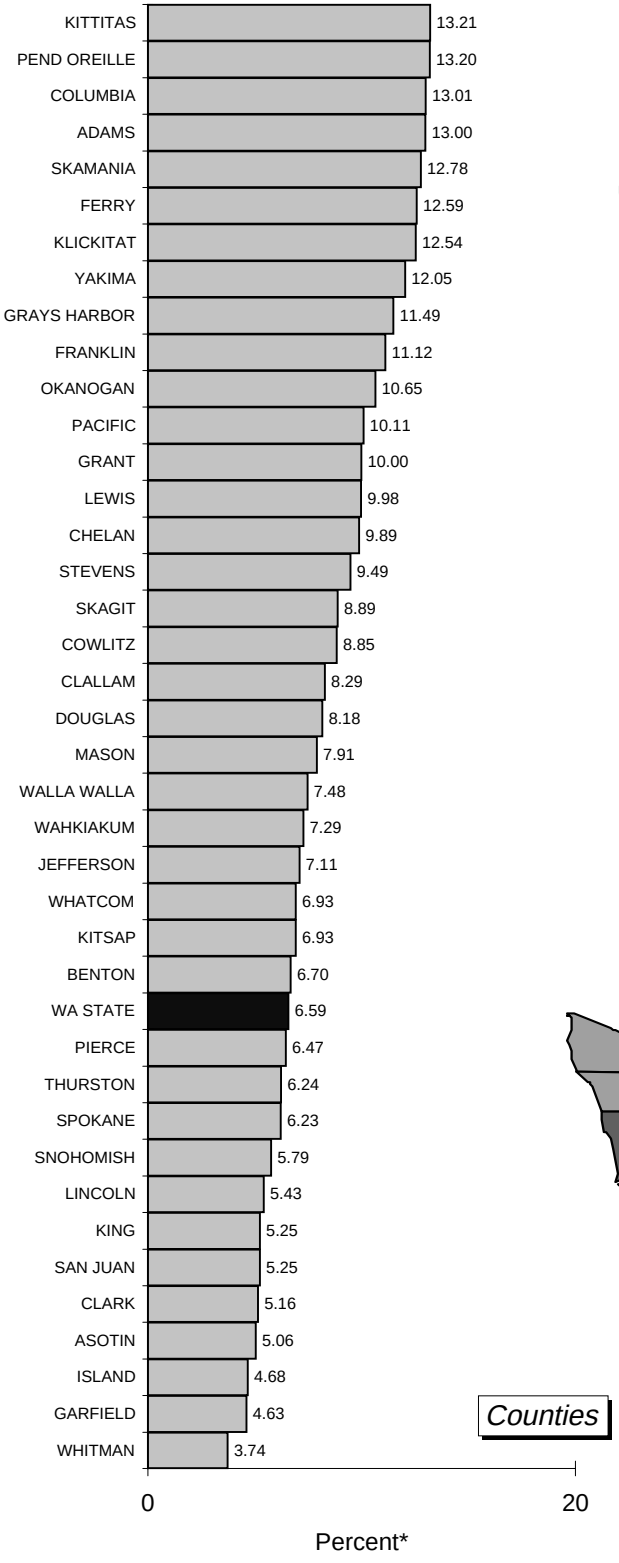
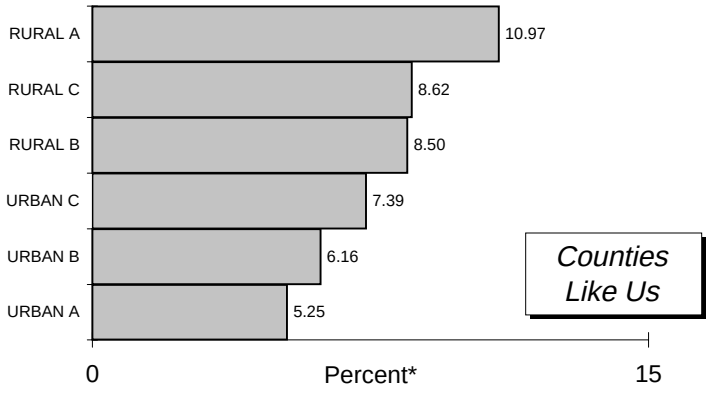
*Average percent for 1990 to 1995.

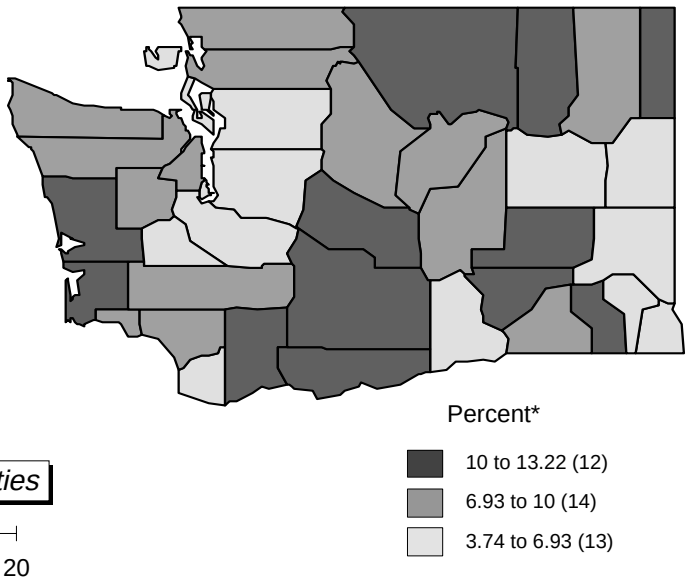
Risk Factor: Extreme Economic and Social Deprivation





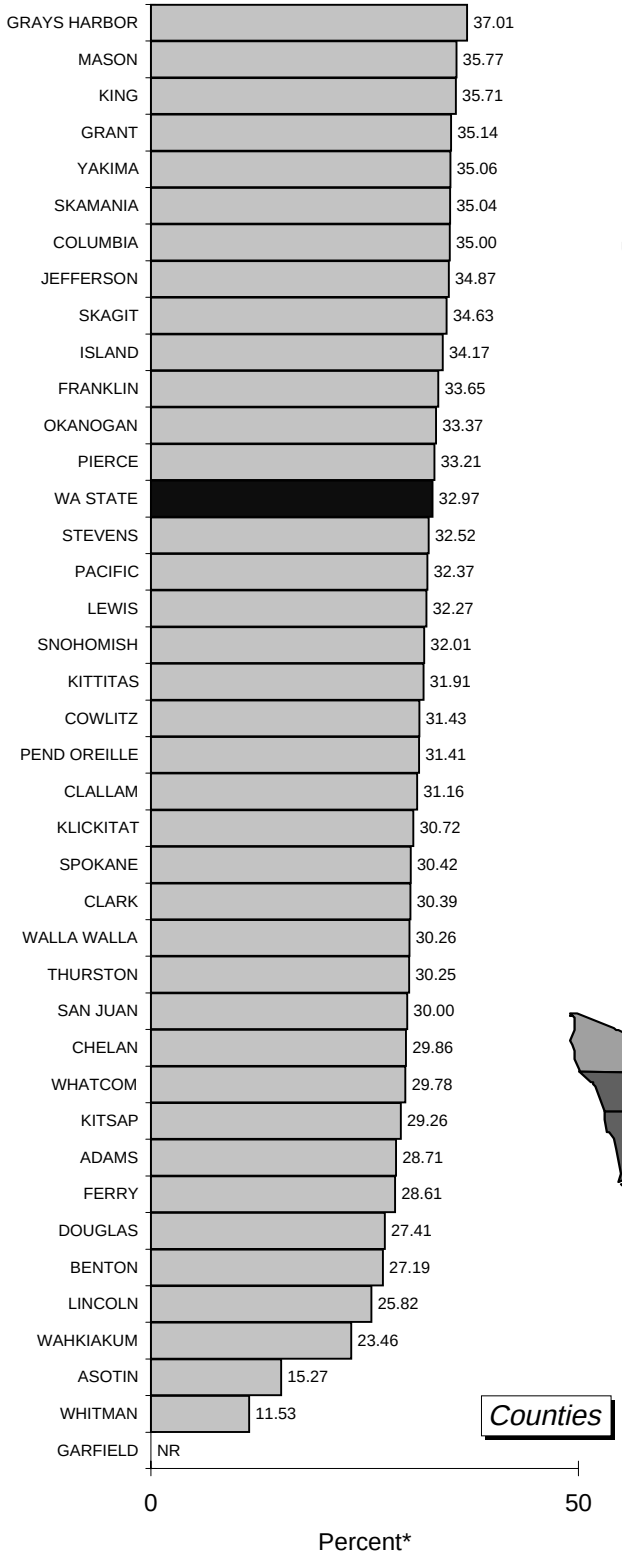
Indicator:

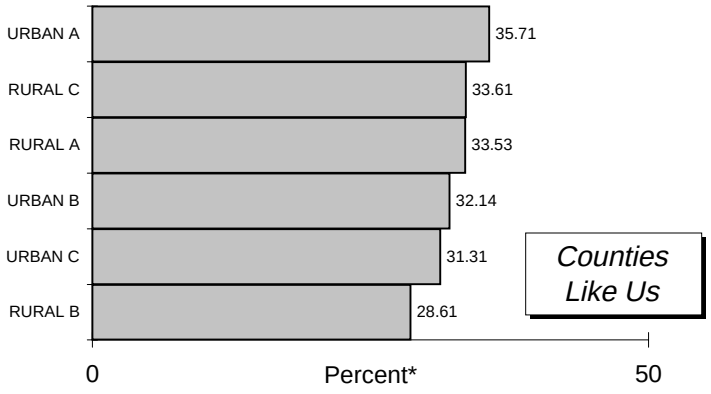
Percent of the Civilian Labor Force Who Are Unemployed



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1990 to 1993.

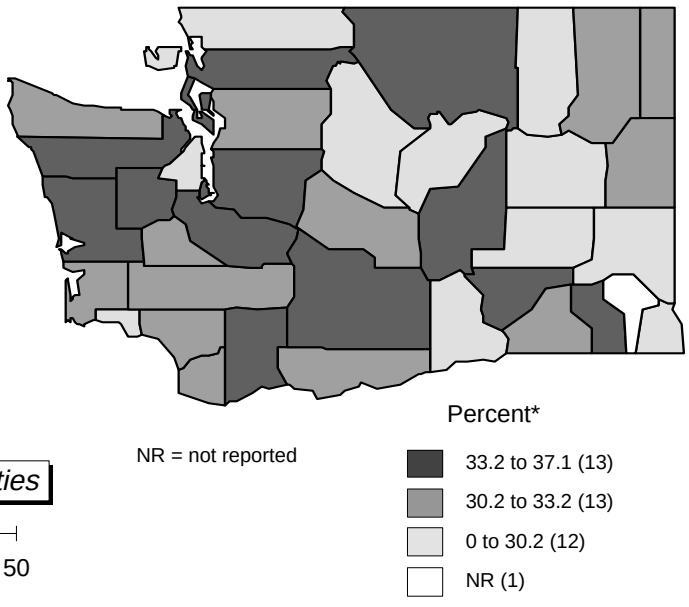
Risk Factor: Extreme Economic and Social Deprivation





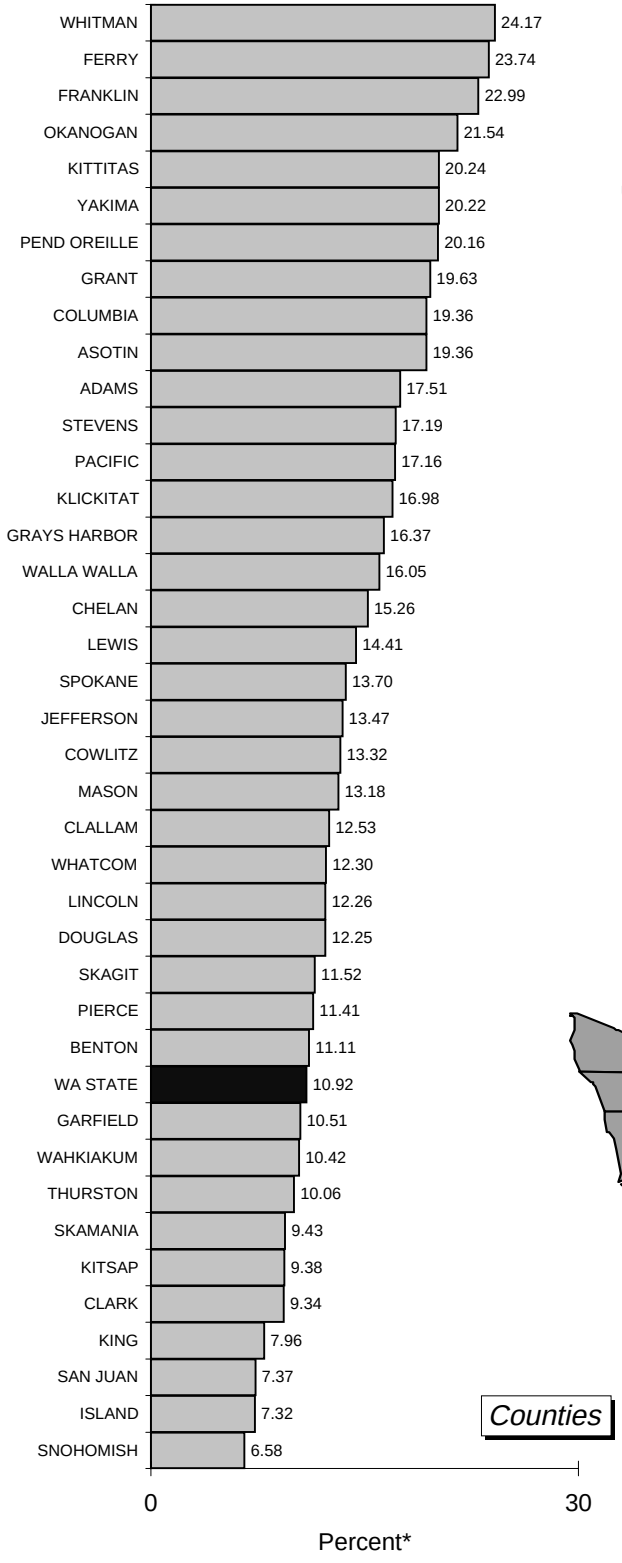
Indicator:

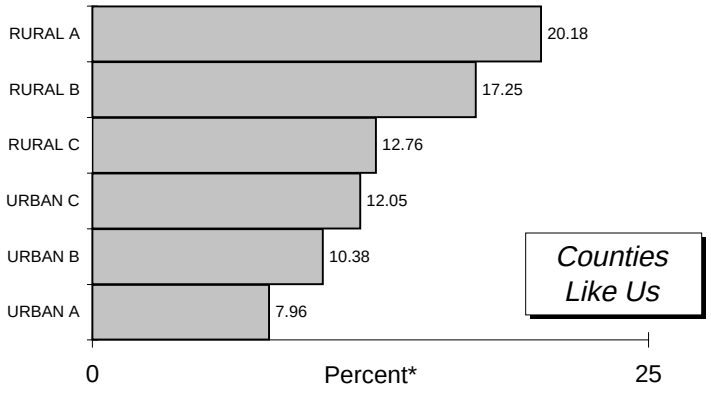
Percent of Unemployed Persons Who Have Exhausted Their Unemployment Benefits



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1992 to 1993.

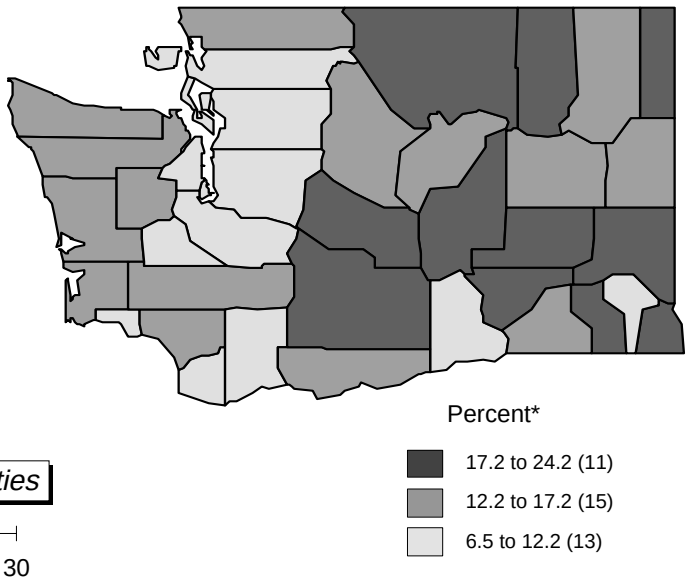
Risk Factor: Extreme Economic and Social Deprivation





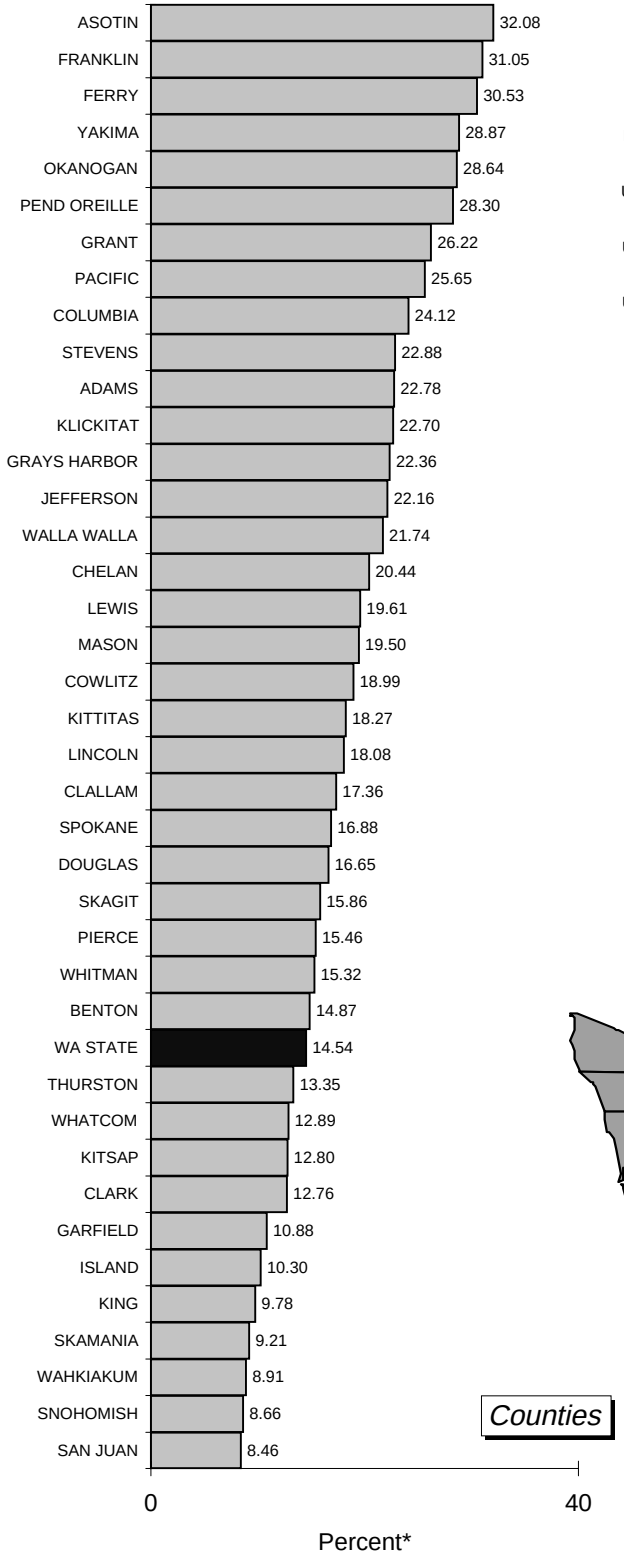
Indicator:

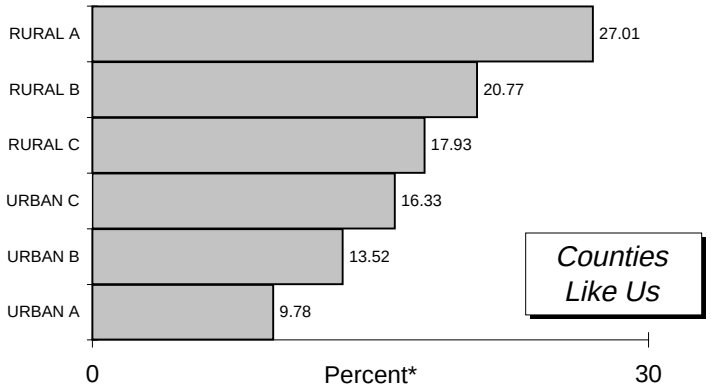
Percent of Persons (all ages) Living Below the Federal Poverty Level



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

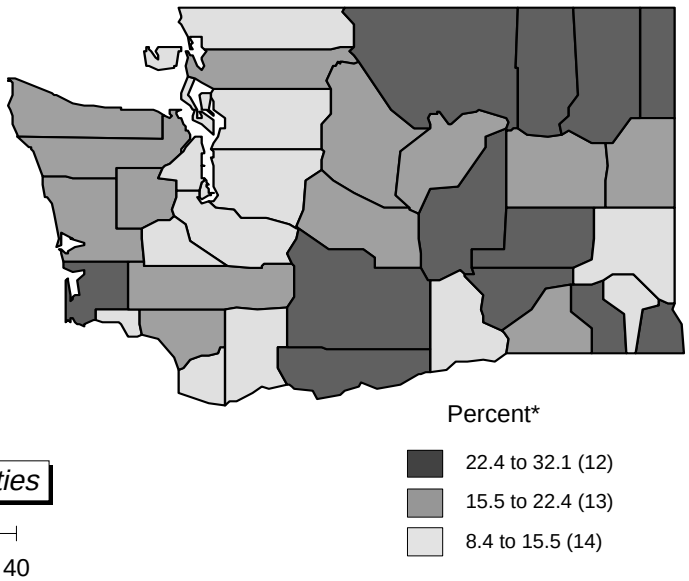
Risk Factor: Extreme Economic and Social Deprivation





Indicator:

Percent of Children (0-17) Living Below the Federal Poverty Level



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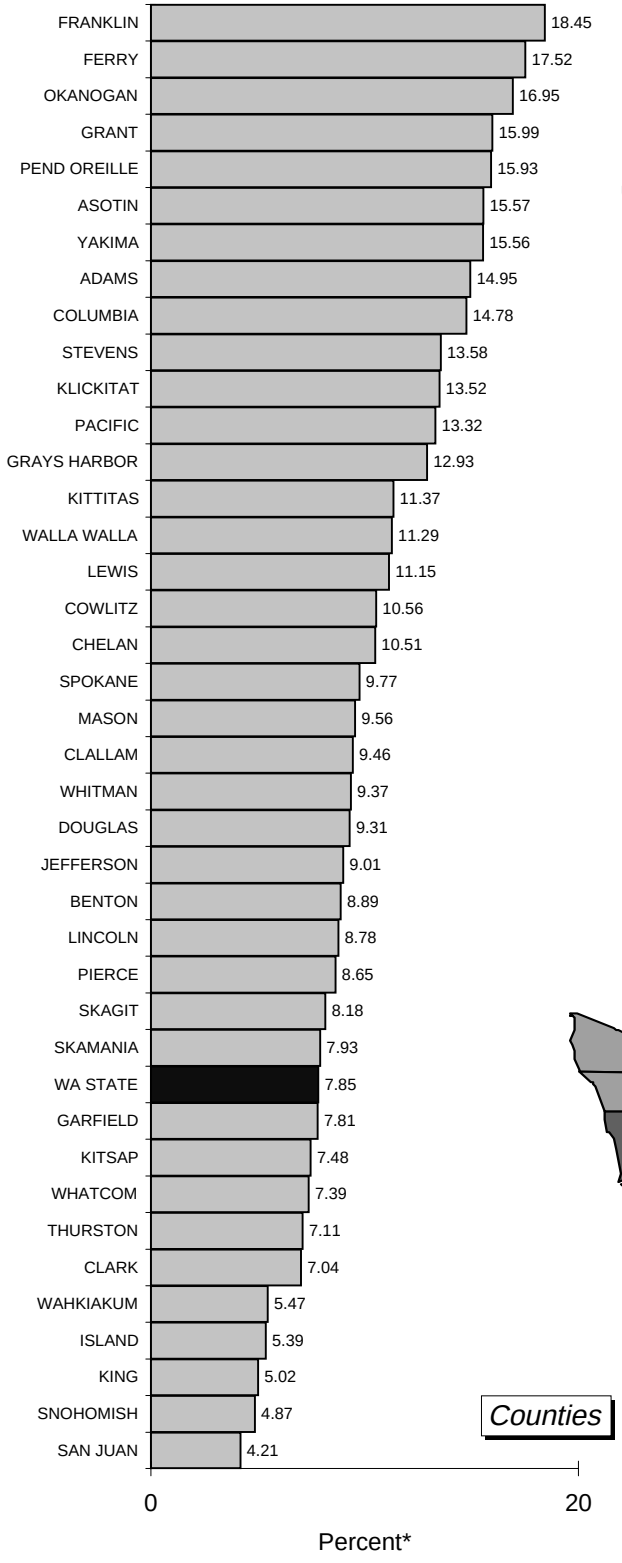
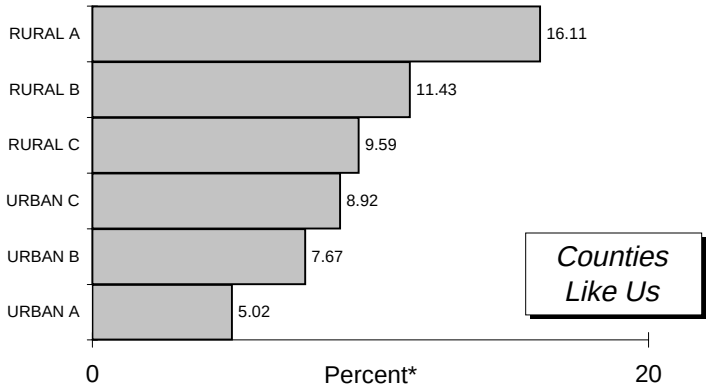
*Percent for 1990.

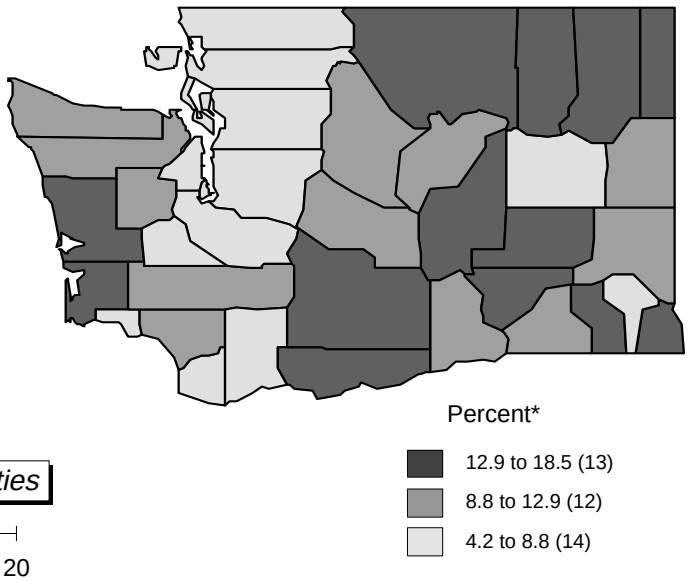
Risk Factor: Extreme Economic and Social Deprivation





Indicator:

Percent of Families Living Below the Federal Poverty Level



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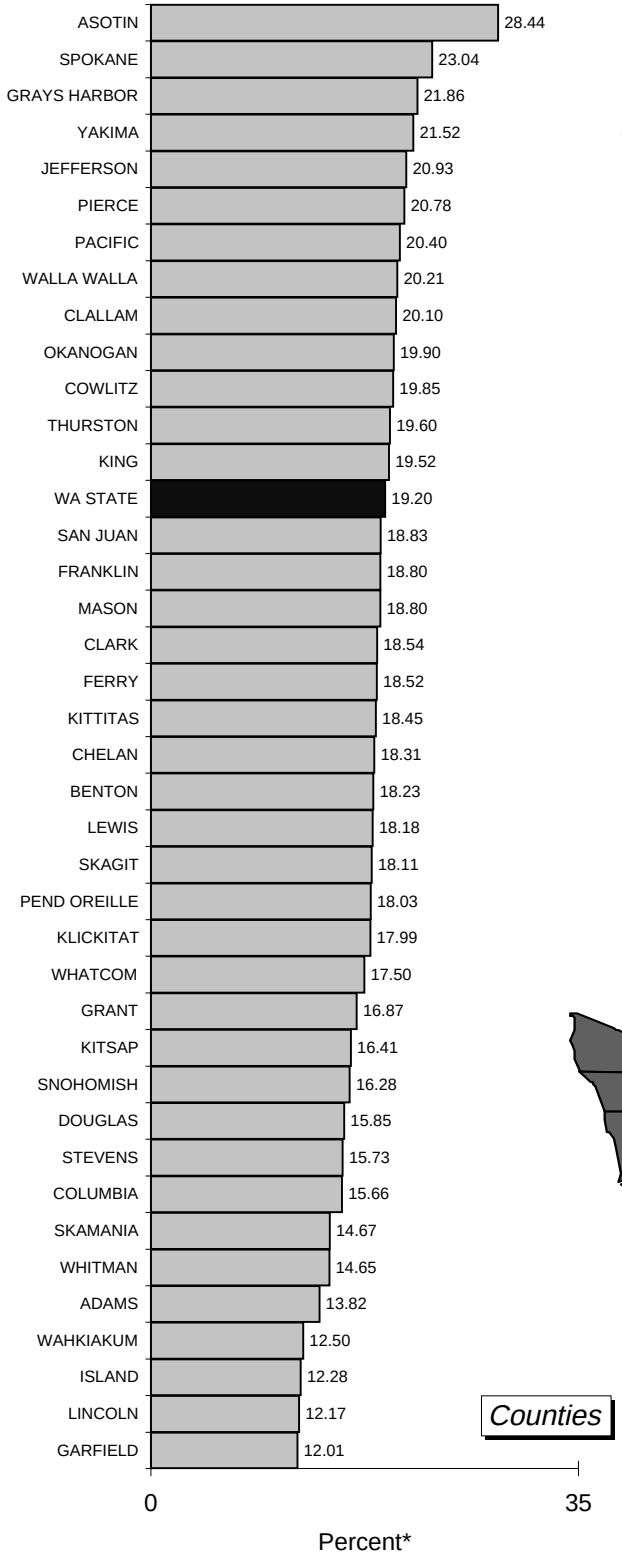
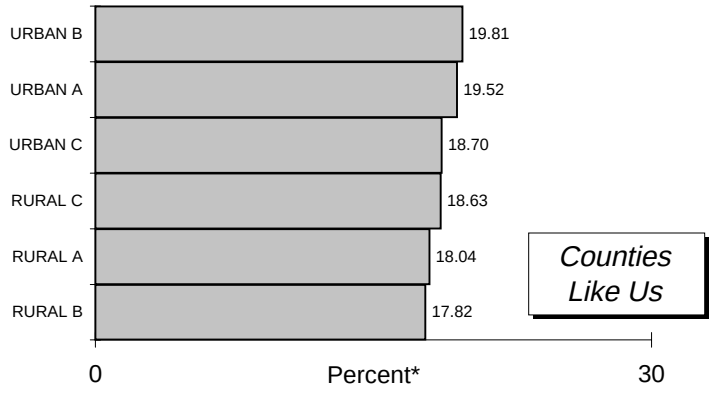
*Percent for 1990.

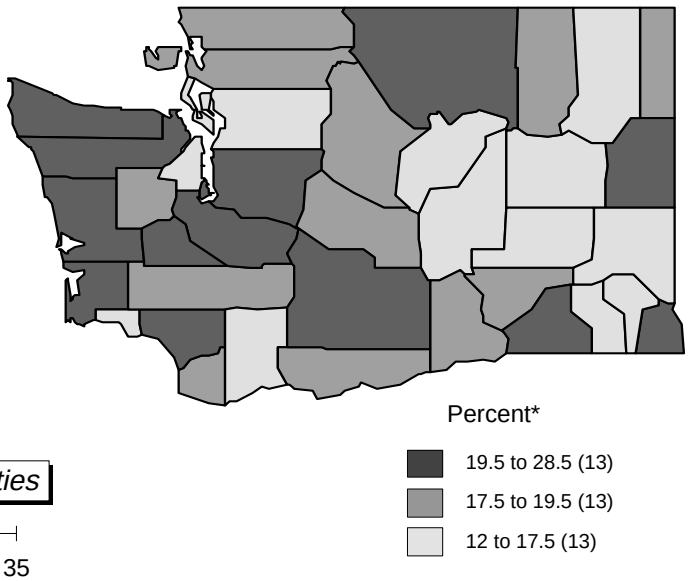
Risk Factor: Extreme Economic and Social Deprivation





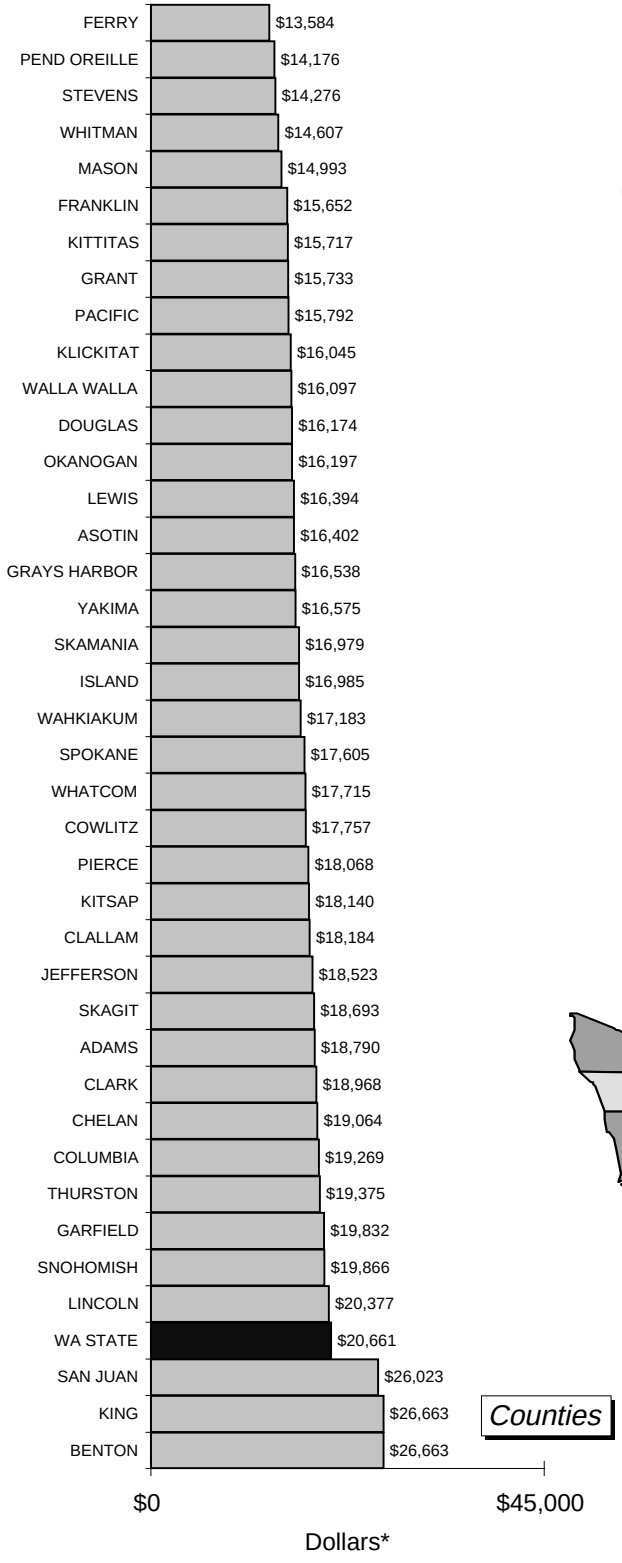
Indicator:

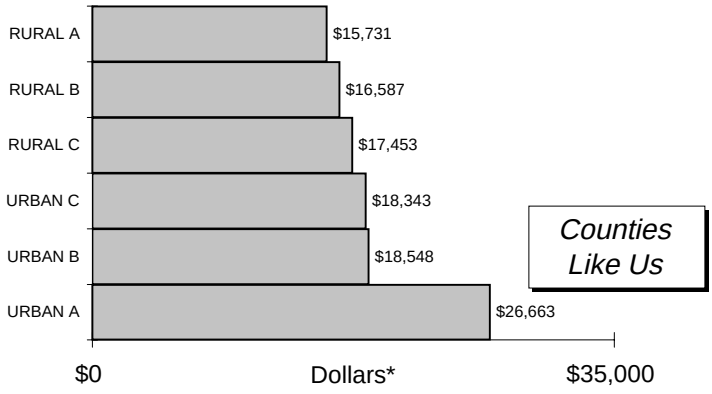
Percent of Family Households with a Female Head, Children, and No Spouse



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

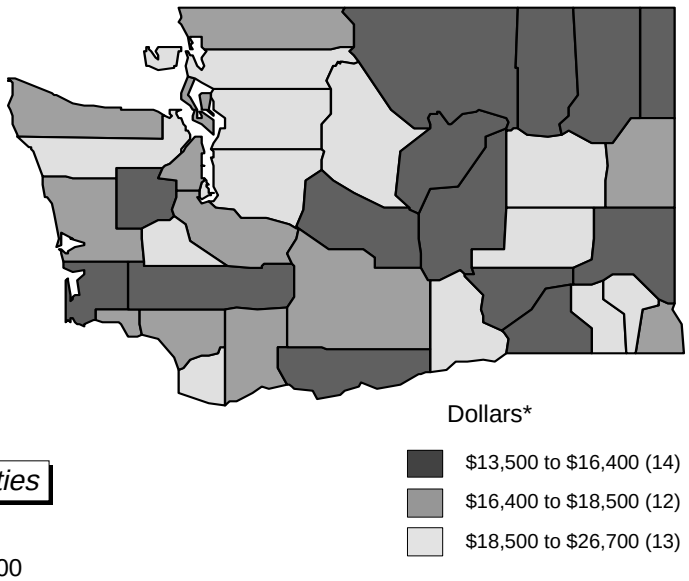
Risk Factor: Extreme Economic and Social Deprivation





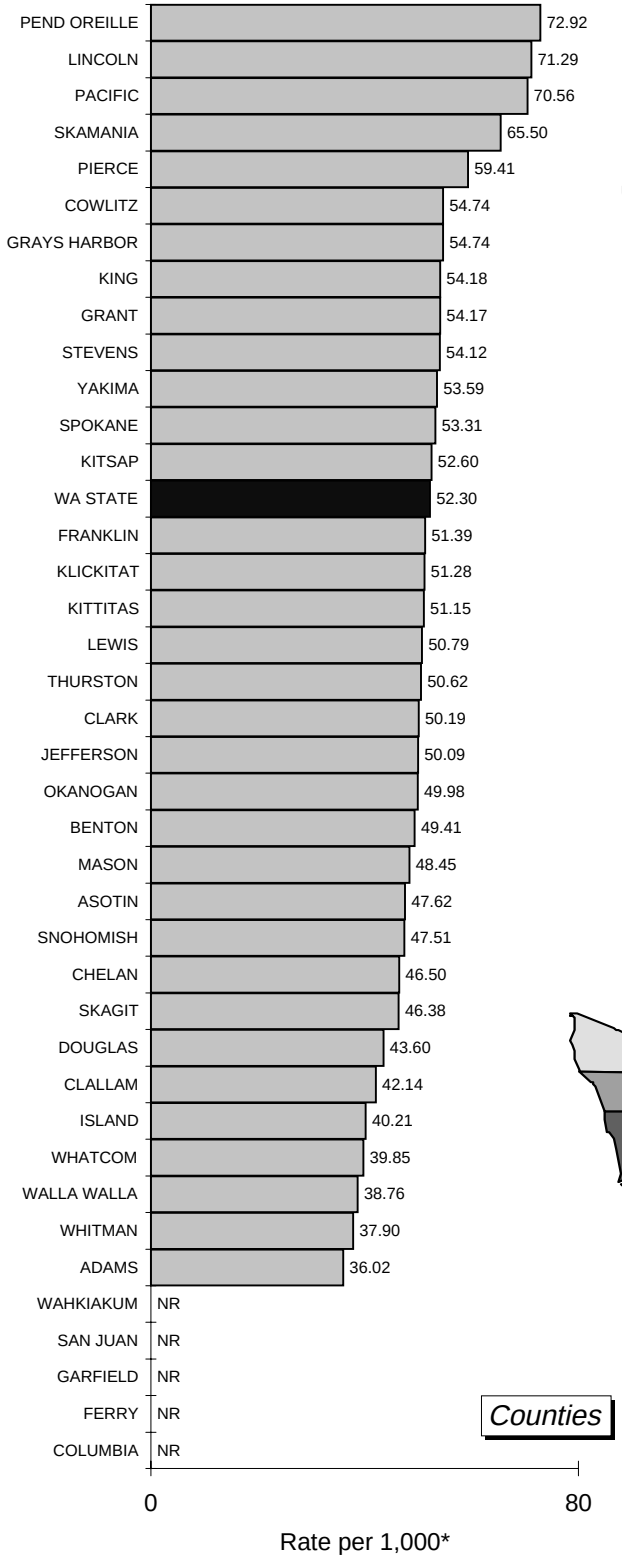
Indicator:

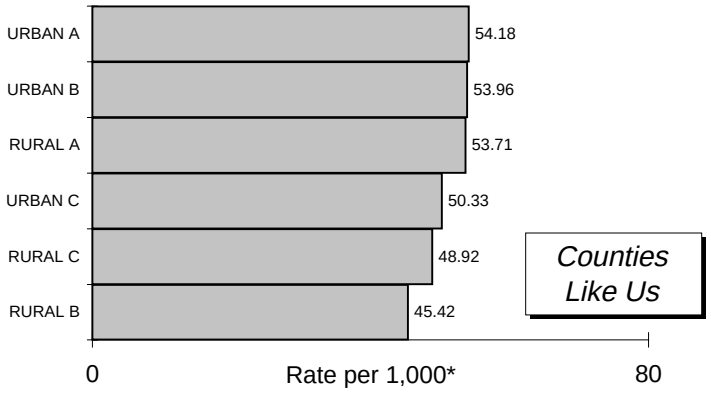
Per Capita Income



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average for 1990 to 1993.

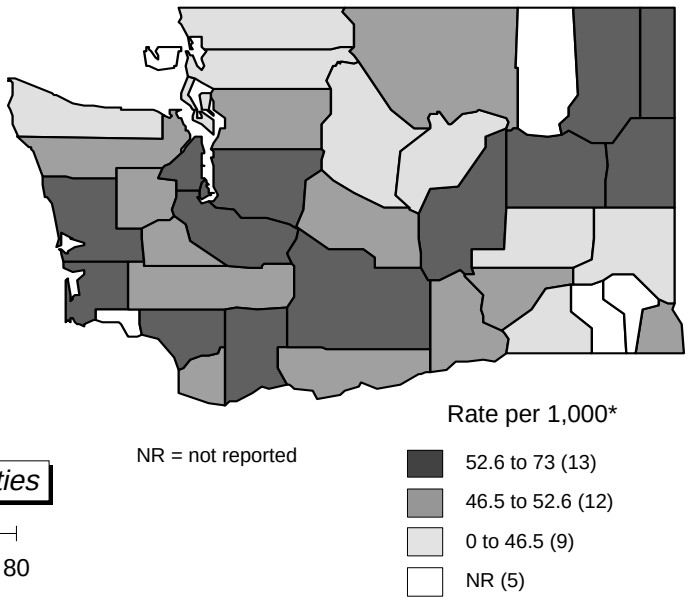
Risk Factor: Extreme Economic and Social Deprivation





Indicator:

Number of Low Birthweight Babies Born per 1,000 Live Births



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

FAMILY DOMAIN

Risk Factor: Family History of High Risk Behavior

If children are raised in a family with a chronic history of addiction to alcohol or other drugs or a history of recurring criminal behavior, their own risk of having alcohol and or other drug problems increases (Appendix D; DRP, 1996).

Indicators chosen as proxy measures for this risk factor are presented in the graphs below and include rates of deaths due to alcohol or drugs, adults in alcohol or drug treatment, low adult education, and prisoners in local and state correctional systems. Since data specific to parents were not available, rates for adults are provided and are assumed similar to rates for parents. Higher rates of these indicators suggest higher levels of long-lasting or chronic high risk behavior among the adults in the community.

Indicators / Definitions

- **Alcohol- or Drug-Related Deaths**

  Washington State - the number of deaths that are attributed to alcohol or other drugs as a percentage of all deaths. Deaths attributed to alcohol and other drugs include deaths that are directly or indirectly related to alcohol or drug use. The cause of death is based information from the death certificate - see Appendix B for more detail. Source: 02.

  National - same as for Washington State. Source: LL.

- **Adults in Alcohol and Other Drug (AOD) Treatment Programs**

  Washington State - the number of adults (ages 18 and over) admitted to state-funded AOD treatment programs per 1,000 adults. Counts of adults are unduplicated so that those admitted to treatment more than once during the year are only counted once for that year. Sources: 07, 08.

  National - Same as for Washington State except that some of the 37 states that report treatment admissions to the federal government provide duplicated counts. Sources: PP, GG.

- **Educational Attainment - Less than High School Graduate**

  Washington State - the number of adults (ages 25 and over) who do not have a high school diploma as a percentage of all adults (ages 25 and over). The individuals may not have attended high school or they may have attended high school but never graduated. Individuals who received their GED certificate are not counted in this indicator. Source: 26.

  National - same as for Washington State. Source: FF.

- **Educational Attainment - High School Graduate Only**

  Washington State - the number of adults (ages 25 and over) who have completed high school or have received their GED certificate and who have not received additional schooling as a percentage of all adults (ages 25 and over). Source: 26.

  National - same as for Washington State. Source: FF.

- **Prisoners in State Correctional Systems**

  Washington State - The Prisoners in State Correctional Systems indicator is the number of adult (ages 18 and over) admissions to prison as a rate per 100,000 persons (all ages). Admissions include new admissions, readmissions, community custody inmate violations, and parole violations. Counts of admissions are duplicated so that individuals admitted to prison more than once in a year are counted each time they are admitted. The admissions are attributed to the county where the conviction occurred. Sources: 01, 08.

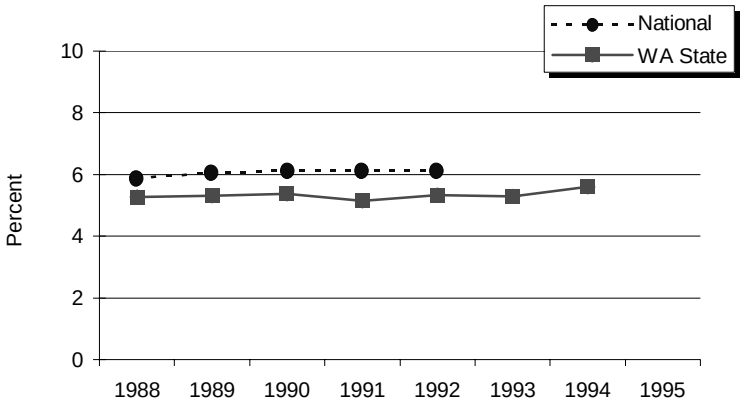
  National - same as for Washington State. Source: RR, GG.

State and National Trends

All indicators of family high risk behavior show Washington with levels at or below those of the nation. Where available, temporal trends are similar for the state and the nation in each indicator. Overall risk for this risk factor appears to be staying about the same, perhaps increasing slightly.

Nationally, between 1988 and 1992, the percent of deaths that were AOD-related was relatively constant at slightly over 6%. Washington's rate was about 1% lower hovering slightly above 5%. Between 1992 and 1994, the rate in Washington rose from 5.3% to 5.6% of all deaths in 1994, the last year for which we had state-level data.

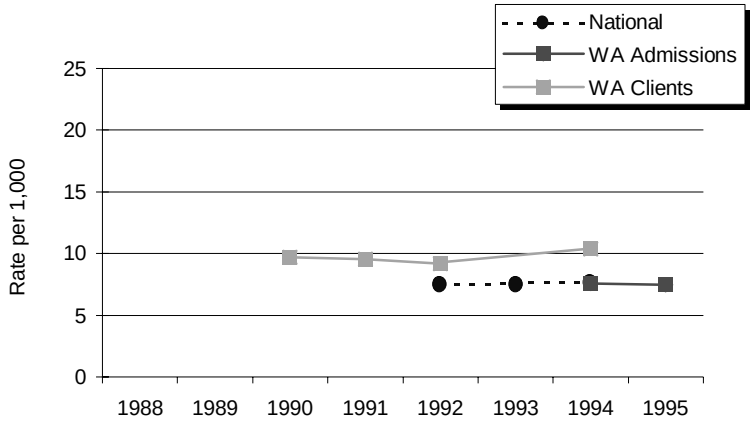
Percent of all Deaths that are Alcohol- or Drug-Related



Comparable estimates of admissions to publicly-funded treatment in Washington have been produced only for 1994 and 1995 and little change is noted between the two years (7.6 to 7.5 adult admissions per 1,000 adults). National rates, calculated for 1992, 1993, and 1994 using data voluntarily submitted by 37 states, also show relatively constant rates of adult admissions (averaging 7.6 adult admissions per 1,000 adults).

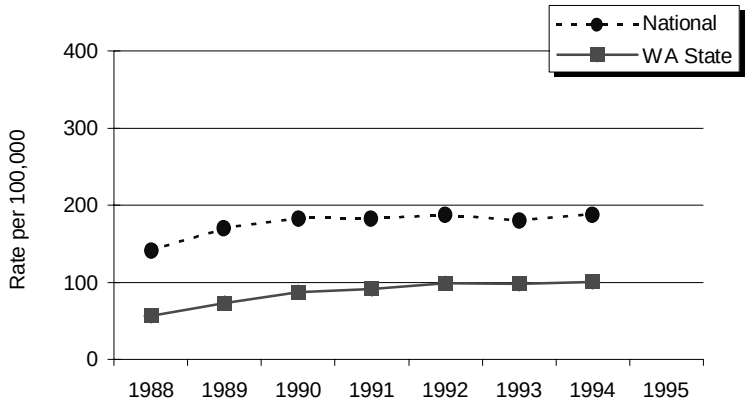
Another measure available in Washington for some previous years is the annual rate of adult clients receiving publicly-funded treatment services per 1,000 adults in Washington (Source: 09). This measure of persons served is higher than annual admissions because persons admitted in a previous year and still receiving services in a current year are included in the current year totals. The annual rates of clients served are superimposed onto this graph for years 1990, 1991, 1992, and 1994. These rates show an increase in persons receiving AOD treatment services in 1994 compared to 1990, 1991, and 1992.

Adults (18+) in Alcohol or Drug Treatment per 1,000 Adults



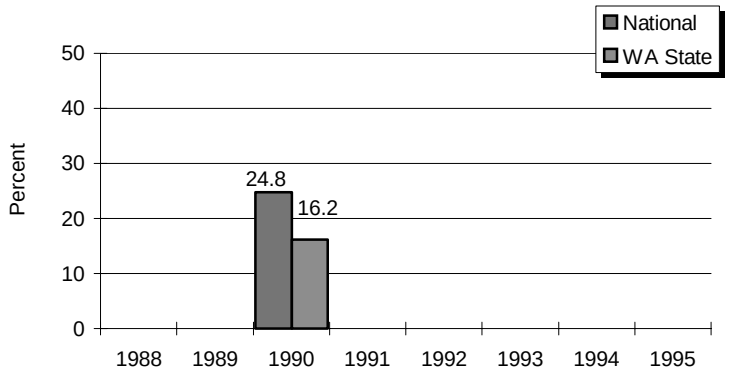
The number of Washington adults admitted to state correctional systems per 1,000 adults almost doubled from 56.5 in 1988 to 98.6 in 1992. It has remained constant since, inching up to 100.2 in 1994. National figures show a similar trend but occurring at higher levels - 141.0 adult admissions per 1,000 adults in 1988, up to 187.1 in 1992, and holding at 187.8 in 1994.

Adults (18+) Admitted to State Correctional Systems per 100,000 Persons (all ages)

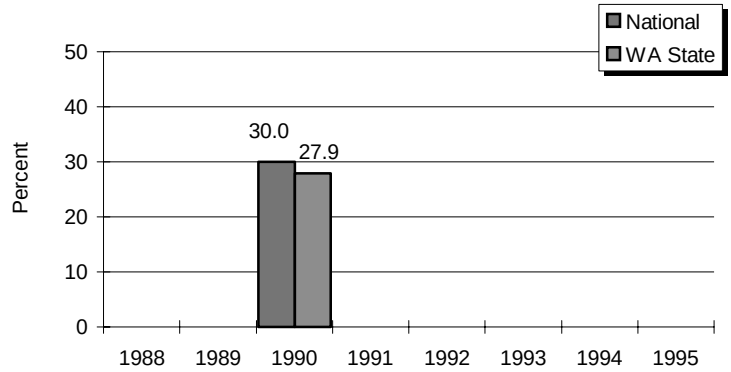


Education figures from the 1990 census show Washington adults to be better educated than the national average. Only 16% of adults (25 years and older) in Washington do not have a high school diploma or GED certificate compared to 25% nationally. And, while 28% of Washington adults have only a high school diploma or GED certificate, 30% of adults nationwide fall into this category. Combining the two figures gives the number of adults over 24 with a high school degree or less, where Washington fares better as well, 44% compared to 55% nationally.

Percent of Adults (25+) Who do not have a High School Diploma or GED Certificate



Percent of Adults (25+) who have a High School Diploma or GED Certificate and No Additional Schooling



Geographic Findings

Summary measures. The summary measures for Family History of High Risk Behavior shows a distinct urban/rural split where highest risk levels are found largely in rural counties. Rural exceptions having lower levels of the risk factor include Whitman, San Juan, Island, Jefferson, and Kittitas.

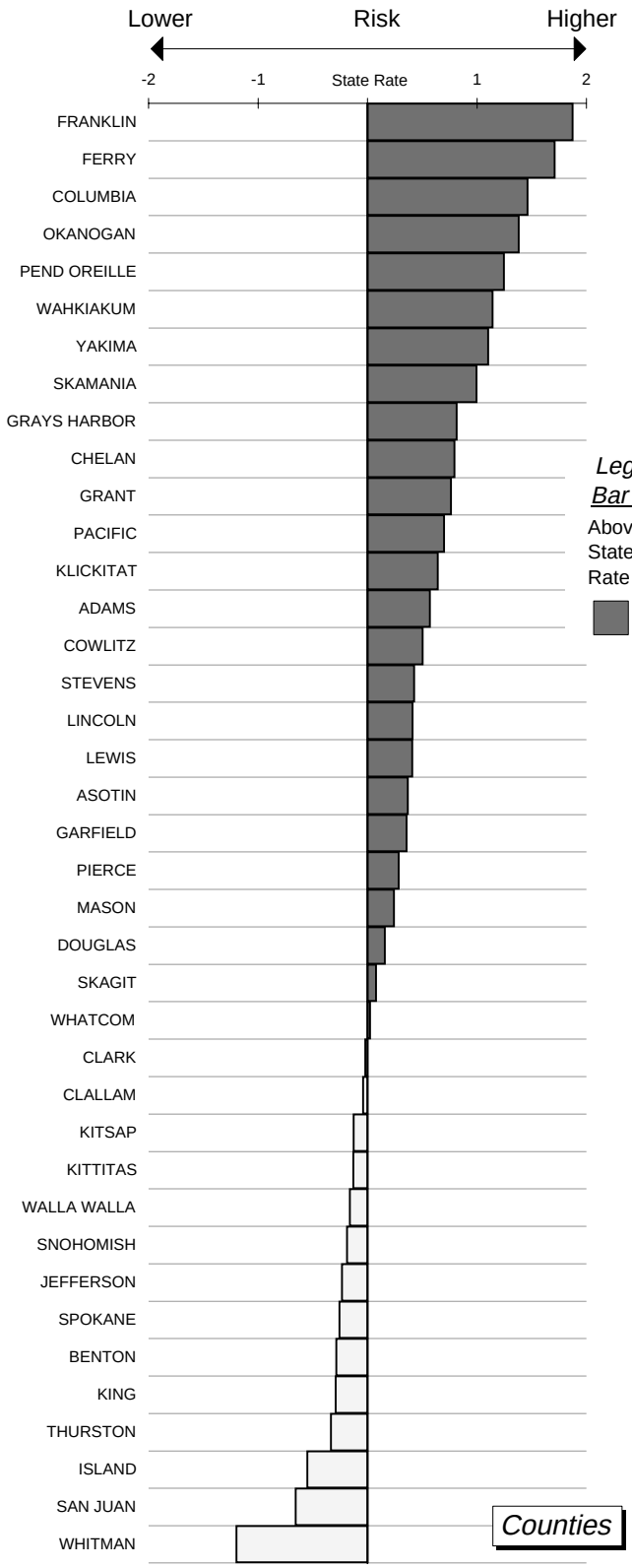
Individual indicators. Some variation on the urban/rural split appears within the individual indicators. AOD-related deaths as a percent of all deaths are highest in the Rural A Group at 6.5%, which is higher than the state (5.3%) or national (6.1%) averages. This is expected since it was AOD-related deaths that were used to separate out the Rural A counties from the other rural county groups. Most urban counties appear relatively high on this indicator as well.

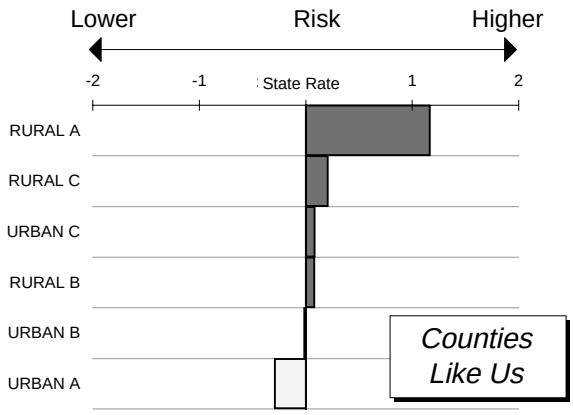
For the most part, rural counties tend have greater rates of adults in AOD treatment. Yakima County and Whatcom County are urban exceptions, having much higher rate for treatment admissions than other urban counties.

The education variables show urban counties faring much better than most of their rural counterparts. For example, in King County, only 11% of adults over 25 years of age do not have high school diploma or a GED certificate. For all rural counties, the average is greater than 20% and reaches more than 30% in Yakima, Adams, and Franklin counties.

The rate of adult admissions to state correctional systems is very high in Franklin County (almost double any other county), and relatively high in Chelan, Cowlitz, Yakima, and Pacific counties. King and Pierce counties produce large numbers of inmates compared to other urban counties.

Risk Factor: Family History of High Risk Behavior



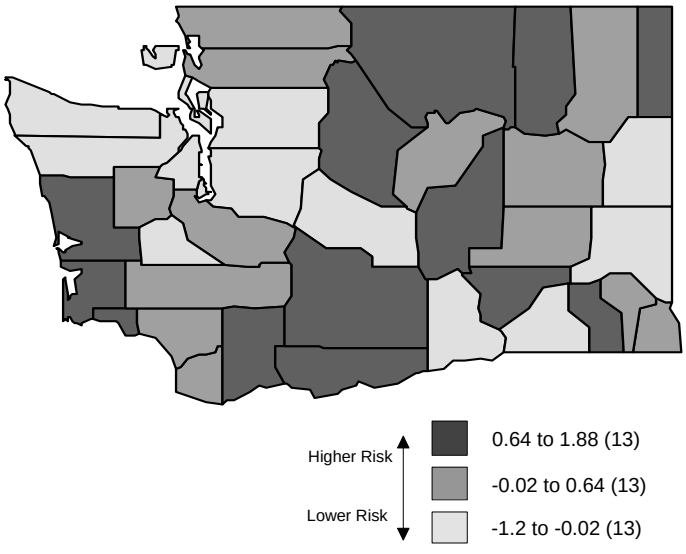


Legend for Bar Graphs

Above State Rate	Below State Rate

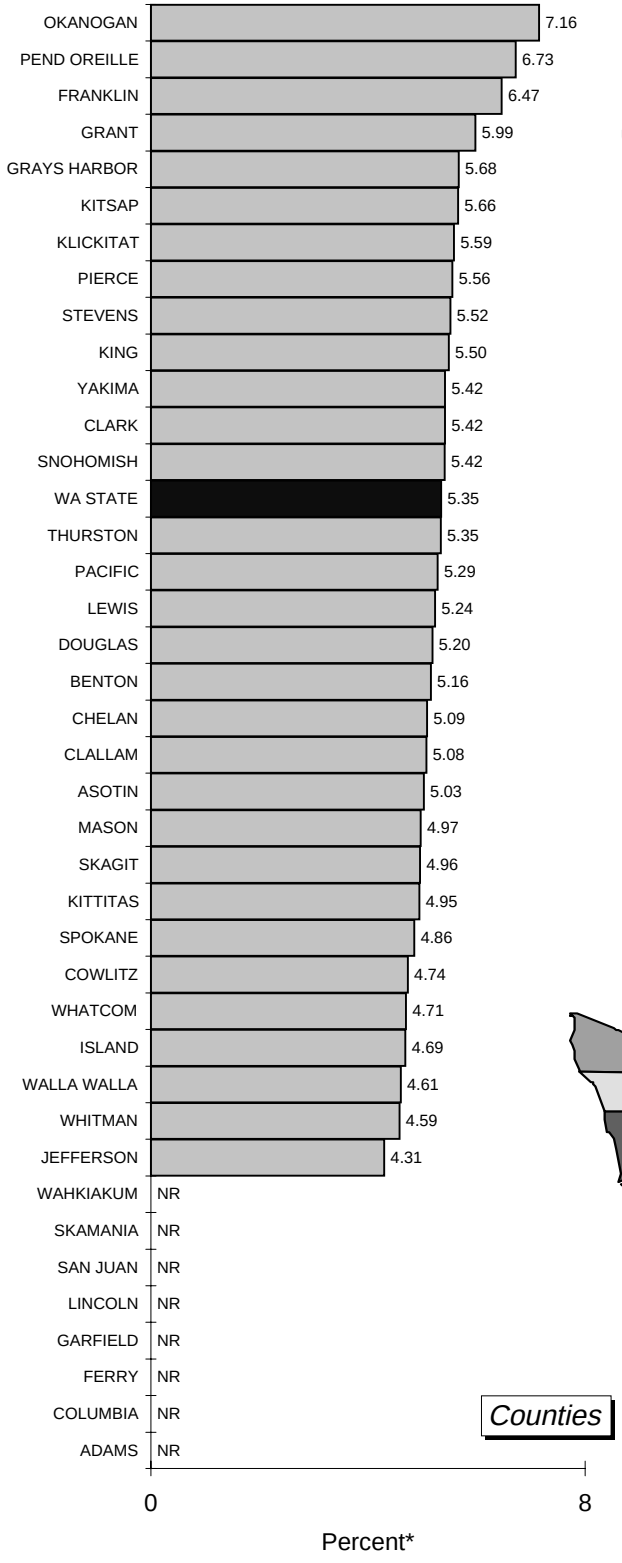
Summary Measure for:

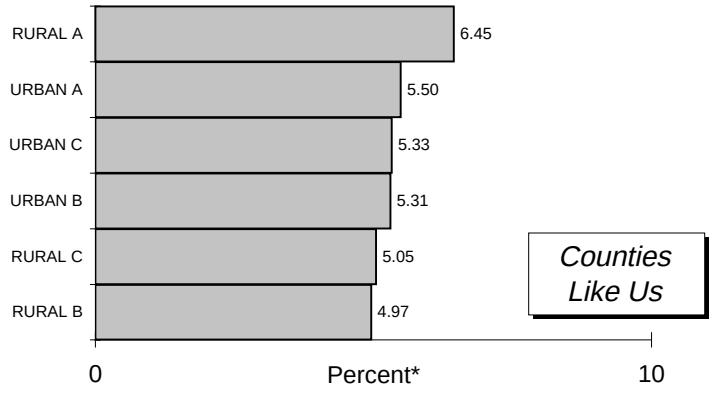
Family History of High Risk Behavior



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

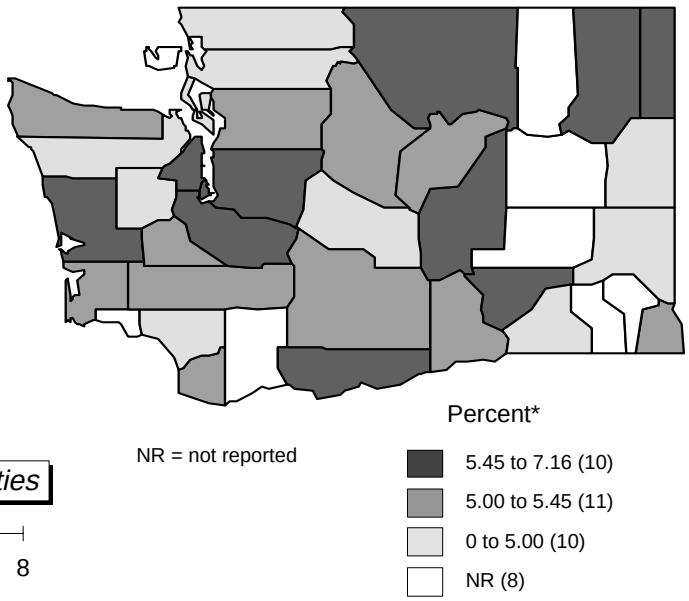
Risk Factor: Family History of High Risk Behavior





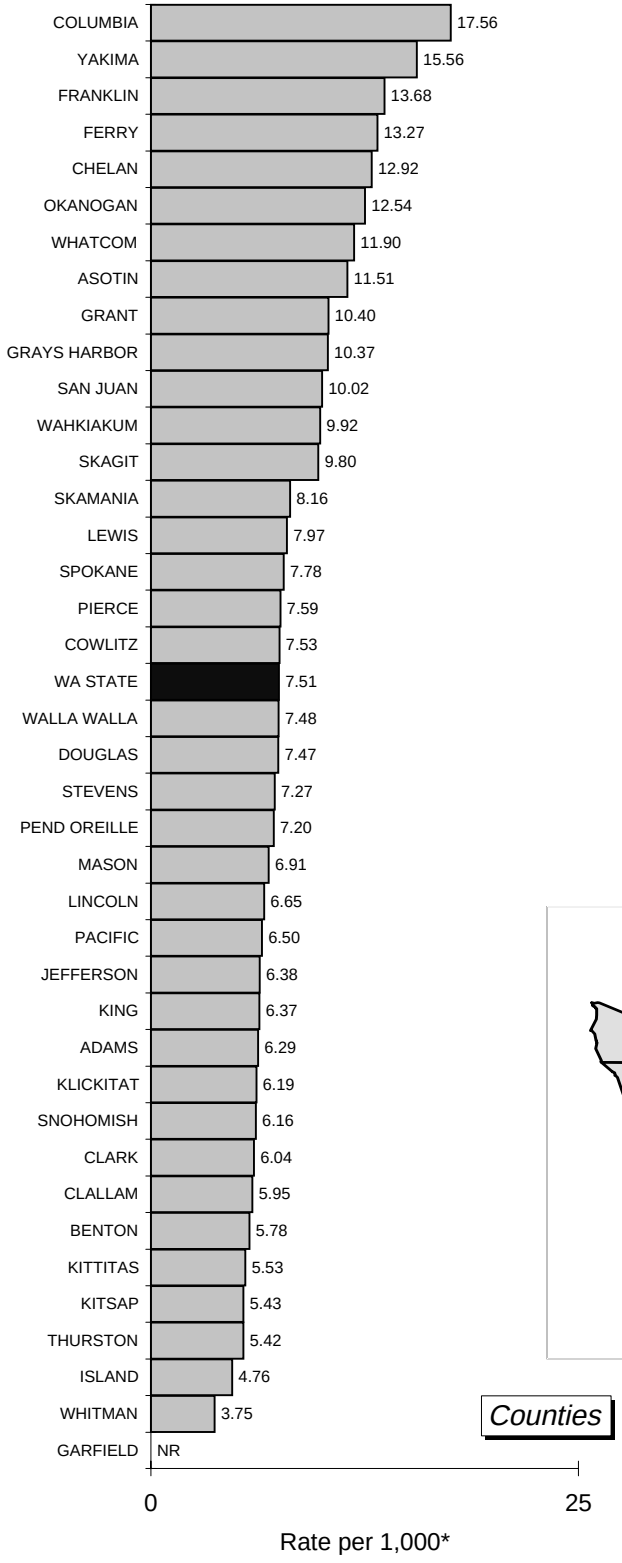
Indicator:

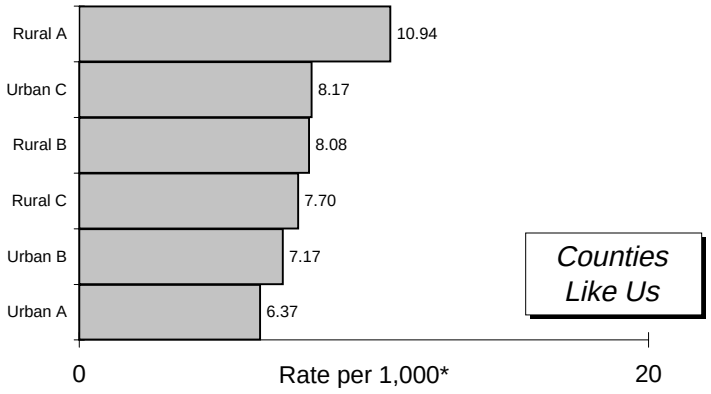
Percent of all Deaths that are Alcohol- or Drug-Related



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1990 to 1994.

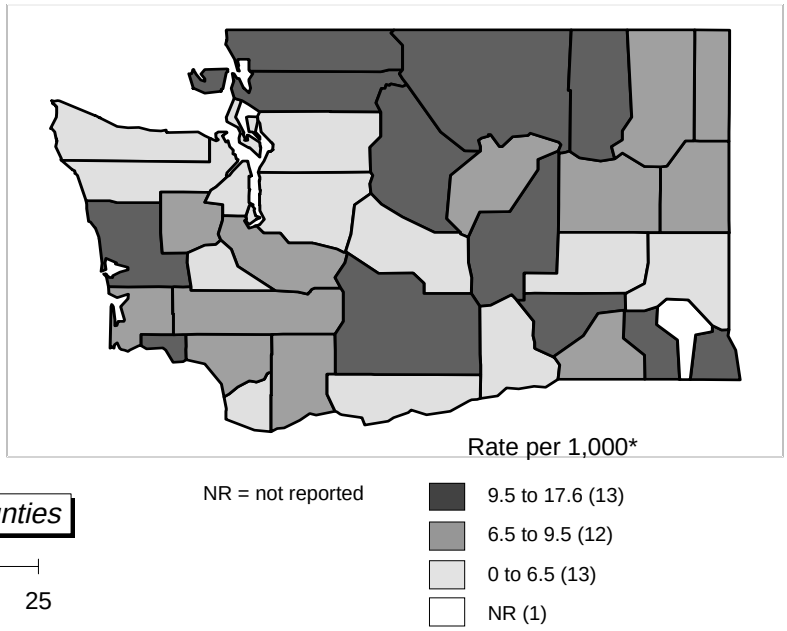
Risk Factor: Family History of High Risk Behavior





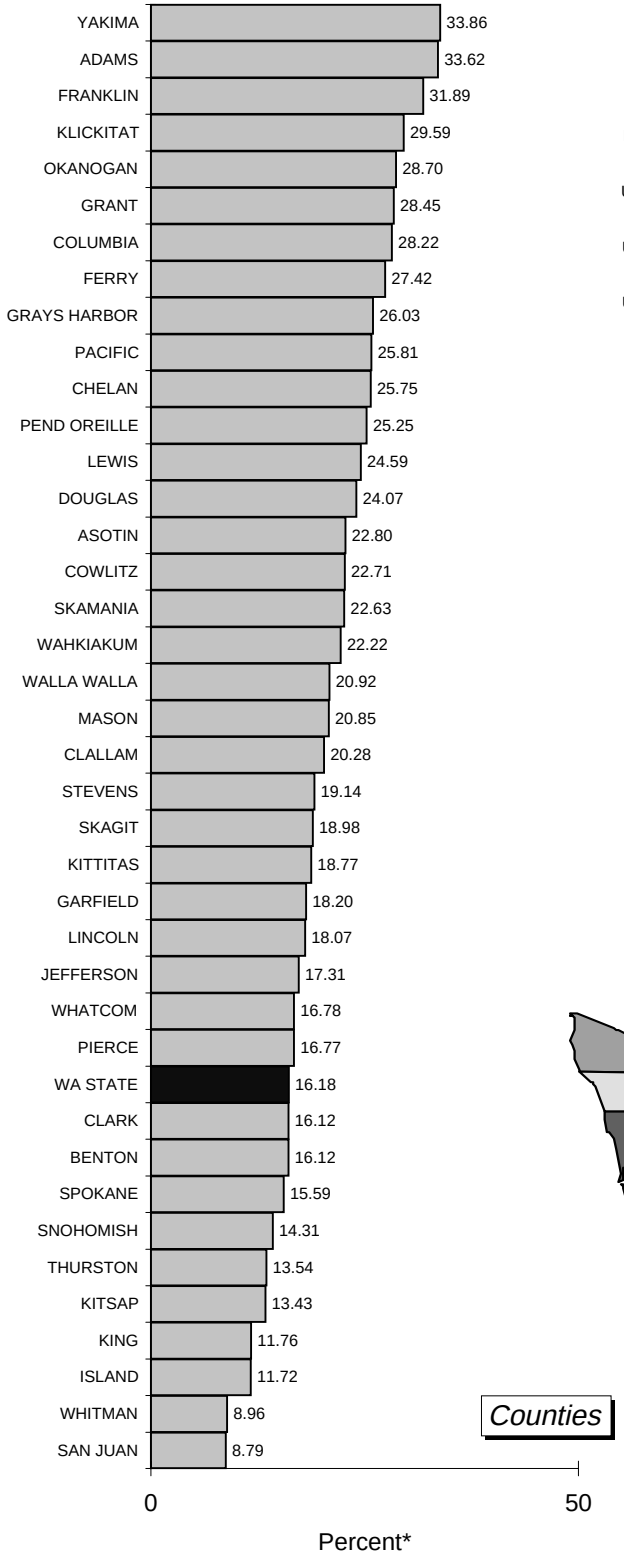
Indicator:

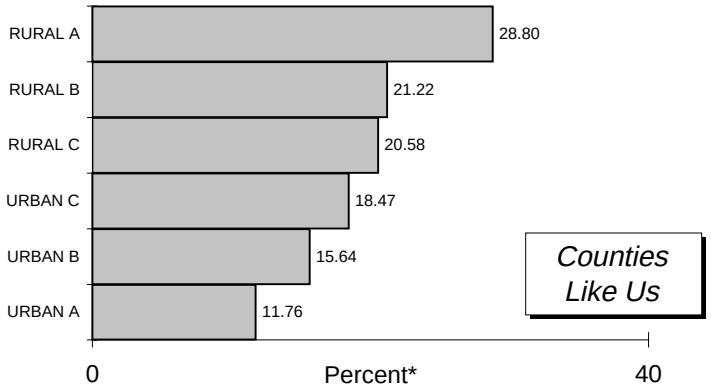
Adults (18+) in Alcohol or Drug Treatment per 1,000 Adults



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1994 to 1995.

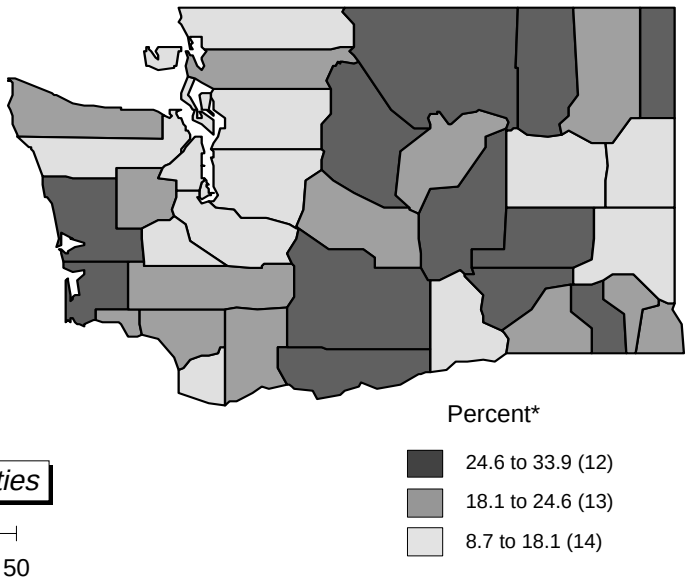
Risk Factor: Family History of High Risk Behavior





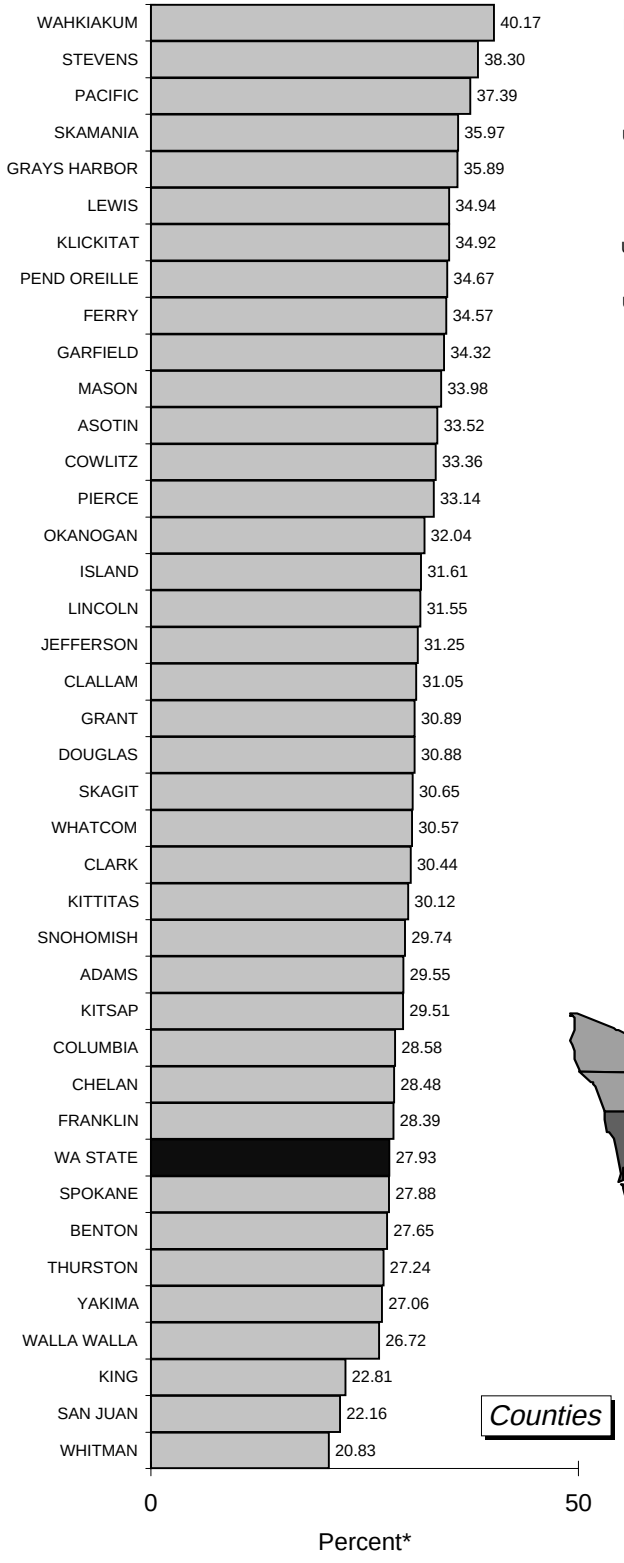
Indicator:

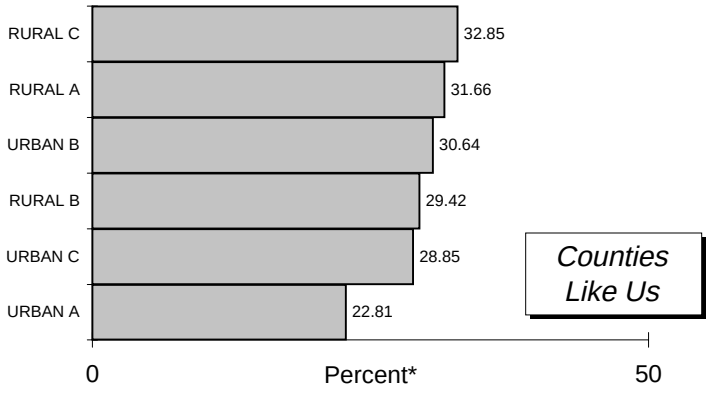
Percent of Adults (25+) Who do not have a High School Diploma or GED Certificate



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

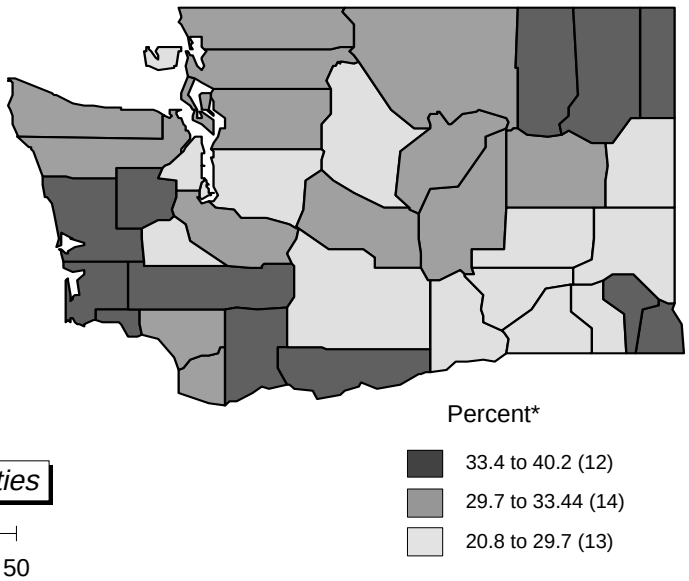
Risk Factor: Family History of High Risk Behavior





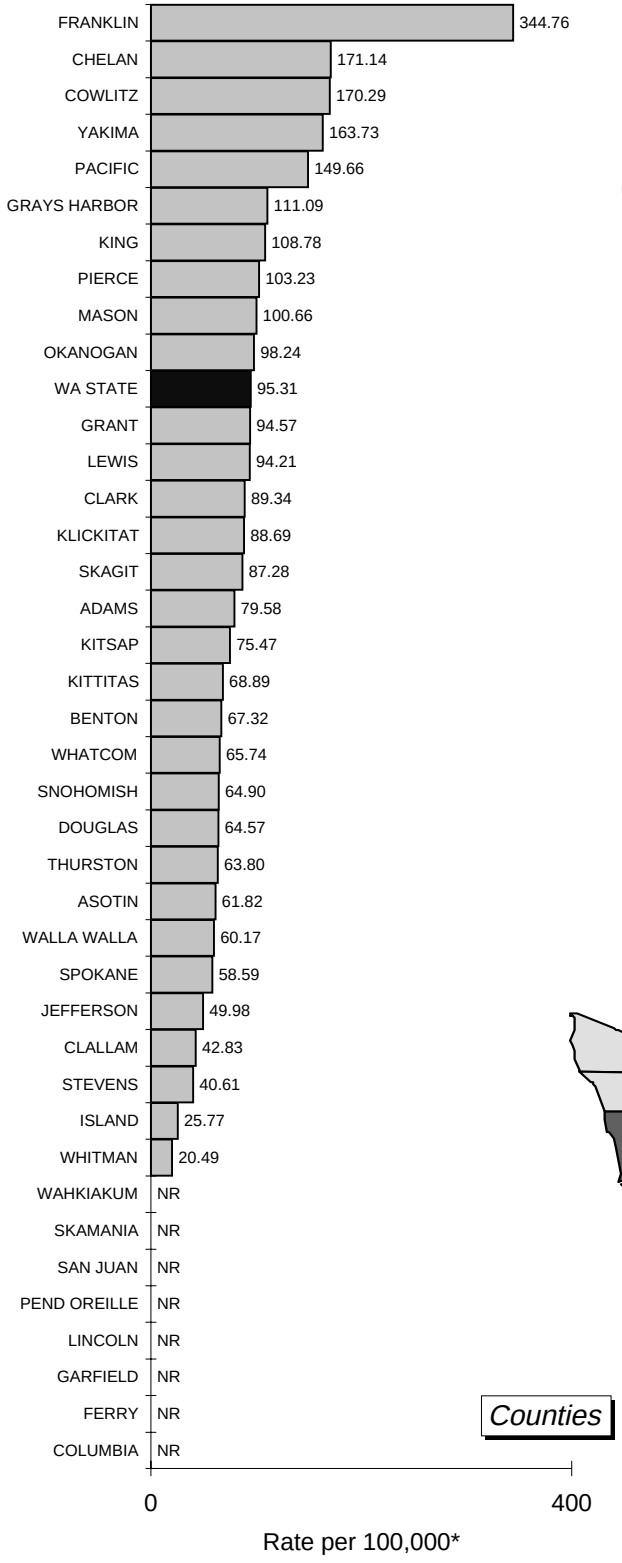
Indicator:

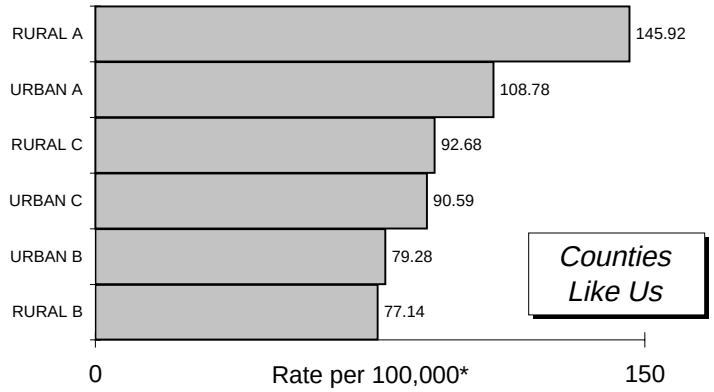
Percent of Adults (25+) who have a High School Diploma or GED Certificate and No Additional Schooling



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

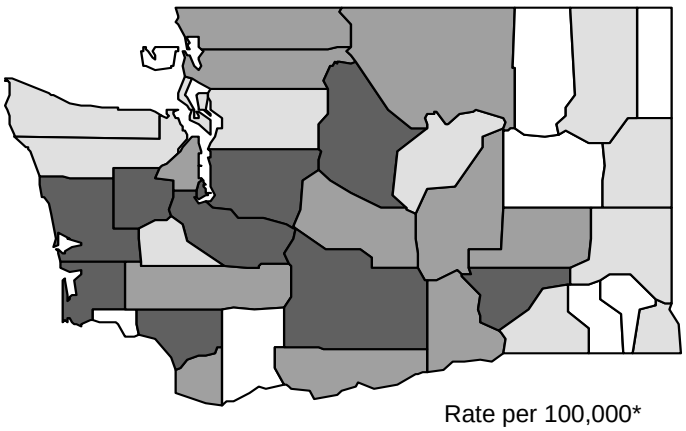
Risk Factor: Family History of High Risk Behavior





Indicator:

Adults (18+) Admitted to State Correctional Systems per 100,000 Persons (all ages)



Rate per 100,000*

NR = not reported

100 to 345 (9)
65 to 100 (11)
0 to 65 (11)
NR (8)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

Risk Factor: Family Management Problems

Poor family management practices include lack of clear expectations for behavior, failure of parents to monitor their children (knowing where they are and who they're with), and excessively severe or inconsistent punishment. Such practices place children at higher risk for drug use (Appendix D; DRP, 1996).

Indicators chosen as proxy measures for this risk factor are presented in the graphs below and include rates of children not living with their parents, children in foster care, and victims in both reported and accepted referrals for child abuse and neglect. Higher rates of these indicators suggest greater frequencies of family management problems.

Indicators / Definitions

- **Children Living Away From Parents**

  Washington State - the number of children (ages 0-17) who do not live with either or both of their parents or guardians as a rate per 1,000 children. The children may be householders, married, living with relatives other than their parents, living with people who are not relatives, or living in group quarters (detention facilities, group homes, college dormitories). Source: 25.

  National - same as for Washington State. Source: EE.

- **Children Placed in Foster Care**

  Washington State - the number of children (ages 0-17) who were living with or placed with a foster family as a rate per 1,000 children. The numerator includes short-term crisis placements and longer-term placements. Some family placements with relatives are included as well. Children placed in foster care more than once during the year were only counted once for that year. Sources: 09, 08.

  National - no comparable national data were available.

- **Victims in Reported Child Abuse and Neglect Referrals**

  Washington State - the number of children (ages 0-17) identified as victims in accepted and unaccepted referrals to Child Protective Services as a rate per 1,000 children. Children are counted more than once if they are reported more than once during the year. Referrals are accepted if there is enough information for Child Protective Services to investigate. If there is not enough information or the alleged abuser is a "third party," not the parent or guardian, the case is not accepted. "Third party" cases are referred to the appropriate law enforcement agency instead. Sources: 06, 08.

  National - no comparable national data were available.

- **Victims in Accepted Child Abuse and Neglect Referrals**

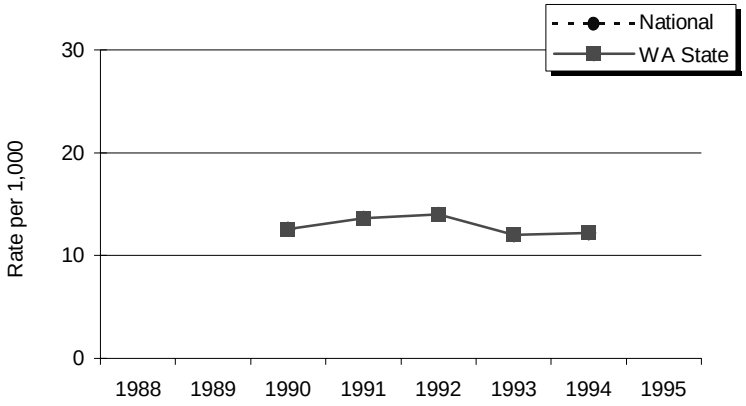
  Washington State - the number of children (ages 0-17) identified as victims in referrals to Child Protective Services that were accepted for further investigation as a rate per 1,000 children. Children are counted more than once if they are reported more than once during the year. Referrals are accepted if there is enough information for Child Protective Services to investigate. If there is not enough information or the alleged abuser is a "third party," not the parent or guardian, the case is not accepted. "Third party" cases are referred to the appropriate law enforcement agency instead. Sources: 06, 08.

  National - the number of children subject of a report alleging child abuse and neglect or risk of maltreatment received during the year and referred for investigation (similar to accepted referrals). The data do not include reports that were screened out prior to an investigation (similar to unaccepted referrals). Sources: OO, GG.

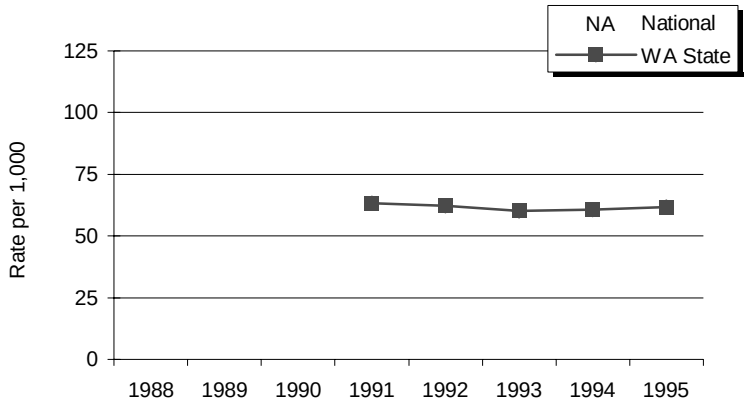
State and National Trends

Trends in three indicators all show relatively stable rates since the early 1990s. Overall risk for poor family management does not appear to have changed much since 1990. Washington is positioned below the national average on the two indicators that have national comparisons.

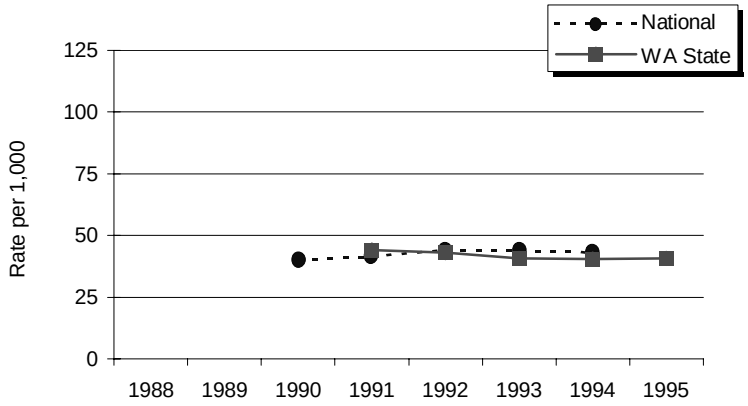
Children (0-17) Placed in Foster Care per 1,000 Children



Victims (0-17) in Accepted and Unaccepted Child Abuse and Neglect Referrals per 1,000 Children (0-17)



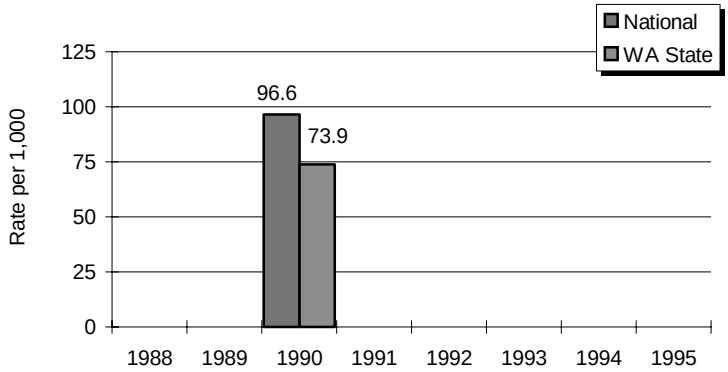
Victims (0-17) in Accepted Child Abuse and Neglect Referrals per 1,000 Children (0-17)



Rates of children in foster care, accepted and unaccepted referrals, and accepted referrals have all stayed relatively stable through the 1990s. A national comparison for accepted referrals shows the rate in Washington to be under the national rate in the most recent years. However, the state and national indicators are different enough in terms of what is actually collected that it is probably only safe to say that Washington is in the neighborhood of the national rate.

In 1990, there was a lower rate of children living away from their parents in Washington (73.9 children per 1,000 children) than in the nation (96.6 per 1,000).

Children (0-17) Living Away from Parents per 1,000 Children



Geographic Findings

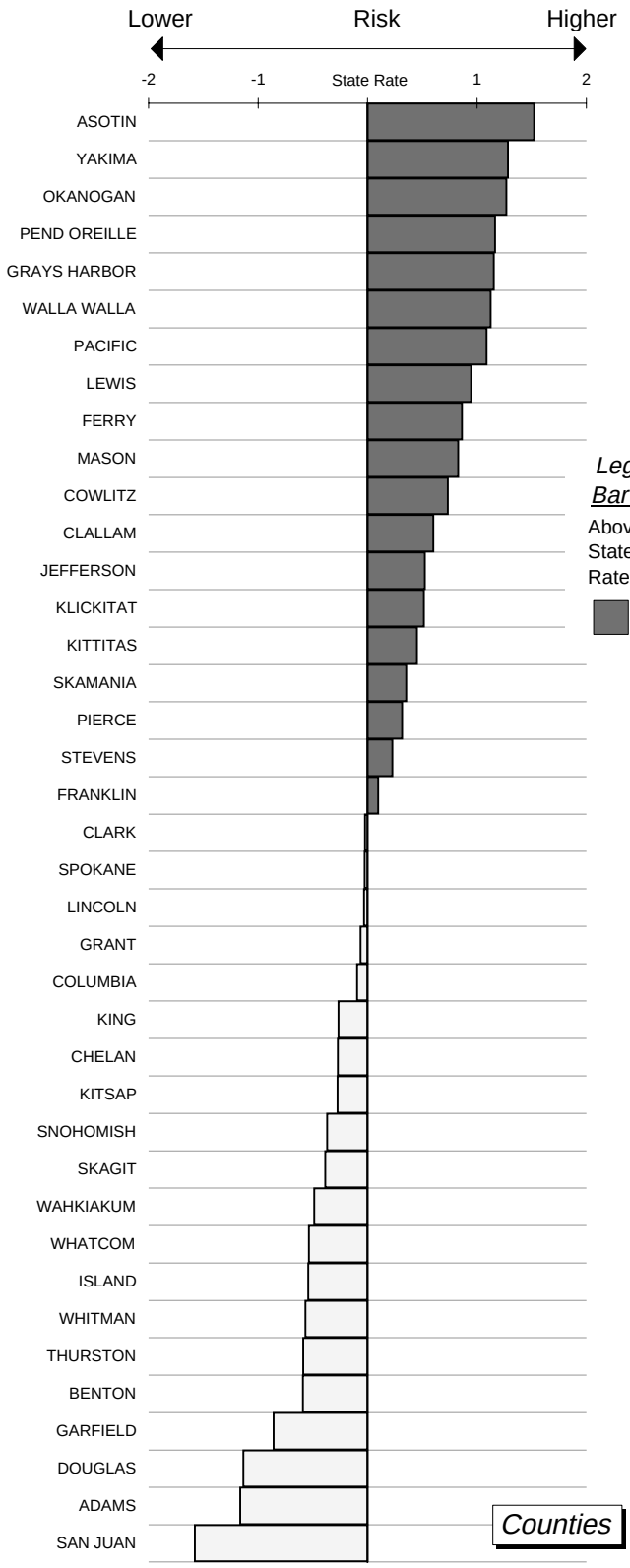
Summary measures. The summary measures for family management problems show rural counties on the Olympic peninsula and in southwest Washington and the Rural A counties in eastern Washington having the highest levels of risk for family management problems. Yakima County, ranked second, is the highest of the urban counties which generally show mid-range or lower risk levels on this factor. Counties in northwest Washington all have lower levels on this factor.

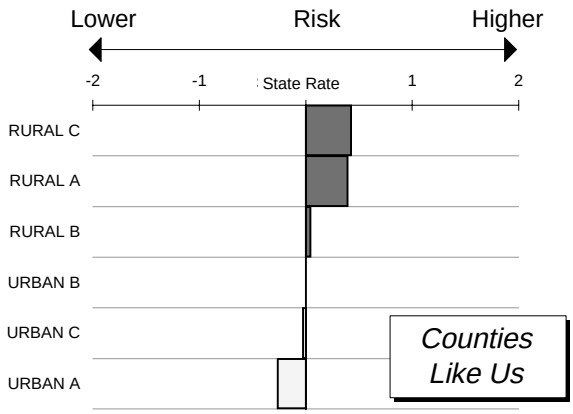
Individual indicators. Rates of foster care placement show a similar distribution as the summary measure except for a more pronounced cluster of lower rates (less risk) in the central and southeast rural counties. Walla Walla County is an exception in that region.

Both indicators based on referrals for child abuse and neglect are distributed similarly with higher rates in all three rural groups than in the urban groups. Rural counties on the Olympic peninsula and southcentral Washington have the highest rates of referrals.

Counties with higher rates of children living away from their parents include rural southwest and southcentral counties. In Ferry, Yakima, and Pacific counties, over 10% of children live with adults other than their parents. Urban counties make their way higher on this indicator than on others for this risk factor, particularly Yakima, Pierce, Clark, and King counties.

Risk Factor: Family Management Problems



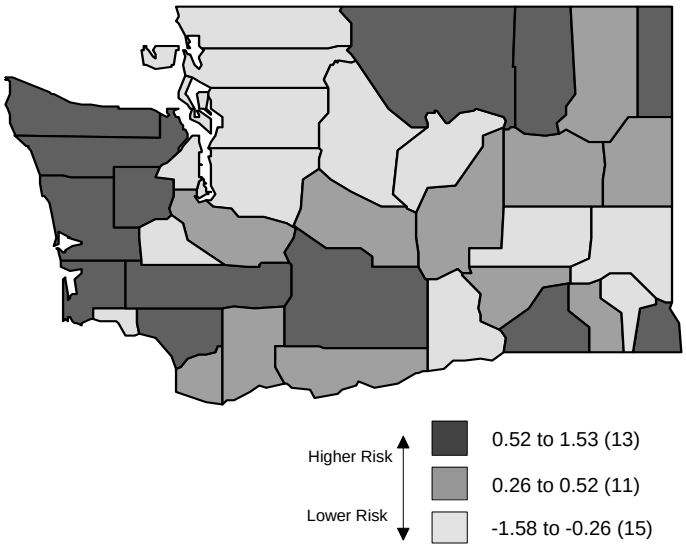


Legend for Bar Graphs

Above State Rate | Below State Rate

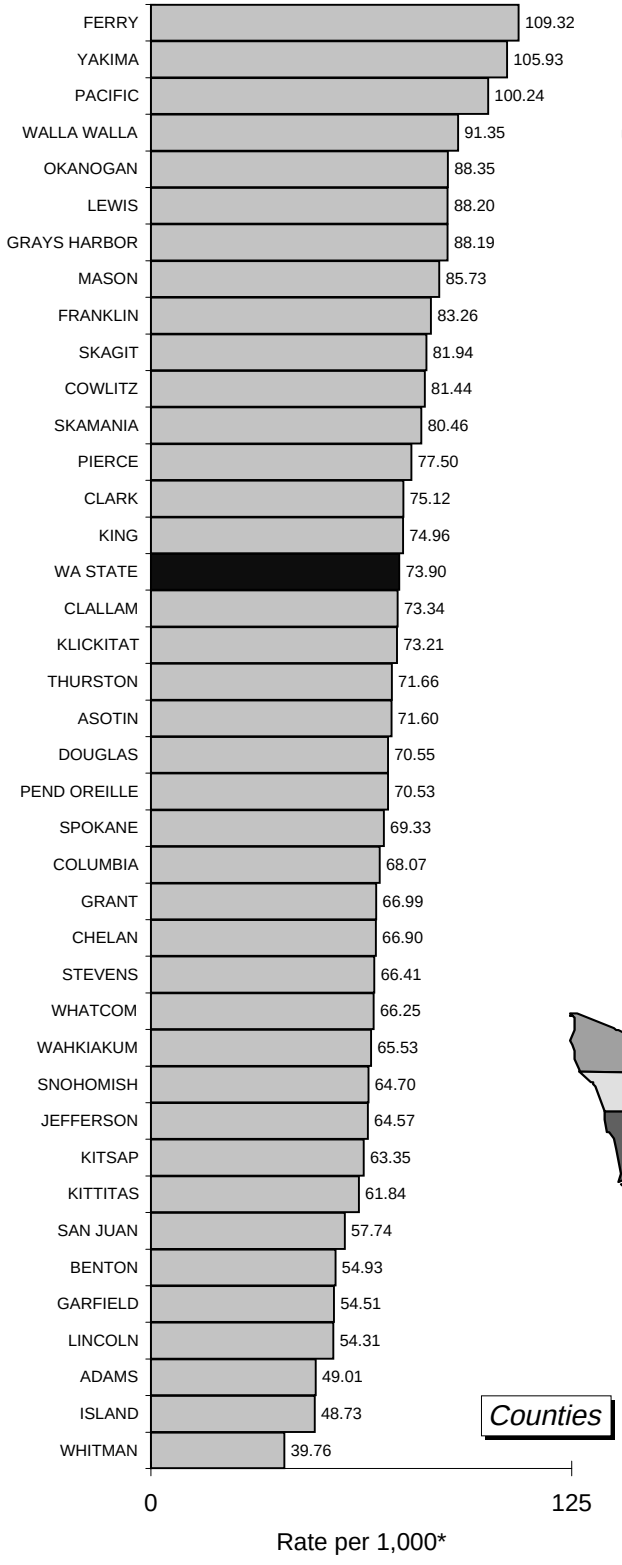
Summary Measure for:

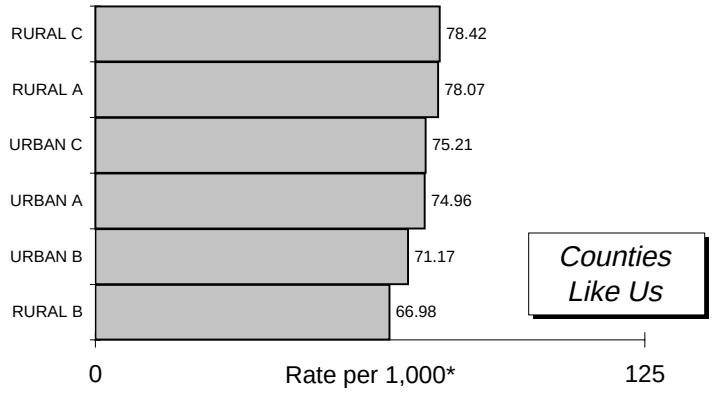
Family Management Problems



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

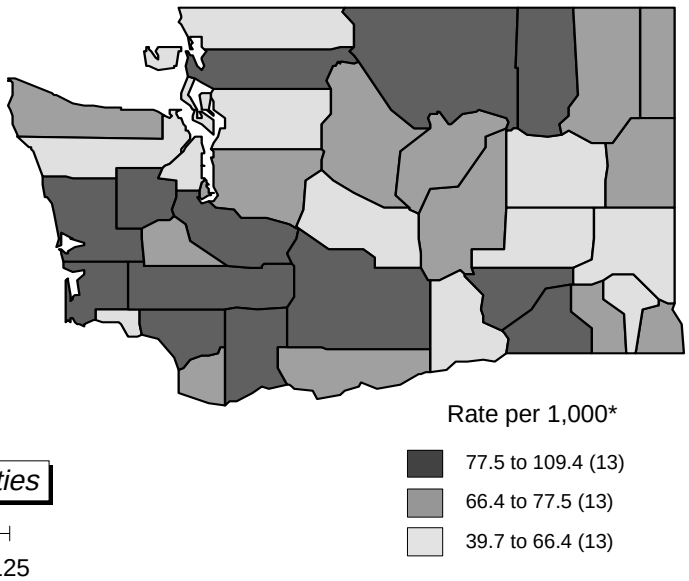
Risk Factor: Family Management Problems





Indicator:

Children (0-17) Living Away from Parents per 1,000 Children



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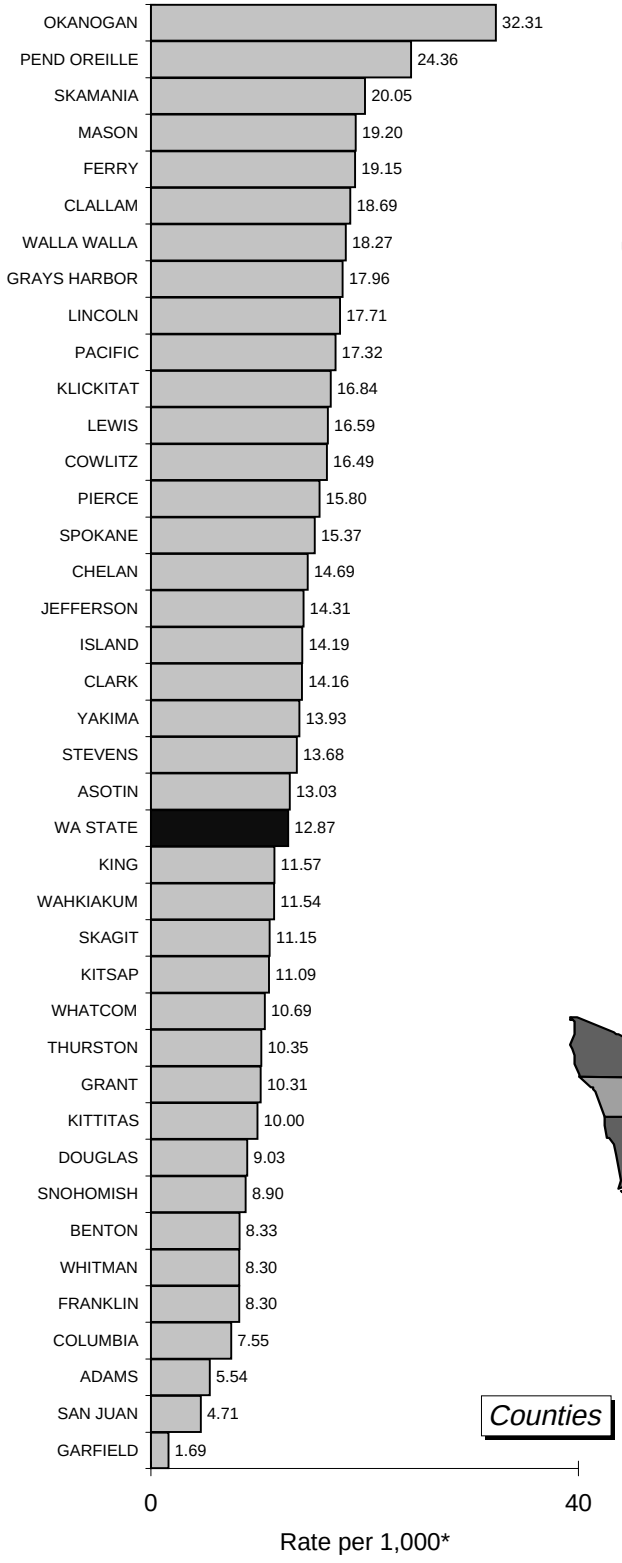
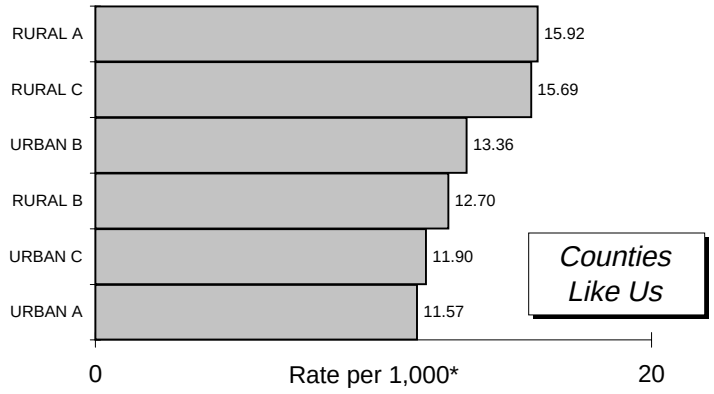
*Percent for 1990.

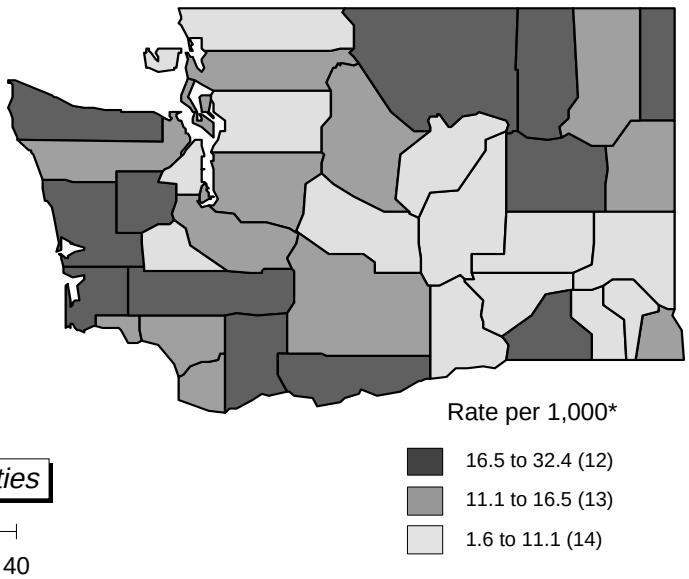
Risk Factor: Family Management Problems





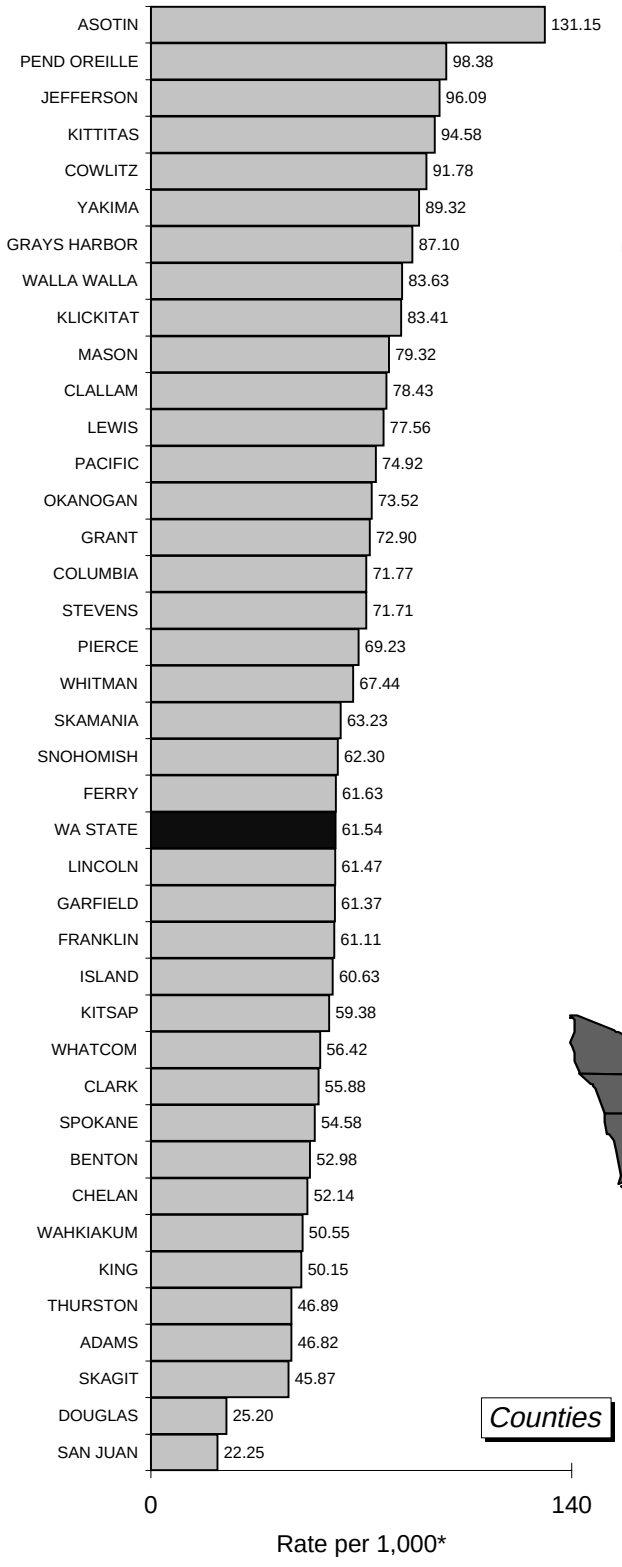
Indicator:

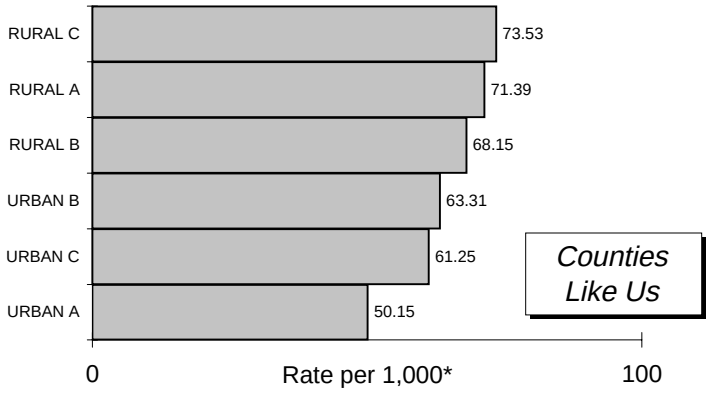
Children (0-17) Placed in Foster Care per 1,000 Children



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

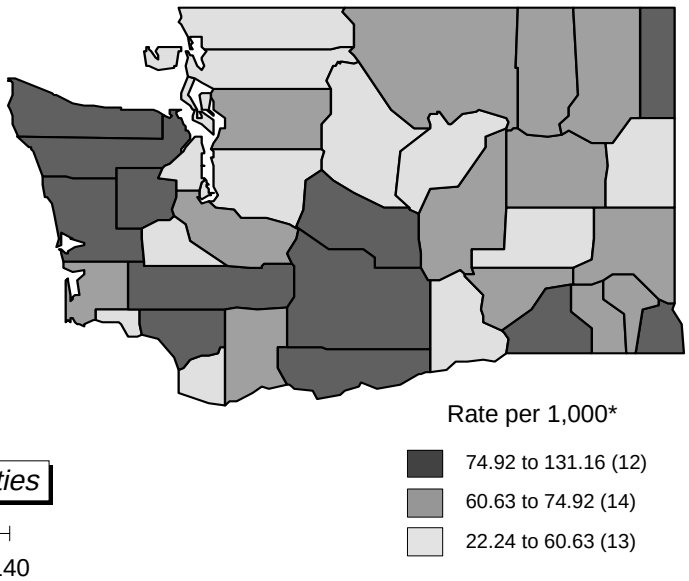
Risk Factor: Family Management Problems





Indicator:

Victims (0-17) in Accepted and Unaccepted Child Abuse and Neglect Referrals per 1,000 Children (0-17)



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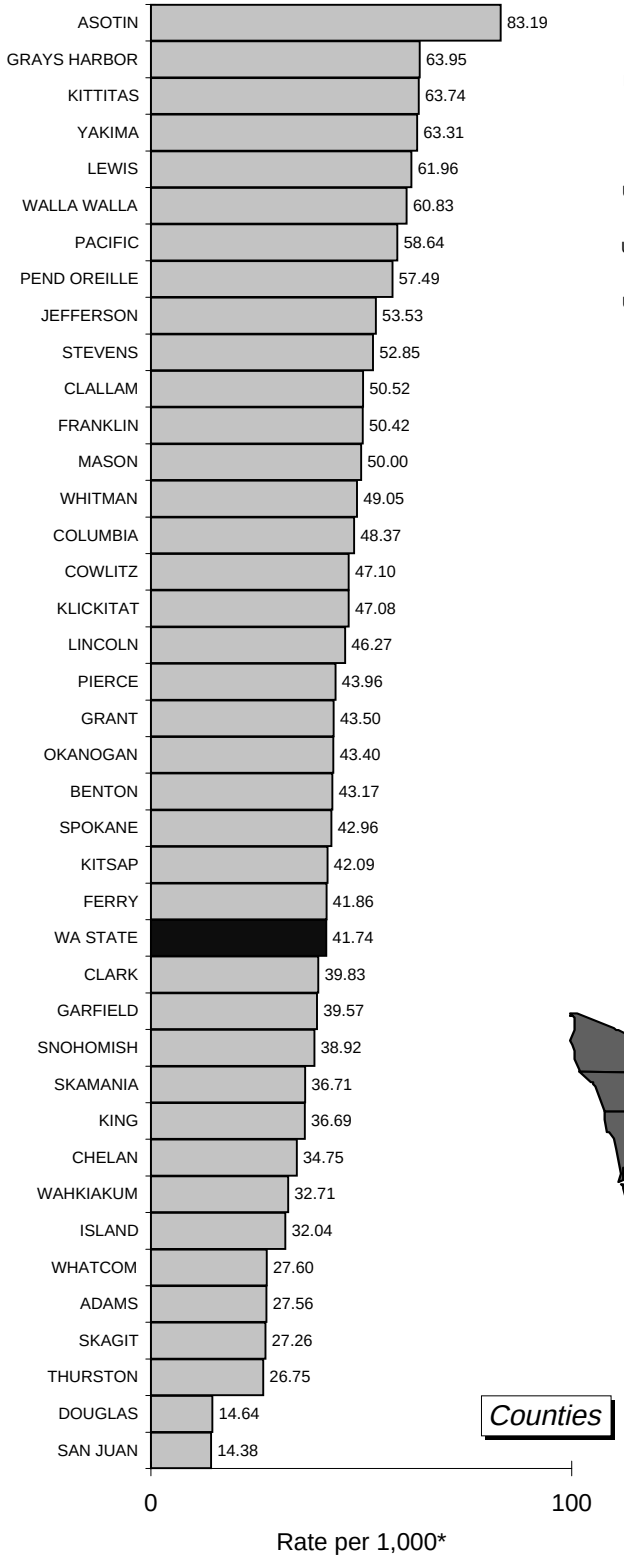
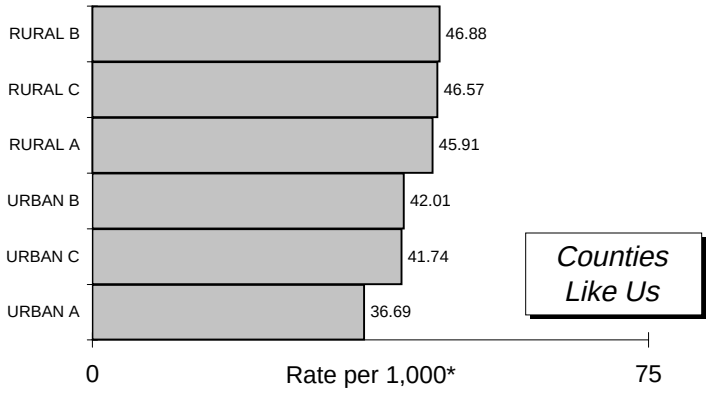
*Average rate for 1991 to 1995.

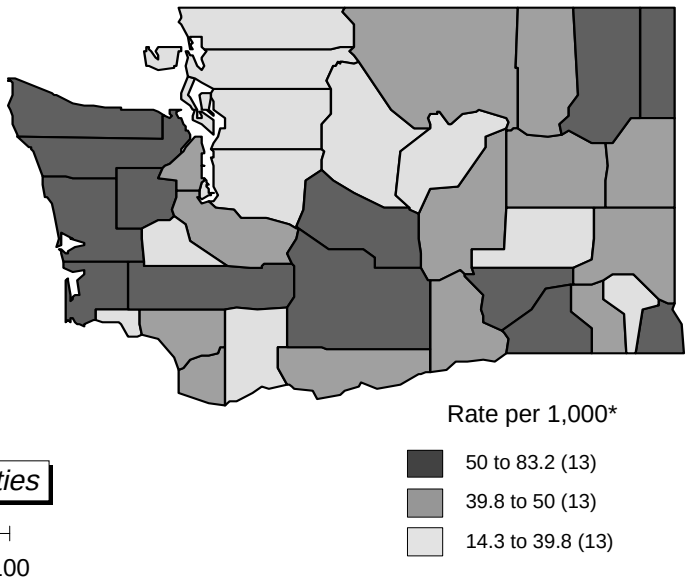
Risk Factor: Family Management Problems





Indicator:

Victims (0-17) in Accepted Child Abuse and Neglect Referrals per 1,000 Children (0-17)



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1991 to 1995.

Risk Factor: Family Conflict

Persistent serious conflict between primary caregivers or between caregivers and children appears to increase risk for children raised in these families. Conflict between family members appears to be more important than the family structure. Whether the family is headed by two biological parents, a single parent, or some other primary caregiver, children raised in families high in conflict appear to be at risk for all problem behaviors (Appendix D; DRP, 1996).

Indicators chosen as proxy measures for this risk factor are presented in the graphs below and include rates of divorce, single parent households, and arrests for domestic violence. Since data specific to parents was not available, rates for adults are provided and are assumed similar to rates for parents. Elevated rates for these indicators are probable markers of increased family conflict.

Indicators / Definitions

- **Divorce Rate**

  Washington State - the number of divorces as a rate per 1,000 adults (ages 18 and over). For this indicator, divorce includes dissolutions, annulments, and unknown decree types; it does not include legal separations. Divorce data is collected by the county where the decree is issued, not necessarily where the couple lives. Lincoln County has an extremely high divorce rate because no court appearance is required for amicable divorces. The convenience attracts many "absentee" divorces from elsewhere in Washington. Sources: 02, 08.

  National - the number of divorces (dissolutions and annulments) as a rate per 1,000 adults. Sources: MM, GG.

- **Single Parent Family Households**

  Washington State - the number of family households headed by a single parent with children (ages 0-17) as a percentage of all family households with children (ages 0-17). A single parent can be a female with no husband or a male with no wife. For this indicator, a family consists of at least two related people (one of whom is the head of household) living in the same house. They may be related by birth or adoption. Source: 25.

  National - same as for Washington State. Source: EE.

- **Domestic Violence Arrests**

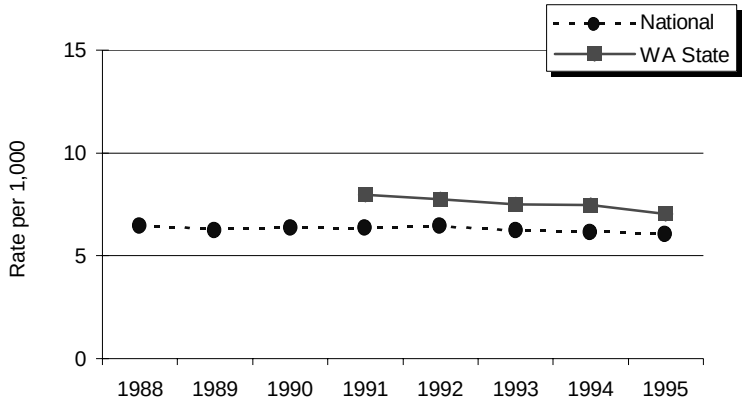
  Washington State - the number of domestic violence-related arrests of adults (ages 18 and over) for felonies and gross misdemeanors as a rate per 1,000 adults. Arrests where the crime class is unknown are included in this rate because it is likely that the crimes were gross misdemeanors. Arrests for misdemeanors are not included, because it is not mandatory to report misdemeanors to the State Patrol. Sources: 23, 08.

National - no comparable national data were available.

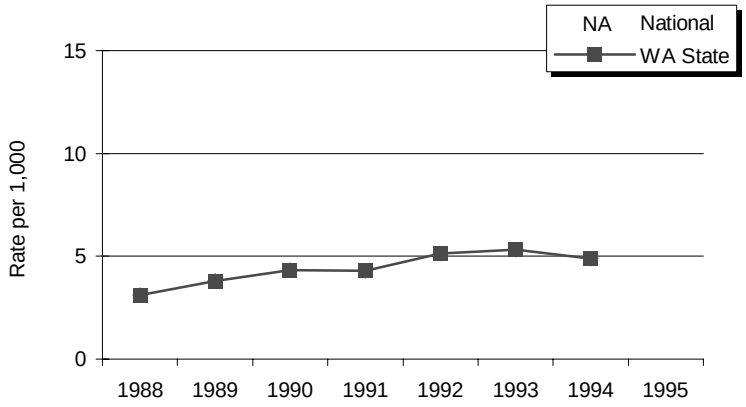
State and National Trends

Trends in risk for family conflict are stable at best and may be on the rise. Divorce rates have remained relatively constant since 1991 while arrests for domestic violence have risen substantially since 1988.

Divorces per 1,000 Adults (18+)



Adult (18+) Domestic Violence Arrests per 1,000 Adults

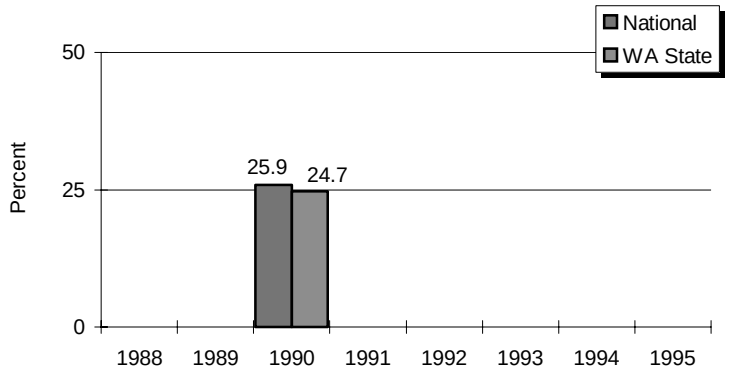


Divorce rates in Washington have remained relatively constant since 1991 averaging 7.5 divorces per 1,000 adults. National rates of divorce have also held constant though lower than Washington at 6.1 per 1,000 adults.

On the other hand, arrests for domestic violence in Washington almost doubled between 1988 and 1993 (10,629 arrests to 20,522 arrests, respectively). Because of concurrent population growth increasing the denominator as well, the rate per 1,000 adults rose 65% during that time (3.1 arrests per 1,000 adults to 5.1 arrests per 1,000 adults). The rate in 1994 was just slightly lower (4.9 arrests per 1,000 adults) than the rate for 1993 (5.1 per 1,000 adults).

In another comparison to national data, Washington had slightly fewer family households headed by a single parent (24.7%) than did the nation on average (25.9%) in 1990.

Percent of Family Households Headed by a Single Parent



Geographic Findings

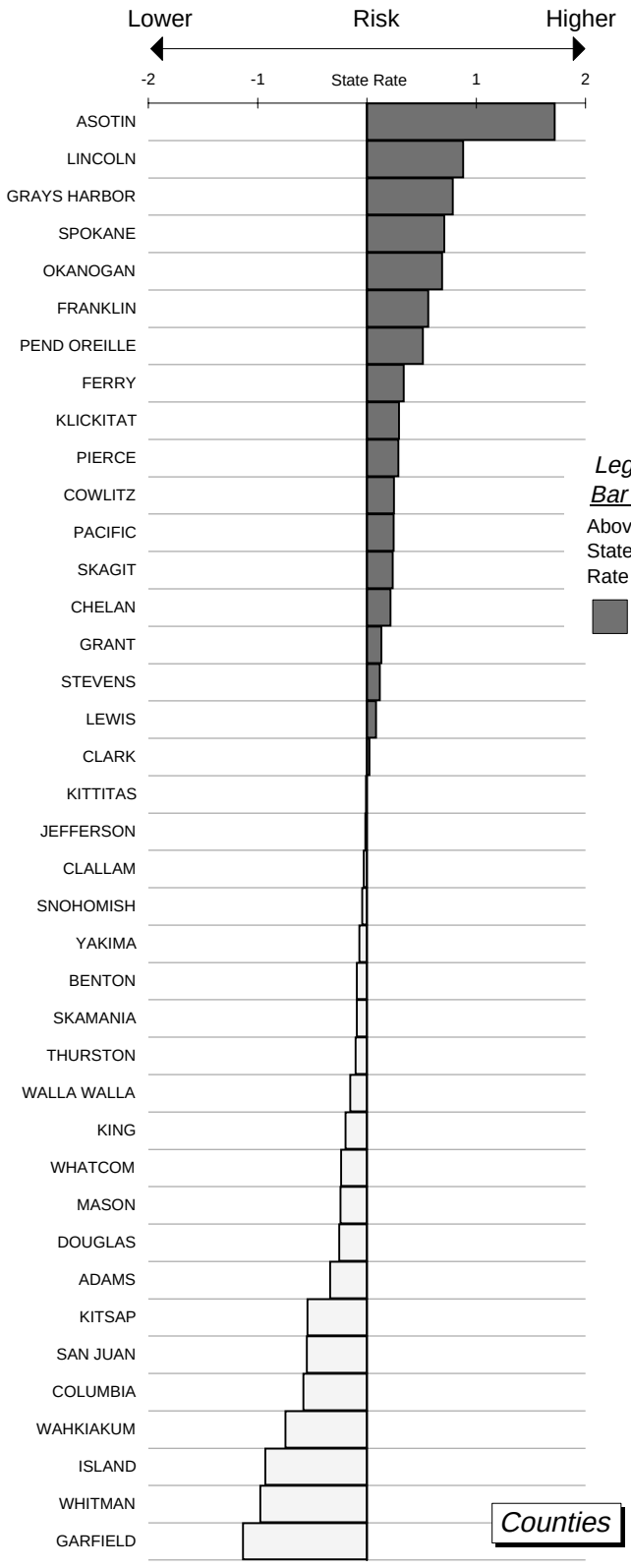
Summary measures. An urban/rural distinction is not obvious for the family conflict risk factor as urban and rural counties are mixed throughout the ranking. From the urban counties, Pierce and Spokane counties are consistently high across the three indicators and thus for overall risk. Among rural counties, Asotin, Franklin, Pend Oreille, Ferry, and Okanogan show the highest summary measure of family conflict.

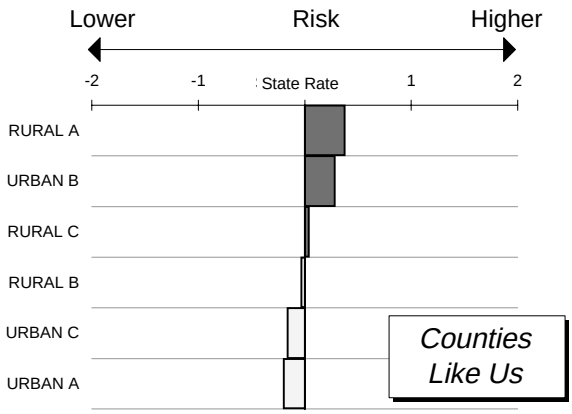
Individual indicators. The geographic distribution of divorce rates does not lend itself to much interpretation either. Some clustering of higher rates appears in south Puget Sound and Southwest Washington and in the tri-cities area including Benton and Franklin counties.

More describable patterns are evident for single parent households. Single parent households represent more than 25% of all family households in more than one third of Washington counties. There is substantial variation across space for this indicator. In Asotin County, 34% of family households are headed by a single parent (highest in the state) while the same figure for neighboring Garfield County is only 16% (lowest in the state). Coastal counties on the Olympic Peninsula and further south show high numbers of single parent households while many rural counties in eastern Washington show lower rates.

Asotin County also has the highest rates of domestic violence arrests averaging over 10 arrests per 1,000 adults annually. This is also one of the few indicators where Snohomish County (6.2 arrests per 1,000 adults) appears well above the state average (4.8 arrests per 1,000 Adults). Counties that are high and those that are low are not easily classed geographically, though more of the counties with the highest rates appear in eastern Washington.

Risk Factor: Family Conflict



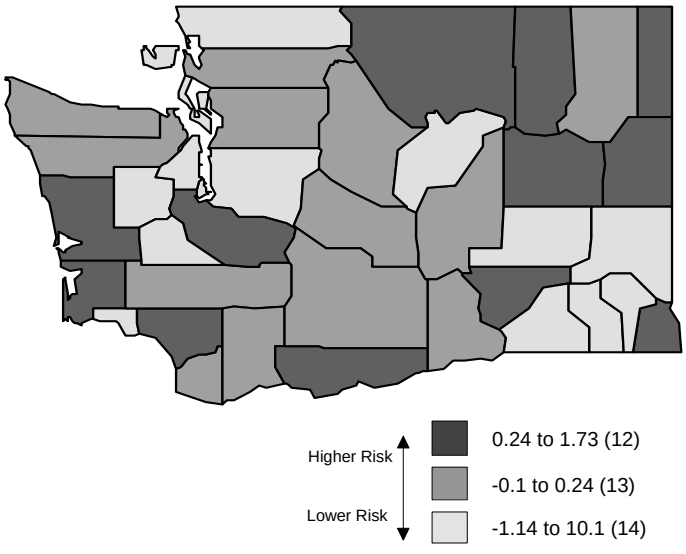


Legend for Bar Graphs

Above State Rate	Below State Rate

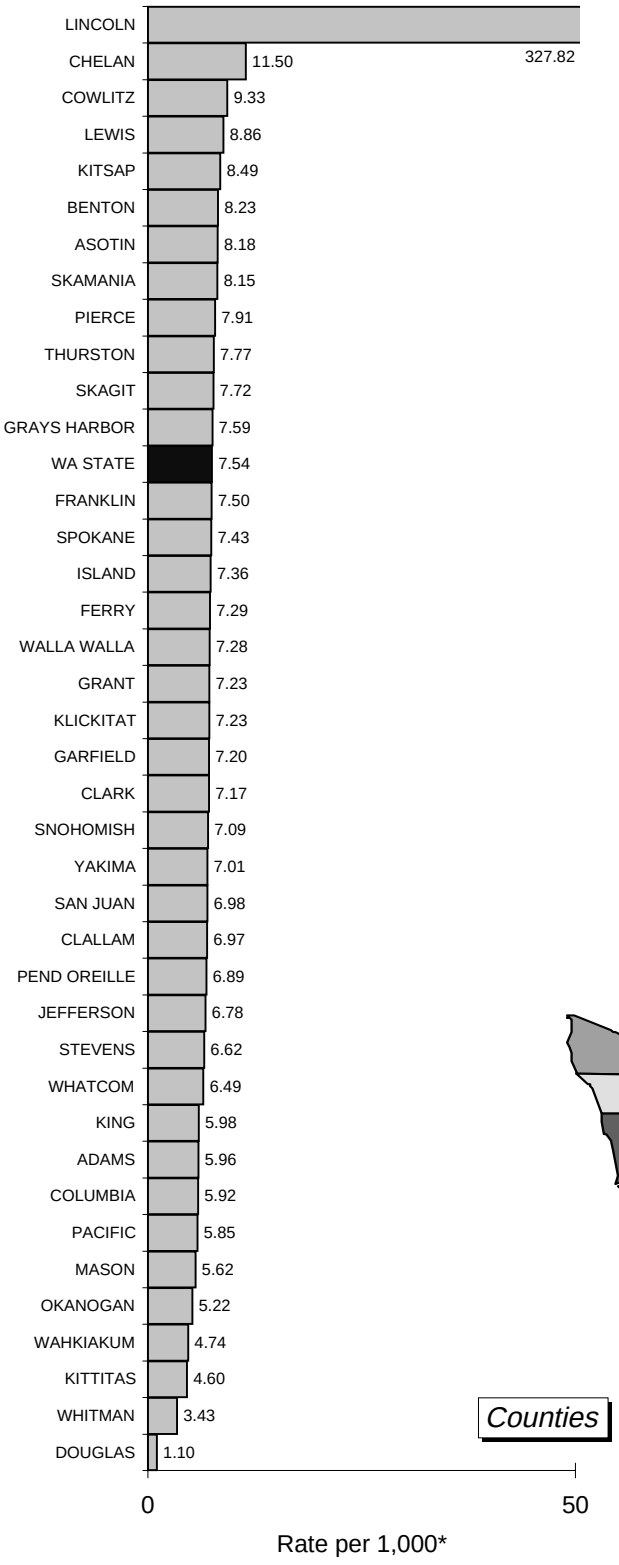
Summary Measure for:

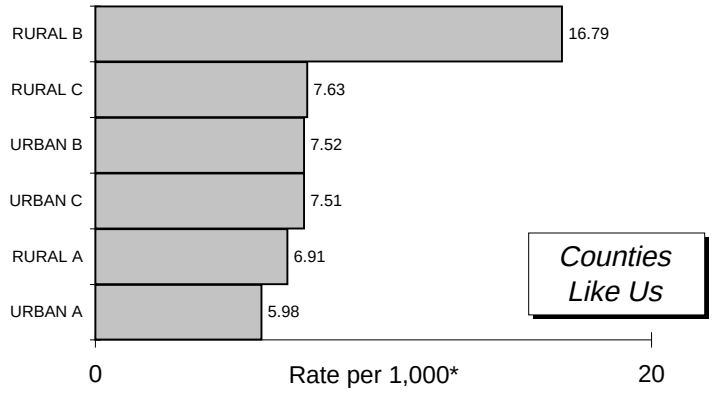
Family Conflict



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

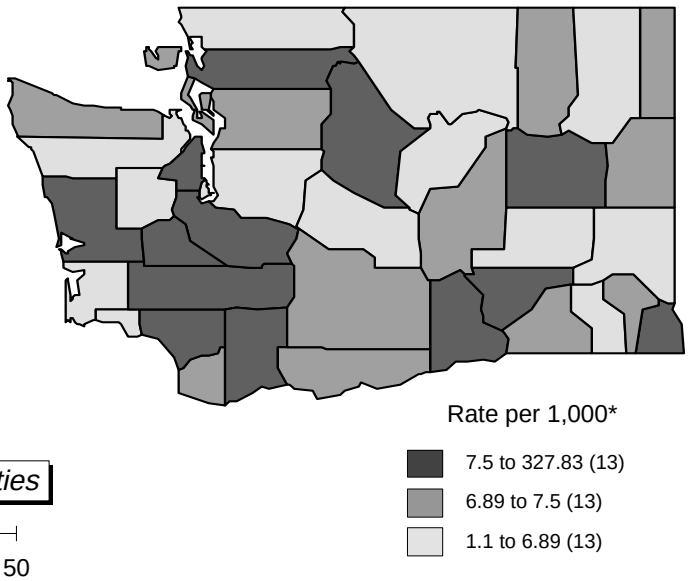
Risk Factor: Family Conflict





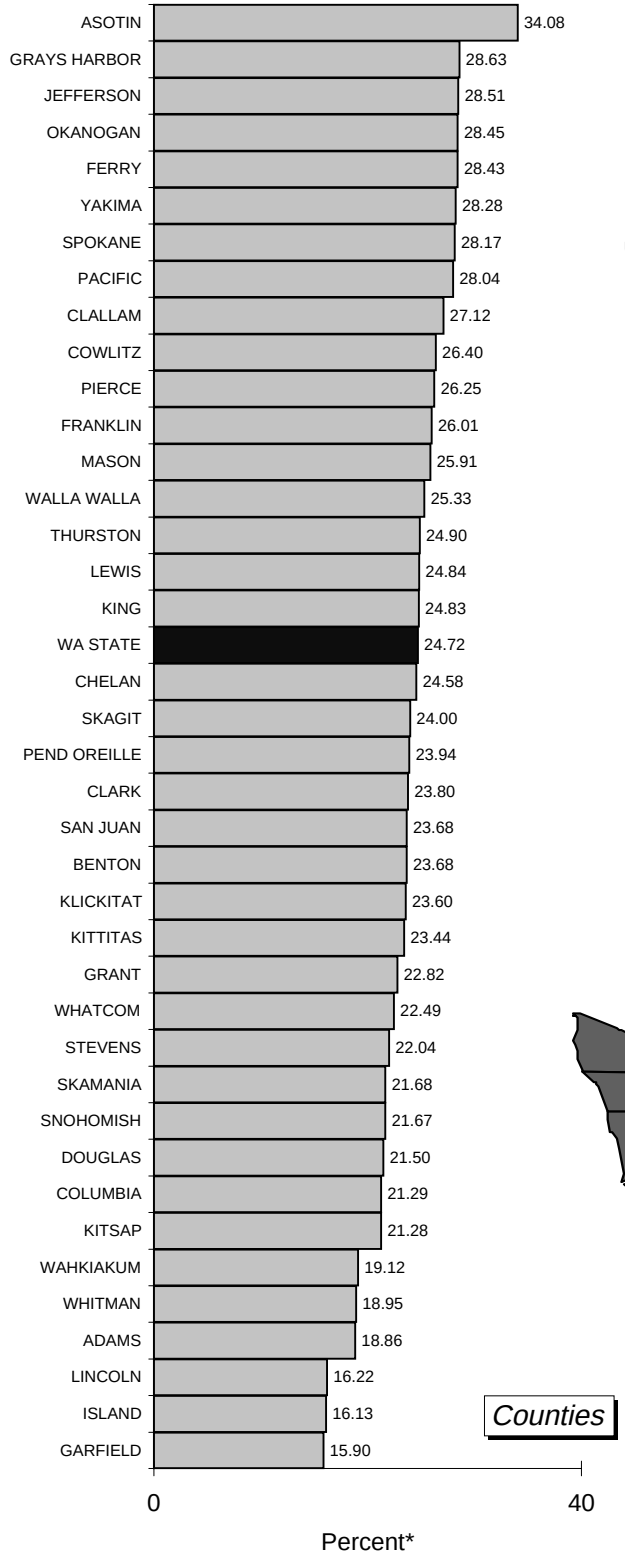
Indicator:

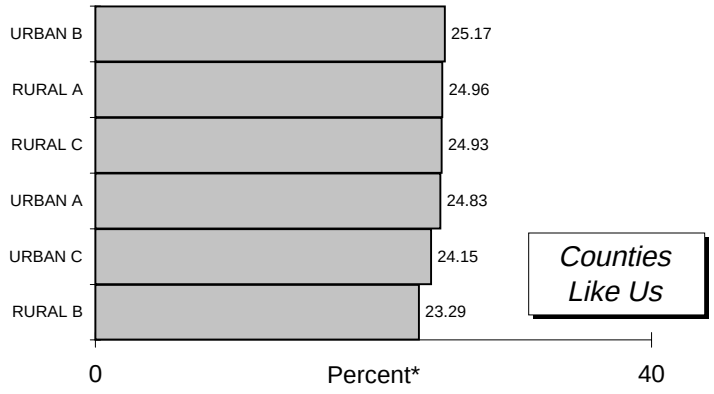
Divorces per 1,000 Persons (18+)



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1991 to 1995.

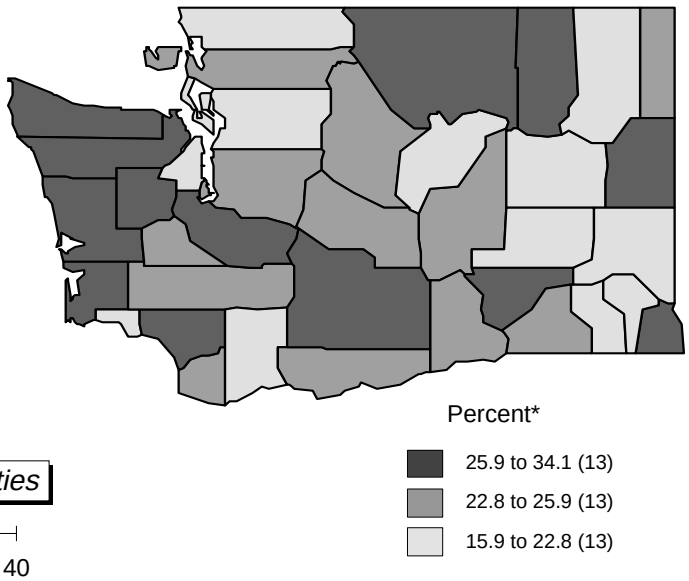
Risk Factor: Family Conflict





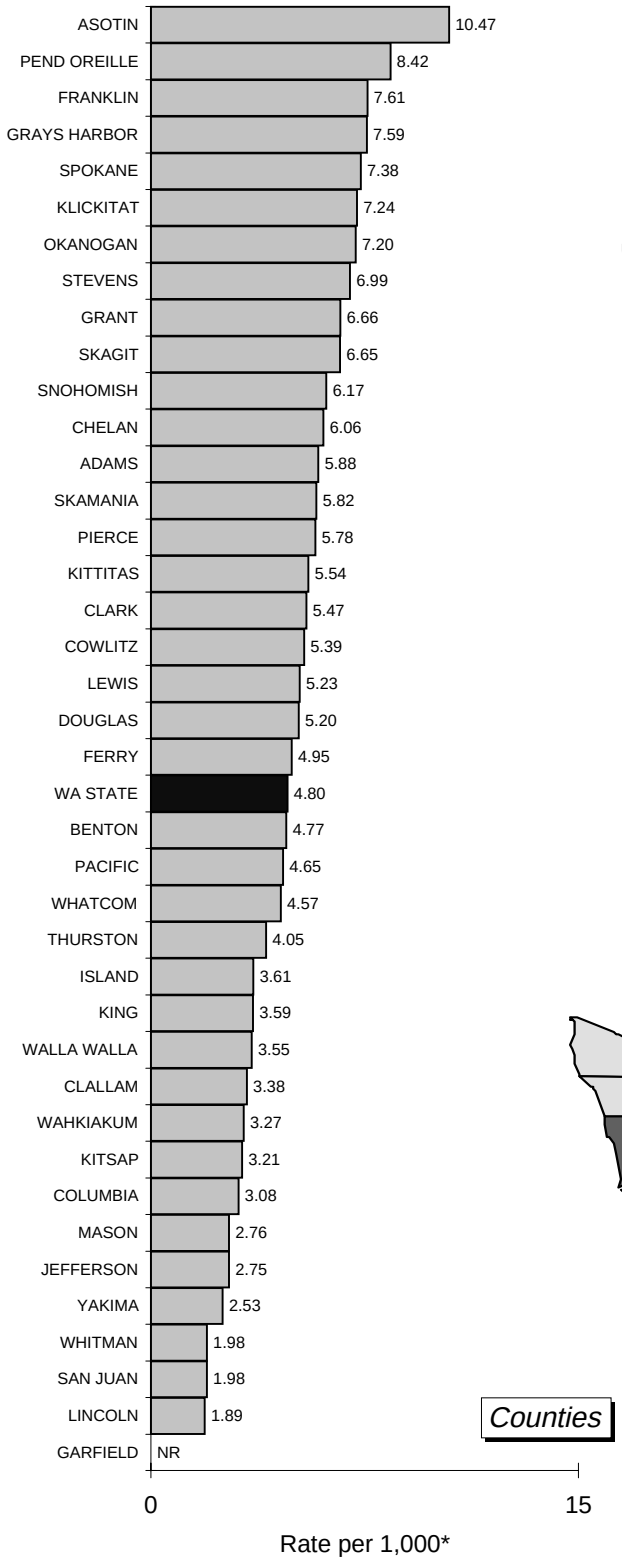
Indicator:

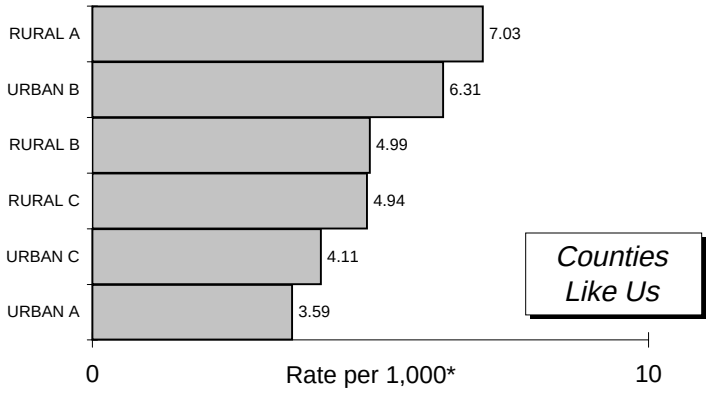
Percent of Family Households Headed by a Single Parent



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

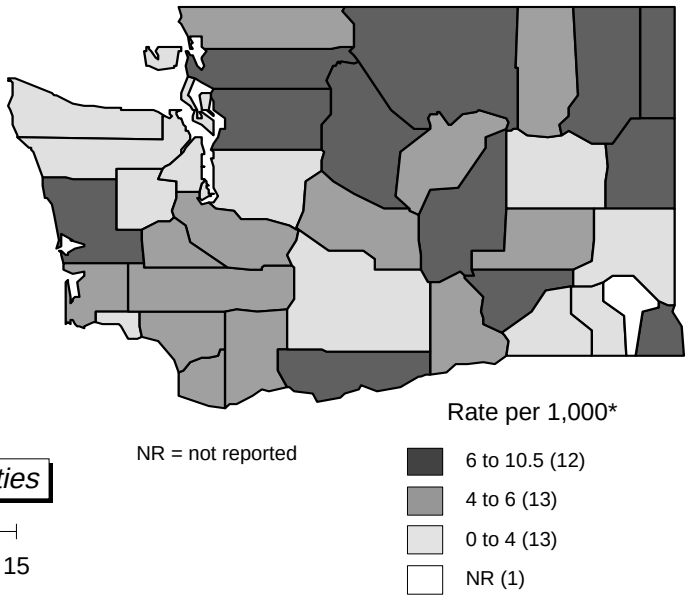
Risk Factor: Family Conflict





Indicator:

Adult (18+) Domestic Violence Arrests per 1,000 Adults



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs

Current and ongoing parental attitudes and behavior toward drugs and crime influence the attitudes and behavior of their children. Parental involvement in drug use and crime may convey the message that those behaviors are tolerated or even accepted. Parental approval of young people's moderate drinking, even under parental supervision, increases the risk of young persons using marijuana. Further, in families where parents involve children in their own drug or alcohol behavior for example, asking the child to light the parent's cigarette or get the parent a beer from the refrigerator - there is an increased risk that a child will become a drug abuser in adolescence. Parents who tolerate or excuse a young person's criminal activity also encourage substance use (Appendix D; DRP, 1996).

Indicators chosen as proxy measures for this risk factor are presented in the graphs below and include rates of adult alcohol or drug related arrests, adult arrests for various other types of crime, alcohol-related traffic fatalities, and drug use during pregnancy. Since data specific to parents was not available, rates for adults are provided and are assumed similar to rates for parents. Higher rates for these indicators suggest greater parental tolerance of problem behaviors and increased parental involvement in drugs or crime.

Indicators / Definitions

- **Alcohol-related Traffic Fatalities**

  Washington State - the number of "alcohol-related" traffic fatalities as a percentage of all traffic fatalities. "Alcohol-related" means that the officer on the scene determined that at least one driver involved in the accident "had been drinking." Thus, "Alcohol-related" includes but is not limited to the legal definition of driving under the influence. Source: 24.

  National - same as for Washington. Source: WW.

- **Adult Drunken Driving Arrests**

  Washington State - the number of adults (ages 18 and over) arrested for driving under the influence (DUI) as a rate per 1,000 adults. DUI arrests by the Washington State Patrol (WSP) (41% of all Adult Drunken Driving Arrests) are included in the state trend analysis. However, they are not included in the county rankings since WSP arrests are not assigned to counties. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Adult Alcohol-related Arrests**

  Washington State - the number of adult (ages 18 and over) arrests for alcohol violations as a rate per 1,000 adults. Alcohol violations include all crimes involving driving under

the influence, liquor law violations, and drunkenness. DUI arrests by the WSP (29% of all Adult Alcohol-related Arrests) are included in the state trend analysis. However, they are not included in the county rankings since WSP arrests are not assigned to counties. Sources: 28, 08, 10.

National - same as for Washington State. Sources: SS, TT, GG.

- **Adult Drug-related Arrests**

  Washington State - the number of adult (ages 18 and over) arrests for drug law violations as a rate per 1,000 adults. Drug law violations include all crimes involving sale, manufacturing, and possession of drugs. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Adult Violent Crime Arrests**

  Washington State - the number of adult (ages 18 and over) arrests for violent crimes as a rate per 1,000 adults. Violent crimes include all crimes involving criminal homicide, forcible rape, robbery, and aggravated assault. Simple assault is not defined as a violent crime. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Adult Property Crime Arrests**

  Washington State - the number of adult (ages 18 and over) arrested for property crimes as a rate per 1,000 adults. Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Drug Treatment During Pregnancy**

  Washington State - the number of pregnant women (all ages) admitted to publicly-funded alcohol and other drug treatment programs per 1,000 babies born. If a pregnant woman is admitted to treatment more than once in a year, she is only counted once. This indicator undercounts drug use during pregnancy because it does not include pregnant women who use drugs but are not in treatment or pregnant women who are in private treatment programs. Sources: 07, 02.

  National - 37 states report annual numbers of pregnant women admitted to publicly-funded alcohol or drug

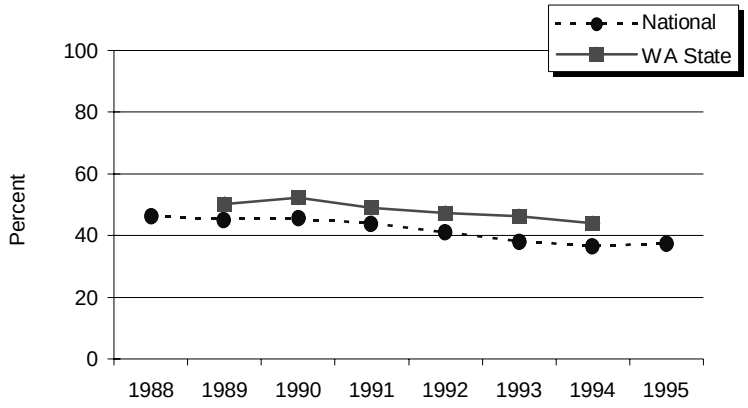
treatment. However, differences among states in eligibility criteria for public assistance, the ability to unduplicate admission data, and overall reporting capacity make comparison of state to "national" rates somewhat less than ideal. Because of these limitations, trends over time are probably more comparable than actual rates. Sources: PP, NN.

State and National Trends

State and national indicators for Parental Attitudes and Involvement in Crime and Drugs appear to be mostly stable with a few showing improvement over time. This suggests, at least, that parental attitudes toward crime and drugs are not growing more lax. Washington State does appear higher than the nation in four of six comparable rates, suggesting that this risk factor may be slightly higher in Washington than in the nation.

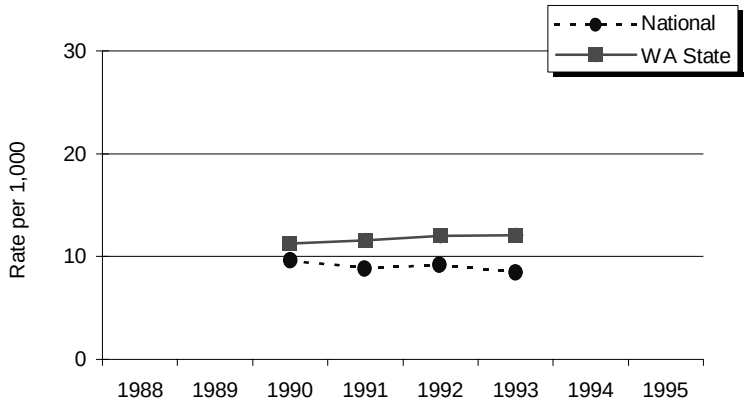
In both Washington State and the nation, the percent of traffic fatalities that are alcohol-related has seen a 10% drop from approximately 50% in 1990 to less than 44% in 1994.

Percent of Traffic Fatalities that are Alcohol-related

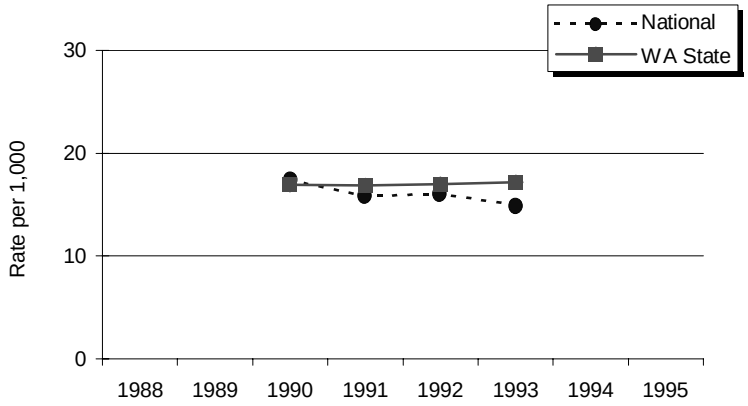


Arrests for drunken driving and the more general alcohol-related arrests appear higher than comparable rates for the nation. Drunk driving arrests were becoming more common in Washington between 1990 and 1993, rising steadily from 11.3 to 12.1 per 1,000 adults. National rates for alcohol-related arrests appear to be declining.

Adult (18+) Arrests for Drunken Driving per 1,000 Adults

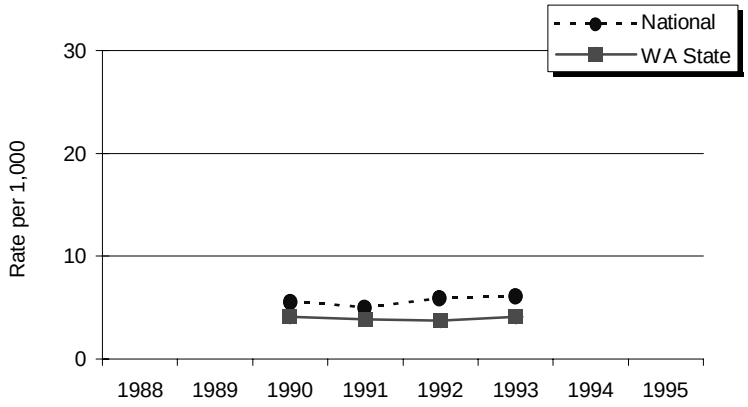


Adult (18+) Alcohol-related Arrests per 1,000 Adults

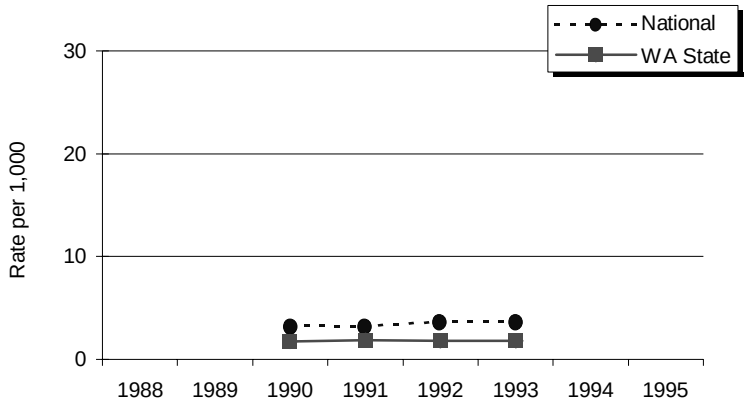


Rates for drug-related arrests and arrests for violent crimes appear lower than for the nation. Rates for these two indicators appear relatively stable for Washington and the nation, though national rates are showing a small rise.

Adult (18+) Drug-related Arrests per 1,000 Adults

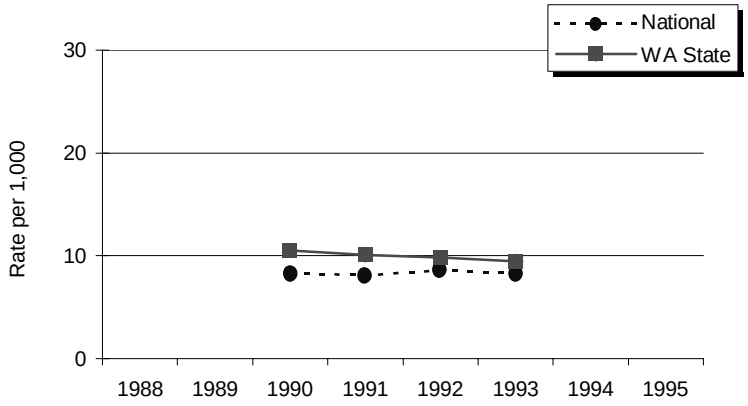


Adult (18+) Violent Crime Arrests per 1,000 Adults



Rates of arrests for property crimes are higher in Washington than for the rest of the nation, though they are declining and approaching national figures.

Adult (18+) Property Crime Arrests per 1,000 Adults

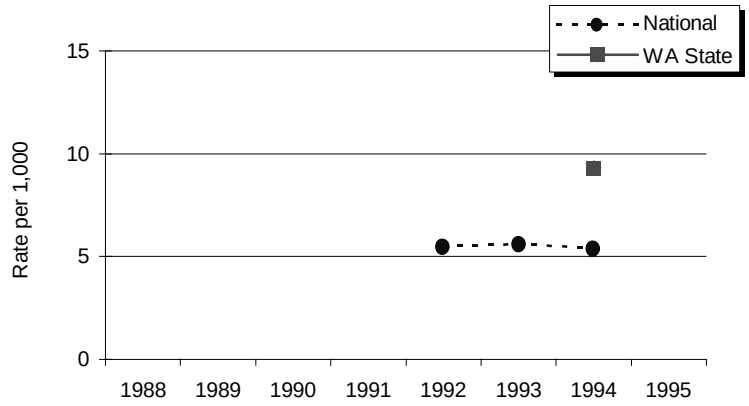


In Washington in 1994, 9.3 pregnant women per 1,000 babies born were admitted to substance abuse treatment.

Comparison of actual admission rates between Washington and the 37 reporting states is complicated by state-to-state variation in eligibility criteria for publicly funded AOD treatment and differences in reporting systems. It is not clear how much such differences affect the relative levels of this indicator.

However, in 1989, Washington State initiated comprehensive services for pregnant women using and abusing alcohol and other drugs during pregnancy. Such services virtually ensure that eligible pregnant, chemically dependent women have access to treatment services on demand. Given the comprehensive nature of Washington's programs for substance abusing pregnant women, the higher rate of services provided per babies born appears reasonable.

Pregnant Women (all ages) Admitted to State Funded Alcohol or Drug Treatment per 1,000 Babies Born



Geographic Findings

For this risk factor, it is important to remember that county summary measures are only based upon indicators where data were reported. So, for example, the summary measure for Garfield County is based on only two indicators - Arrests for Drunken Driving and Alcohol Related Arrests, while the summary measure for King County is based on reported data for all seven indicators. The "Counties Like Us" groupings may be most meaningful for geographic analysis as they each are based on all seven indicators.

Another source of potential bias in the county summary measures is that two of the indicators, Arrests for Drunken Driving and Alcohol Related Arrests, are significantly affected by the exclusion of WSP arrest data. If such exclusion impacts arrest rates in some counties more than in others, some extra care in the geographic interpretation of these indicators is warranted.

For example, it is likely that a higher percentage of the total DUI arrests in a county are made by state patrol officers when there is a relative concentration of state patrol officers in that county - perhaps along an interstate highway. Analysis of DUI arrests in eight multi-county WSP regions shows, regionally, that the percentage of DUI arrests made by the WSP may range anywhere from 28% to 52% of all DUI arrests made by WSP or local authorities. It is therefore likely that variations of similar magnitude occur from county to county.

Summary measures. Given the limitations expressed above, summary measures on attitudes and involvement in crime and drugs are similar for the urban and rural county groups (all relatively close to the state average) with the exception of rural A counties, which, again, are relatively high.

Individual indicators. Statewide, 48% of all traffic fatalities are related to alcohol. The average percent in Rural A counties is 58%, which includes Okanogan County at 66%. Urban and rural counties appear on both sides of the state average without a distinguishing pattern. King and Spokane counties

are noticeably lower than the state average. A complete comparison, however, is difficult with so many counties having small numbers of alcohol-related traffic fatalities (NR on graph).

Drunk driving arrests per 1,000 adults vary more than fivefold from county to county. Clusters of counties with the highest rates occur in coastal southwest Washington and north central Washington. Since the county rates do not include WSP DUI arrests, high rates of local DUI arrests likely are due, in part, to a relative lack of WSP officers, leaving more of the total DUI arrests to be made by local authorities. Lower rates appear around the Puget Sound.

Rates for alcohol-related arrests (primarily DUI *and* liquor law violations) have higher rates in rural counties. Rates for the three rural groups are higher (average around 17 per 1,000 adults) than those for the three urban groups (average around 11 per 1,000 adults). Again, comparisons may be biased by the relative lack of or concentration of WSP officers in a county. It also may be that alcohol crimes are pursued more aggressively in rural counties while urban counties are forced to deal with higher levels of more serious crimes.

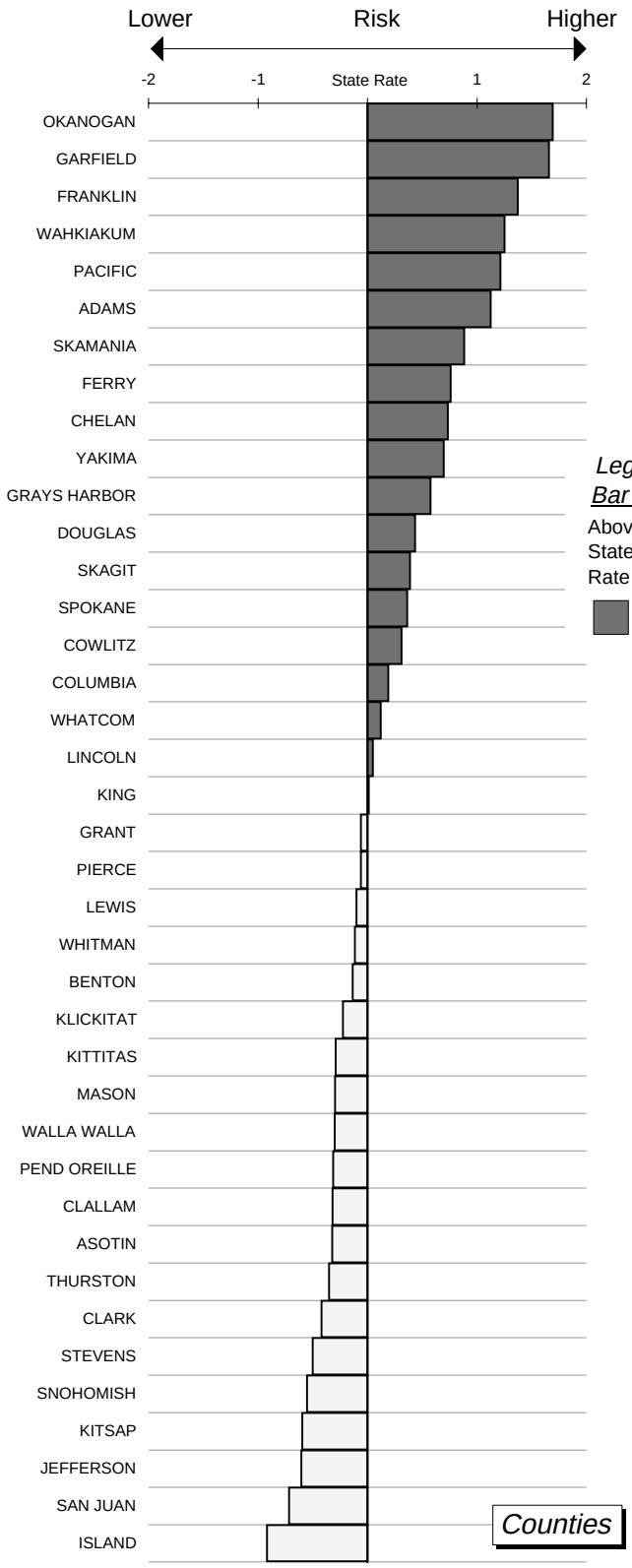
With regard to drug-related arrests, the rural A counties top the list again averaging 5.3 drug-related arrests per 1,000 adults. Franklin (9.0) and Skamania (8.3) Counties top the list more than twice the state rate and more than ten times the rate of lowest-ranked Snohomish County (0.7). More urban counties appear toward the top on this indicator than the alcohol related indicators including metropolitan counties Spokane (6.3), Pierce (4.5) and King (4.2).

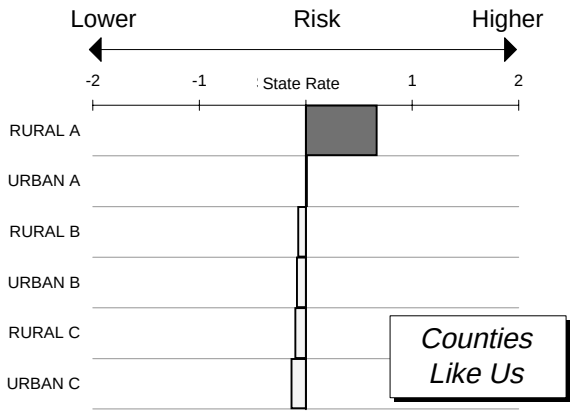
Adult arrests for violent crimes are exceedingly prevalent among Rural A Counties (3.1 adult arrests per 1,000 adults) compared to the state rate (1.8). Three counties, Ferry (4.8), Okanogan (4.4), and Franklin (4.0), have violent crime arrest rates that are more than twice the state rate, while Island County's rate (0.8) is less than half.

No particular urban/rural pattern is apparent for adult arrests for property crimes. Yakima (17.1 adult property crime arrests per 1,000 adults), Spokane (12.2), King (11.7) and Whatcom counties are urban counties with rates above the state rate (10.0), while Franklin (15.8) and Skagit (15.1) counties have the highest rural rates.

County comparisons for the pregnant women in treatment indicator are difficult given the large number of counties with small total numbers (lots of NRs). Among the "Counties Like Us" groups, Urban A (King County) and Urban B are the two highest at 10.8 and 8.9 pregnant women in treatment per 1,000 babies born, suggesting a metropolitan effect on substance abuse by pregnant women.

Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs



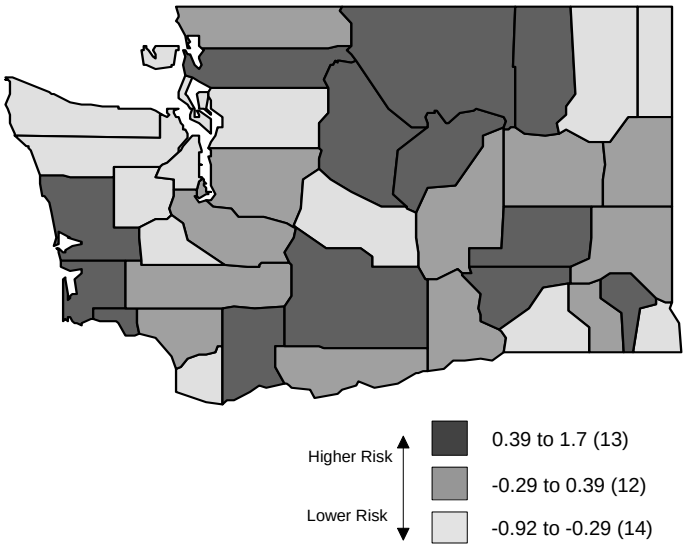


Legend for Bar Graphs

Above State Rate	Below State Rate

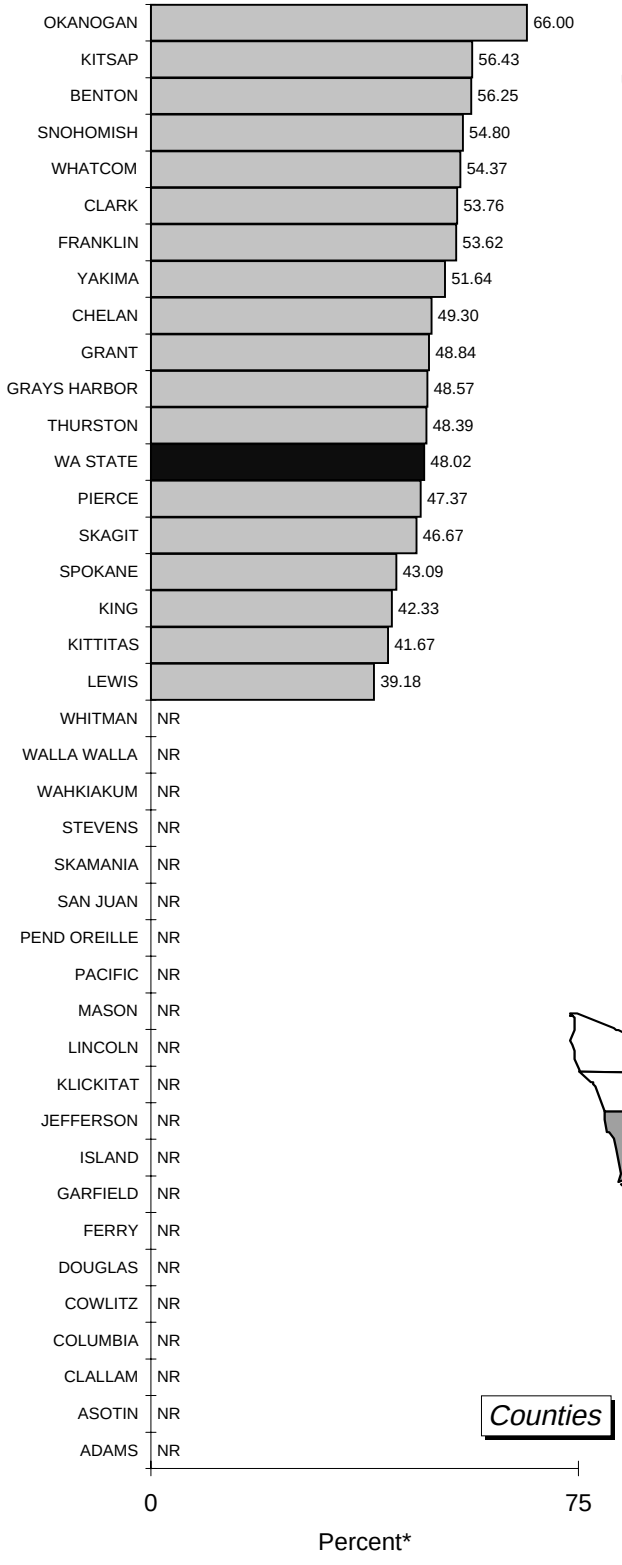
Summary Measure for:

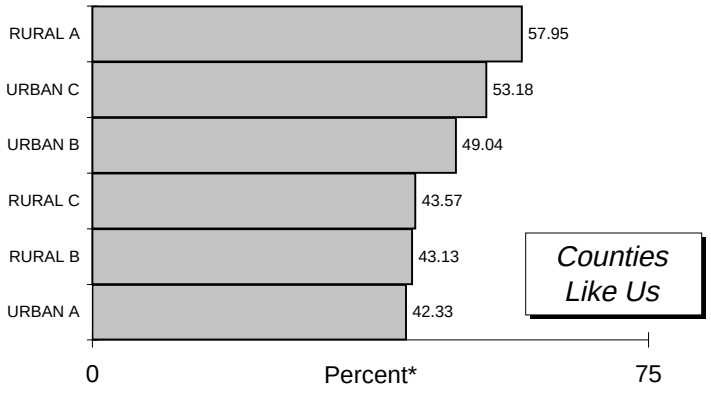
Favorable Parental Attitudes and Involvement in Crime and Drugs



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

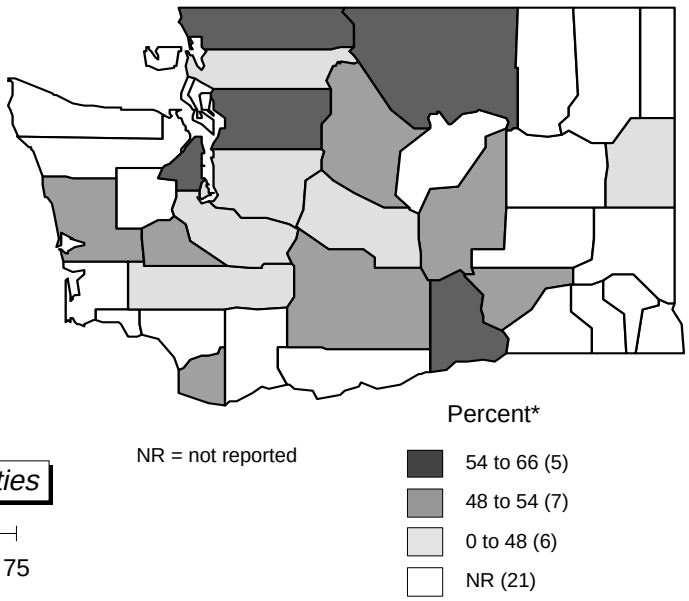
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





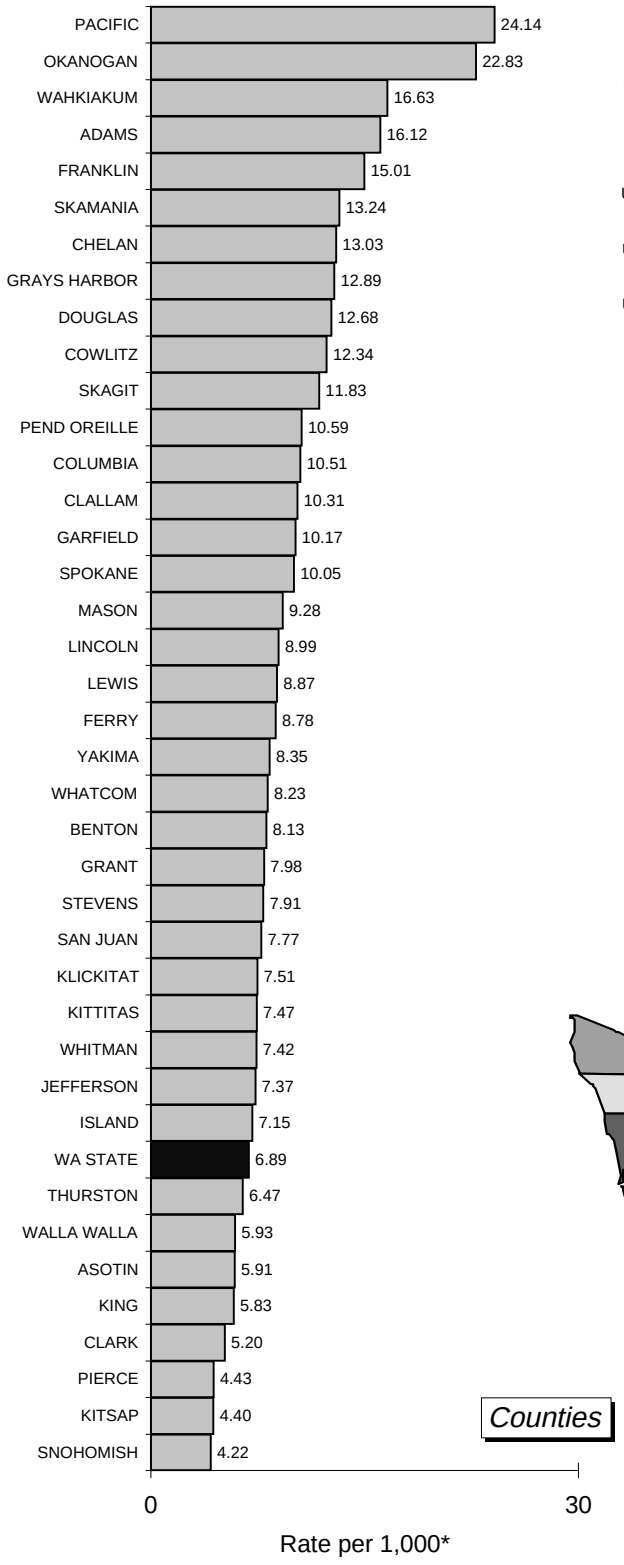
Indicator:

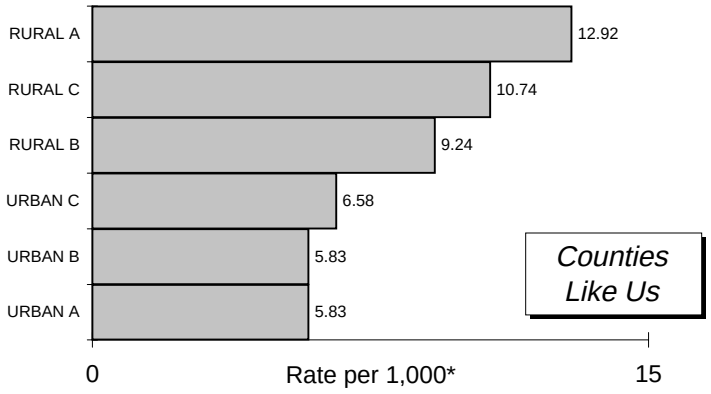
Percent of Traffic Fatalities that are Alcohol-related



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1990 to 1994.

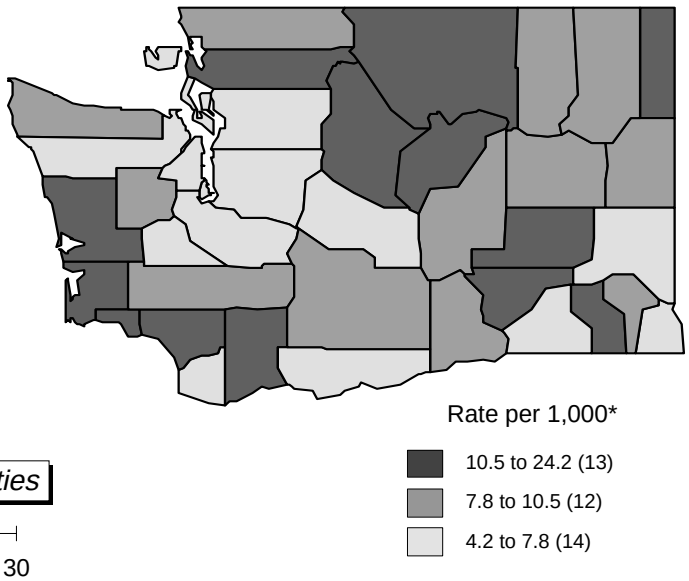
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





Indicator:

Adult (18+) Arrests for Drunken Driving per 1,000 Adults



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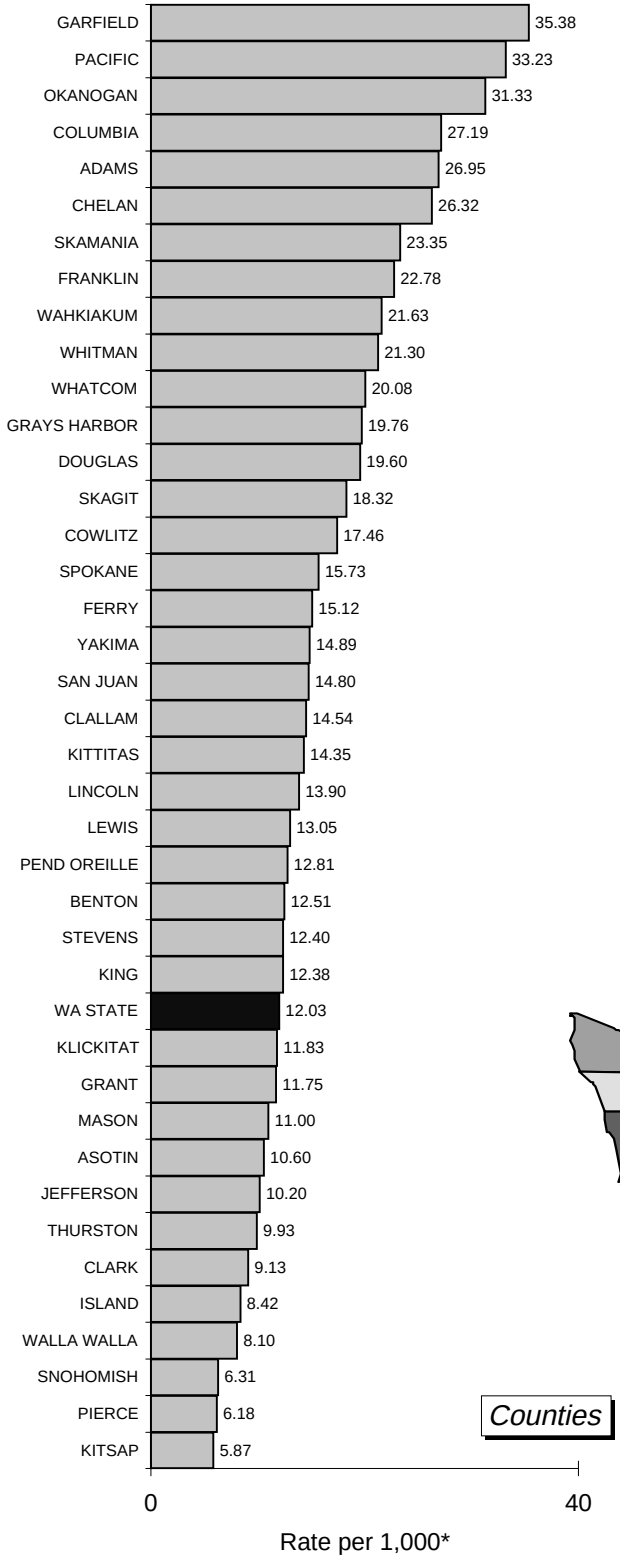
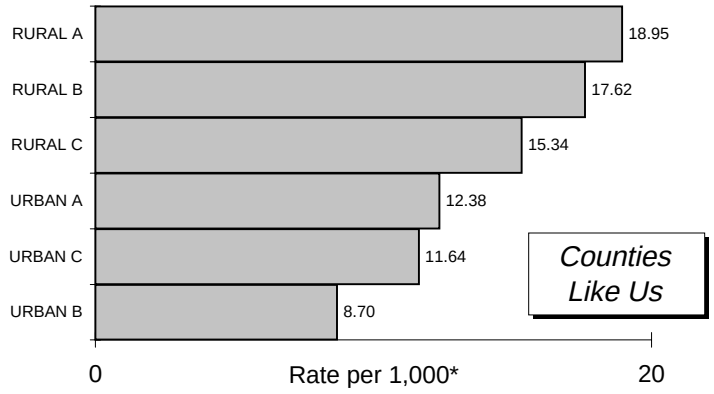
*Average rate for 1990 to 1994.

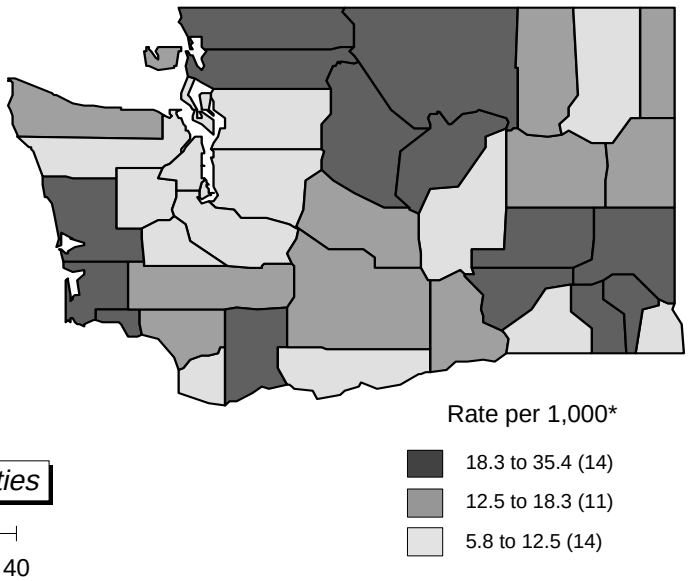
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





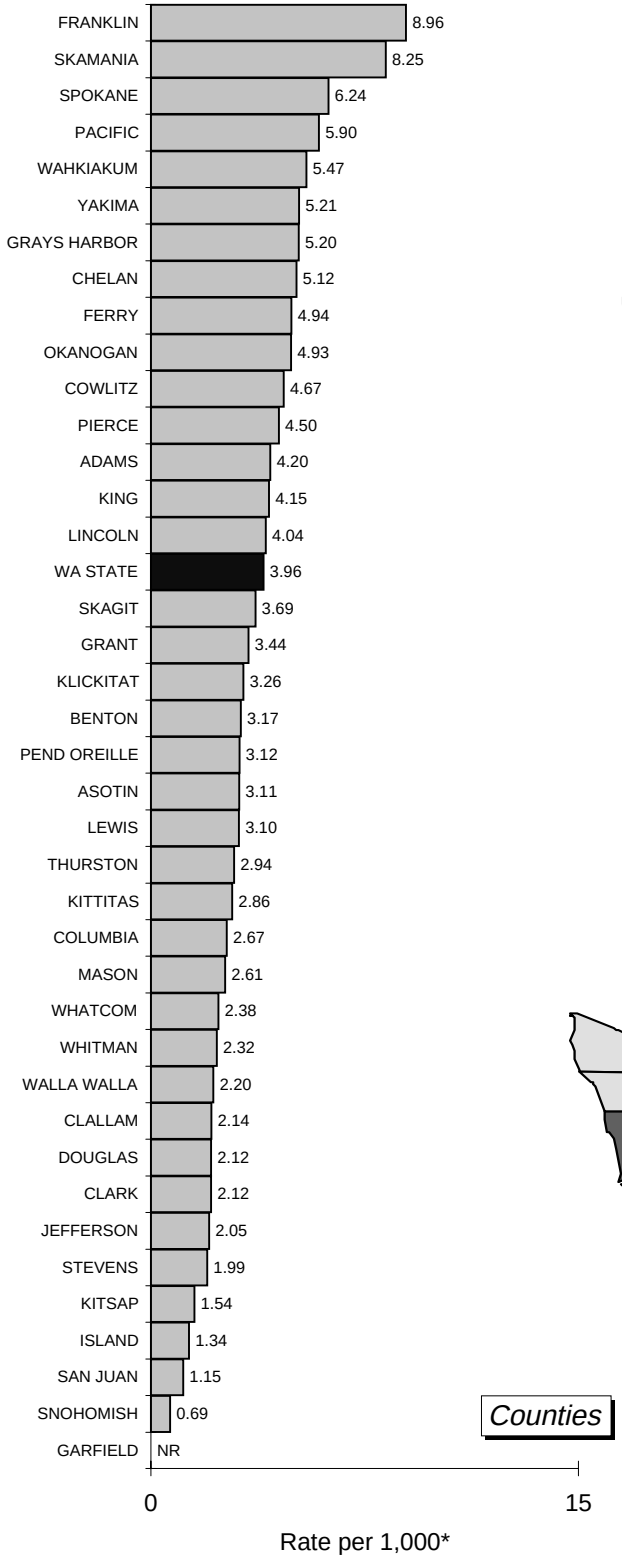
Indicator:

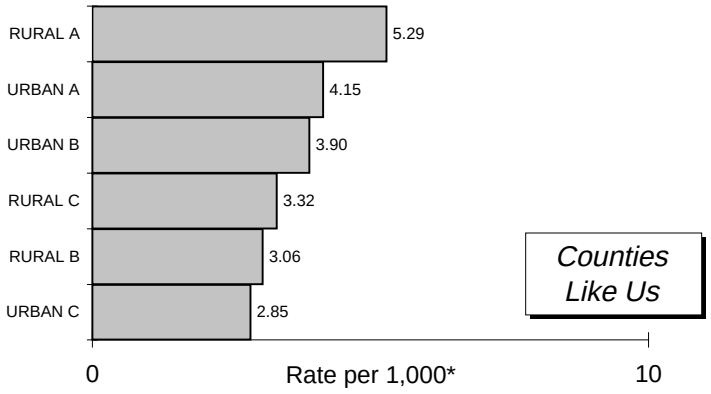
Adult (18+) Alcohol-related Arrests per 1,000 Adults



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

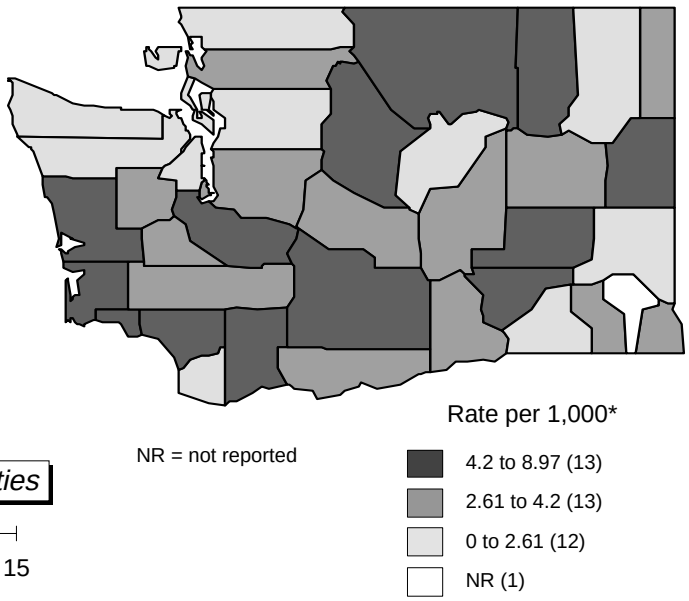
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





Indicator:

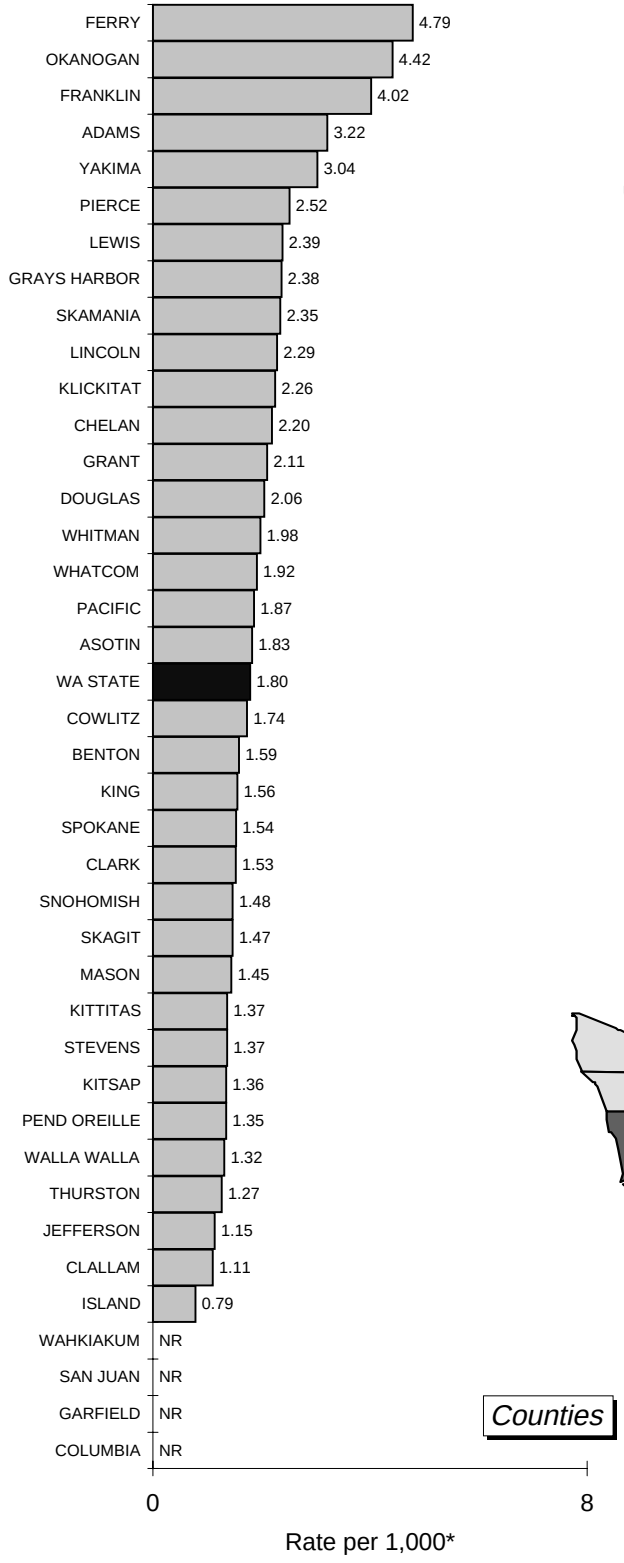
Adult (18+) Drug-related Arrests per 1,000 Adults

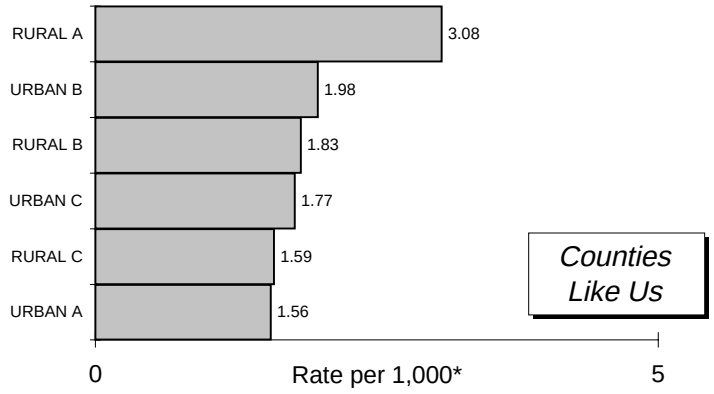


NR = not reported

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

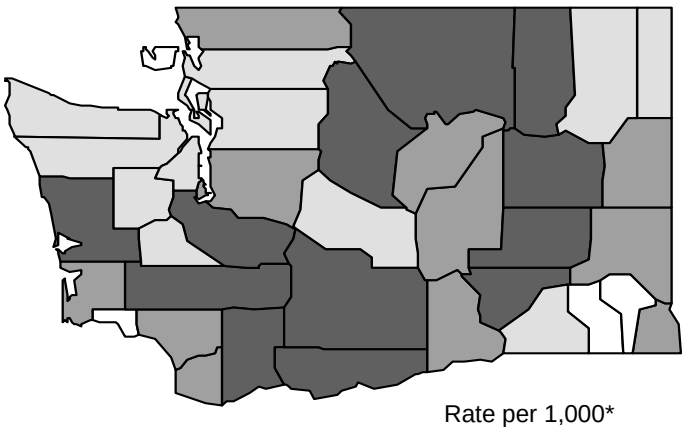
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





Indicator:

Adult (18+) Violent Crime Arrests per 1,000 Adults



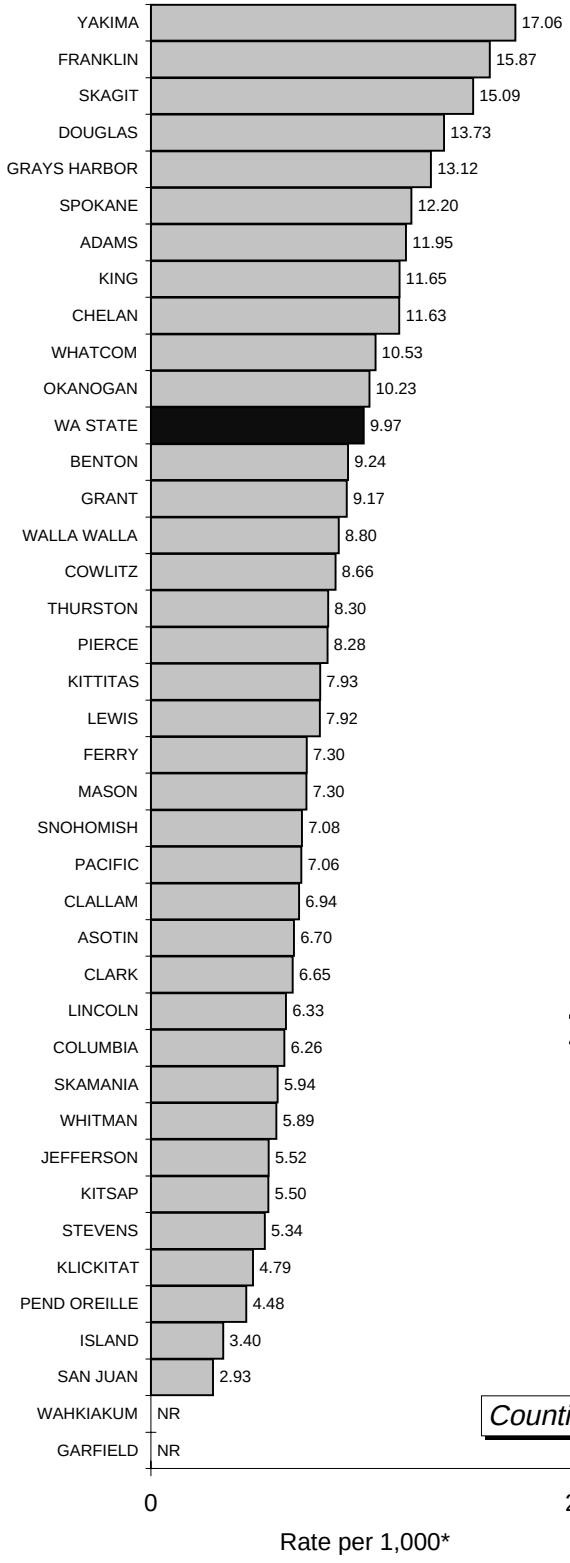
NR = not reported

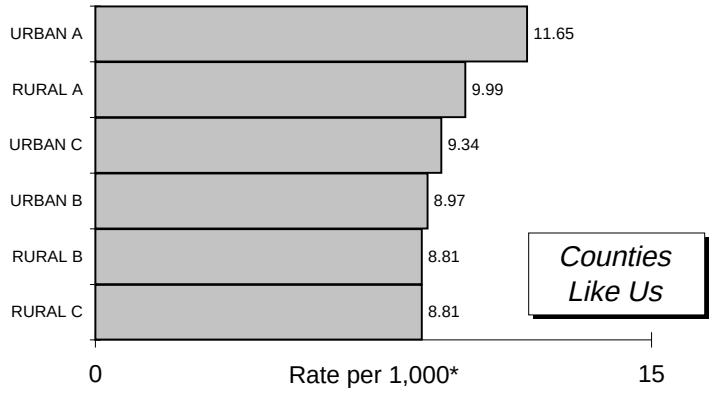
Rate per 1,000*

- 2.2 to 4.8 (12)
- 1.49 to 2.2 (11)
- 0 to 1.49 (12)
- NR (4)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

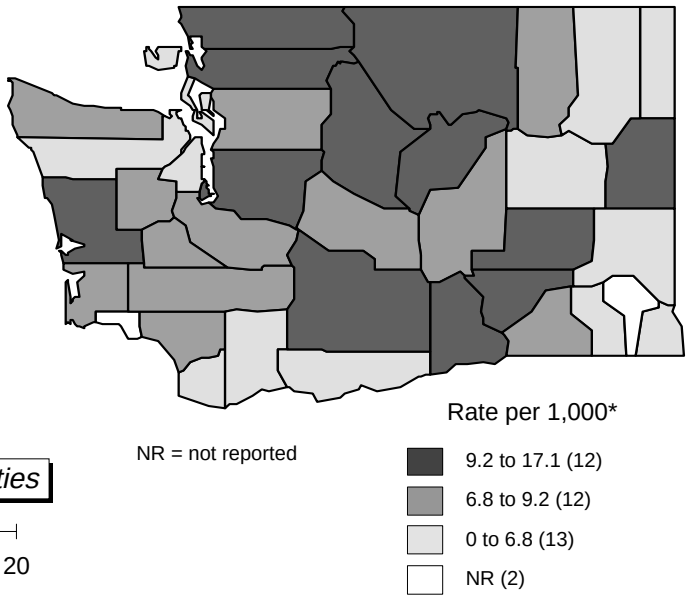
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





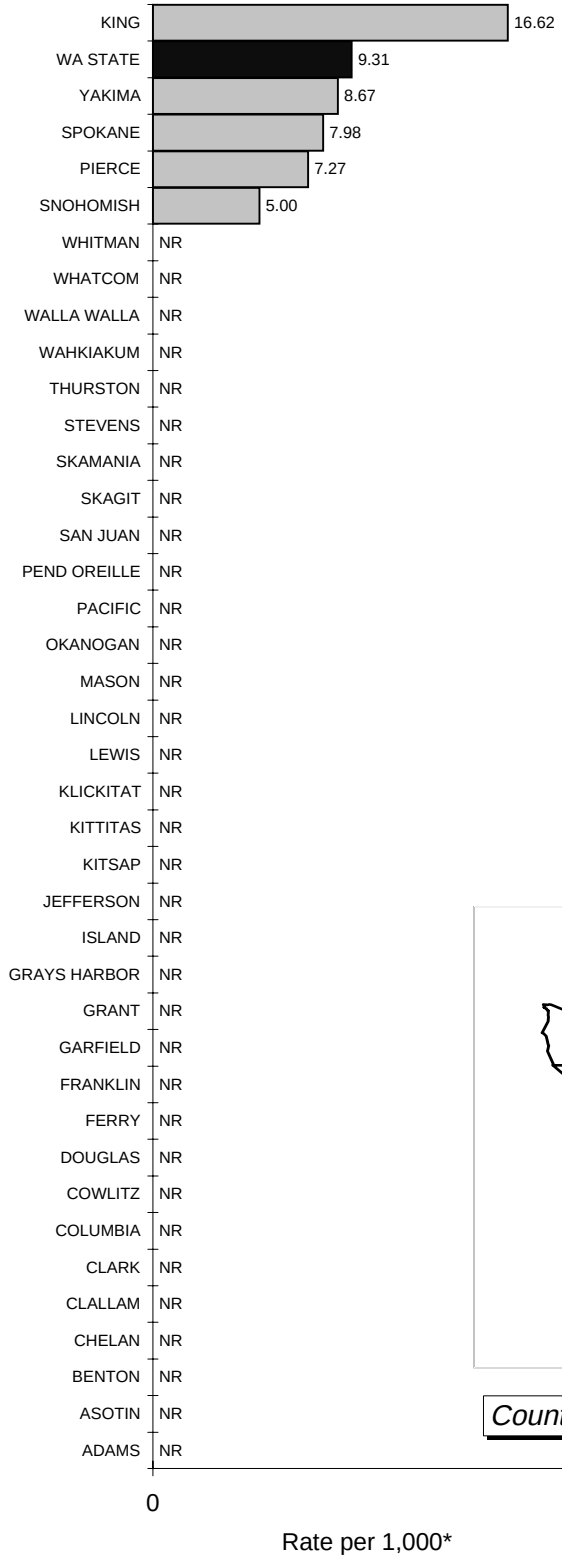
Indicator:

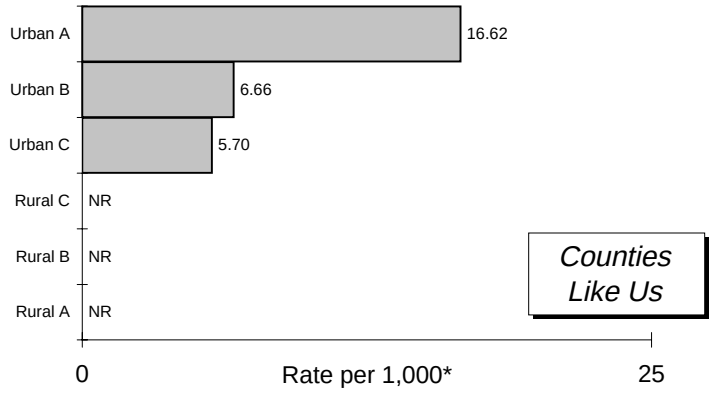
Adult (18+) Property Crime Arrests per 1,000 Adults



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

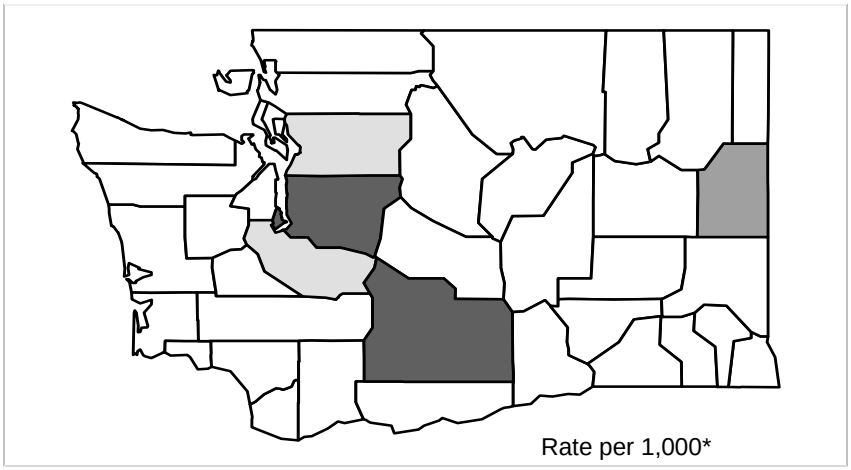
Risk Factor: Favorable Parental Attitudes and Involvement in Crime and Drugs





Indicator:

Pregnant Women (all ages) Admitted to State Funded Alcohol or Drug Treatment per 1,000 Babies Born



NR = not reported

8 to 16.7 (2)
7.3 to 8 (1)
0.1 to 7.3 (2)
NR (34)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1994.

SCHOOL DOMAIN

Risk Factor: Lack of Commitment to School

Low commitment to school means the young person has ceased to see the role of student as a viable one. Young people who have lost this commitment to school are at higher risk for drug use (Appendix D; DRP, 1996).

A proxy measure for this risk factor is the high school dropout rate for 16 to 19 year-olds. A higher dropout rate suggests a lower level of commitment to school.

Indicator / Definition

- **High School Dropouts, Age 16-19**

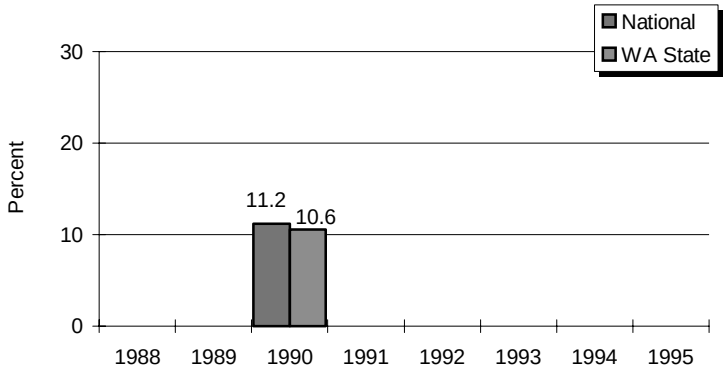
  Washington State - the number of persons (ages 16-19) who had not completed high school and were not enrolled in school in 1990 as a percentage of all persons (ages 16-19). Source: 26.

  National - Same as for Washington State. Source: FF.

State and National Trends

With only one indicator and only one year of data, trend analysis is not possible. However, Washington does appear to have a lower dropout rate than the nation as a whole. In 1990 in Washington, 10.6 percent of 16 to 19 year olds had not completed high school and were not currently enrolled in school compared to 11.2 percent nationally.

Percent of Youths (16-19) Who Had Not Completed High School Nor Enrolled in School in 1990



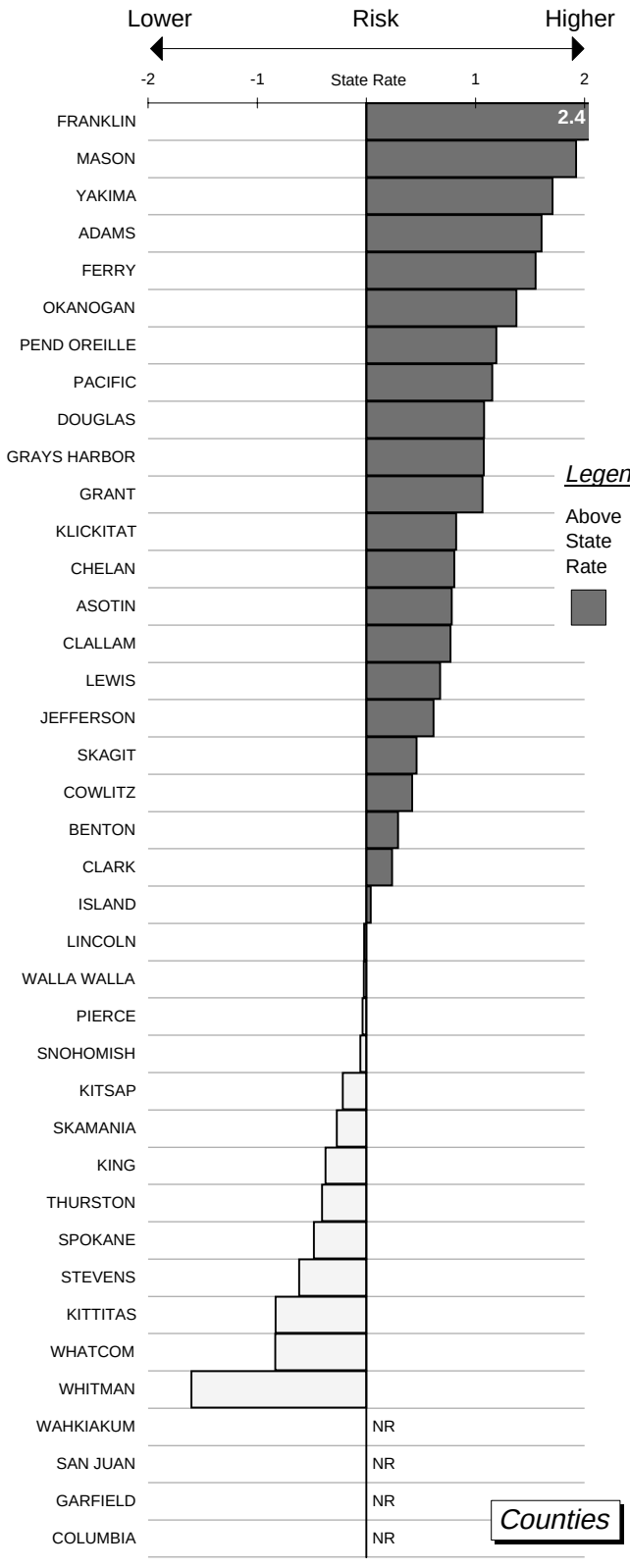
Geographic Findings

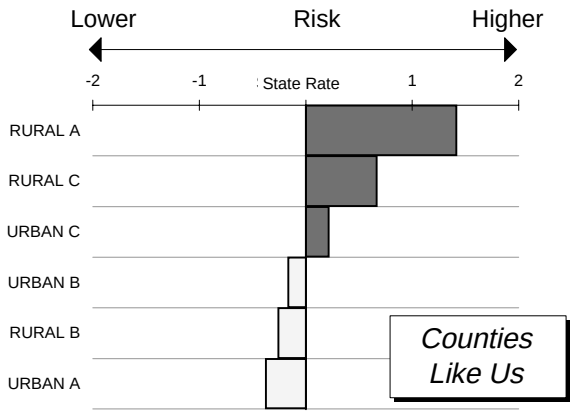
Summary measures and individual indicator. Based on a single indicator, the risk factor summary measures are simply the standardized values of the single indicator rates. Thus, levels of risk are presumed similar to the levels of the single indicator.

Only two of the nineteen counties with the highest dropout rates are urban. However, those two, Franklin County (24.0%) and Yakima County (20.0%), are the first and third ranked. The Rural A counties again show a much higher rate (18.4%) than other "Counties Like Us" groups. Rural C (western rural) counties have the second highest rate (14.3%). Naturally, counties with many college students in the age range will have

very low dropout rates using this indicator, examples being Whitman (1.73%), Whatcom (6.0%), and Kittitas (6.0%). Risk levels for youth actually growing up in such counties will not be accurately reflected by this indicator.

Risk Factor: Lack of Commitment to School



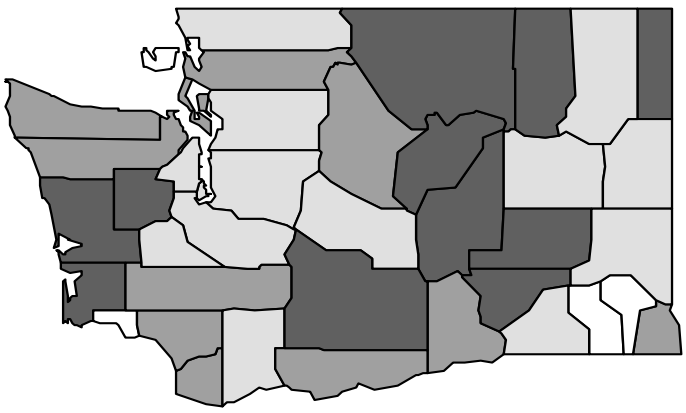


Legend for Bar Graphs

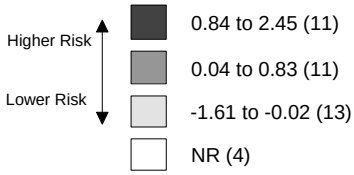
Above State Rate	Below State Rate	Not Reported
		NR

Summary Measure for:

Lack of Commitment to School

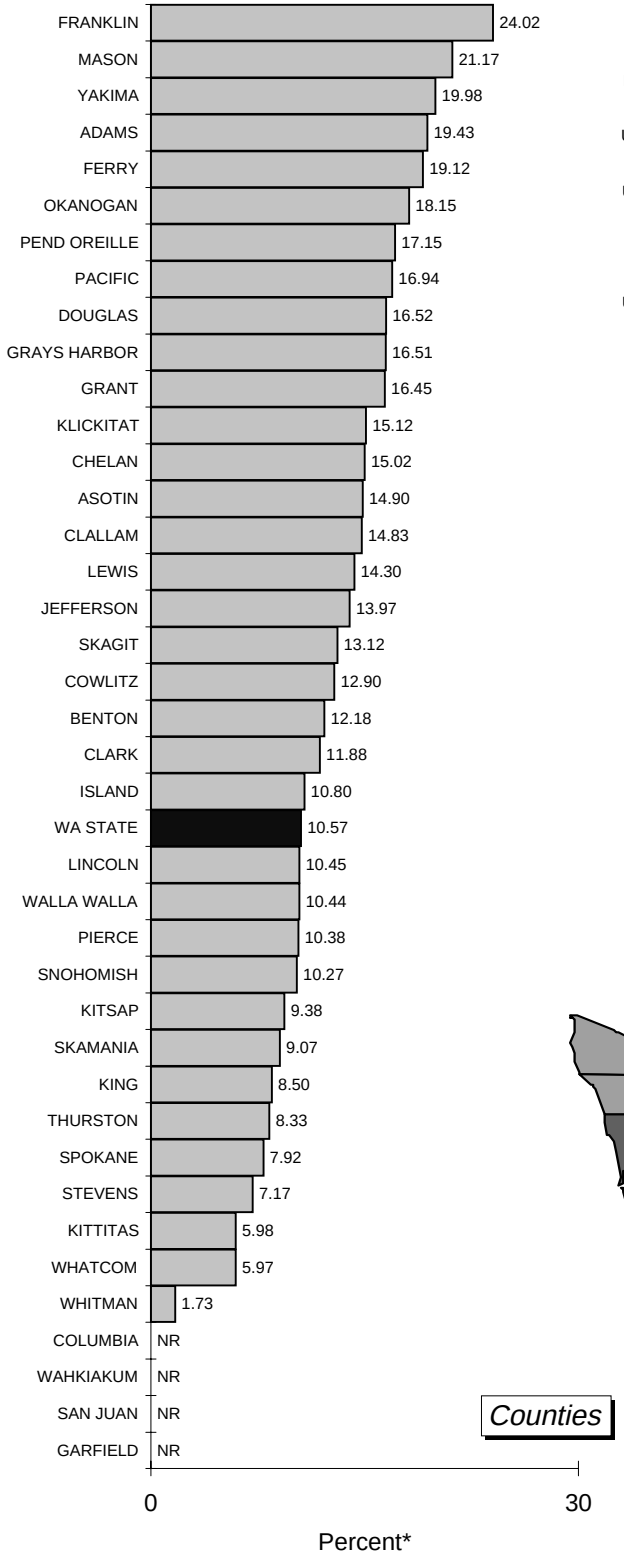


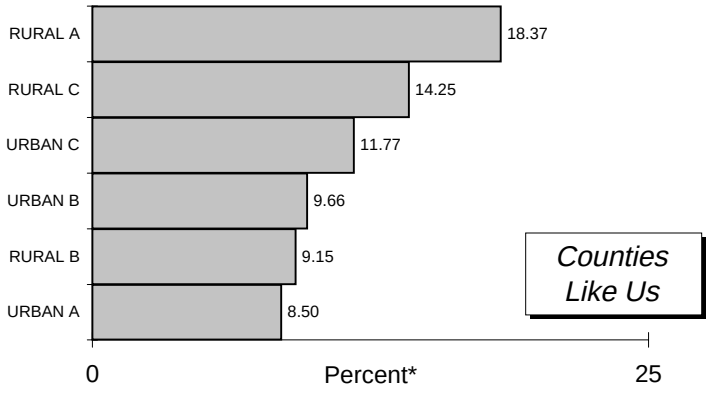
NR = not reported



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

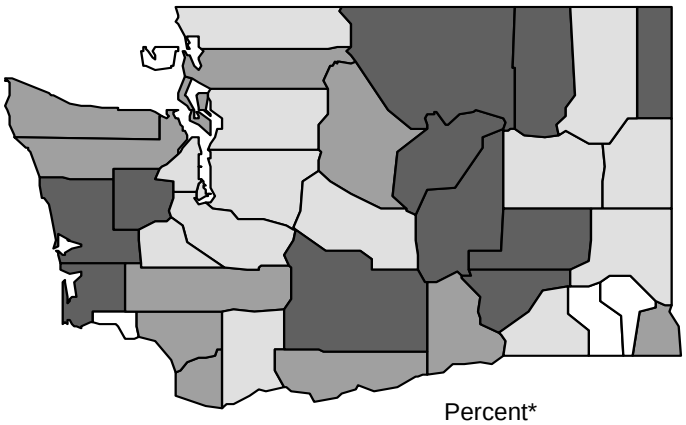
Risk Factor: Lack of Commitment to School





Indicator:

Percent of Youths (16-19) Who Had Not Completed High School Nor Enrolled in School in 1990



NR = not reported

Percent*

- 16 to 24.1 (11)
- 10.5 to 16 (11)
- 0 to 10.5 (13)
- NR (4)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Percent for 1990.

Risk Factor: Academic Failure

Beginning in the late elementary grades, academic failure increases the risk of drug use. Children fail for many reasons. It appears that the experience of failure - not necessarily ability - increases the risk of problem behaviors (Appendix D; DRP, 1996).

Indicators chosen to represent this risk factor include academic performance on test scores for 4th grade and 8th grade students and rates of annual GED completion. Poor academic performance among young students and higher rates of GED completion (signifying poorer performance during traditional schooling) likely are associated with greater levels of failure in elementary school.

Indicators / Definitions

- **GED Diplomas Issued**

  Washington State - the number of persons (all ages) receiving their GED certificate as a rate per 1,000 persons. Sources: 18, 08.

  National - Same as for Washington State. Sources: AA, GG.

- **Poor Academic Performance, Grade 4**

  Washington State - the number of fourth graders whose Battery test score was in the lowest 25% compared to the national norm group as a percentage of all fourth graders who took the Battery test. The Battery test score is the average of the scores on the reading, language, and math portions of the Comprehensive Tests of Basic Skills, 4th edition. Source: 19.

  National - by definition, the percentage of grade 4 test-takers in the lowest 25% of the nation is 25%. Source: 19.

- **Poor Academic Performance, Grade 8**

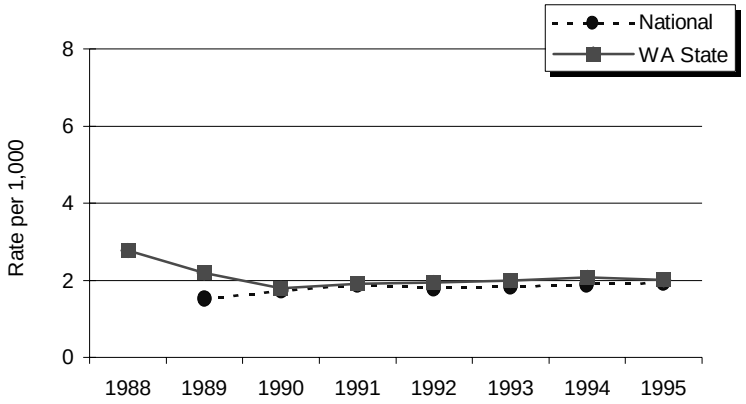
  Washington State - the number of eighth graders whose Battery test score was in the lowest 25% compared to the national norm group as a percentage of all eighth graders who took the Battery test. The Battery test score is the average of the scores on the reading, language, and math portions of the Comprehensive Tests of Basic Skills, 4th edition. Source: 19.

  National - by definition, the percentage of grade 8 test-takers in the lowest 25% of the nation is 25%. Source: 19.

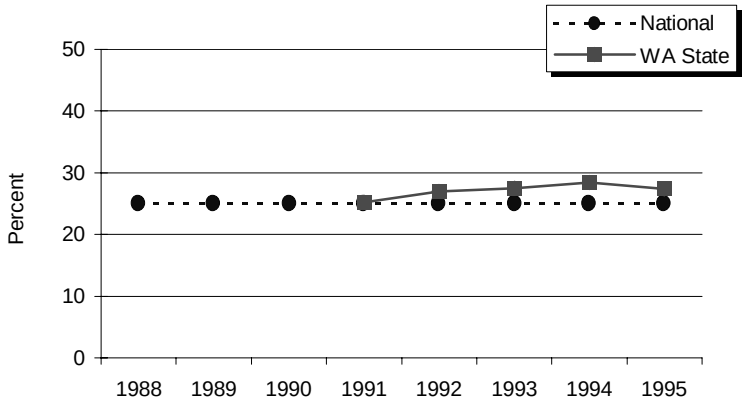
State and National Trends

Measures of academic failure in traditional schooling appear relatively constant. Rates for Washington State are similar to rates for the nation in GED certificates issued. The percentage of children with low test scores is slightly worse for 4th graders in Washington compared to the nation, while test scores for 8th graders shows Washington students performing better than the national average.

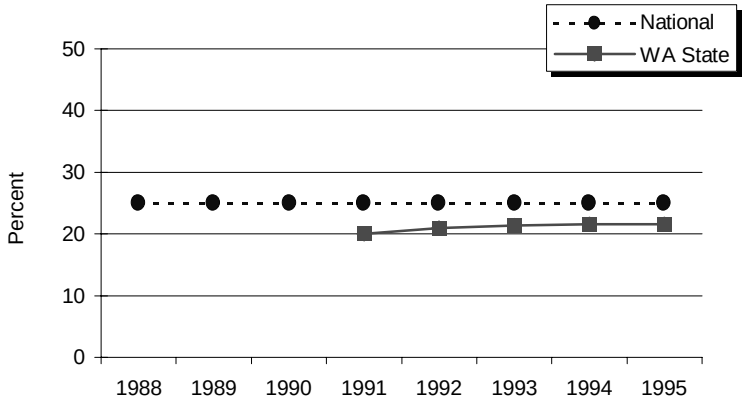
GED Certificates issued per 1,000 Persons (all ages)



Percent of 4th Graders Whose Average Battery Score (Reading, Language, & Math) Ranked in the Lowest 25% Nationally



Percent of 8th Graders Whose Average Battery Score (Reading, Language, & Math) Ranked in the Lowest 25% Nationally

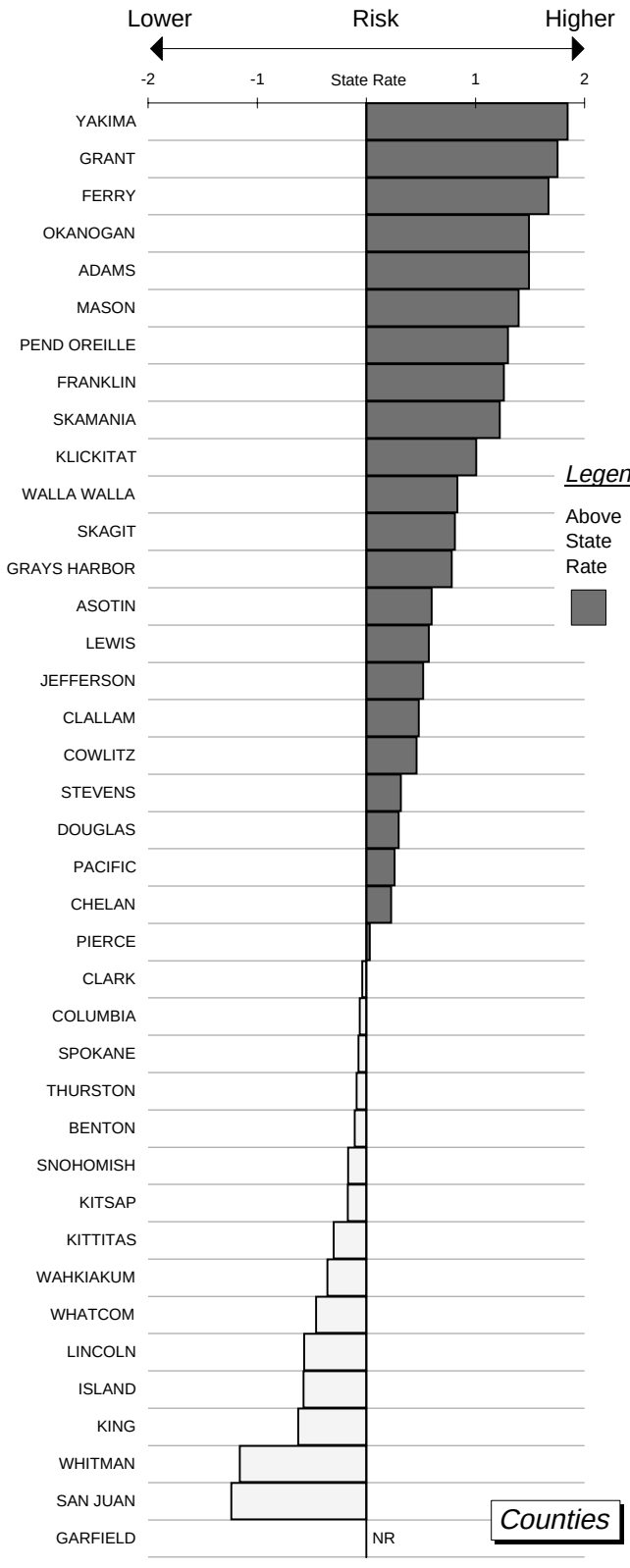


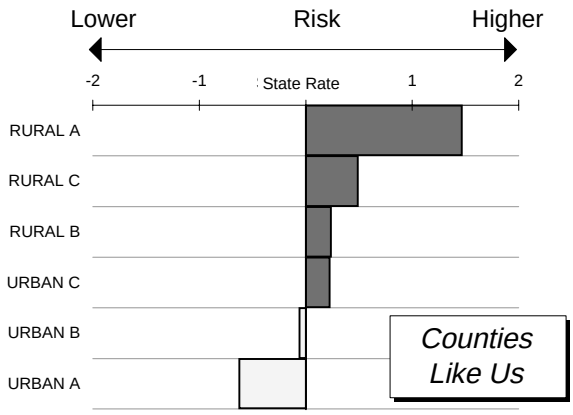
Geographic Findings

Summary measures. As was the case with the previous school domain indicator (Lack of Commitment to School), rural counties represent most of the counties at highest risk for Academic Failure. Again, only two of the highest twenty-two ranked counties are urban (Yakima highest and Franklin eighth). All three rural county groups have higher levels of risk than any of the three urban groups.

Individual indicators. Much like the summary measure, the individual indicators show rural counties accounting for most of the counties with higher rates. GED rates are higher in all three rural groups, particularly the Rural A counties, whose rate (3.7 GED certificates issued per 1,000 persons) is almost twice that of the state (2.0). Individually, Ferry (5.9), Okanogan (4.5), Mason (4.2), Grant (4.1), and Clallum (4.1) counties have rates greater than twice the rate for the state.

Risk Factor: Academic Failure



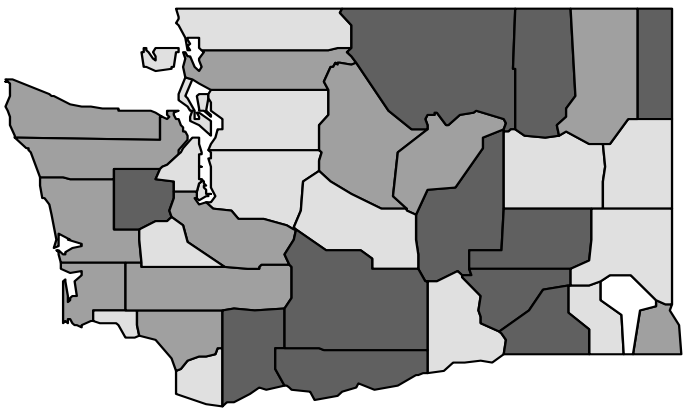


Legend for Bar Graphs

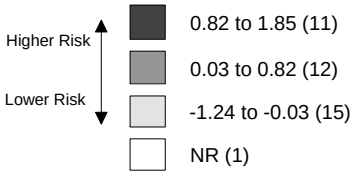
Above State Rate	Below State Rate	Not Reported
		NR

Summary Measure for:

Academic Failure

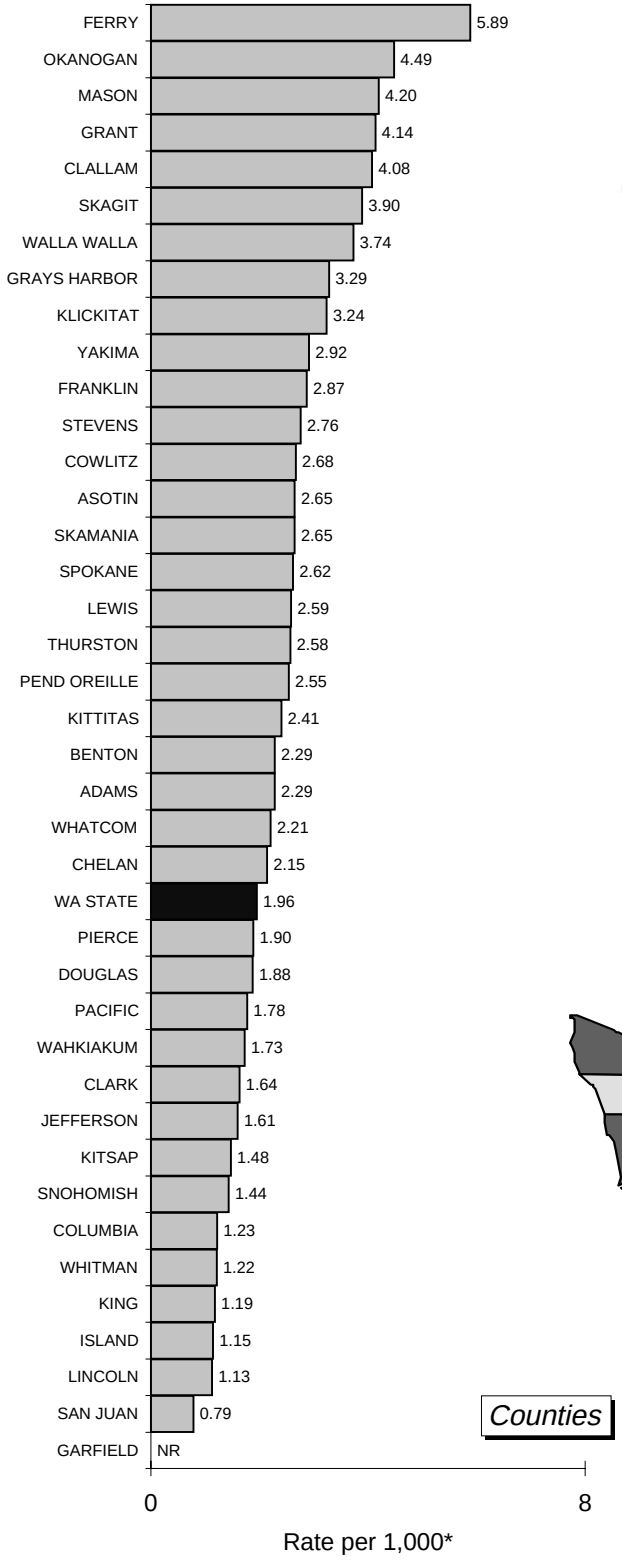


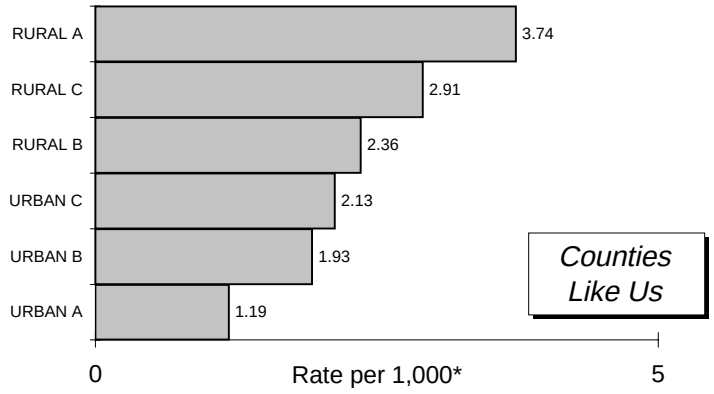
NR = not reported



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

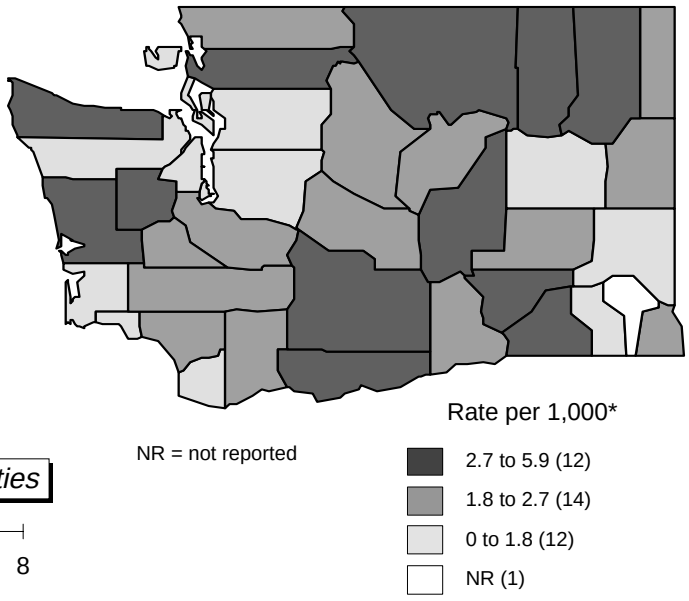
Risk Factor: Academic Failure





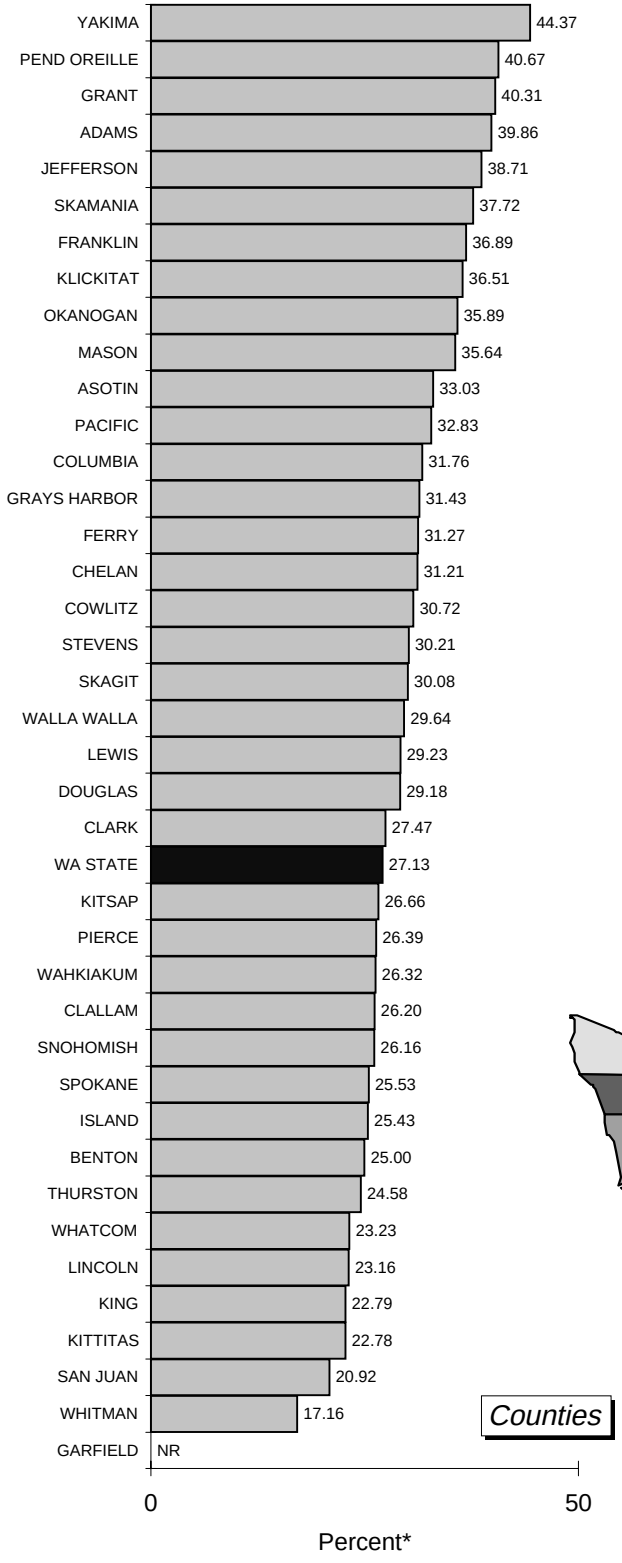
Indicator:

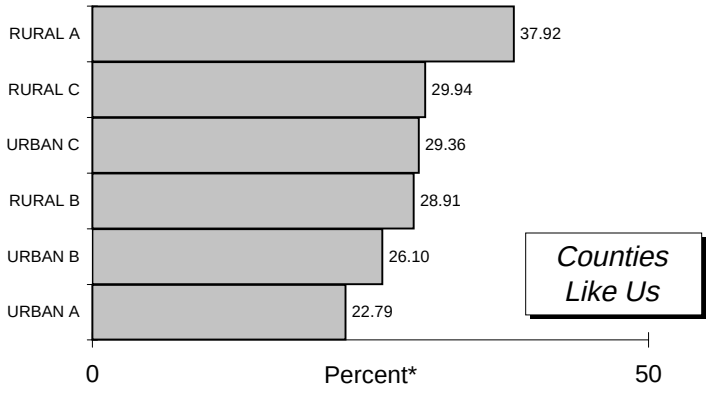
GED Certificates issued per 1,000 Persons (all ages)



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1995.

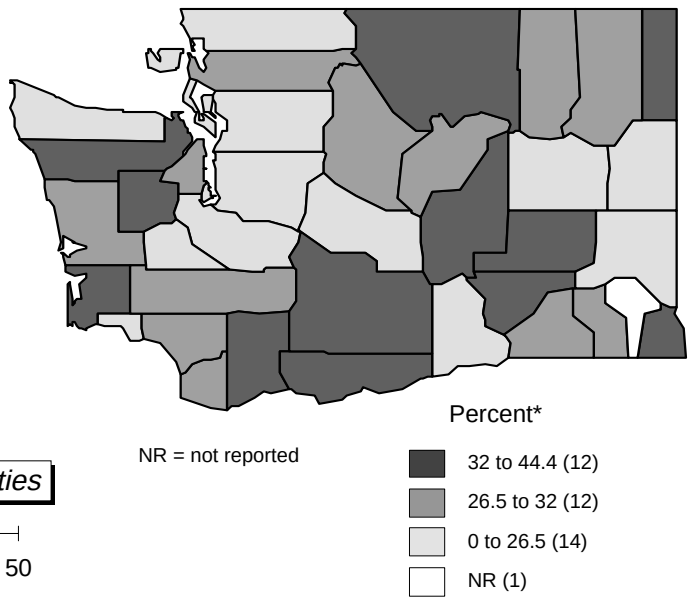
Risk Factor: Academic Failure





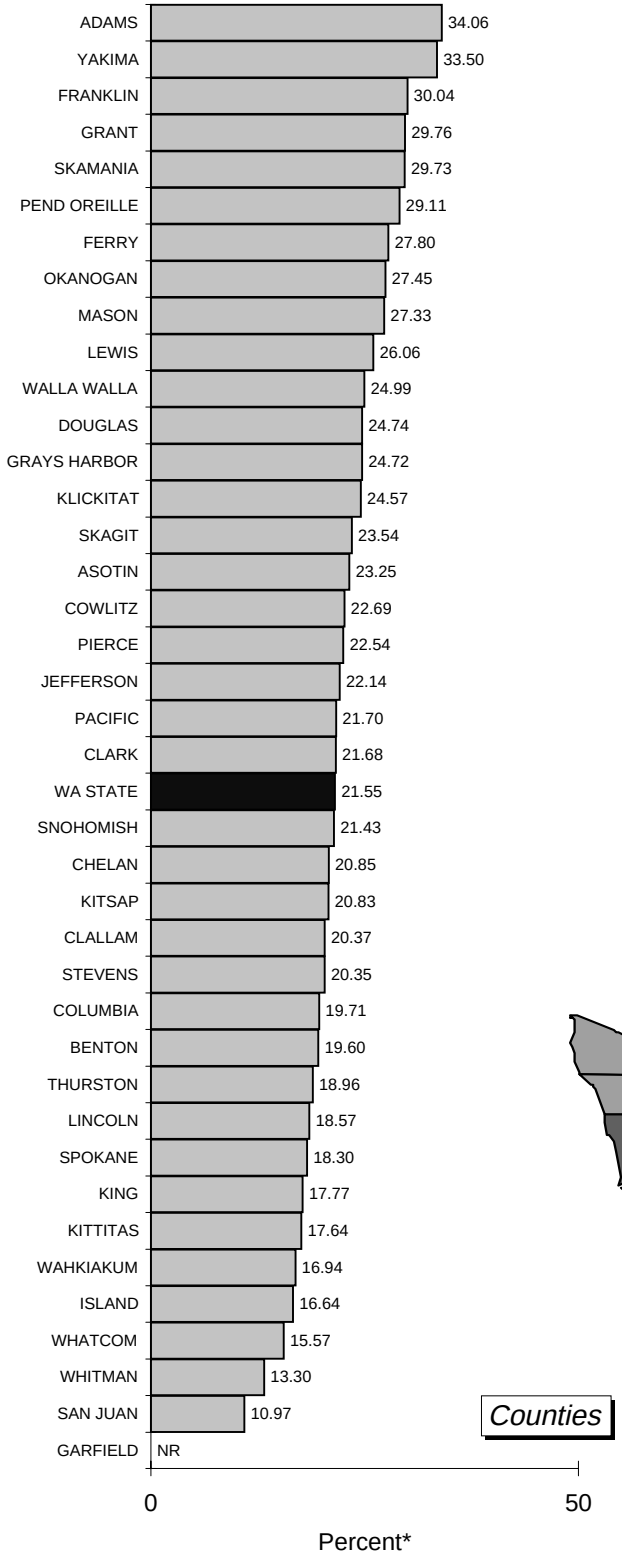
Indicator:

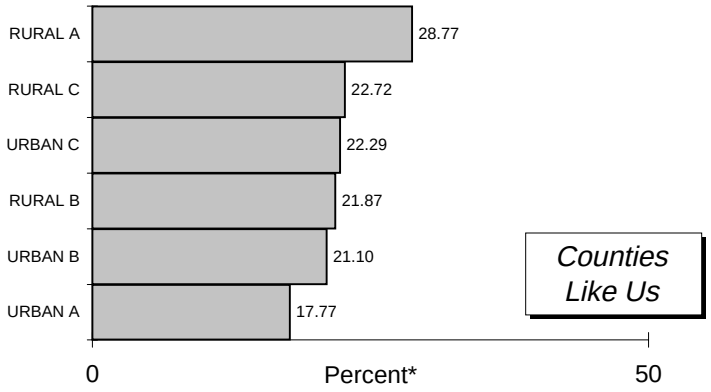
Percent of 4th Graders Whose Average Battery Score (Reading, Language, & Math) Ranked in the Lowest 25% Nationally



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1991 to 1995.

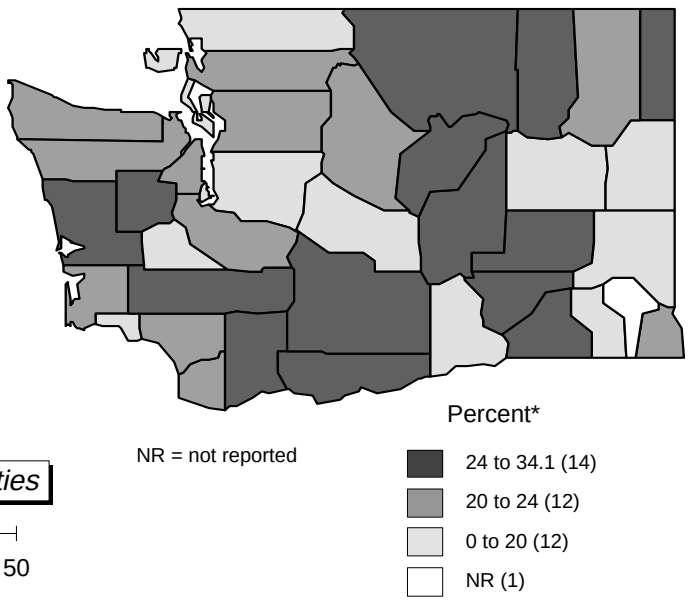
Risk Factor: Academic Failure





Indicator:

Percent of 8th Graders Whose Average Battery Score (Reading, Language, & Math) Ranked in the Lowest 25% Nationally



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average percent for 1991 to 1995.

Risk Factor: Antisocial Behavior

Boys who are aggressive in grades K-3 are at higher risk for substance abuse. When a boy's aggressive behavior in the early grades is combined with isolation or withdrawal, there is an even greater risk of problems in adolescence. This increased risk also applies to aggressive behavior combined with hyperactivity or attention deficit disorder. This risk factor also includes persistent antisocial behavior in early adolescence, like misbehaving in school, skipping school, and getting into fights with other children. Young people, both girls and boys, who engage in these behaviors during early adolescence are at increased risk for drug abuse (Appendix D; DRP, 1996).

No archival indictors were found to represent this risk factor. However, questions which assess this risk factor were asked in the 1995 Washington State Survey of Adolescent Behaviors. Students in 8th, 10th, and 12th grades responded to eight questions which asked the number of times during the past 12 months they had: 1) "been suspended;" 2) "carried a handgun;" 3) "sold illegal drugs;" 4) "stolen or tried to steal a motor vehicle;" 5) "been arrested;" 6) "attacked someone with the idea of seriously hurting them;" 7) "been drunk or high at school;" or 8) "taken a handgun to school."

The average response (minimum level of antisocial behavior=1, maximum level of antisocial behavior=8) across the eight questions was calculated for each grade in four survey regions. The average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

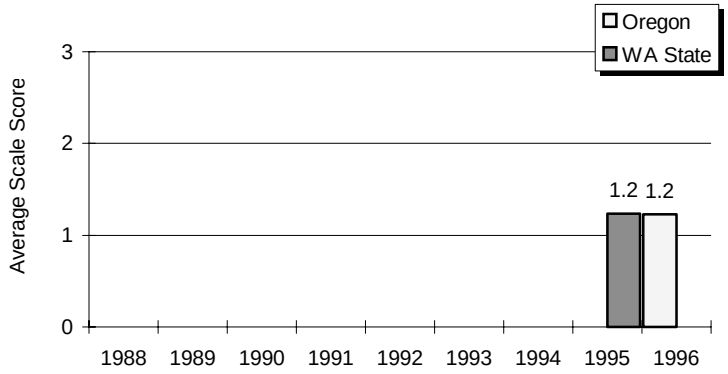
Indicator / Definition

- **School Survey Measure of Antisocial Behavior**

  Washington State - average scale score for Antisocial Behavior. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

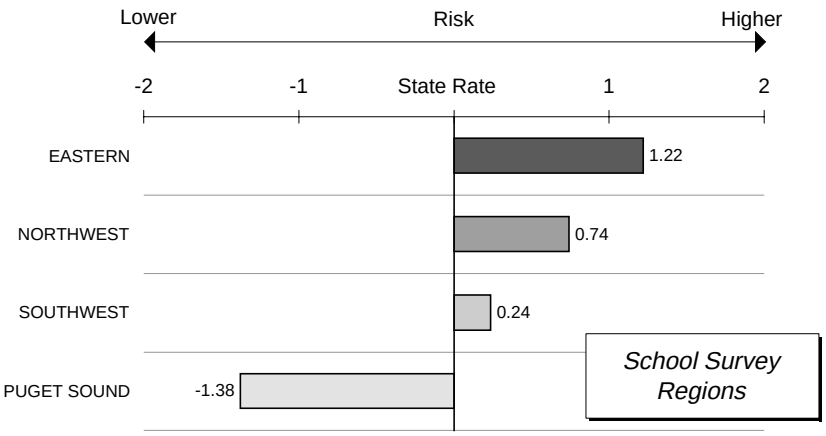
Average Scale Score for Antisocial Behavior



State Comparison and Geographic Findings

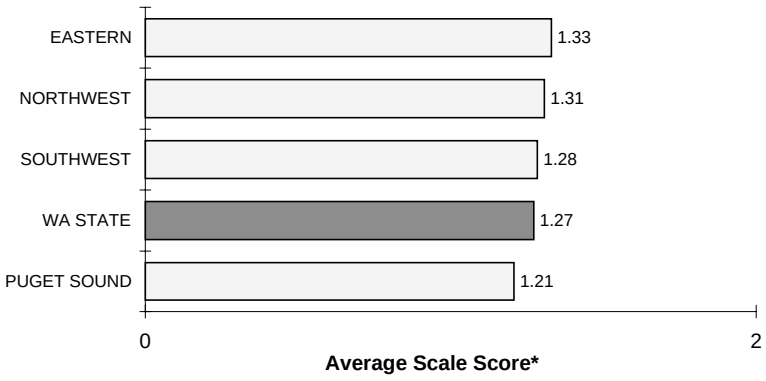
The average scale score for Antisocial Behavior was approximately the same for Washington and Oregon students. In Washington, the Eastern, Northwest, and Southwest regions scored worse than the state rate while the Puget Sound region scored better.

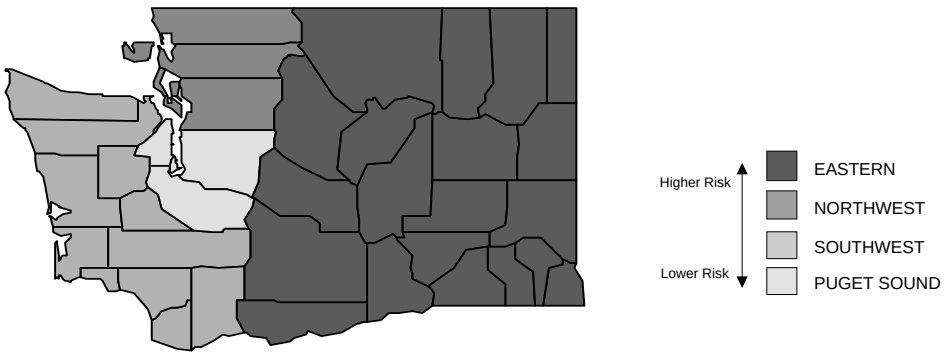
Risk Factor: Early and Persistent Antisocial Behavior



School Survey Measure :

Average Scale Score for Antisocial Behavior





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

INDIVIDUAL/PEER DOMAIN

Risk Factor: Alienation, Rebelliousness, and Lack of Social Bonding

Young people who feel they are not part of society, are not bound by rules, do not believe in trying to be successful or responsible or who take an active rebelliousness stance toward society are at higher risk of drug abuse (Appendix D; DRP, 1996).

The number of attempted and successful suicides was chosen as a proxy measure of this risk factor. More frequent attempted and successful suicides suggest higher levels of such feelings among youth.

Indicator / Definition

- **Adolescent Suicide and Suicide Attempts**

  Washington State - the number of children (ages 10-17) who committed suicide or were admitted to the hospital for suicide attempts as a rate per 100,000 children (ages 10-17). Suicides are based on death certificate information. Suicide attempts are based on hospital admissions data but do not include admissions to federal hospitals. Sources: 02, 03, 08.

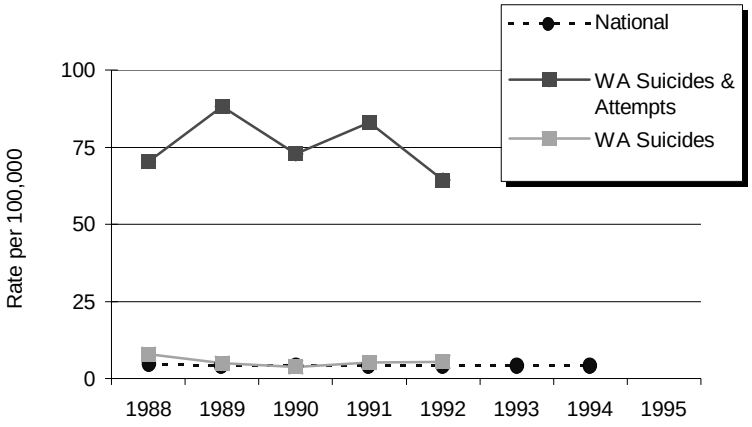
  Since comparable national data on attempted suicides were not available, statewide data on successful suicides only are presented for comparison to national data.

  National - national data for attempted suicides were not available so the national data only include suicides. Sources: LL, GG.

State and National Trends

State rates for adolescent suicides and attempted suicides almost appear to be on a two year cycle. State and national rates for successful suicides appear more stable. There does not seem to be any indication that state or national rates are going up or down - leaving risk levels nearly constant.

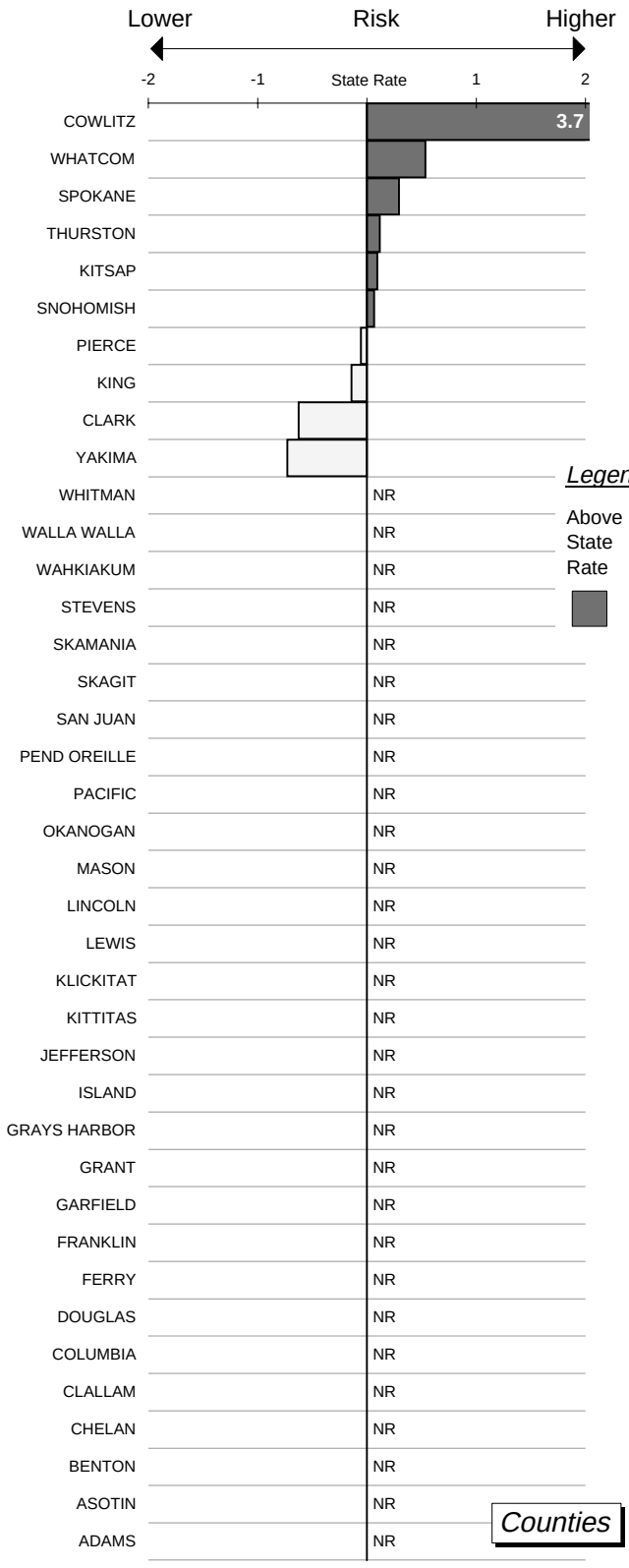
Adolescent (10-17) Suicides and Suicide Attempts per 100,000 Adolescents

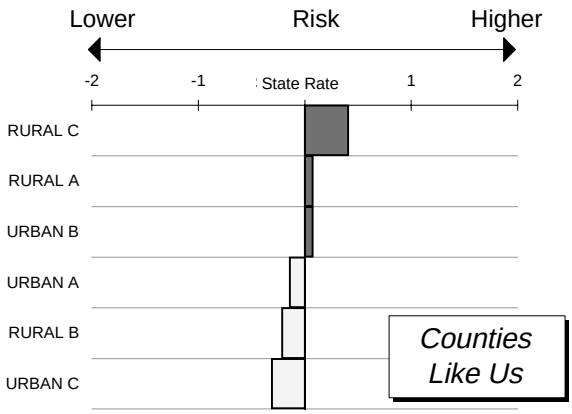


Geographic Findings

Summary measures and individual indicators. Since the summary measure is based on the single indicator, the county indicator rates also reflect presumed county risk levels. Even when attempted suicides are combined with successful suicides, most counties do not have enough of both to derive a reasonably reliable rate. Cowlitz County has a very high rate with 242 suicides and attempted suicides per 100,000 adolescents, over three times the state rate, 73 per 100,000 adolescents. Whatcom County also shows a relatively high rate at 97 per 100,000 adolescents. Western rural counties (Rural C), show higher levels partially due to Cowlitz County's high rates. Indicator and risk levels appear to be lowest in the less metropolitan urban counties (Urban C) with a rate of 59 per 100,000 adolescents.

Risk Factor: Alienation, Rebelliousness, and Lack of Social Bonding



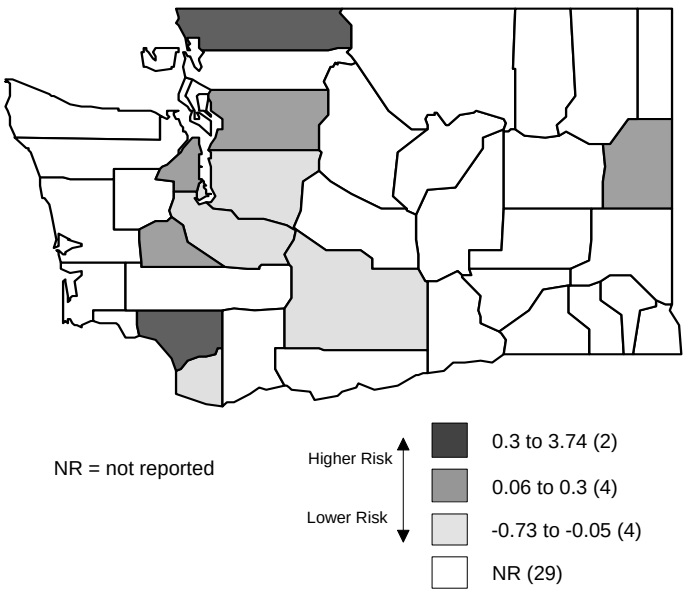


Legend for Bar Graphs

Above State Rate	Below State Rate	Not Reported
		NR

Summary Measure for:

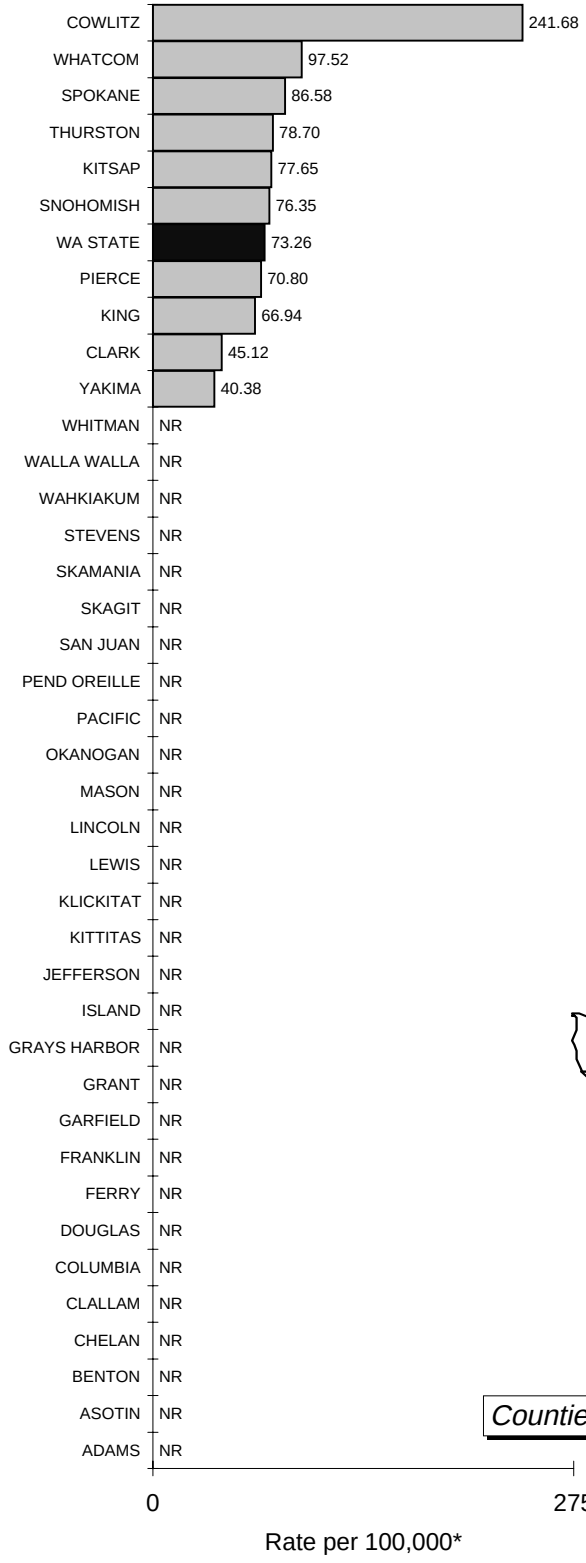
Alienation, Rebelliousness, and Lack of Social Bonding

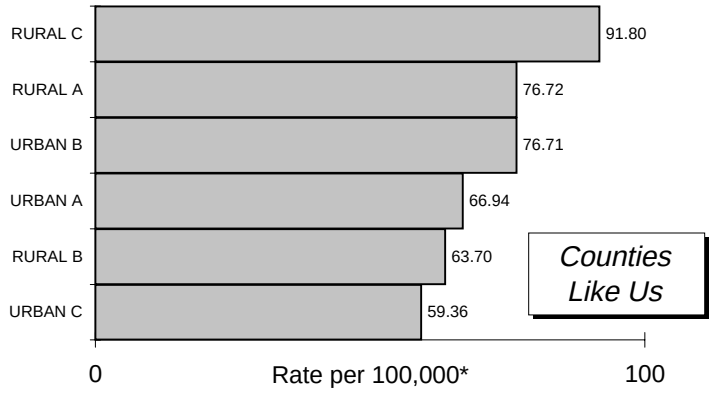


NR = not reported

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

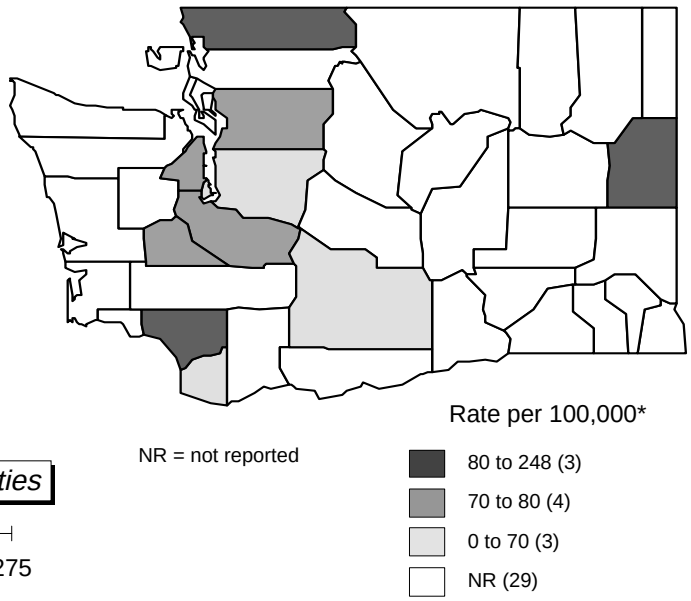
Risk Factor: Alienation, Rebelliousness, and Lack of Social Bonding





Indicator:

Adolescent (10-17) Suicides and Suicide Attempts per 100,000 Adolescents



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1992.

Risk Factor: Early Initiation of Problem Behavior

The earlier young people begin using drugs and committing crimes, the greater the likelihood that they will have problems with drugs later on. For example, research shows that young people who initiate drug use before the age of 15 are at twice the risk of having drug problems as those who wait until after the age of 19 (Appendix D; DRP, 1996).

Several indicators related to criminal activity among young adolescents, ages 10-14, were chosen as proxy measures for this risk factor. Increased rates of alcohol- or drug-related crimes or other types of crimes among 10-14 year olds likely reflect elevated levels of problem behaviors among these youth.

Indicators / Definition

- **Alcohol- and Other Drug-related Arrests, Age 10-14**

  Washington State - the number of children (ages 10-14) arrested for alcohol and drug law violations as a rate per 1,000 children (ages 10-14). Alcohol violations include all crimes involving driving under the influence, liquor law violations, and drunkenness. For children, arrests for liquor law violations are usually arrests for minor in possession. Drug law violations include all crimes involving sale, manufacturing, and possession of drugs. Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Violent Crime Arrests, Age 10-14**

  Washington State - the number of children (ages 10-14) arrested for violent crimes as a rate per 1,000 children (ages 10-14). Violent crimes include all crimes involving criminal homicide, forcible rape, robbery, and aggravated assault. Simple assault is not defined as a violent crime. Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Property Crime Arrests, Age 10-14**

  Washington State - the number of children (ages 10-14) arrested for property crimes as a rate per 1,000 children (ages 10-14). Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Vandalism Arrests, Age 10-14**

  Washington State - the number of children (ages 10-14) arrested for vandalism as a rate per 1,000 children (ages 10-14). Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

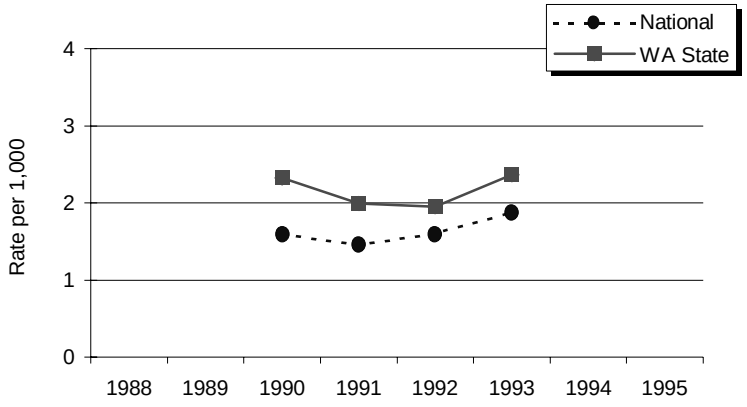
State and National Trends

Risk for early initiation of problem behavior does not appear to be improving and may have increased between 1990 and 1993. For 10 to 14 year-olds in Washington, three of the four arrest-based indicators remained at approximately the same level over the four-year period. However, rates of arrests of 10-14 year-olds for violent crimes rose 24% during that time (1.9 to 2.4 violent crime arrests per 1,000 children aged 10-14), possibly indicating an increase in overall risk.

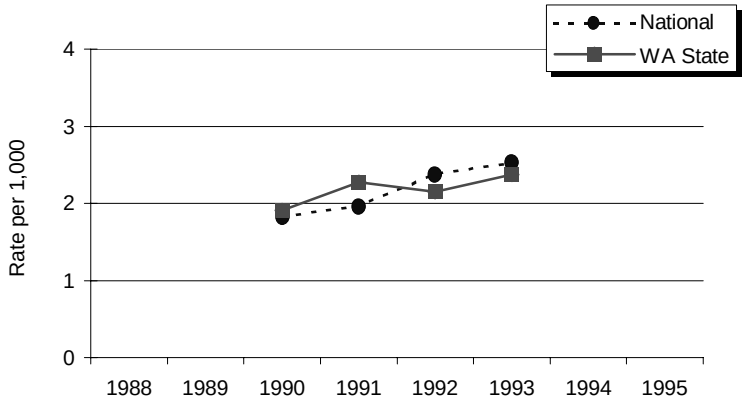
Nationally, three of the four indicators, and presumably risk of early initiation, have risen substantially over the same three year period: AOD-related arrests up 18%, violent crime arrests up 39%, and vandalism arrests up 15%. Only property crimes arrests remained relatively stable.

Except for property crime arrests of 10-14 year olds which appear almost twice the national average, Washington rates appear similar to those for the nation.

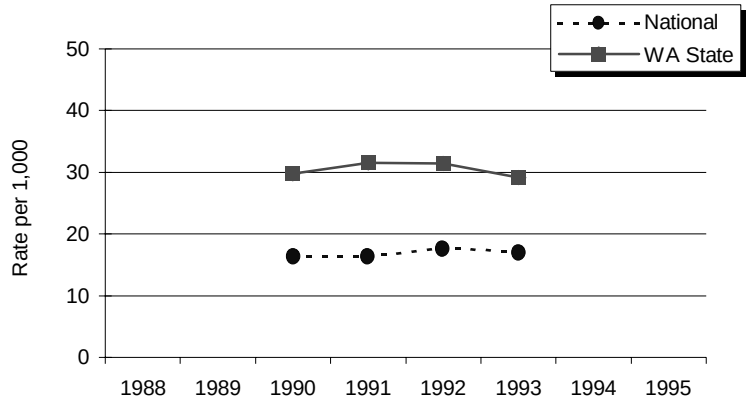
Children (10-14) Arrested for AOD-related Crimes per 1,000 Children



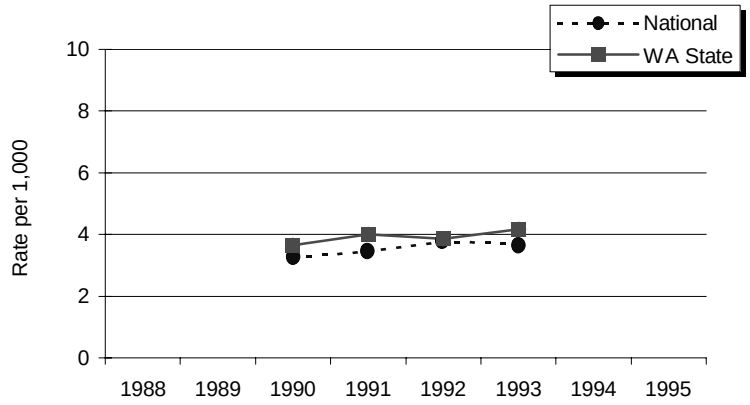
Children (10-14) Arrested for Violent Crimes per 1,000 Children



Children (10-14) Arrested for Property Crimes per 1,000 Children



Children (10-14) Arrested for Vandalism per 1,000 Children



Geographic Findings

Summary measures. For this risk factor, it is important to remember that county summary measures are only based upon indicators where data were reported. So, for example, the summary measure for Skamania County is based on only one indicator - Property Crime Arrests, Age 10-14, while the summary measure for King County is based on reported data for all four indicators. The "Counties Like Us" groupings may be most meaningful for geographic analysis as they each are based on all four indicators.

Summary measures for risk of early initiation of problem behaviors show high levels in both urban and rural counties with no clear geographic picture. Of the highly populated counties, Urban A county King County ranks highly, Urban B counties Pierce and Snohomish fall well below the state average, and Spokane County, also Urban B, is almost identical to the state average. The Rural A counties are higher than the other rural groups, and, generally speaking, rural risk of early initiation appears higher in eastern Washington than western Washington.

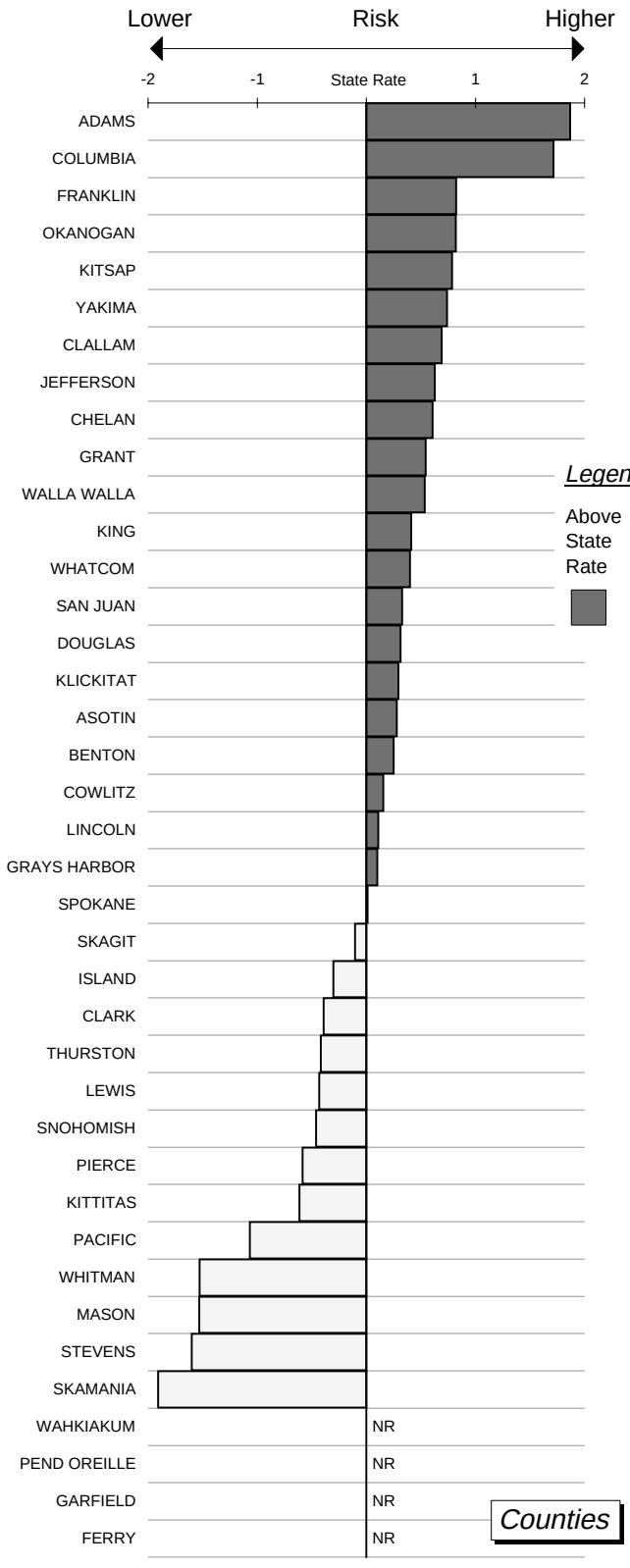
Individual indicators. Rates of AOD-related arrests among 10-14 year olds are higher for each of the rural "Counties Like Us" groups than for any of the urban groups. Rates in Adams County (8.7 children, age 10-14, arrested for AOD-related crimes per 1,000 children) and Okanogan County (6.8) are more than three times the state rate (2.2) and rates for the Rural A county group (4.2) are almost twice the state rate. Arrest totals for 10-14 year-olds were small enough in many counties that rates were only reported for about half of the counties.

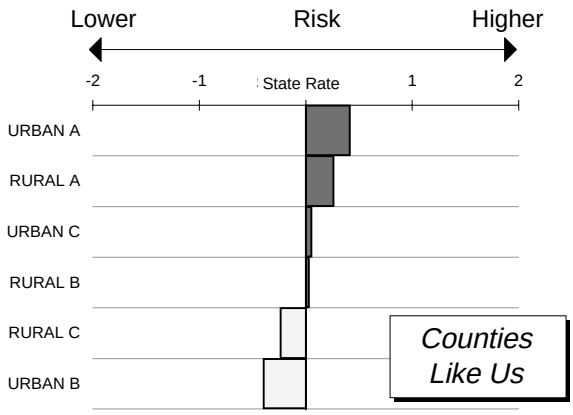
Violent crimes among children also occur relatively infrequently in most counties, so rates are only reported in one-third of Washington counties. The highest rates were reported in Franklin (3.7 children, age 10-14, arrested for violent crimes per 1,000 children), King (3.5), and Yakima (3.1) counties - approximately 50% higher than the state rate (2.2). King County (Urban A) had much higher rates than any of the other county groupings. Urban rates in general for violent crime arrests among 10-14 year-olds are higher than most of their rural counterparts.

Arrests for property crimes by children are more frequent allowing rates to be shown for more individual counties. Urban and rural counties both have a share of counties with high property crime arrest rates. King County (37.7 children, age 10-14, arrested for property crimes per 1,000 children) and Yakima County (43.8) lead the urban counties, while bordering Pierce (20.6) and Snohomish (21.9) counties are contrastingly low compared to the state rate (30.4). A cluster of south central Washington counties have five of the six highest rates: Columbia (48.7), Yakima, Adams (41.7), Walla Walla (39.1) and Benton (37.2) counties.

Rates of vandalism arrests among children are highest in eastern Washington. Of the highest twelve, only Clallum County (6.4 children, age 10-14, arrested for vandalism per 1,000 children) is in western Washington. This is one of the few indicators where the Rural B group (5.9) shows higher rates of problem behavior than Rural A (5.2). Again, Pierce (1.8) and Snohomish (2.3) counties have very low rates compared to the state rate (3.9) and neighboring King County (4.2).

Risk Factor: Early Initiation of the Problem Behavior





Legend for Bar Graphs

Above State Rate

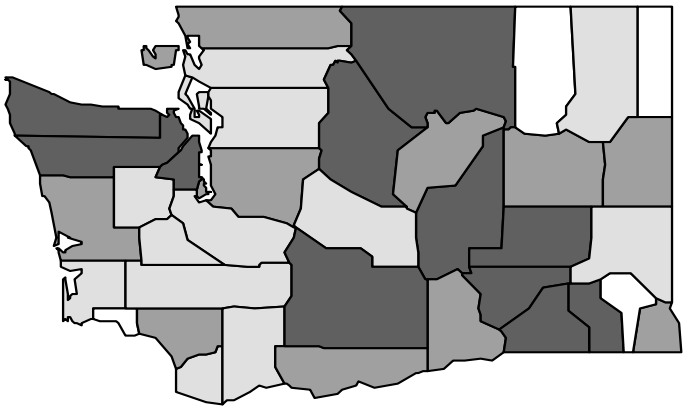
Below State Rate

Not Reported

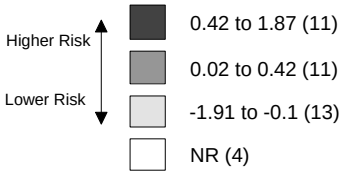
NR

Summary Measure for:

Early Initiation of the Problem Behavior

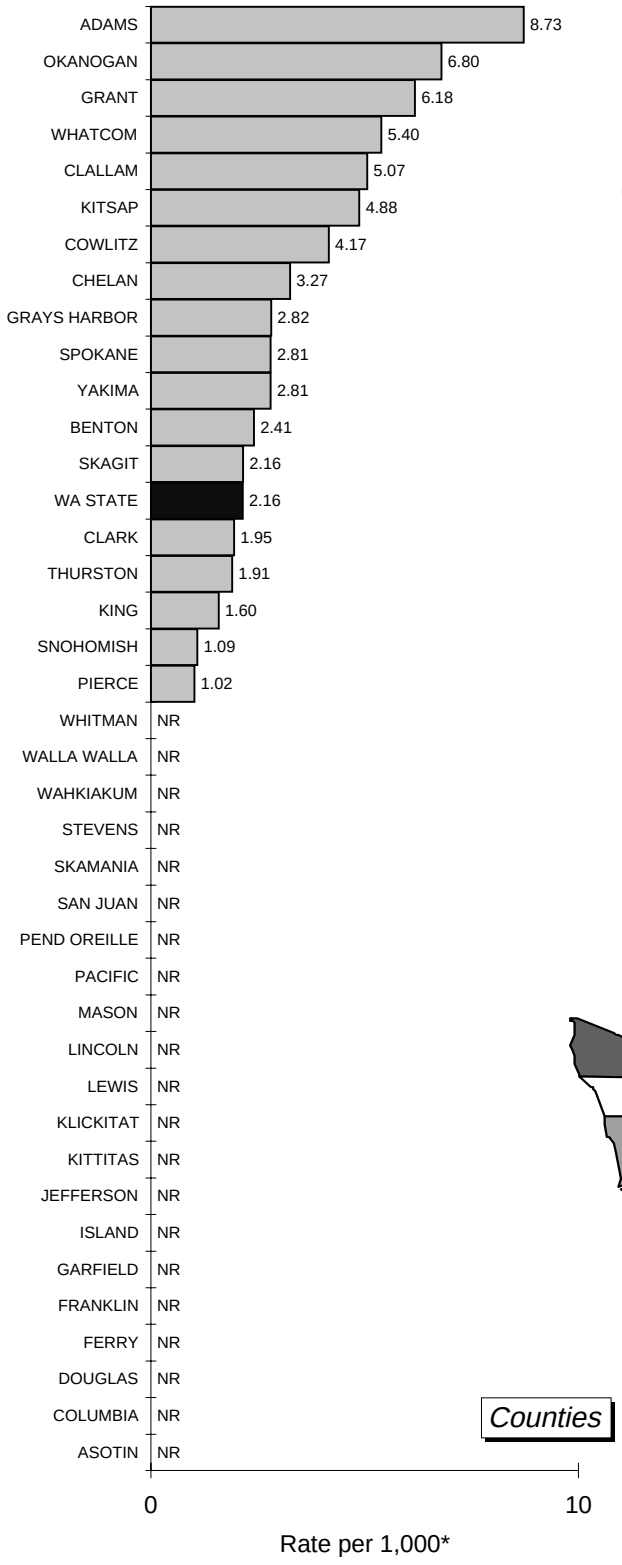


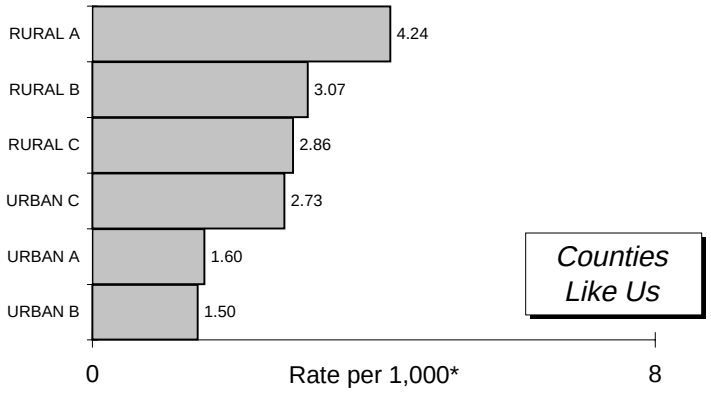
NR = not reported



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.

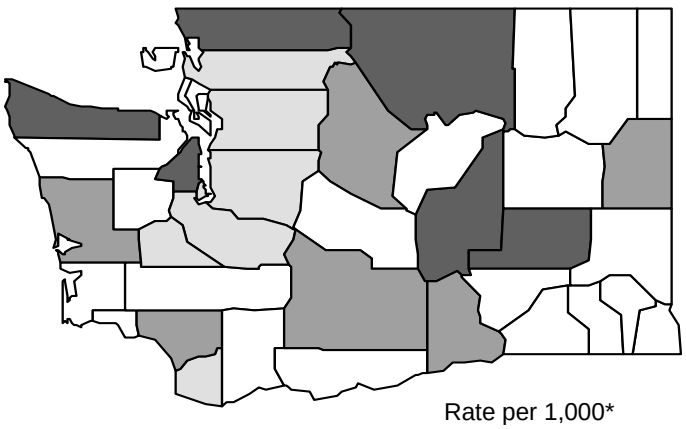
Risk Factor: Early Initiation of the Problem Behavior





Indicator:

Children (10-14) Arrested for AOD-related Crimes per 1,000 Children



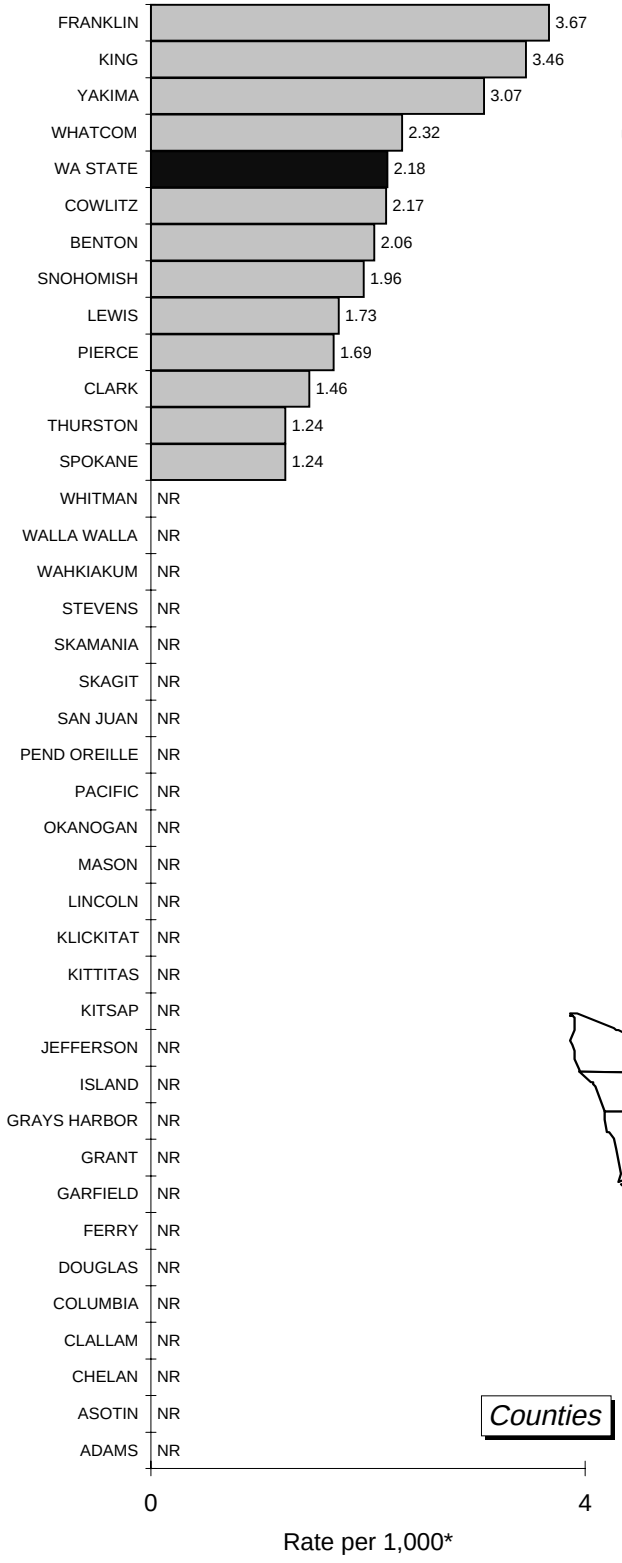
NR = not reported

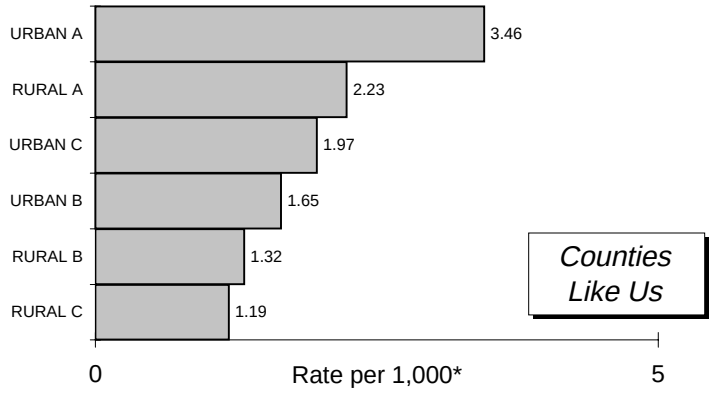
Rate per 1,000*

- 4.5 to 8.8 (6)
- 2.4 to 4.5 (6)
- 0 to 2.4 (6)
- NR (21)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

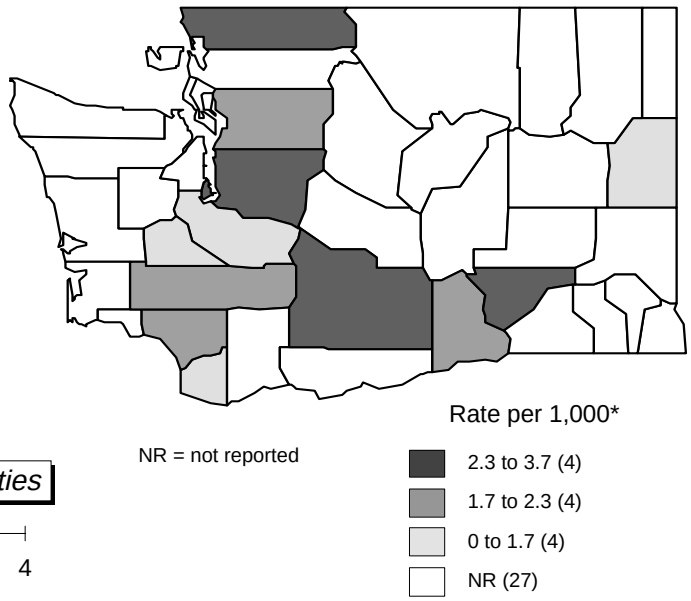
Risk Factor: Early Initiation of the Problem Behavior





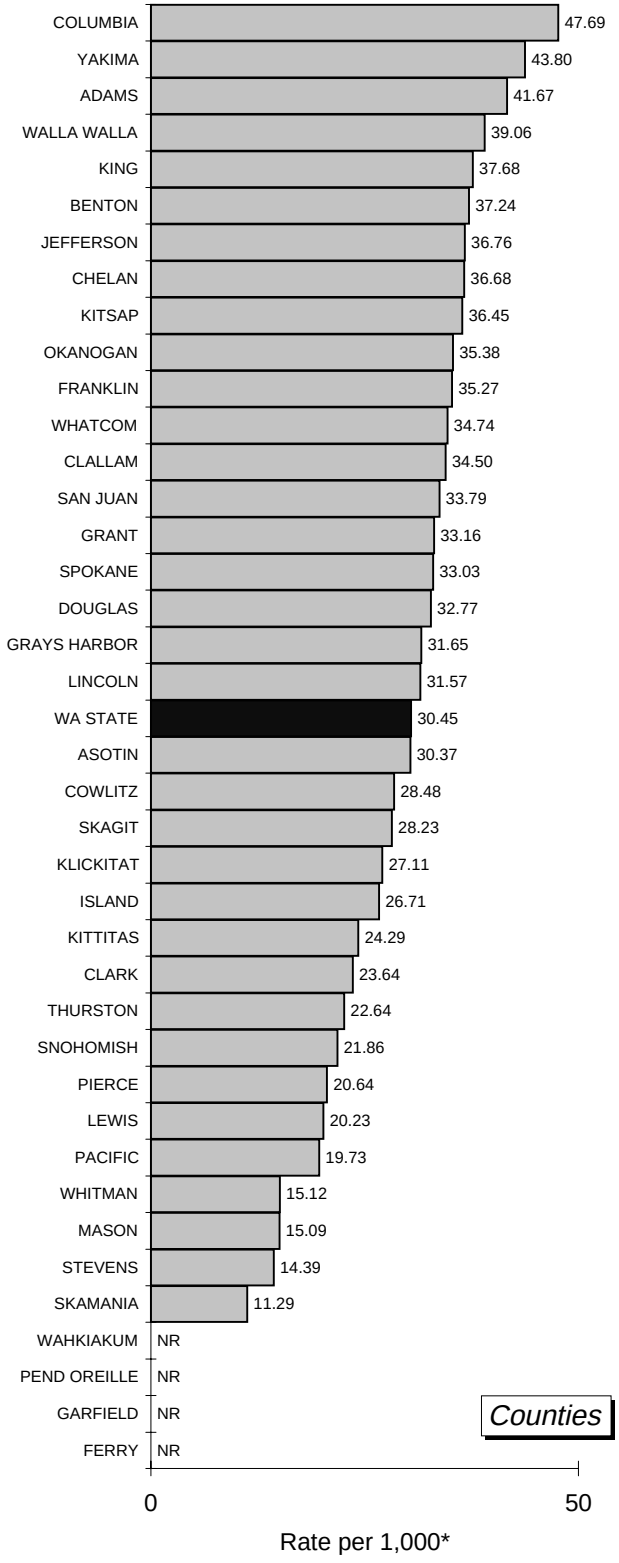
Indicator:

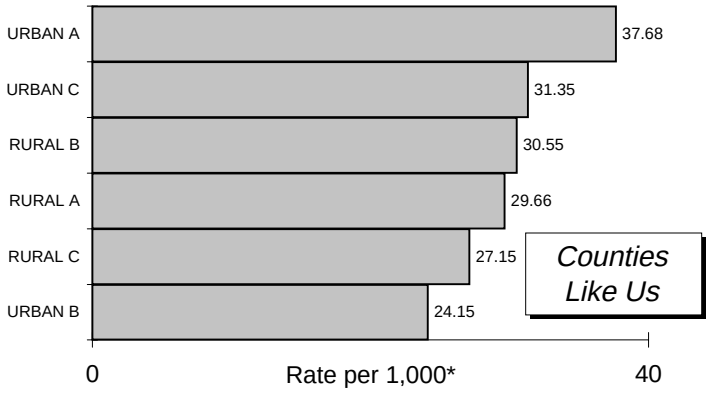
Children (10-14) Arrested for Violent Crimes per 1,000 Children



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

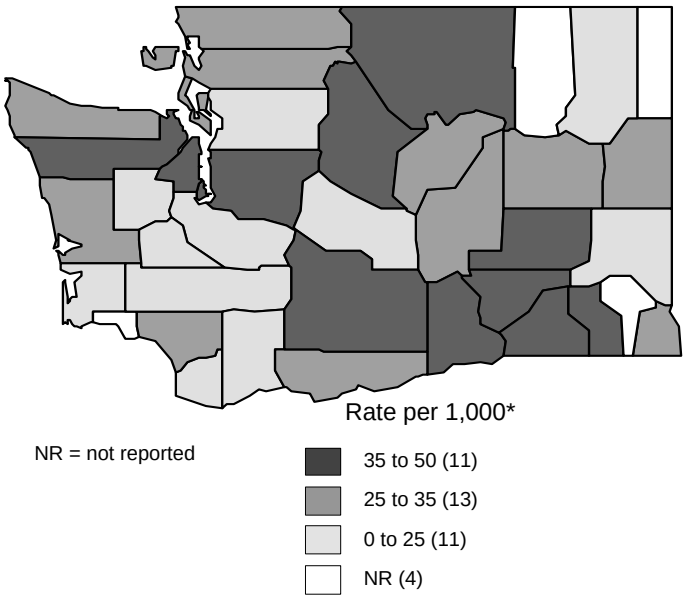
Risk Factor: Early Initiation of the Problem Behavior





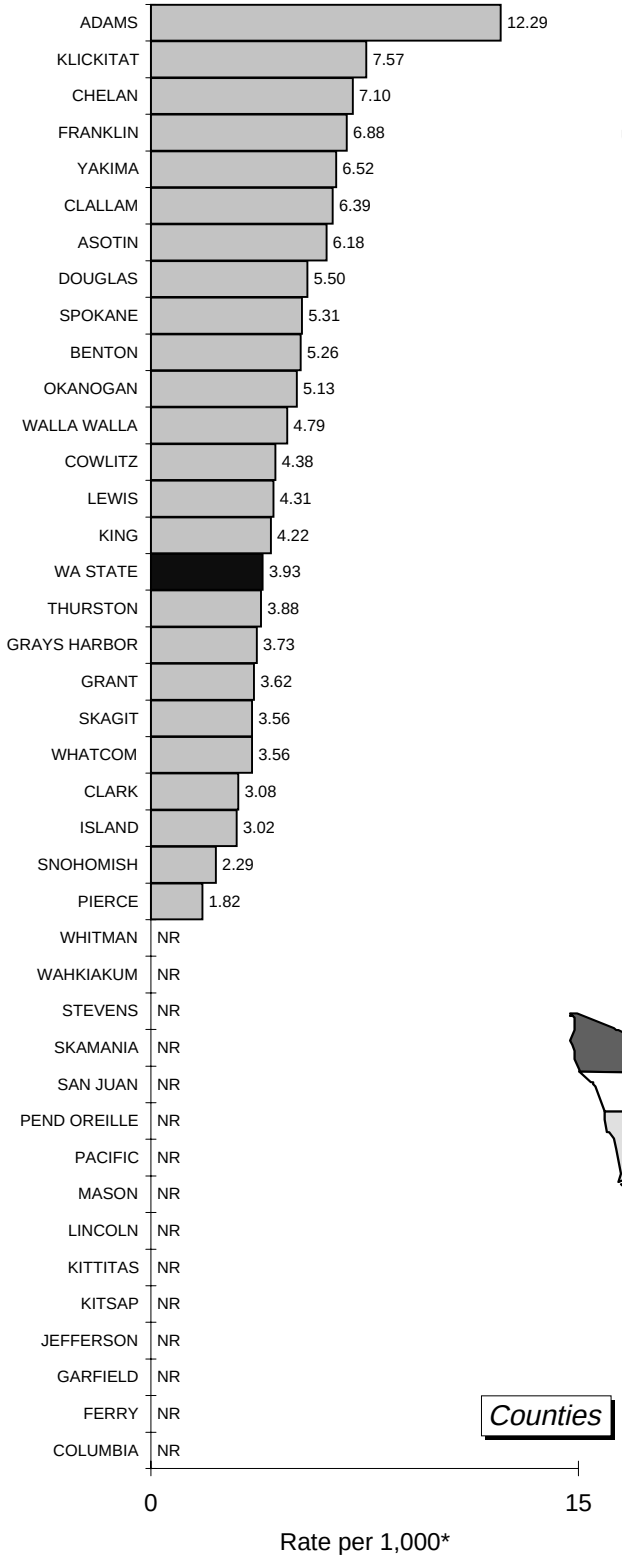
Indicator:

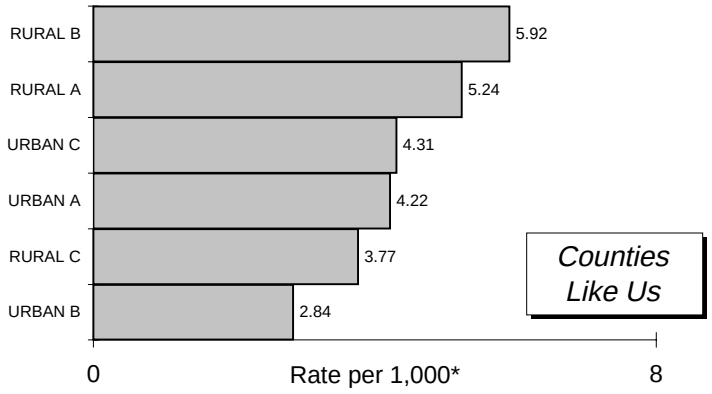
Children (10-14) Arrested for Property Crimes per 1,000 Children



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

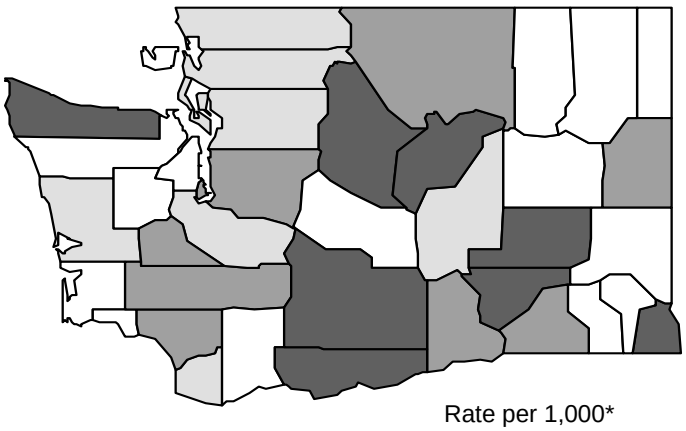
Risk Factor: Early Initiation of the Problem Behavior





Indicator:

Children (10-14) Arrested for Vandalism per 1,000 Children



NR = not reported

Rate per 1,000*

- 5.5 to 12.3 (8)
- 3.8 to 5.5 (8)
- 0 to 3.8 (8)
- NR (15)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

Risk Factor: Friends Who Engage in the Problem Behavior

Young people who associate with peers who engage in drug use are much more likely to engage in drug use themselves. This is one of the most consistent predictors that research has identified. Even when young people come from well-managed families and do not experience other risk factors, just hanging out with friends who engage in problem behavior greatly increases the child's risk. However, young people who experience a low number of risk factors are less likely to associate with friends who are involved in problem behavior (Appendix D; DRP, 1996).

No archival indictors were found to represent this risk factor. However, questions which assess this risk factor were asked in the 1995 Washington State Survey of Adolescent Behaviors. Students in 8th, 10th, and 12th grades responded to four questions regarding peer use of cigarettes, alcohol, marijuana, and cocaine.

The average response (Lowest peer use=1, Highest peer use=4) across the four questions was calculated for each grade in four survey regions. The average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

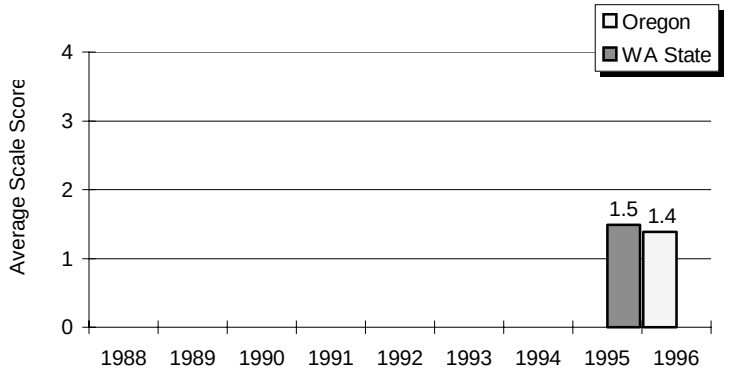
Indicator / Definition

- **School Survey Measure for Substance Use by Peers**

  Washington State - average scale score for Substance Use by Peers. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

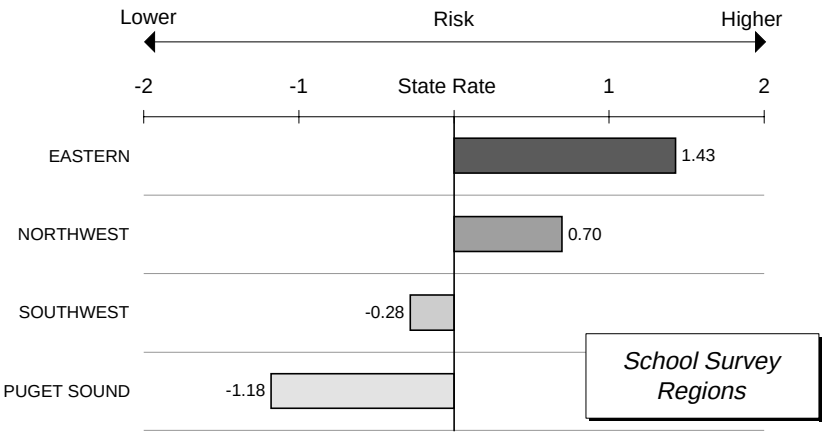
Average Scale Score for Substance Use by Peers



State Comparison and Geographic Findings

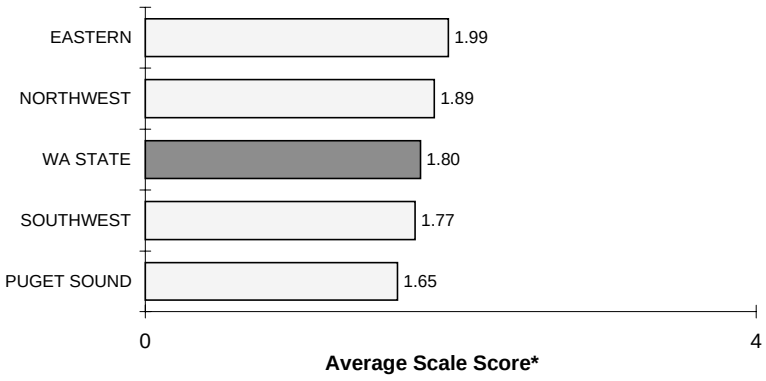
The average scale score for Substance Use by Peers was slightly higher among Washington students than among Oregon students. In Washington, the Eastern and Northwest regions scored worse than the state rate while the Southwest and Puget Sound regions scored better.

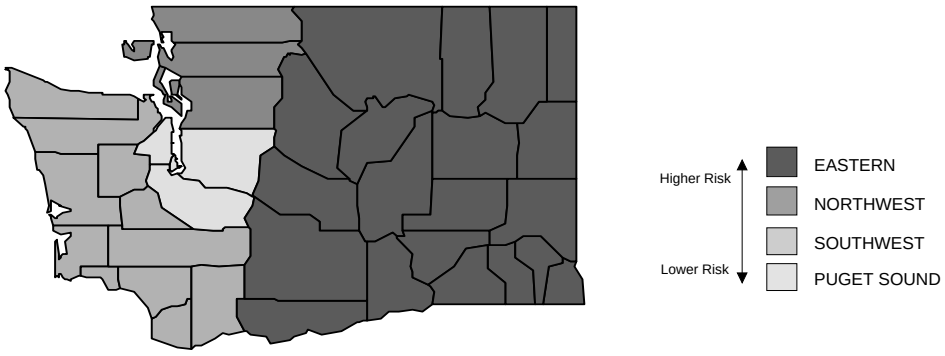
Risk Factor: Friends Who Engage in the Problem Behavior



School Survey Measure :

Average Scale Score for Substance Use by Peers





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

Risk Factor: Personal Attitude Favorable toward Substance Use

During the elementary school years, children usually express anti-drug attitudes. They have difficulty imagining why people use drugs. However, in middle school, as others they know participate in such activities, their attitudes often shift toward greater acceptance of these behaviors. This acceptance places them at higher risk (Appendix D;DRP, 1996).

No archival indictors were found to represent this risk factor. However, questions which assess this risk factor were asked in the 1995 Washington State Survey of Adolescent Behaviors. Students in 8th, 10th, and 12th grades responded to four questions asking, "How wrong do you think it is for someone your age to: [1] drink beer, wine, or hard liquor regularly, [2] smoke cigarettes, [3] smoke marijuana, [and 4] use LSD, cocaine, amphetamines, or another illegal drug."

The average response (Very wrong=1, Not wrong at all=4) across the four questions was calculated for each grade in four survey regions. The average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

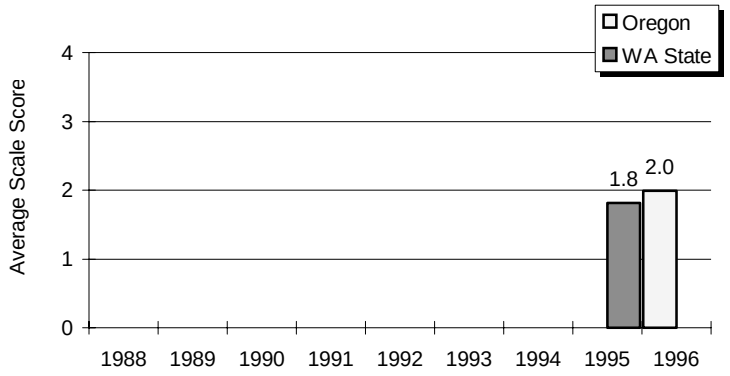
Indicator / Definition

- **School Survey Measure for Personal Attitude toward Substance Use**

  Washington State - average scale score for Personal Attitude toward Substance. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

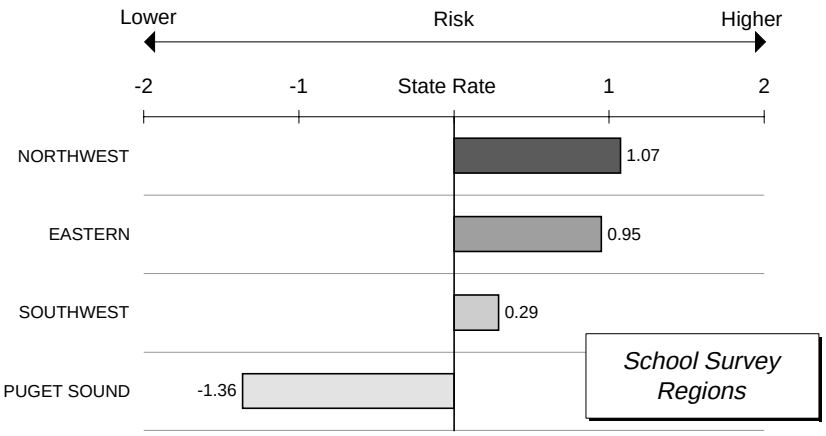
Average Scale Score for Personal Attitude Favorable toward Substance Use



State Comparison and Geographic Findings

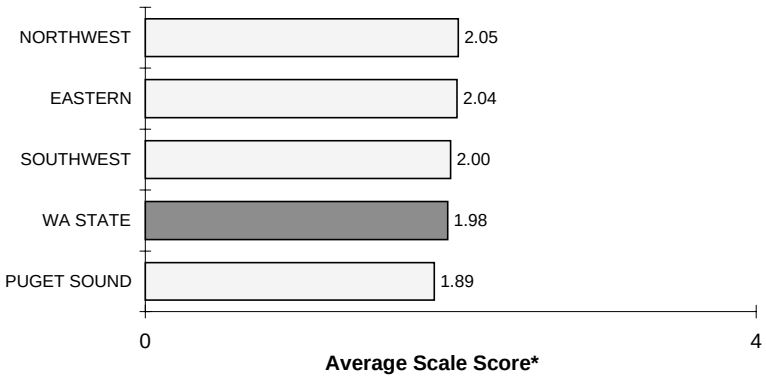
The average scale score for Personal Attitude Favorable toward Substance Use was slightly higher among Oregon students than among Washington students. In Washington, the Northwest, Eastern, and Southwest regions scored worse than the state rate while the Puget Sound region scored better.

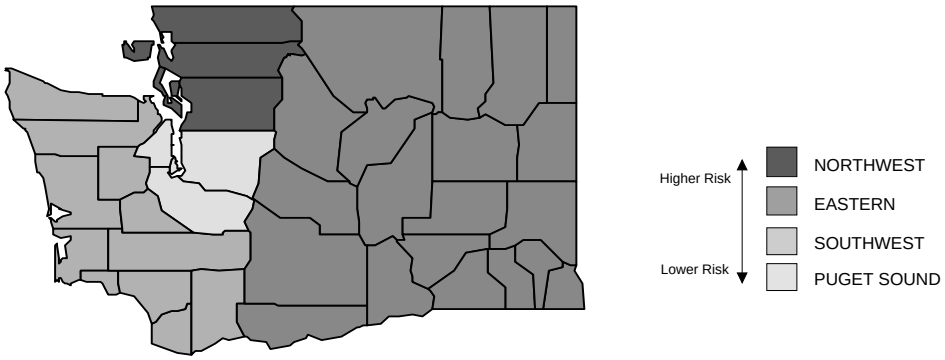
Risk Factor: Favorable Attitudes Toward the Problem Behavior



School Survey Measure :

Average Scale Score for Personal Attitude Favorable toward Substance Use





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

Risk Factor: Constitutional Factors

Constitutional factors may have a biological or physiological basis. These factors are often seen in young people with behaviors such as sensation-seeking, low harm-avoidance and lack of impulse control. These factors appear to increase the risk of young people abusing drugs, engaging in delinquent behavior, and committing violent acts (Appendix D; DRP, 1996).

No archival indictors were found to represent this risk factor. However, questions which assess the aspect of sensation-seeking were asked in the 1995 Washington State Survey of Adolescent Behaviors. Students in 8th, 10th, and 12th grades responded to two questions asking how many times they have "Done what feels good no matter what?" or, "Done something dangerous because someone dared you to do it?"

The average response (Never=1, Very often=6) across the two questions was calculated for each grade in four survey regions. The average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

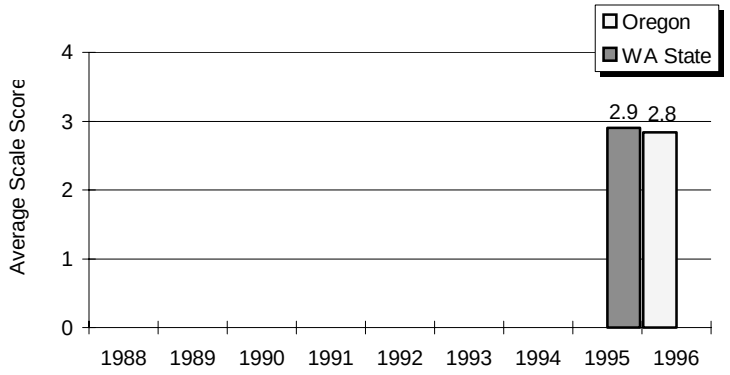
Indicator / Definition

- **School Survey Measure for Sensation Seeking**

  Washington State - average scale score for Sensation Seeking. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

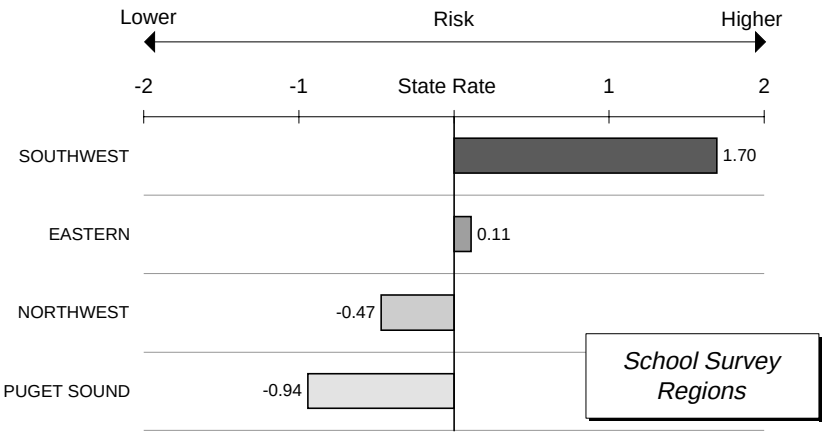
Average Scale Score for Sensation Seeking



State Comparison and Geographic Findings

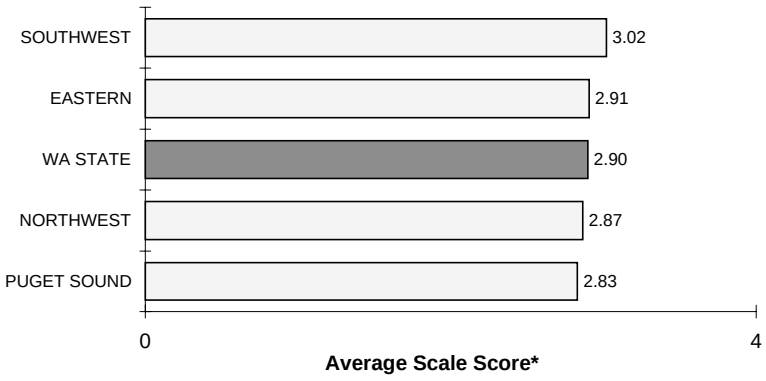
The average scale score for Sensation Seeking was slightly higher among Washington students than among Oregon students. In Washington, the Southwest and Eastern regions scored worse than the state rate while the Northwest and Puget Sound Regions scored better.

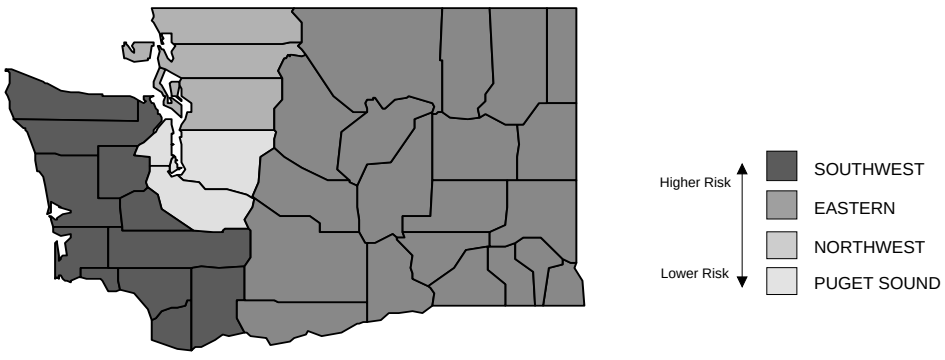
Risk Factor: Constitutional Factors



School Survey Measure :

Average Scale Score for Sensation Seeking





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

5 PROTECTIVE FACTORS: ANALYSIS OF INDICATORS

Summary of Trends and Patterns in Protection

Protective Factors

Summary of Trends and Patterns in Protection

The tables below present a summary of patterns across the seven protective factors for substance abuse identified for this study. Detailed comment and analysis for each protective factor follow in this chapter. No trend analysis can be accomplished for protective factors since all measures are based results from the 1995 Washington State School Survey. Comparisons are not evaluated for statistical significance.

Protective Factors	Trend in State Risk	Trend in National Risk	Protective Factors in Washington Compared to Oregon	Geographic Protection: Regions w/ Lowest and Highest Protection
Protective Factors				
Community Rewards for Conventional Involvement	NA	NA	Less	Low: Puget Sound High: Eastern
Family Rewards for Conventional Involvement	NA	NA	Less	Low: Southwest High: Eastern
School Rewards for Conventional Involvement	NA	NA	Same	Low: Southwest High: Eastern
Opportunities for Positive Involvement in the Family	NA	NA	Less	Low: Southwest High: Eastern
Opportunities for Positive Involvement in School	NA	NA	Same	Low: Southwest High: Eastern
Belief in the Moral Order	NA	NA	More	Low: Southwest High: Puget Sound
Social Skills	NA	NA	Less	Low: Eastern High: Puget Sound

NA - not available

* Since comparable survey measures of protective factors are currently not available from a national survey, protective factor measures from the 1995 Washington School Survey are compared to those obtained in the 1996 Oregon School Survey.

Protective Factors: Community, Family, and School Rewards for Conventional Involvement

When young people are rewarded for positive participation in activities that are important in their development, it is less likely that they will engage in high risk health behaviors (Appendix E; DRP, 1996).

In the school survey, community rewards for conventional involvement were assessed among 8th, 10th, and 12th grade students using three questions concerning neighbors' acknowledgment, encouragement, and pride for things done well by the child. Family rewards were assessed using two questions on parental acknowledgment and pride for things well done by a child and two additional questions on positive interactions with one's mother and one's father. School rewards were also assessed using two questions on acknowledgment by teachers and on the school's communication of positive activities to the student's parent.

The average response (least rewards=1, most rewards=4) in each reward-related protective factor was calculated for each grade in four survey regions. For each factor, the average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

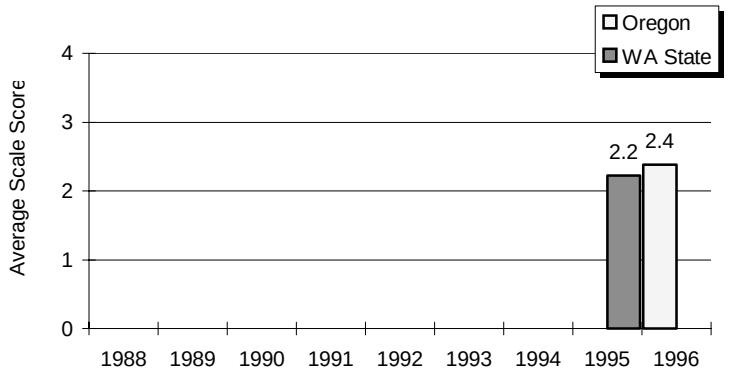
Indicator

- **School Survey Measure for Community Rewards for Conventional Involvement**

  Washington State - average scale score for Community Rewards for Conventional Involvement. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

Average Scale Score for Community Rewards for Conventional Involvement



State Trends and Geographic Findings

The average scale score for Community Rewards for Conventional Involvement was slghtly higher among Orgeon students than among Washington Students. The Puget Sound and Southwest regions scored worse than the state rate while the Northwest and Eastern regions scored better.

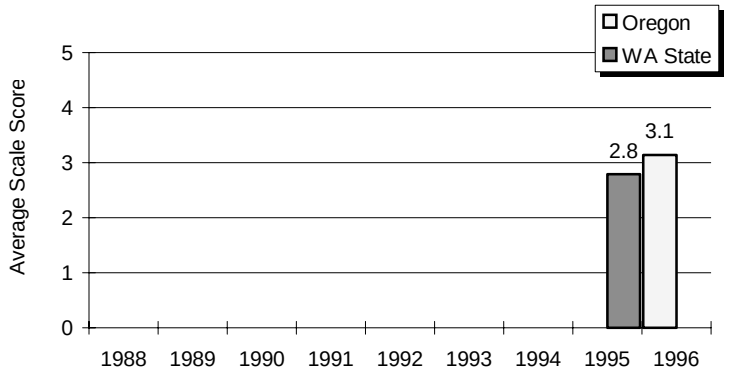
Indicator

- **School Survey Measure for Family Rewards for Conventional Involvement**

  Washington State - average scale score for Family Rewards for Conventional Involvement. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11 th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

Average Scale Score for Family Rewards for Conventional Involvement



State Trends and Geographic Findings

The average scale score for Family Rewards for Conventional Involvement is higher among Oregon students than among Washington students. In Washington, the Southwest and Puget Sound regions scored worse than the state rate while the Northwest and Eastern regions scored better.

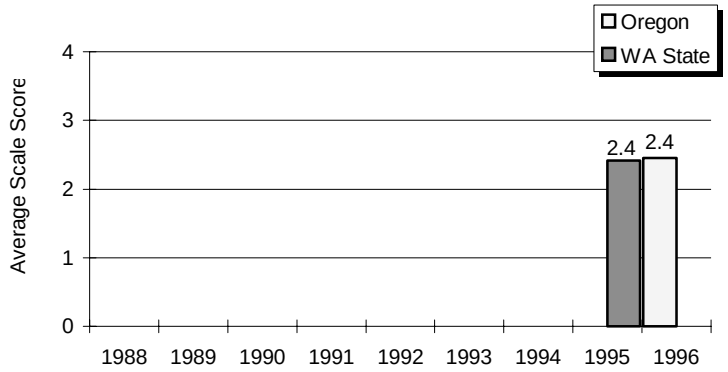
Indicator

- **School Survey Measure for School Rewards for Conventional Involvement**

  Washington State - average scale score for School Rewards for Conventional Involvement. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

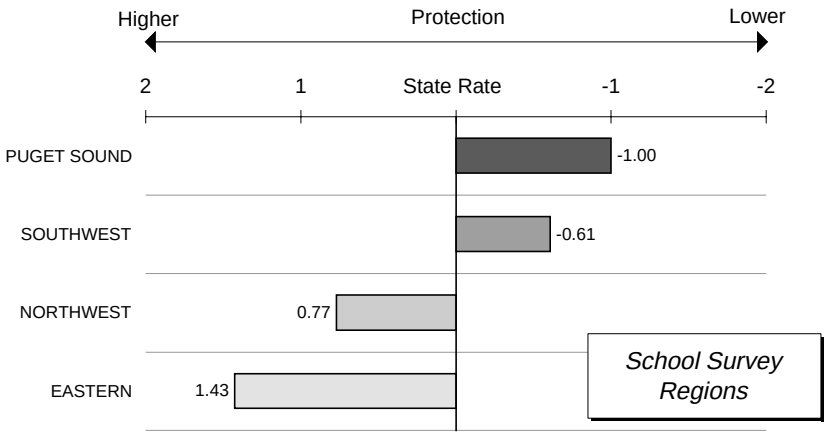
Average Scale Score for School Rewards for Conventional Involvement



State Comparison and Geographic Findings

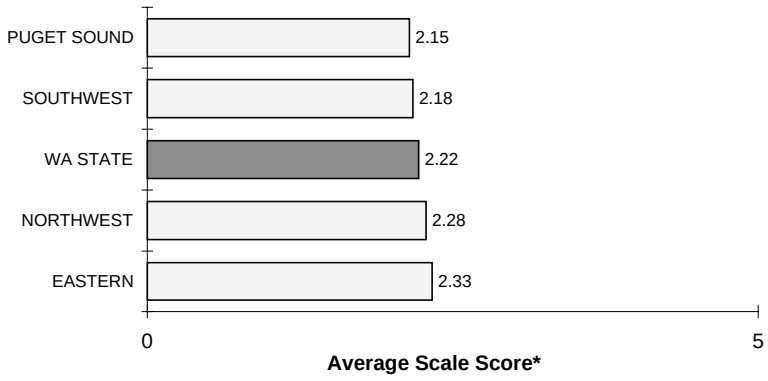
The average scale score for School Rewards for Conventional Involvement was approximately the same among Oregon students as among Washington students. In Washington, the Southwest region scored worse than the state rate, the Northwest and Puget Sound regions scored approximately the same as the state rate, and the Eastern region scored better than the state rate.

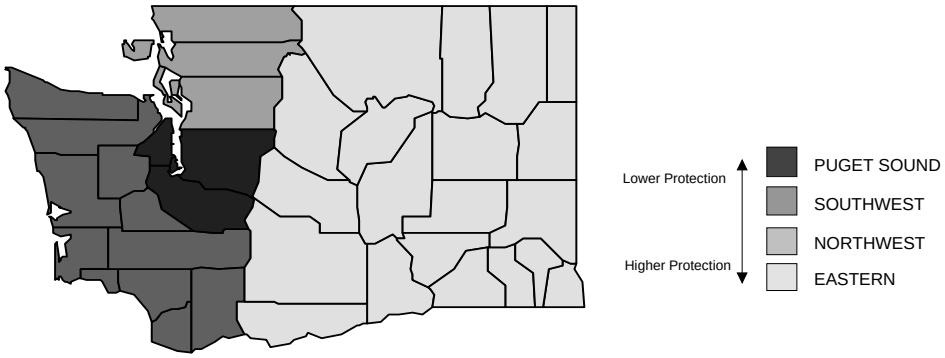
Protective Factor: Community Rewards for Conventional Involvement



School Survey Measure :

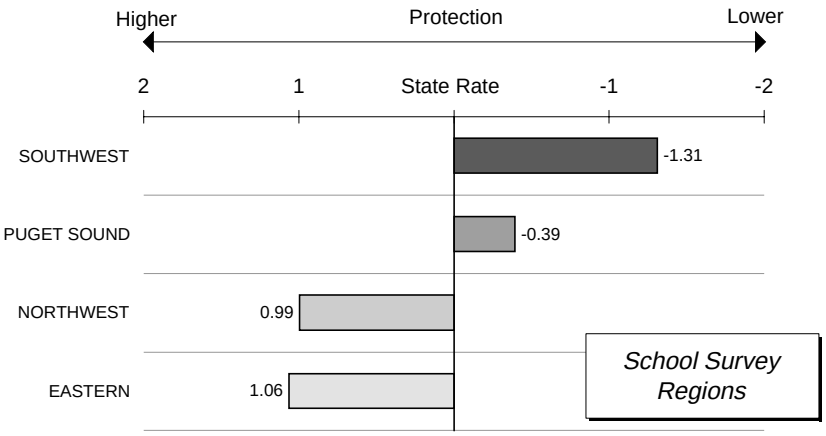
Average Scale Score for Community Rewards for Conventional Involvement





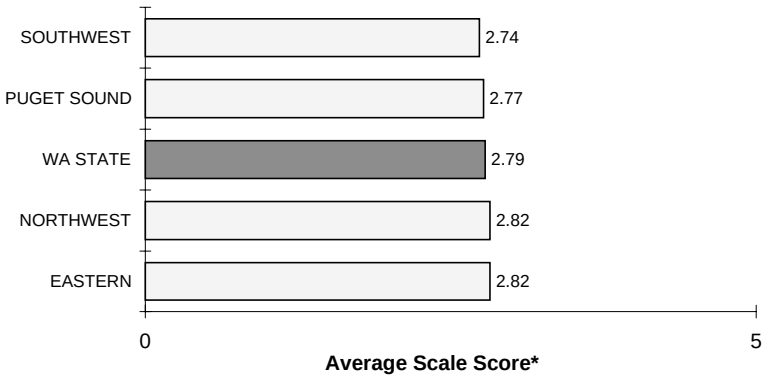
NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

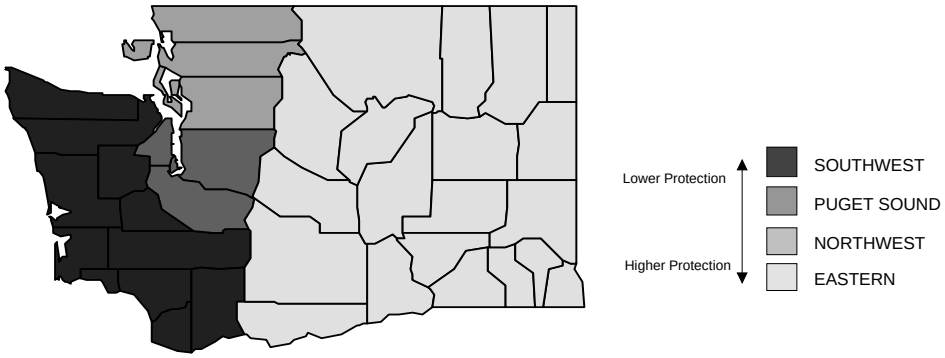
Protective Factor: Family Rewards for Conventional Involvement



School Survey Measure :

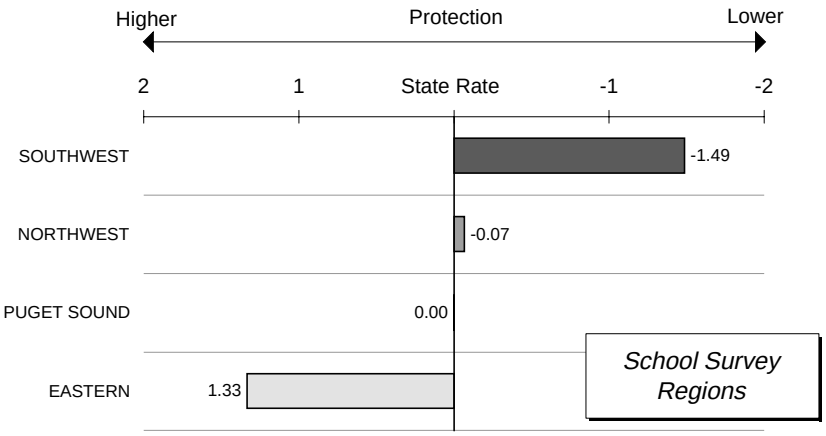
Average Scale Score for Family Rewards for Conventional Involvement





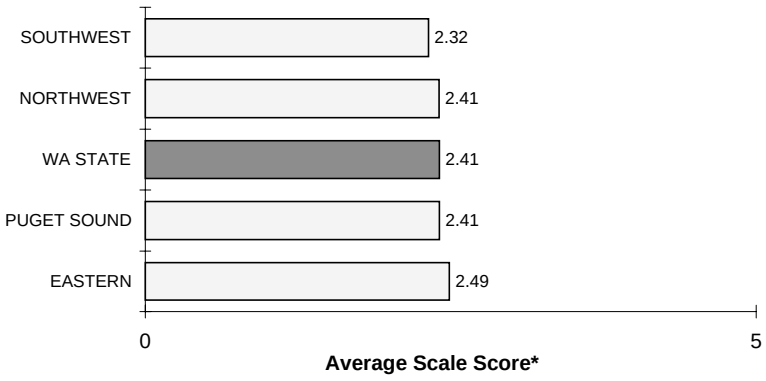
NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

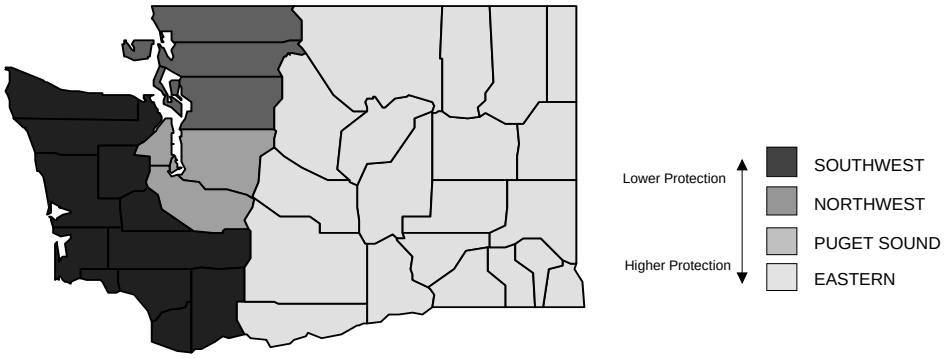
Protective Factor: School Rewards for Conventional Involvement



School Survey Measure :

Average Scale Score for School Rewards for Conventional Involvement





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

Protective Factors: Family and School Opportunities for Positive Involvement

Young people who are given more opportunities to participate meaningfully in important activities at school or in the responsibilities and activities of their families are less likely to engage in drug use (Appendix E; DRP, 1996).

In the school survey, opportunities for positive involvement in school were assessed among 8th, 10th, and 12th grade students using two questions, one concerning the opportunities "... to help decide things like class activities and rules," and the other on "... chances for students to talk with a teacher one-on-one." Opportunities for positive involvement in the family were assessed using three questions, the first on opportunities to do fun things with parents, the second on inclusion in family decisions, and third, the likelihood of approaching a parent with a personal problem.

The average response (least opportunities=1, most opportunities=4) in each opportunity-related protective factor was calculated for each grade in four survey regions. For each factor, the average responses for each grade level were then averaged to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

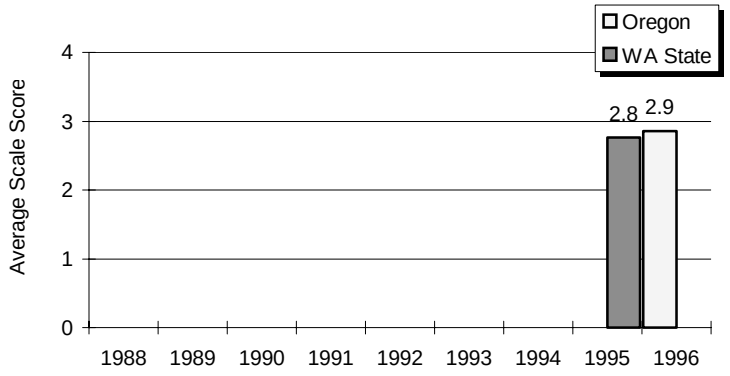
Indicator

- **School Survey Measure for Opportunities for Positive Involvement in the Family**

  Washington State - average scale score for Opportunities for Positive Involvement in the Family. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

Average Scale Score for Opportunities for Positive Involvement in the Family



State Comparison and Geographic Findings

The average scale score for Opportunities for Positive Involvement in the Family was slightly higher among Oregon students than among Washington students. In Washington, the Southwest and Puget Sound regions scored worse than the state rate while the Northwest and Eastern regions scored better.

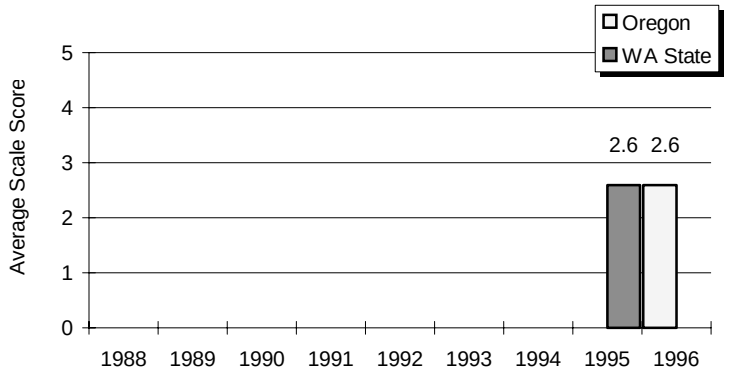
Indicator

- **School Survey Measure for Opportunities for Positive Involvement in the School**

  Washington State - average scale score for Opportunities for Positive Involvement in the School. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.*State of Oregon* - same as for Washington State. The same set of questions were asked in the 1994 Oregon School Survey. Source: XX.

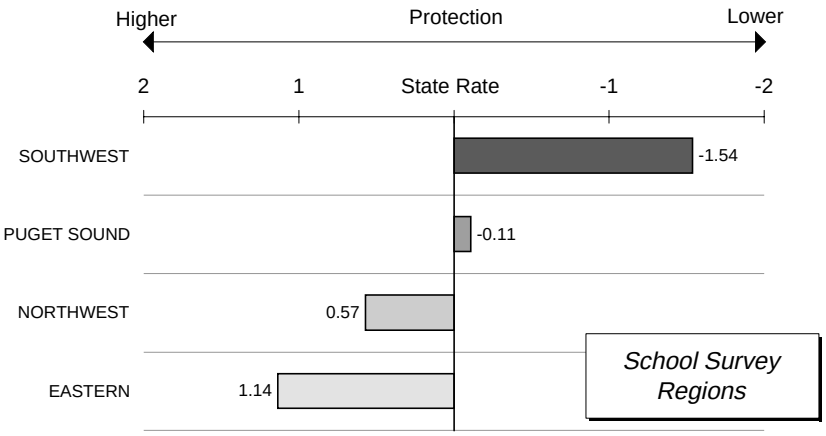
Average Scale Score for Opportunities for Positive Involvement in the School



State Trends and Geographic Findings

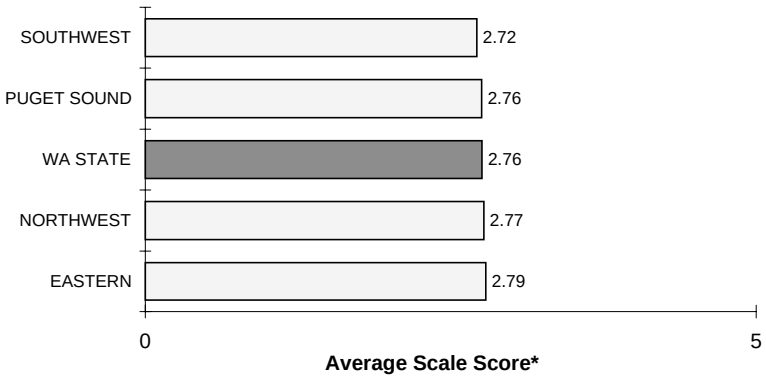
The average scale score for Opportunities for Positive Involvement in the School is similar Washington and Oregon students. In Washington, the Southwest and Northwest regions scored worse than the state rate while the Puget Sound and Eastern regions scored better.

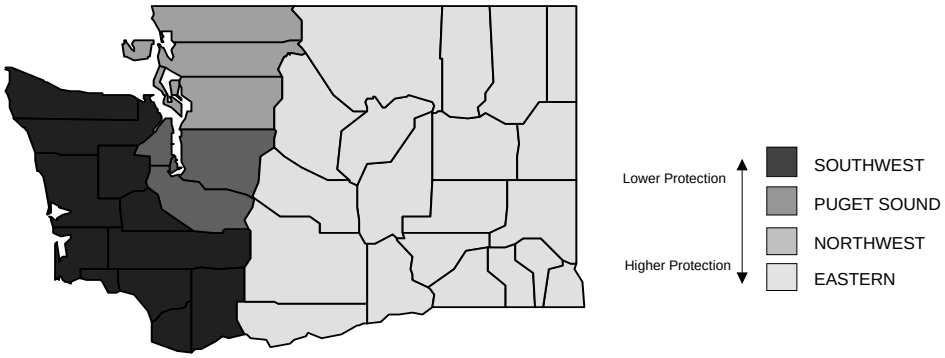
Protective Factor: Opportunities for Positive Involvement in the Family



School Survey Measure :

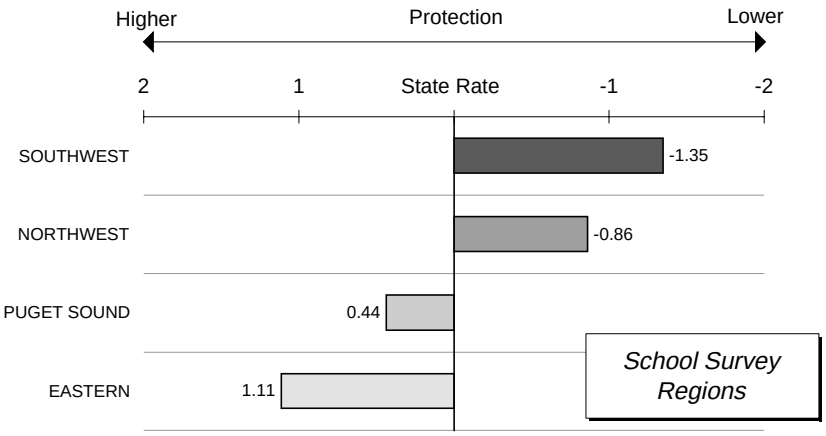
Average Scale Score for Opportunities for Positive Involvement in the Family





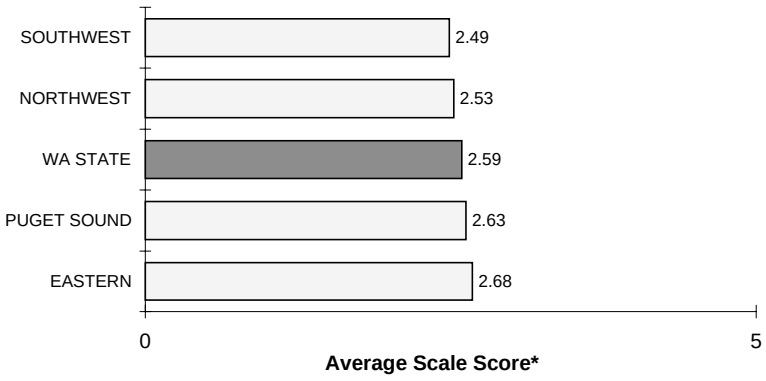
NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

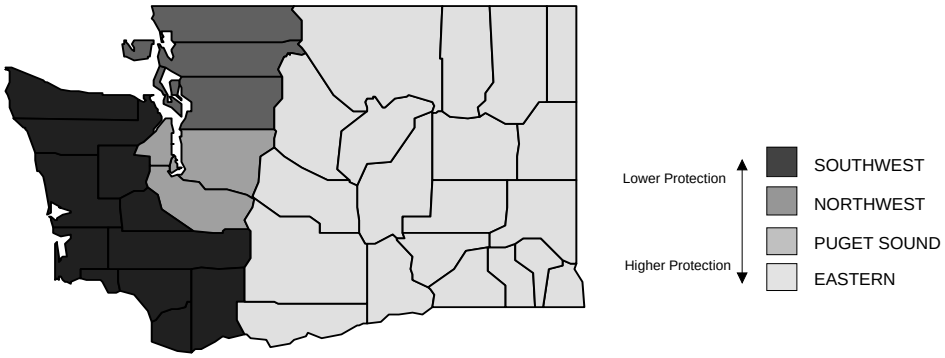
Protective Factor: Opportunities for Positive Involvement in School



School Survey Measure :

Average Scale Score for Opportunities for Positive Involvement in the School





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

Protective Factor: Belief in the Moral Order

Young people who generally prescribe to a belief in what is "right" or "wrong" are at lower risk for engaging in problem behaviors (Appendix E; DRP, 1996).

In the school survey, belief in the moral order was assessed among 8th, 10th, and 12th grade students using four questions. The questions assessed the students level of concern on whether it was okay "... take something without asking if you can get away with it," "...cheat at school," "... beat up people if they start the fight," or, whether it is important to "... be honest with your parents even if they become upset or you get punished."

The average response (least moral=1, most moral=4) was calculated for each grade in four survey regions. The average responses for each grade level were then averaged, weighting by grade enrollment, to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

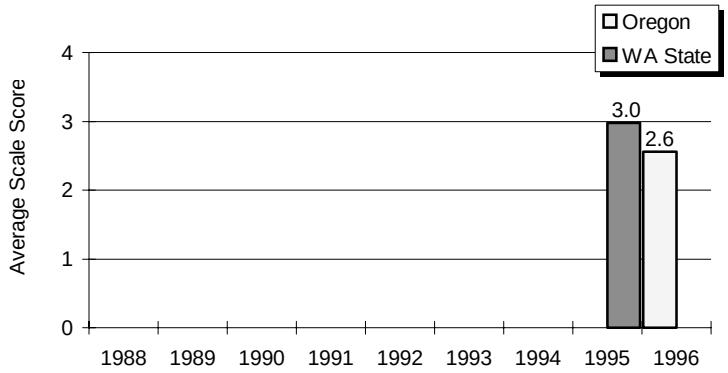
Indicator

- **School Survey Measure for Belief in the Moral Order**

  Washington State - average scale score for Belief in the Moral Order. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

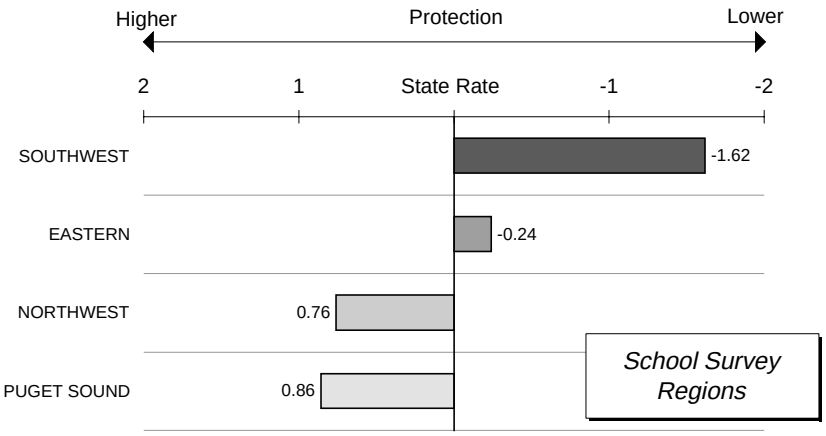
Average Scale Score for Belief in the Moral Order



State Comparison and Geographic Findings

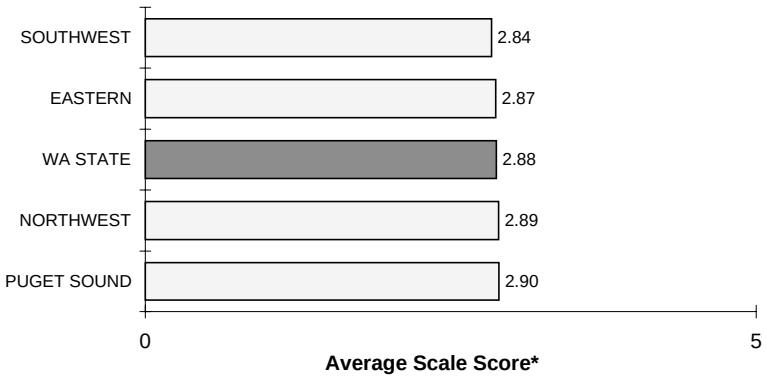
The average scale score for Belief in the Moral Order was higher among students in Washington then among students in Oregon. The Southwest and Eastern regions scored worse than the state rate while the Northwest and Puget Sound regions scored better.

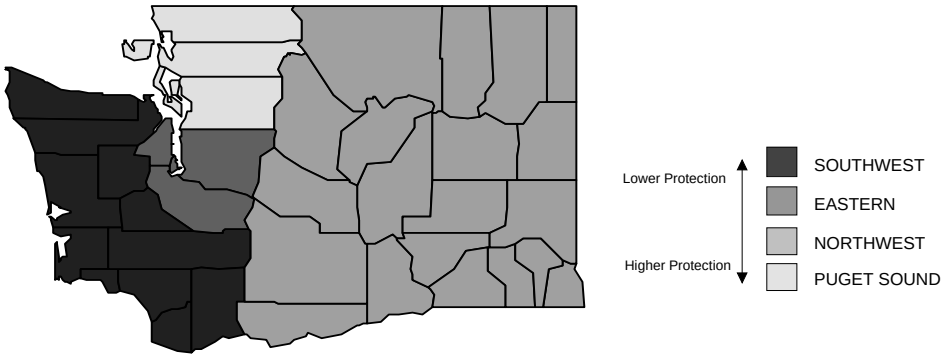
Protective Factor: Belief in the Moral Order



School Survey Measure :

Average Scale Score for Belief in the Moral Order





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

Protective Factor: Social Skills

Young people who are socially competent and engage in positive interpersonal relations with their peers are less likely to participate in negative health risk behaviors (Appendix E; DRP, 1996).

In the school survey, social skills are assessed among 8th, 10th, and 12th grade students using responses to four scenarios. The scenarios focus on potential problem situations for young persons and deal with shoplifting, negotiation with parents, interaction with another aggressive teenager, and encounters with alcohol.

The average response (least appropriate=1, most appropriate=4) was calculated for each grade in four survey regions. The average responses for each grade level were then averaged, weighting by grade enrollment, to generate an overall score for the survey region. State values, weighted by regional enrollment, were calculated from the entire sample.

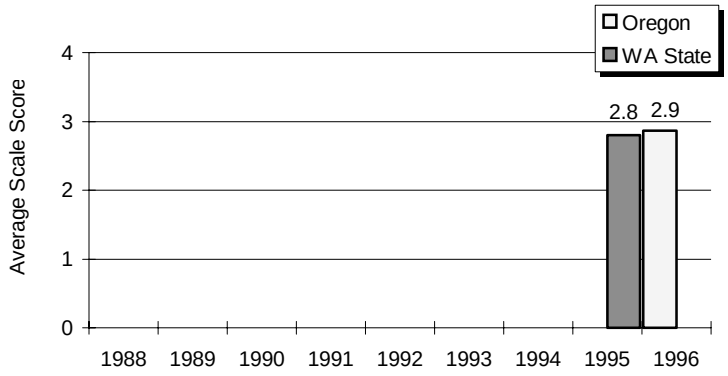
Indicator

- **School Survey Measure for Social Skills**

  Washington State - average scale score for Social Skills. Source: 20.

  State of Oregon - same as for Washington State. The same set of questions were asked of 8th and 11th graders in the 1996 Oregon School Survey. For comparison to Washington results, interviews from Oregon 11th graders were counted twice as a way to estimate the total average response of 10th and 12th graders. Source: XX.

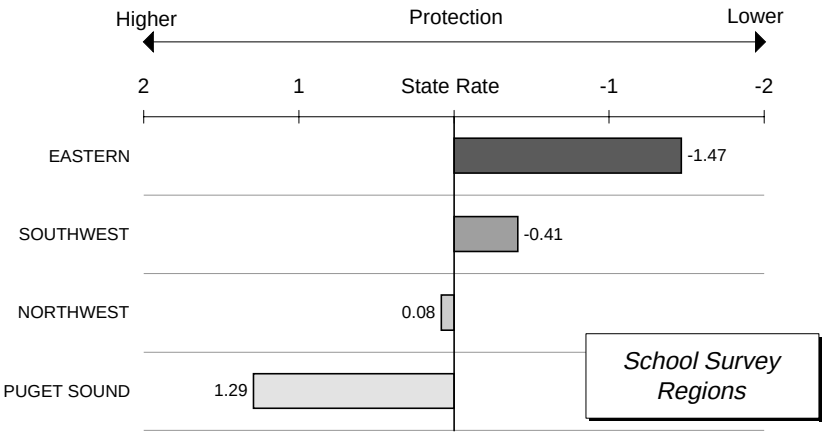
Average Scale Score for Social Skills



State Comparison and Geographic Findings

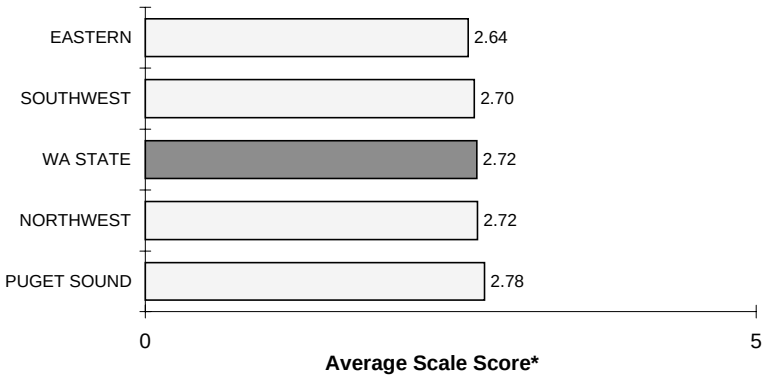
The average scale score for Social Skills was slightly higher among Oregon students than among Washington students. The Eastern and Southwest regions scored worse than the state rate for Social Skills. The Northwest and Puget Sound regions scored better.

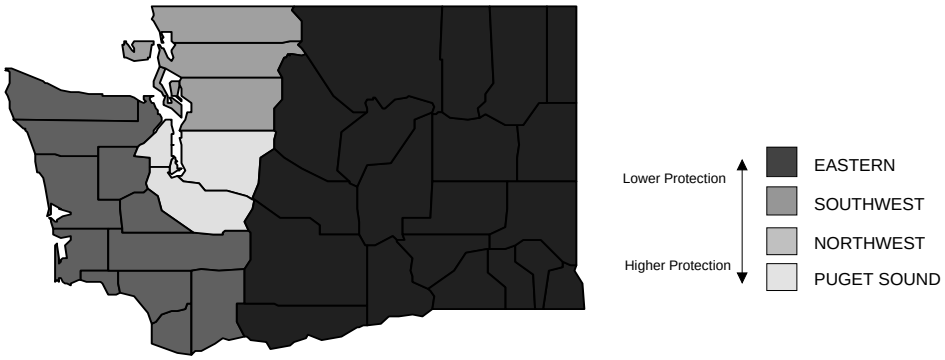
Protective Factor: Social Skills



School Survey Measure :

Average Scale Score for Social Skills





NOTE: The list of counties in each school survey region is in Chapter 3.
*Average Scale Score is for 1995.

6 ADDITIONAL INDICATORS OF SUBSTANCE ABUSE AND OTHER PROBLEM BEAHVIORS: ANALYSIS OF INDICATORS

Summary of Indicator Trends and Patterns

Substance Abuse Problem Behavior

Sexual Problem Behavior

Delinquent and Criminal Problem Behavior

Summary of Additional Indicator Trends and Patterns

The tables below present a summary of trends and patterns across the ten additional indicators of problem behavior identified for this study. Detailed comment and analysis on each additional indicator follow in this chapter. Trends and comparisons are not evaluated for statistical significance.

Additional Indicators of Youth Problem Behavior	Trend in State Indicator	Trend in National Indicator	State Indic. Compared to National Indicator	Geographic Variation
Substance Abuse Problem Behavior				
Juvenile (10-17) Arrests for Alcohol Violations	↘	↘	Worse	Greater in Rural Counties
Juvenile (10-17) Arrests for Drug Law Violations	↗	↗	Better	Greater in Urban Counties
Adolescents (10-17) in Alcohol or Other Drug (AOD) Treatment	↗	→	NA	Mixed
Sexual Problem Behavior				
Adolescent (0-19) Sexually Transmitted Diseases	↘	NA	NA	Greater in Urban Counties
Birthrate Among Adolescents (10-17)	→	→	Better	Greater in Rural Counties
Delinquent and Criminal Problem Behavior				
Juvenile (10-17) Arrests for Violent Crimes	↗	↗	Better	Inconclusive
Juvenile (10-17) Arrests for Property Crimes	→	→	Worse	Mixed
Juvenile (10-17) Arrests for Curfew, Loitering, Vandalism and Disorderly Conduct	↗	↗	Better	Greater in Rural Counties
Guilty Adjudications of Juveniles (0-17)	↗	NA	NA	Mixed
Juvenile (0-17) Diversions	→	NA	NA	Greater in Rural Counties

↗ - evidence of increasing risk
↘ - evidence of decreasing risk
→ - appears unchanging
NA - not available

ADDITIONAL INDICATORS OF SUBSTANCE ABUSE AND OTHER PROBLEM BEHAVIORS

Substance Abuse Problem Behaviors

Several indicators did not fit under a specific risk or protective factor, but are related to substance abuse. A subset of these indicators are grouped under Substance Abuse Problem Behaviors. Elevated levels of these indicators may indicate high levels of substance abuse.

Indicators / Definitions

- **Juvenile Arrests for Alcohol Violations**

  Washington State - the number of juveniles (ages 10-17) arrested for alcohol violations as a rate per 1,000 juveniles (ages 10-17). Alcohol violations include all crimes involving driving under the influence, liquor law violations, and drunkenness. For juveniles, arrests for liquor law violations are usually arrests for minor in possession. DUI arrests by the Washington State Patrol (5% of all Juvenile Arrests of Alcohol Violations) are included in the state trend data but are not included in the county rankings since the State Patrol arrests are not assigned to counties. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Juvenile Arrests for Drug Law Violations**

  Washington State - the number of juveniles (ages 10-17) arrested for drug law violations as a rate per 1,000 juveniles (ages 10-17). Drug law violations include all crimes involving sale, manufacturing, and possession of drugs. Sources: 28, 08, 10.

  National - same as for Washington State. Sources: SS, TT, GG.

- **Adolescents in Alcohol and Other Drug (AOD) Treatment**

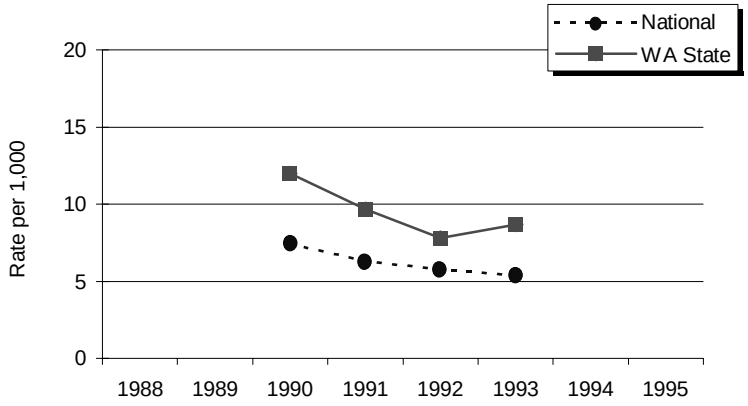
  Washington State - the number of adolescents (ages 10-17) admitted to state funded alcohol and other drug treatment programs per 1,000 adolescents. Adolescents admitted to treatment more than once during the year were only counted once for that year. Sources: 07, 08.

  National - 37 states report treatment data that is similar to the Washington State data. There is some variation in reporting standards among the states. The national data are primarily for publicly funded drug treatment programs, but not exclusively publicly funded. Some states may report duplicated data. Because of these limitations, it is probably better to compare trends than to compare actual rates. Sources: PP, GG.

State and National Trends

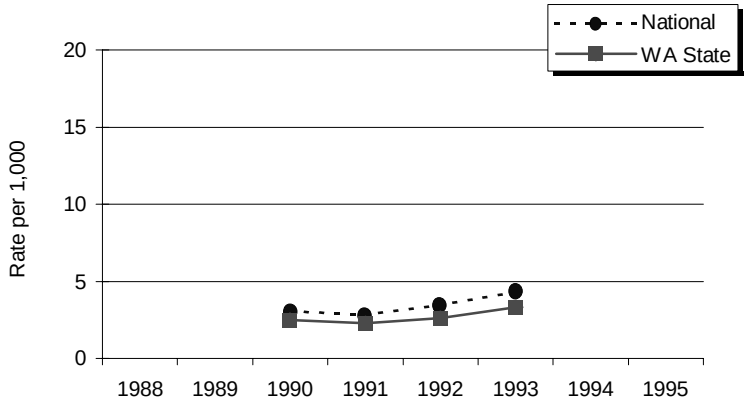
The Washington trend for juvenile arrests for alcohol violations is similar to the national trend. The arrest rates for both seem to be decreasing slightly. The rates for Washington decreased 28% (11.98 to 8.68) from 1990 to 1993 and are slightly higher than the national rates.

Juvenile (10-17) Arrests for Alcohol Violations per 1,000 Juveniles



The Washington trend for juvenile arrests for drug crimes is similar to the national trend. The arrest rates for both seem to be increasing slightly. The rates for Washington increased 33% (2.48 to 3.31) from 1990 to 1993 and are slightly lower than the national rates.

Juvenile (10-17) Arrests for Drug Violations per 1,000 Juveniles

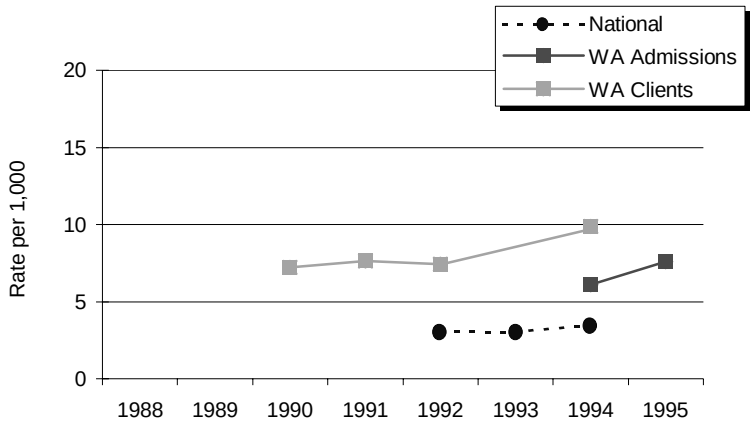


Because there are so few years of available data, it is not possible to compare the Washington trend to the national trend for adolescents admitted to drug treatment programs.

Although Washington admissions data are not available prior to 1994, data on the rate of adolescent clients (ages 0-17) receiving state-funded treatment services per 1,000 adolescents (ages 10-17) are available for 1990, 1991, 1992, and 1993 (Source: 09). Generally, the rate of adolescent clients is higher than the rate of adolescent admissions because the client data include adolescents admitted in a

previous year but still receiving services in the current year. In addition the client data include a few juveniles age 0-9 and a few juveniles who received detoxification services, which are not included in the admissions data. The annual rates of clients served are superimposed onto the following graph. The rates for Washington increased 37% (7.23 to 9.88) from 1990 to 1994. There are no comparable data available at the national level.

Adolescents (10-17) in Alcohol or Drug Treatment per 1,000 Adolescents



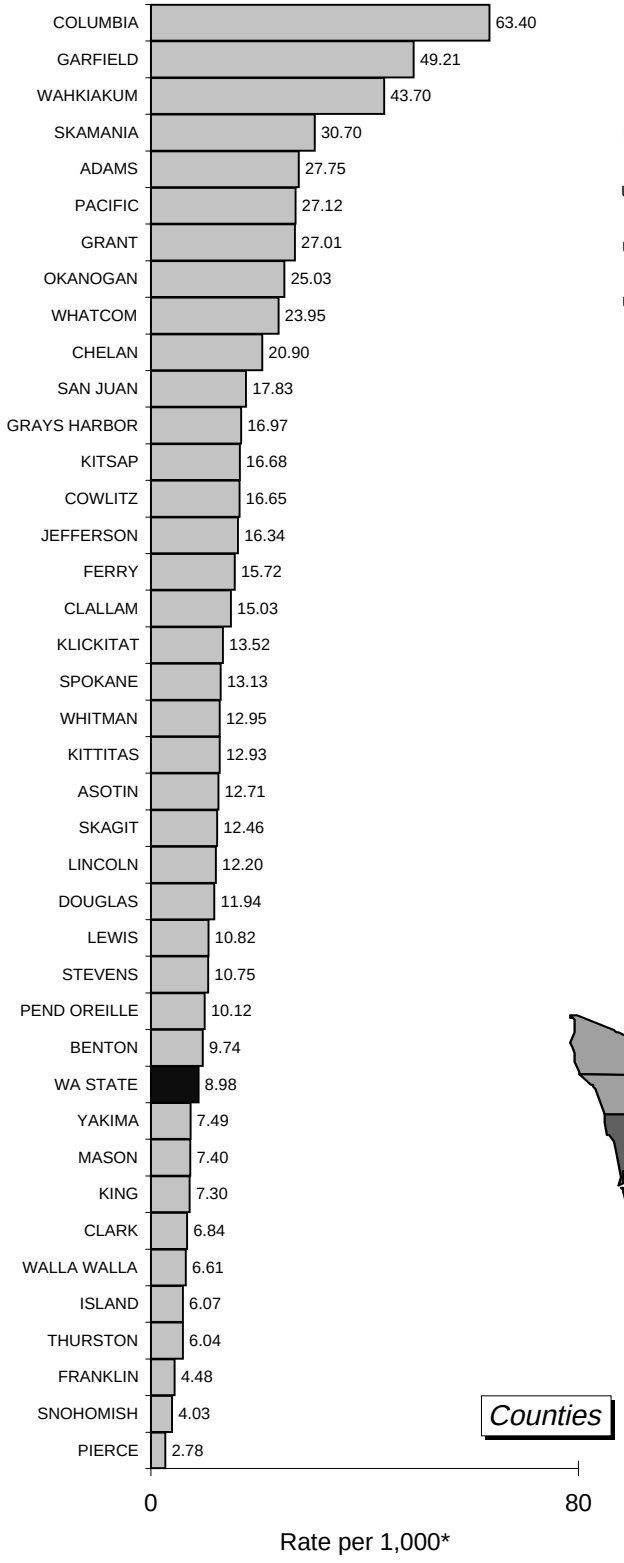
Geographic Findings

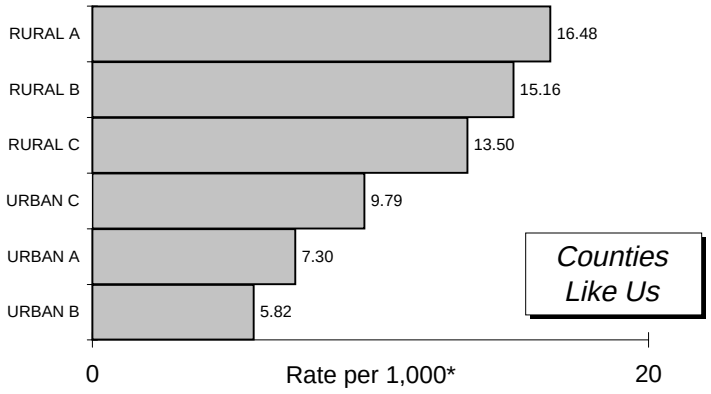
Individual indicators. Juvenile arrest rates for alcohol violations are greater in rural counties than in urban counties. Most of the urban counties are below the state average and most of the rural counties are above the state average. Some counties may have higher arrest rates than are shown, because a significant percentage of the alcohol-related arrests in those counties are made by the state patrol.

Generally, the arrest rates for juvenile drug violations are higher in urban counties than in rural counties. Kitsap County has the highest arrest rate for juvenile drug crimes, but the arrest rates are based on reporting for less than 15% of the population (see Appendix I). It is unlikely that the rate is representative of the entire county. About half the counties do not have enough drug-related arrest of juveniles to calculate a reliable rate.

There is no clear geographic pattern for adolescents in alcohol or drug treatment. However, this is one of the few indicators where the Rural A county group has the lowest rate.

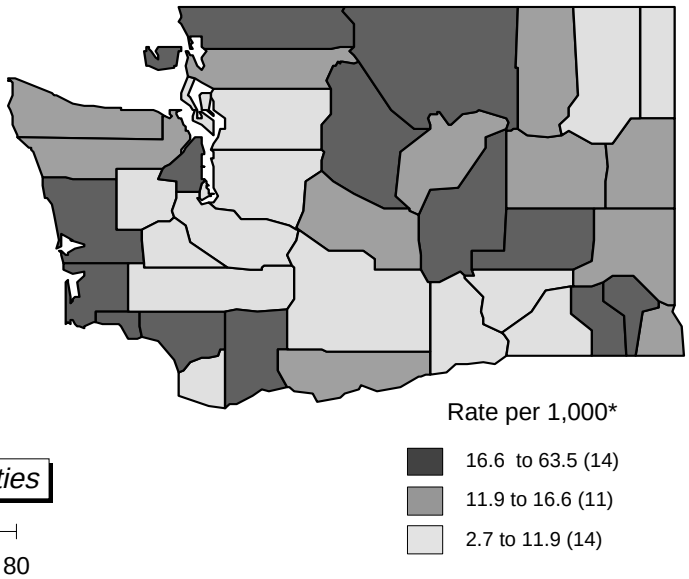
Additional Indicators: Substance Abuse Problem Behaviors





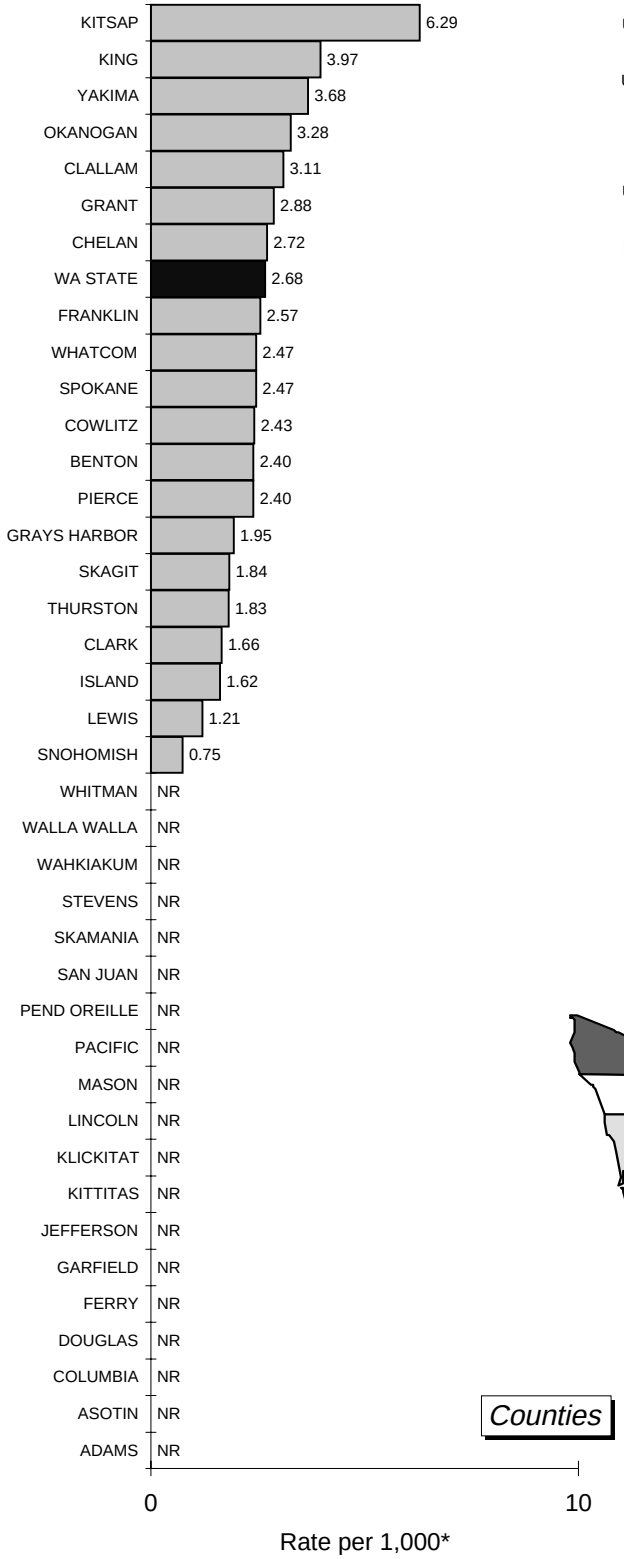
Indicator:

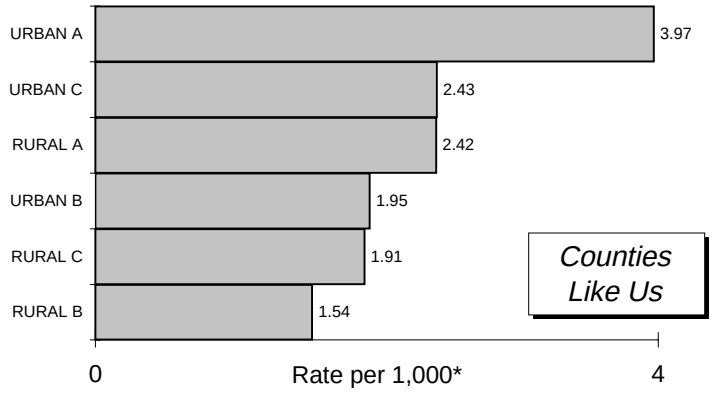
Juvenile (10-17) Arrests for Alcohol Violations per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

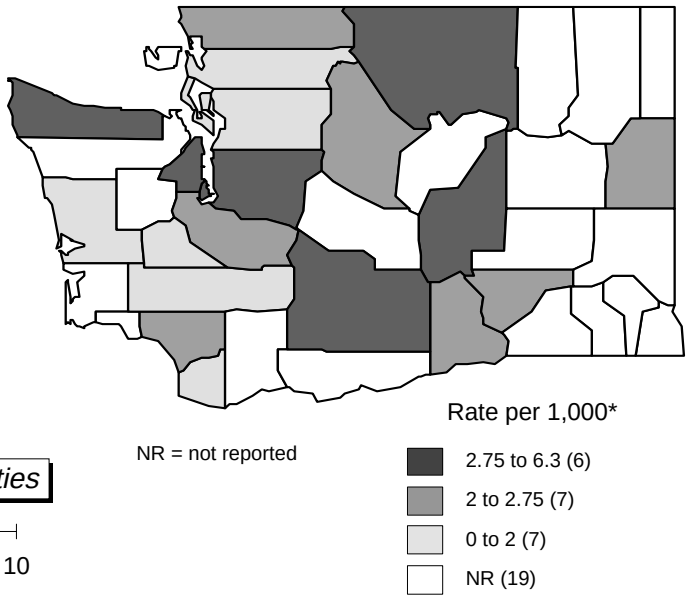
Additional Indicators: Substance Abuse Problem Behaviors





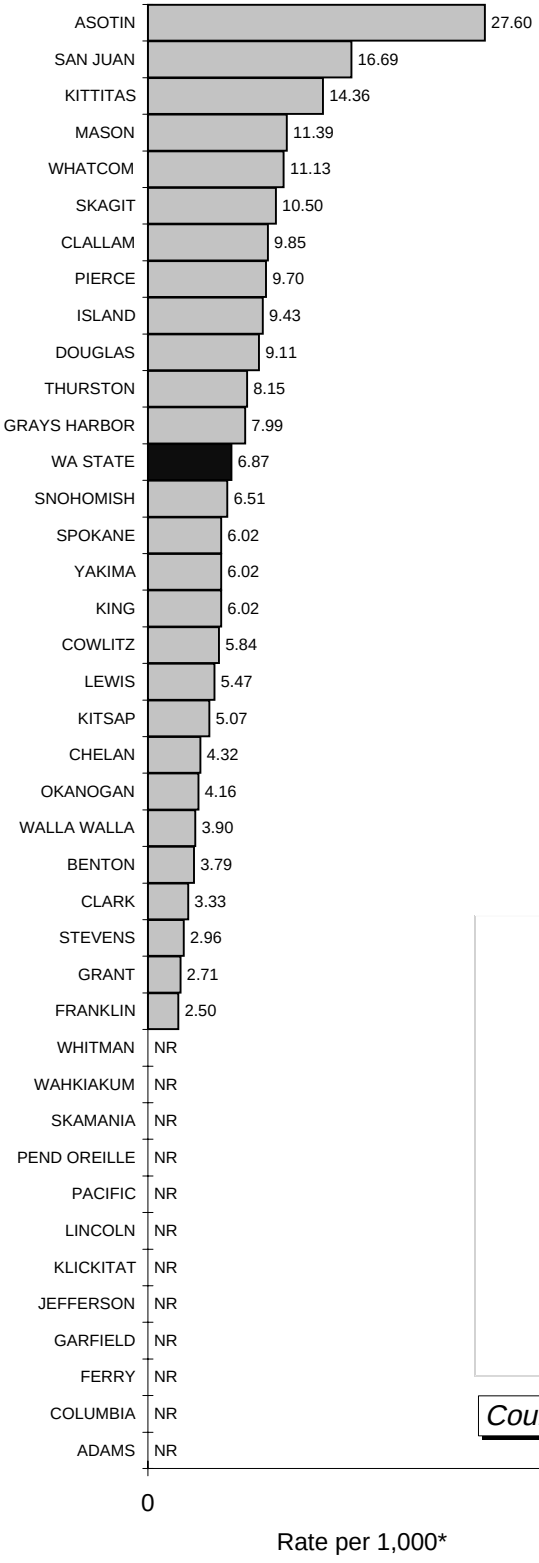
Indicator:

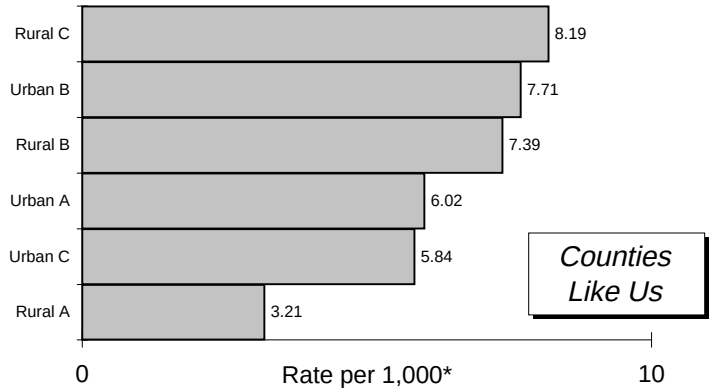
Juvenile (10-17) Arrests for Drug Violations per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

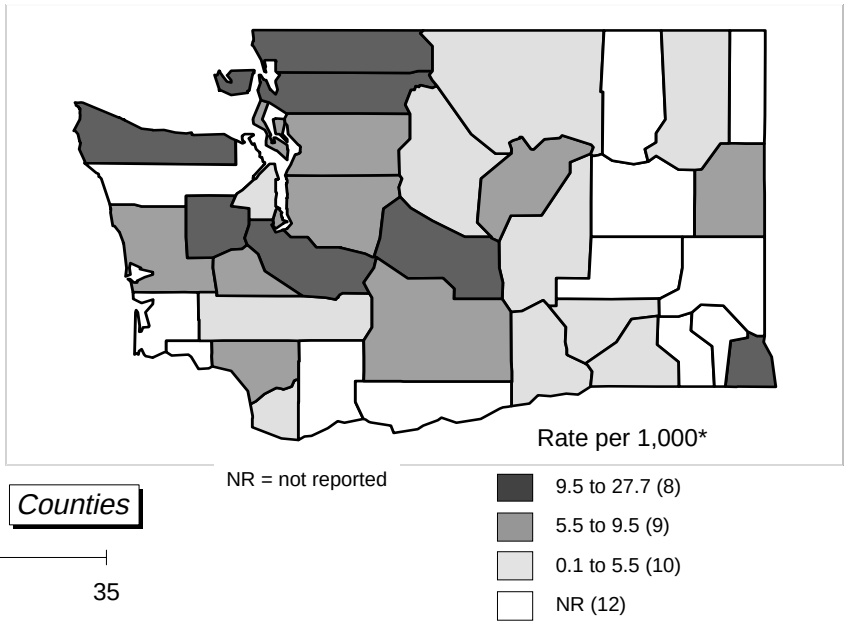
Additional Indicators: Substance Abuse Problem Behaviors





Indicator:

Adolescents (10-17) in Alcohol or Drug Treatment per 1,000 Adolescents



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1994 to 1995.

Sexual Problem Behavior

Several indicators did not fit under a specific risk or protective factor, but may be related to substance abuse. A subset of these indicators are grouped under Sexual Problem Behaviors. Elevated levels of these indicators may indicated high levels of substance abuse.

Indicators / Definitions

- **Adolescent Sexually Transmitted Diseases**

  Washington State - the number of reported cases of gonorrhea, syphilis, or chlamydia in adolescents (ages 0-19) as a rate per 1,000 adolescents (ages 0-19). Sources: 04, 08.

  National - It was not possible to include national data, because chlamydia was not a reportable disease nationally until 1995.

- **Birthrate Among Adolescents**

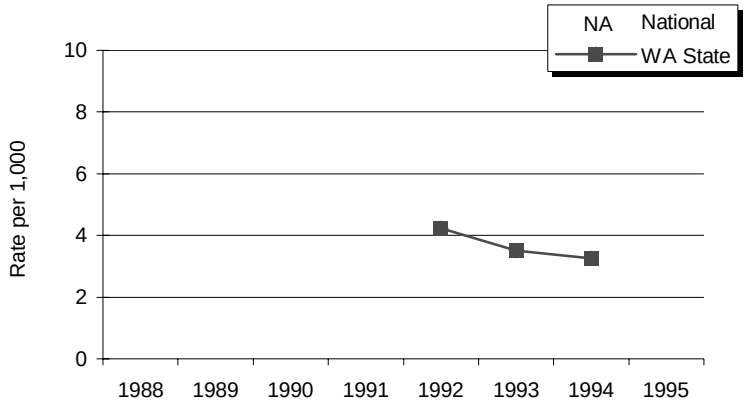
  Washington State - the number of live births to females (ages 10-17) as a rate per 1,000 females (ages 10-17). Sources: 02, 08.

  National - same as for Washington. Sources: NN, GG.

State and National Trends

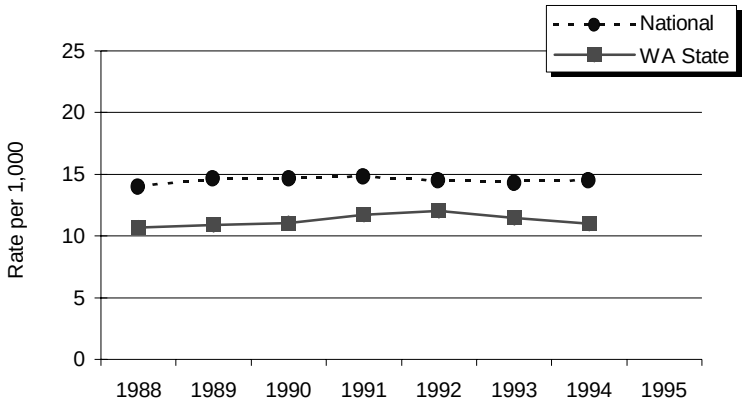
The rate of adolescent sexually transmitted diseases in Washington appears to be decreasing slightly. The rates dropped 23% (4.22 to 3.26) from 1992 to 1994.

Reported Cases of Adolescent (0-19) Sexually Transmitted Diseases per 1,000 Adolescents



The Washington State trend for births to adolescents is more or less parallel, but slightly lower than the trend for the Nation. The state rate fluctuates a bit more than the national rate, but both are relatively stable.

Live Births to Females (10-17) per 1,000 Females (10-17)

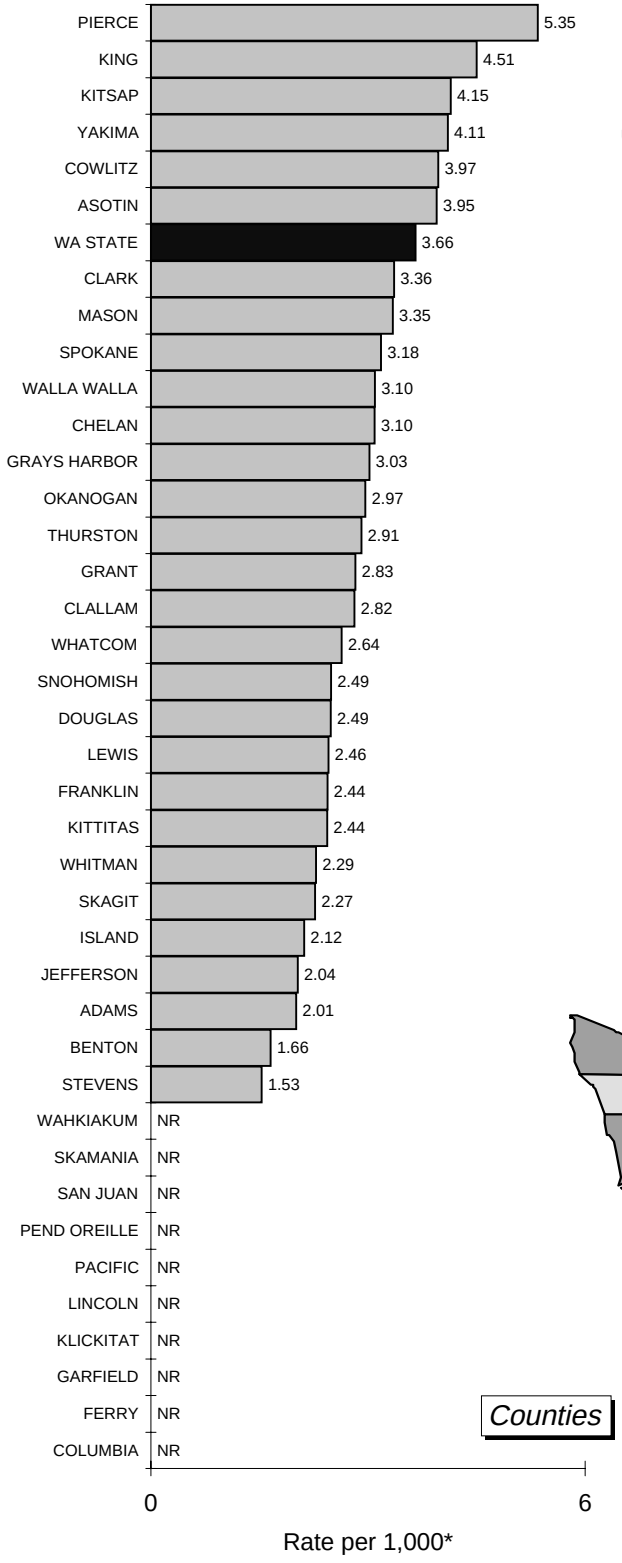


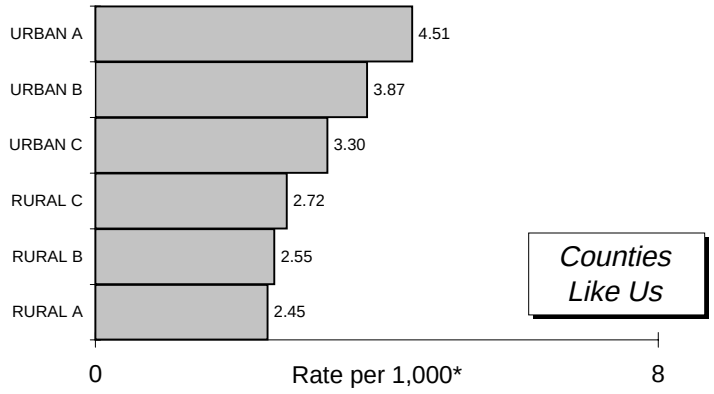
Geographic Findings

Individual indicators. The rates for sexually transmitted diseases among adolescents are generally higher in the urban counties. Cowlitz and Asotin are the only rural counties with rates above the state average. This is one of the few indicators where Rural A has the lowest rate.

The adolescent birth rate tends to be higher in rural counties. Yakima is the exception; although it is an urban county, it has the second highest birth rate.

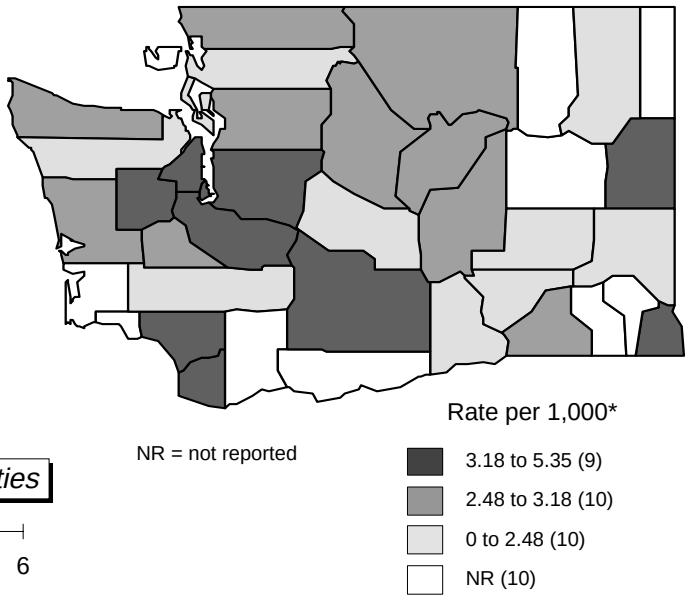
Additional Indicators: Sexual Problem Behavior





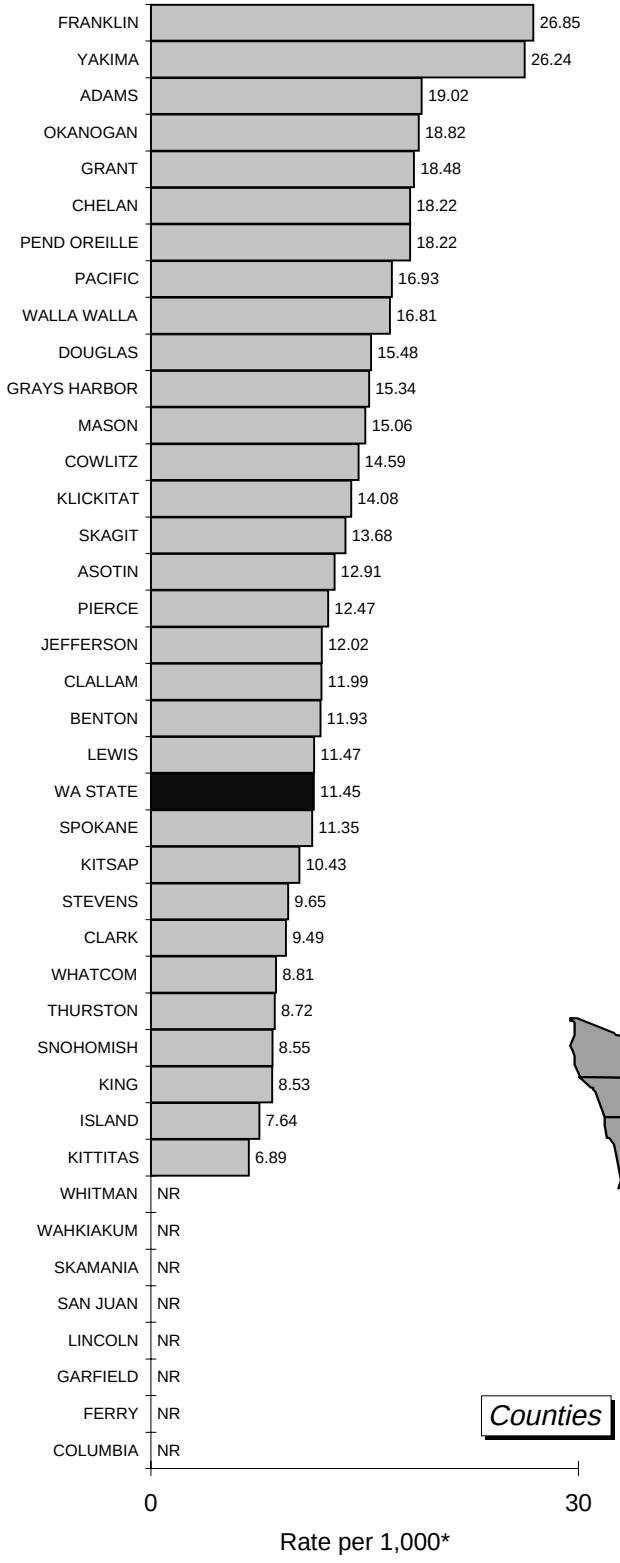
Indicator:

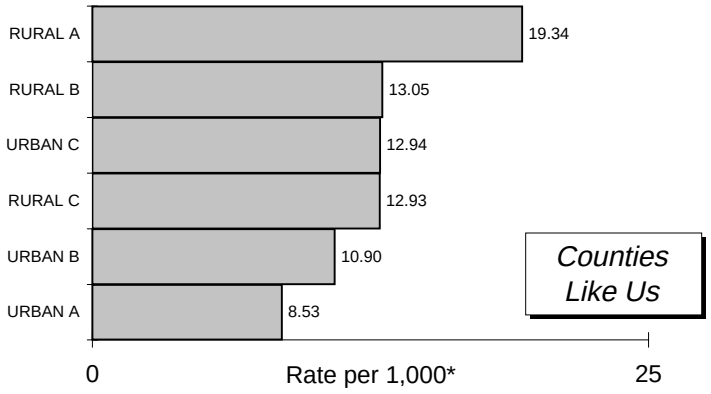
Reported Cases of Adolescent (0-19) Sexually Transmitted Diseases per 1,000 Adolescents



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1992 to 1994.

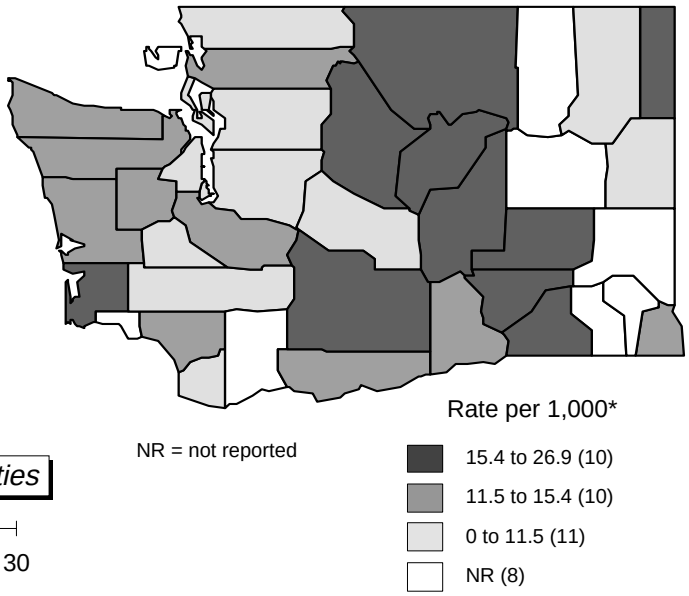
Additional Indicators: Sexual Problem Behavior





Indicator:

Live Births to Females (10-17) per 1,000 Females (10-17)



NR = not reported

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1994.

Delinquent and Criminal Problem Behavior

Indicators / Definitions

Several indicators did not fit under a specific risk or protective factor, but may be related to substance abuse. A subset of these indicators are grouped under Delinquent and Criminal Problem Behavior. Elevated levels of these indicators may indicated high levels of substance abuse.

- **Juvenile Arrests for Violent Crimes**

  Washington State - the number of juveniles (ages 10-17) arrested for violent crimes as a rate per 1,000 juveniles (ages 10-17). Violent crimes include all crimes involving criminal homicide, forcible rape, robbery, and aggravated assault. Simple assault is not defined as a violent crime. Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Juvenile Arrests for Property Crimes**

  Washington State - the number of juveniles (ages 10-17) arrested for property crimes as a rate per 1,000 juveniles (ages 10-17). Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Juvenile Arrests for Curfew, Loitering, Vandalism, and Disorderly Conduct**

  Washington State - the number of juveniles (ages 10-17) arrested for curfew and loitering law violations, vandalism, and disorderly conduct as a rate per 1,000 juveniles (ages 10-17). Sources: 28, 08, 10.

  National - same as for Washington. Sources: SS, TT, GG.

- **Guilty Adjudications**

  Washington State - the number of guilty adjudications of juveniles (ages 0-17) as a rate per 1,000 juveniles (ages 10-17). Guilty adjudications include sentences to incarceration in state institutions (Juvenile Rehabilitation Administration), incarceration in county operated detention facilities, and county managed community supervision. Sources: 15, 08.

  National - There is no easy source of comparable national data, because the juvenile justice system varies dramatically from state to state.

- **Juvenile Diversions**

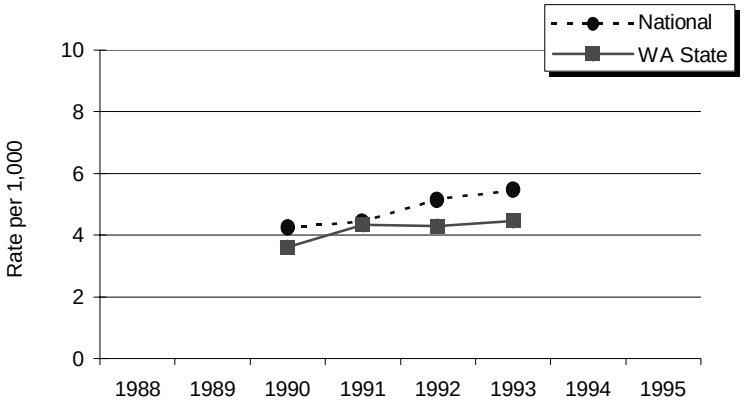
  Washington State - the number of placements of juveniles (ages 0-17) into diversion programs as a rate per 1,000 juveniles. A juvenile who has committed a first offense or a minor offense may be placed in a diversion program instead of being taken to court. Sources: 15, 08.

  National - There is no easy source of comparable national data, because the juvenile justice system varies dramatically from state to state.

State and National Trends

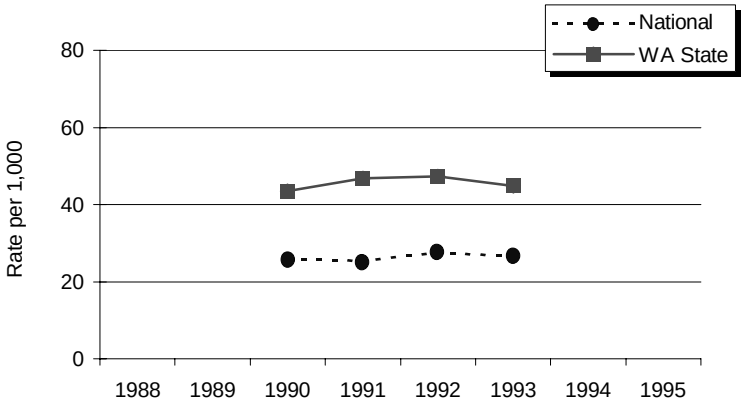
Both the national and the state trends for juvenile arrests for violent crimes appear to be rising. The Washington rate is slightly lower than the national rate. The state rate increased 24% (3.6 to 4.5) from 1990 to 1993.

Juvenile (10-17) Arrests for Violent Crimes per 1,000 Juveniles



The Washington trend for juvenile arrests for property crimes appears stable and roughly parallel to the national trend but at a much higher level.

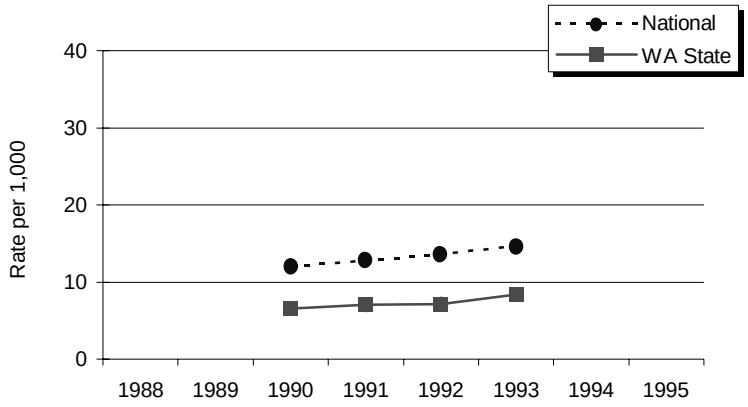
Juvenile (10-17) Arrests for Property Crimes per 1,000 Juveniles



The Washington trend for juvenile arrests for curfew, loitering, vandalism, and disorderly conduct violations also appears roughly parallel to the national trend, though both may be

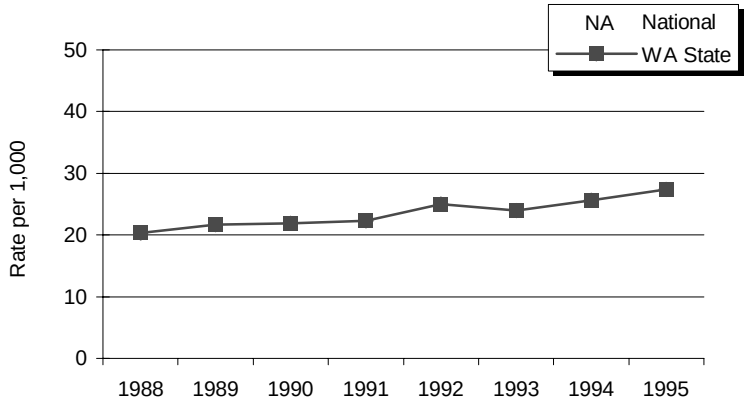
rising slightly. Washington's rates are lower than the national rates.

Juvenile (10-17) Arrests for Curfew, Loitering, Vandalism, and Disorderly Conduct per 1,000 Juveniles



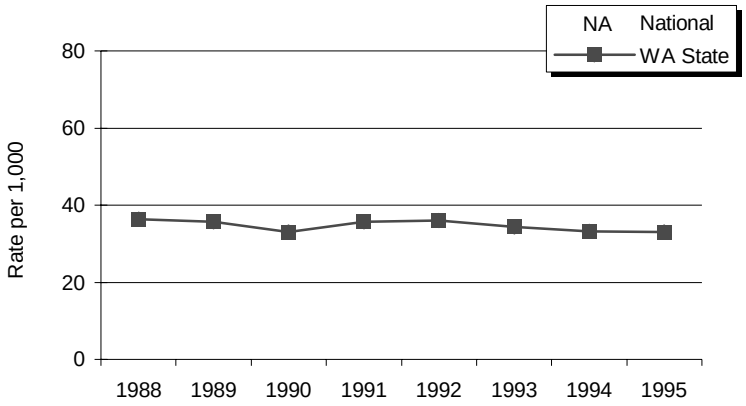
The trend of guilty adjudications appears to be rising in Washington. The rate increased 34% (20.4 to 27.4) from 1988 to 1995.

Guilty Adjudications of Juveniles (10-17) per 1,000 Juveniles



The trend of juvenile diversions in Washington appears to be relatively constant, perhaps decreasing slightly since 1992.

Juvenile (10-17) Diversions per 1,000 Juveniles



Geographic Findings

Individual indicators. King county has a higher juvenile arrest rate for violent crimes than any of the "Counties Like Us" groups, and only five counties (Franklin, King, Yakima, Okanogan, and Snohomish) are above the state rate. Fifteen counties do not have enough juvenile violent crime arrests to calculate a reliable rate.

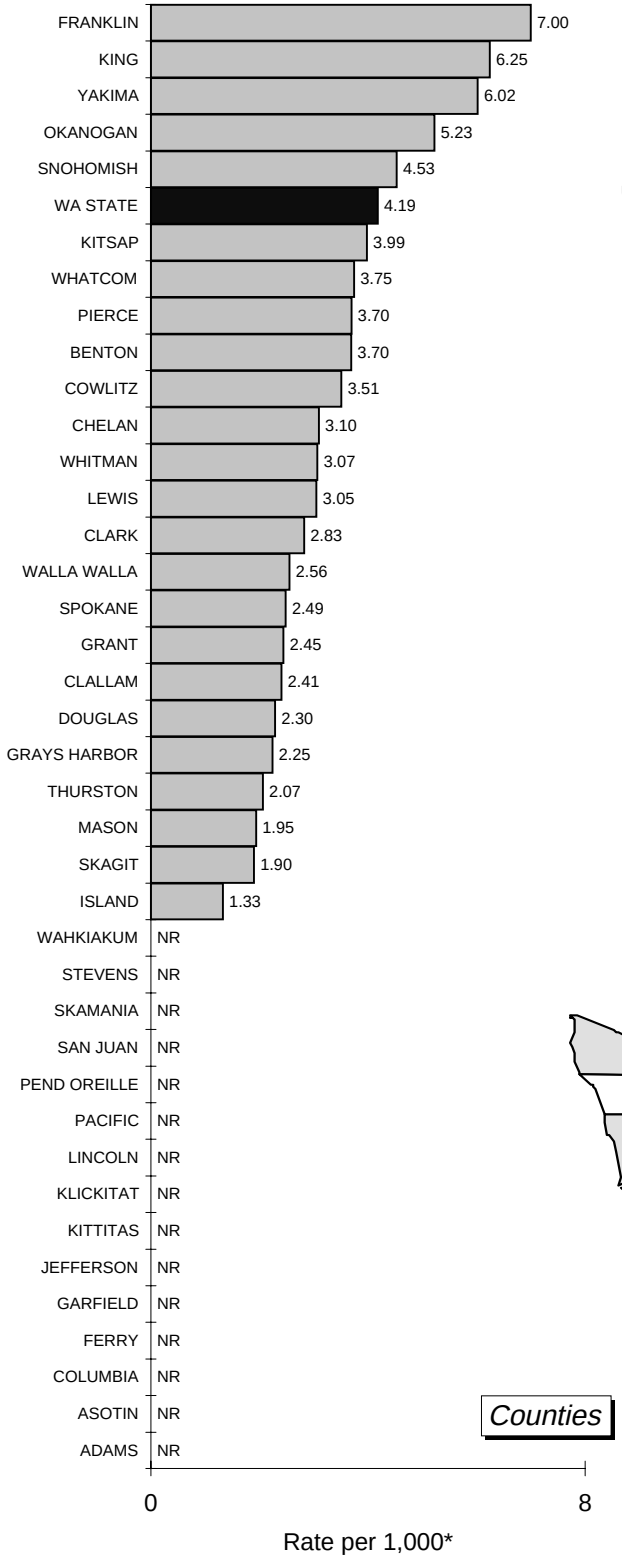
There is no obvious geographic pattern for juvenile arrests for property crimes. Only Wahkiakum does not have enough arrests to calculate a reliable rate. The highest arrest rate (Yakima) is five times the lowest arrest rate (Pend Oreille).

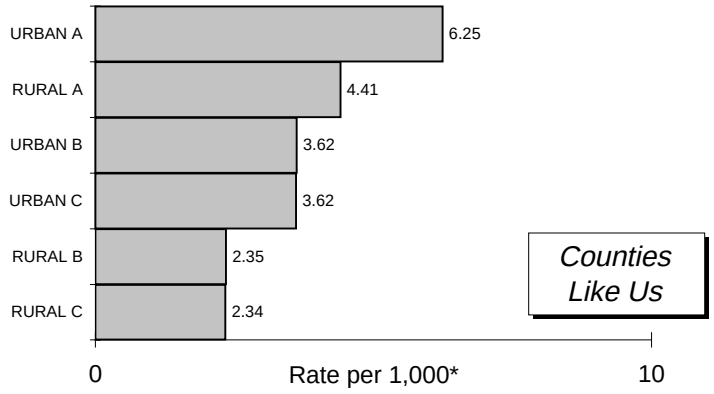
The rural "Counties Like Us" groups have higher juvenile arrest rates for curfew, loitering, vandalism, and disorderly conduct crimes than the urban counties. Yakima and Kitsap are urban counties with high arrest rates. Adams, Columbia, and Garfield have arrests rates that are three times the state rate, and Chelan also has a high rate.

There is no obvious geographic pattern for guilty adjudications of juveniles. The highest county (Benton) has a rate almost six times the county with the lowest rate (Whitman).

Most of the counties with juvenile diversion rates above the state rate are rural. Urban Benton County is an exception ranking second highest in the state.

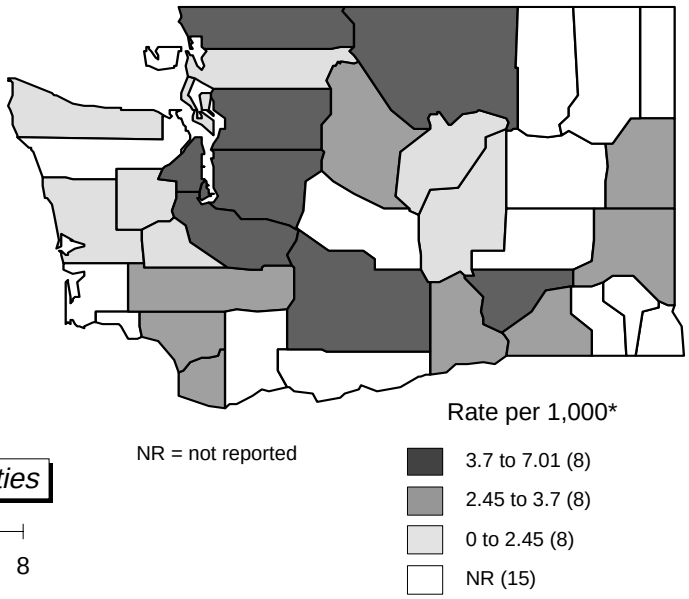
Additional Indicators: Delinquent and Criminal Problem Behavior





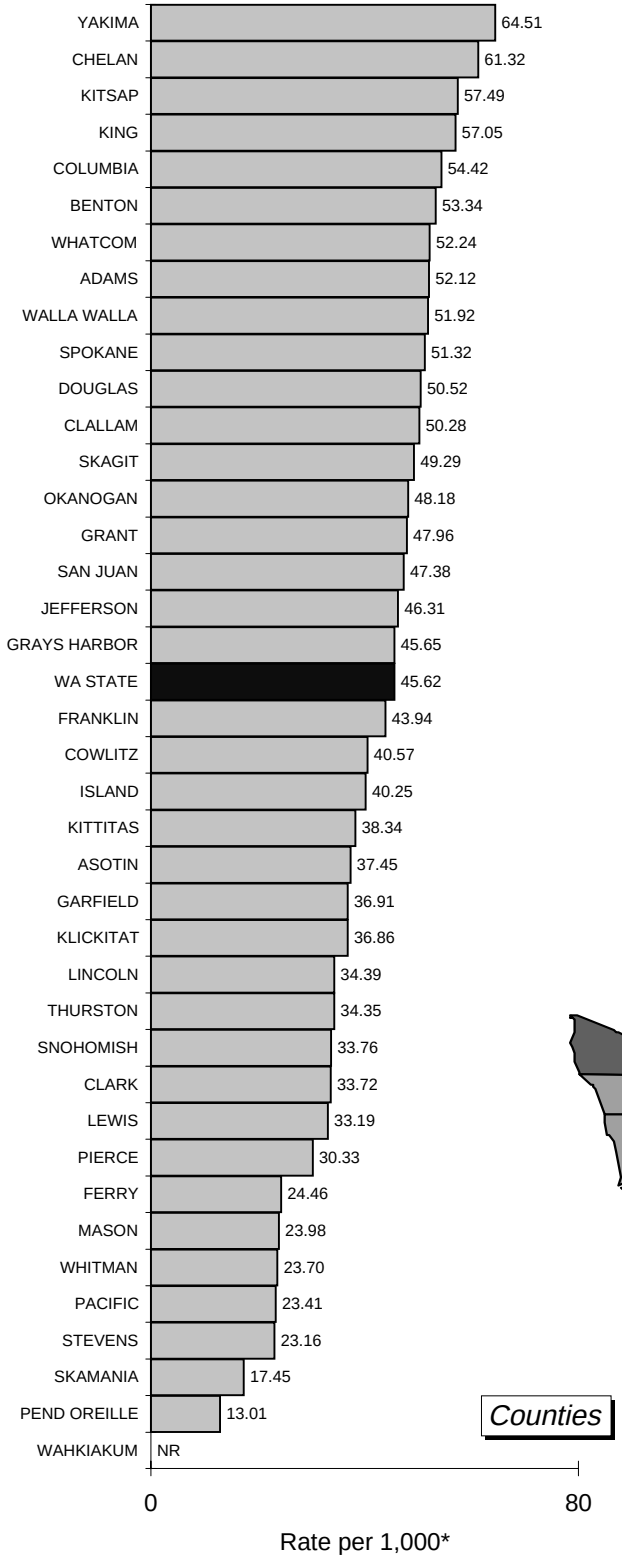
Indicator:

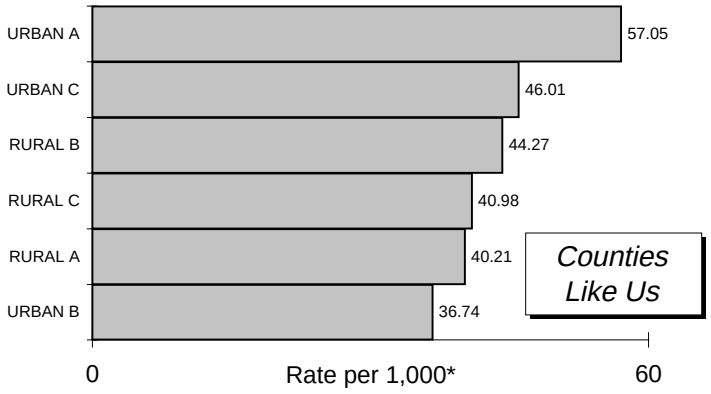
Juvenile (10-17) Arrests for Violent Crimes per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

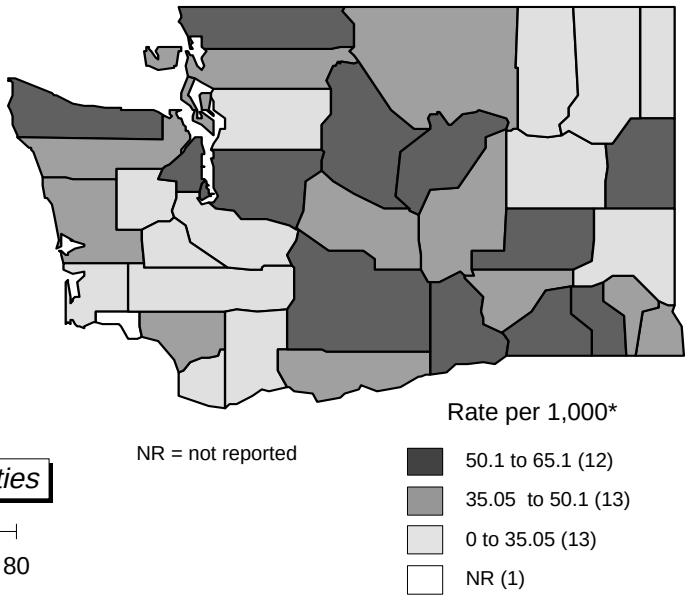
Additional Indicators: Delinquent and Criminal Problem Behavior





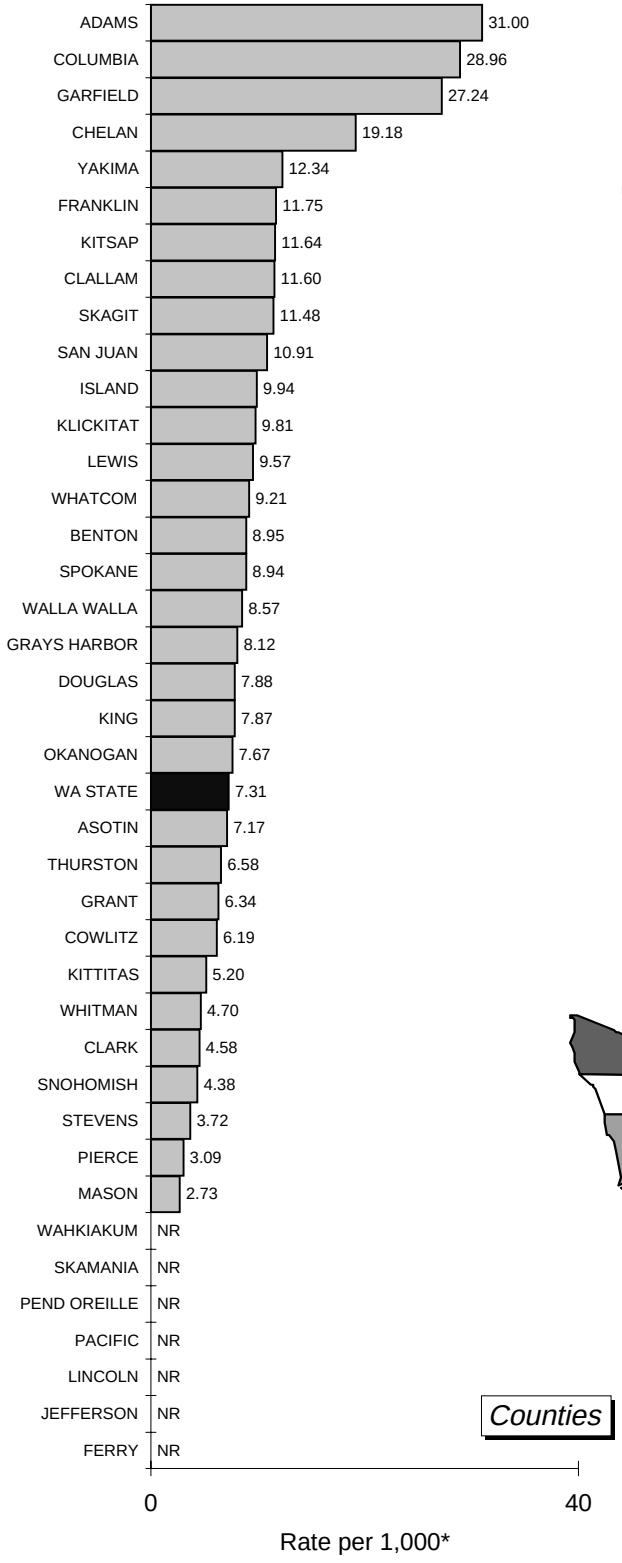
Indicator:

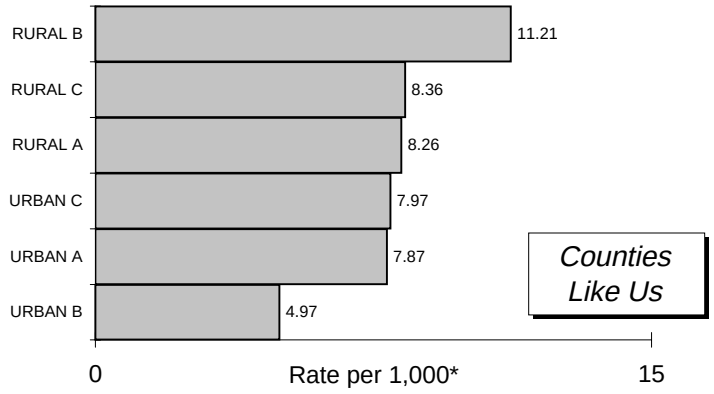
Juvenile (10-17) Arrests for Property Crimes per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

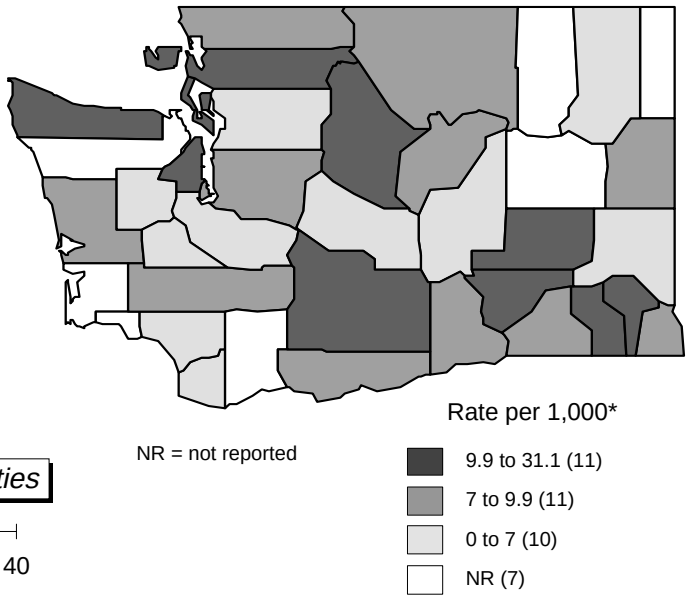
Additional Indicators: Delinquent and Criminal Problem Behavior





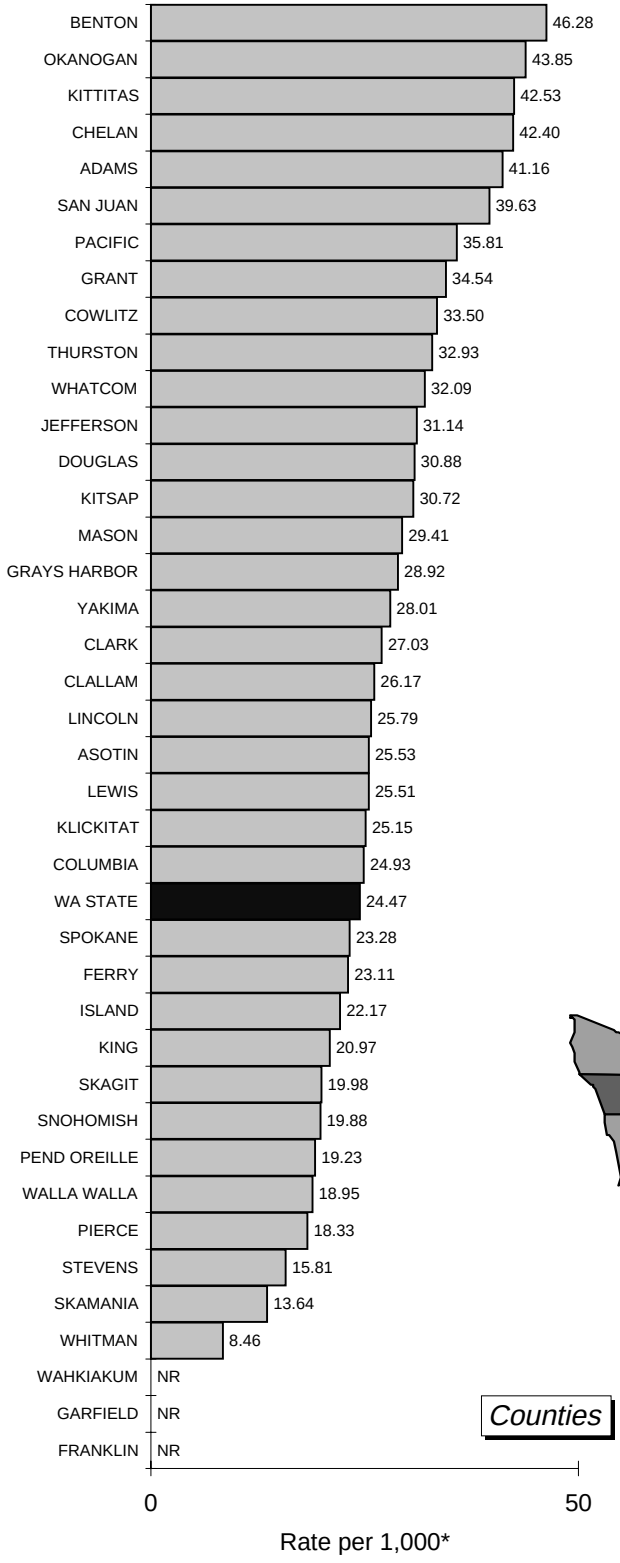
Indicator:

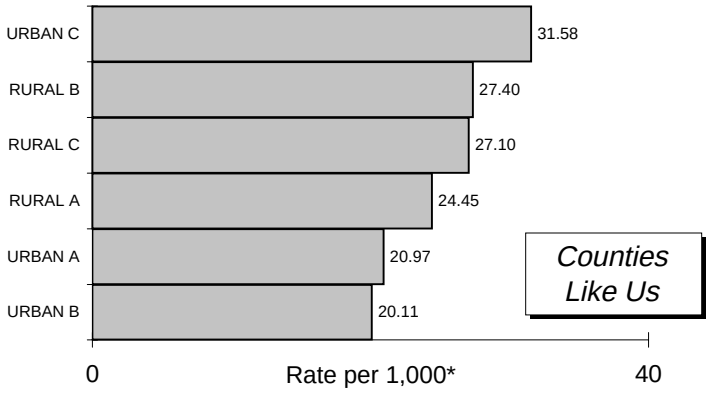
Juvenile (10-17) Arrests for Curfew, Loitering, Vandalism, and Disorderly Conduct per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1993.

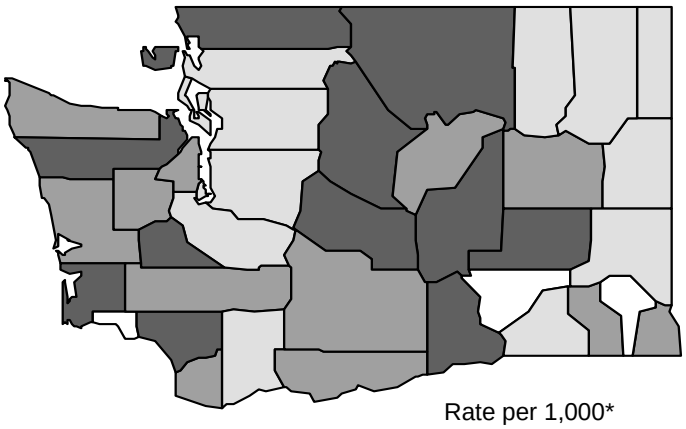
Additional Indicators: Delinquent and Criminal Problem Behavior





Indicator:

Guilty Adjudications of Juveniles (10-17) per 1,000 Juveniles



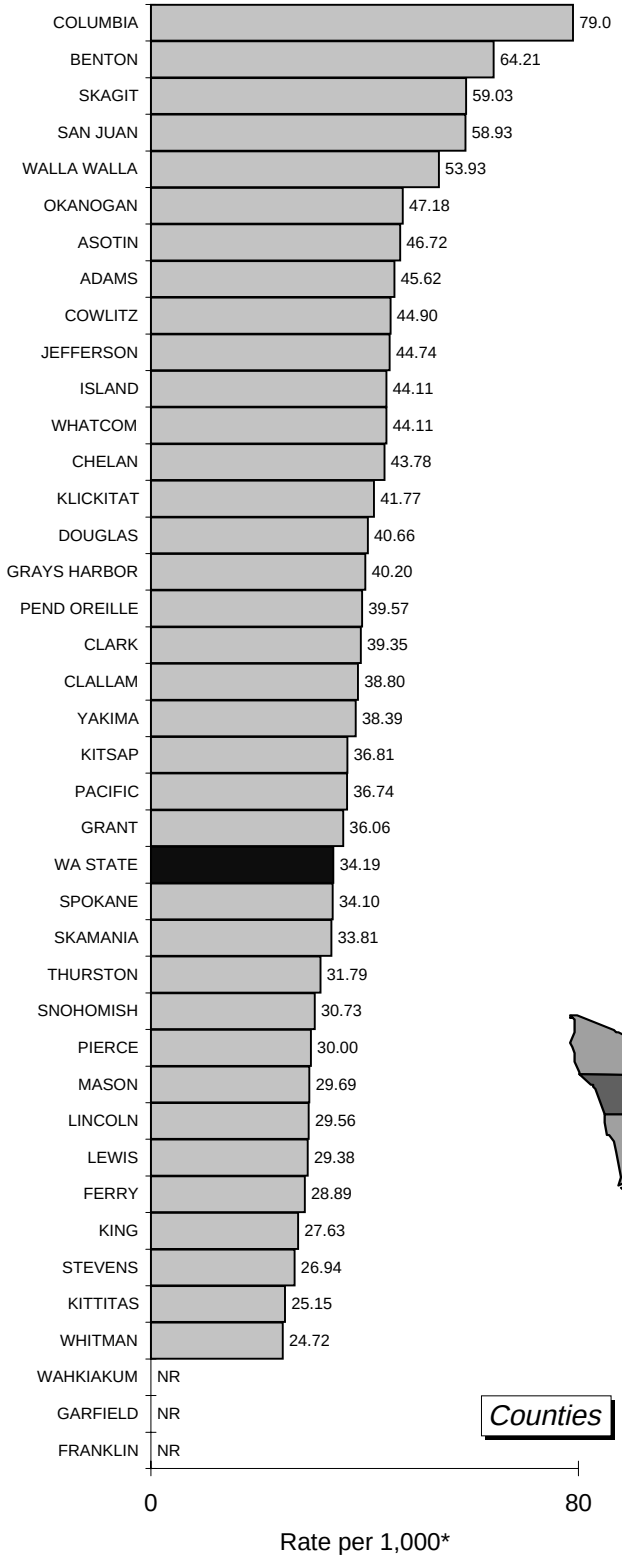
NR = not reported

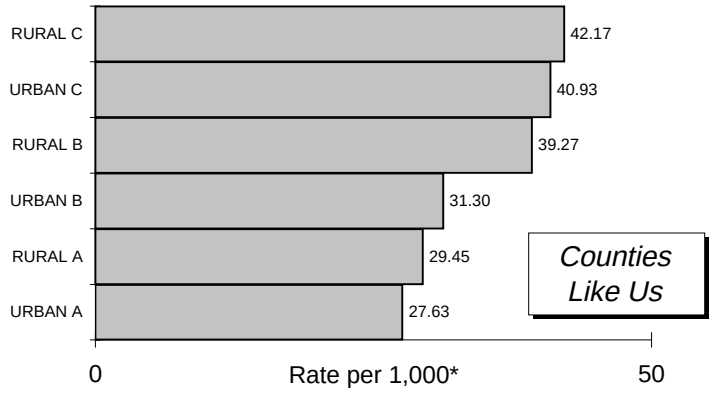
Rate per 1,000*

- 31.1 to 46.3 (12)
- 24.1 to 31.1 (12)
- 0 to 24.1 (12)
- NR (3)

NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1995.

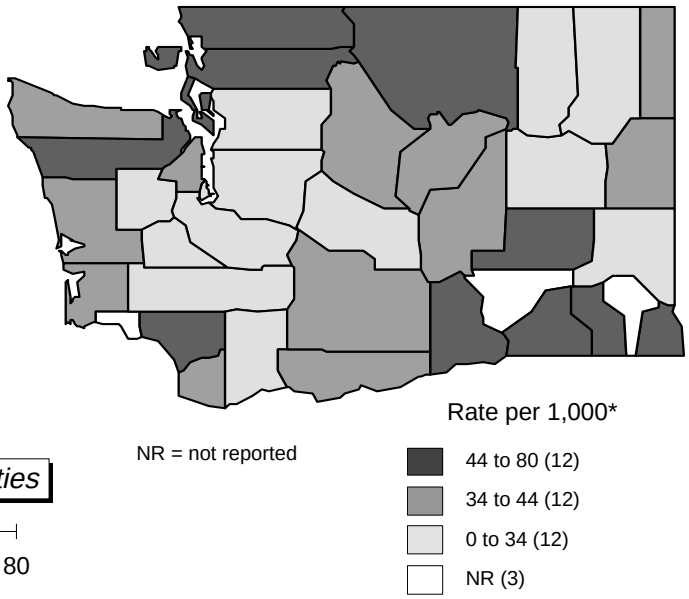
Additional Indicators: Delinquent and Criminal Problem Behavior





Indicator:

Juvenile (10-17) Diversions per 1,000 Juveniles



NOTE: See inside back cover for list of counties in "Counties Like Us" groups and for map with county names.
*Average rate for 1990 to 1995.

APPENDIX A1: STATE DATA SOURCES

WASHINGTON STATE AGENCIES

01 Department of Corrections, Offender Based Tracking System.

The Department of Corrections maintains the Offender Based Tracking System to manage information on offenders in state prisons. Prisoners are felons who have been convicted in a Washington State Superior Court. Most of the prisoners are adults although there are a few juveniles (less than two percent of prison admissions), most of whom were sentenced as adults. This report does not include data for juveniles in prison even if they were sentenced as adults.

The Offender Based Tracking System contains historical and current data at the individual level. Annual data are based on state fiscal year (i.e. data for state fiscal year 1995 are data for the year starting on July 1, 1994 and ending June 30, 1995). The record of each individual includes the county of conviction. The county of conviction is the county where the felon was sentenced. In the case of multiple crimes, the county of conviction is the county where the most serious crime was sentenced.

02 Department of Health, Center for Health Statistics, Vital Statistics Registration System (Death Certificate, Birth Certificate, and Divorce).

The Department of Health, Center for Health Statistics is mandated by the Revised Code of Washington to maintain the state registry of vital statistics. Vital statistics include birth, death, marriage, and divorce. The Vital Statistics Registration System includes historical and current individual level records for the state of Washington.

Birth Certificate: The information for Certificates of Live Birth is reported by midwives, birthing centers, hospitals, and birth attendants. In this report, each birth is assigned to a county based on the mother's zip code and county of residence as reported on the birth certificate. Washington participates in an interstate data exchange agreement which provides the Vital Statistics Registration System with data for Washington residents born in others states (i.e. if a mother lives in Washington, but goes to Oregon to have her baby, the baby is a Washington resident and the birth is allocated to a county based on the residence of the mother). Washington also receives data on Washington residents born in Canada.

Death Certificate: Physicians, medical examiners, and coroners certify the cause of death on Certificates of Death; the certificates are then filed by funeral directors. In this report, each death is assigned to a county based on the zip code and county of residence reported on the death certificate. The county of residence is not necessarily the county where the death occurred. Washington participates in an interstate data exchange agreement which provides the Vital Statistics Registration System with data for Washington residents who die in others states. Washington also receives data on Washington residents who die in Canada.

A single underlying cause of death is reported on every death certificate. The underlying cause of death is coded in accordance with the International

Classification of Diseases, Ninth Revision. See Appendix B for more information on how the underlying cause of death is used for the indicator AOD-related Death. For the indicator Adolescent Suicides and Suicide Attempts, the suicide data include all deaths where the underlying cause of death was coded as E950-E959. Data on attempted suicides come from the Comprehensive Hospital Abstract Reporting System (see source 03).

Divorce: Certificates of Dissolution, Declarations of Invalidity of Marriage, or Legal Separation are completed by the clerk of the court, the attorneys, or the petitioners; then the information on the certificate is forwarded by the clerk to the State Registrar. Unlike births and deaths, each divorce in this report is assigned to the county where the legal certificate was issued, not the county of residence. Also, there is no interstate data agreement for divorces, so Washington residents who get married in other states or in Canada are not included in the registry.

Lincoln County does not require Washington couples to appear in court for amicable divorces, which attracts many *absentee* divorces of couples living elsewhere in Washington. As a result, Lincoln County has an extremely high divorce rate.

The data in this report only include dissolutions and annulments. Legal separations (one to two percent of total dissolutions) are not included because they are not final dissolutions of marriages. In a few cases from 1992 to 1995, the decree type was unknown (only 19 for all four years). These cases were included in the data for this report. Some of the unknown decrees could be legal separations, but the impact of their inclusion is probably small for those years. In 1991, a large number of records were of unknown decrees. As a result, an estimated 300 to 400 legal separations (about one percent of total dissolutions) were included in the count of divorces across the state.

03 Department of Health, Office of Hospital and Patient Data Systems, Comprehensive Hospital Abstract Reporting System (CHARS).

The Department of Health, Office of Hospital and Patient Data Systems uses CHARS to keep track of patient discharges from nonfederal hospitals in Washington. CHARS also has records for Washington residents who were discharged from Oregon hospitals (except in 1992); records from other states and Canada are not included in CHARS.

CHARS only captures data for individuals who were admitted and later discharged from nonfederal hospitals. It does not include data on individuals who were treated in outpatient facilities or who were treated in an emergency room but never admitted to the hospital.

CHARS has both historical and current data at the individual level. Each CHARS record includes the patient's zip code and county of residence and describes the reason the patient was admitted to the hospital through diagnosis codes and external cause codes (E-codes). The codes are in accordance with the International Classification of Diseases, Ninth Revision -- Clinical Modification.

Attempted suicides are coded as E950-E959. Data on suicides come from the Vital Statistics Registration System (see source 02), not from CHARS.

04 Department of Health, Sexually Transmitted Disease (STD) Services.

The Department of Health, STD Services is mandated by the Revised Code of Washington to maintain the state registry of sexually transmitted diseases. Known cases are reported to STD Services by doctors, laboratories, clinics, hospitals, health departments, and family planning centers.

The database contains historical and current data at the individual level. Each record includes the zip code and county of residence of the individual.

05 Department of Licensing, Master License Service (data received from Department of Health, Division of Community and Family Health, Tobacco Prevention Program).

The Department of Licensing maintains the Master License Service to keep track of tobacco licenses issued by Washington State. Tobacco shops on reservations and military bases are not licensed by Washington State and therefore are not included in the database. The database is constantly updated; historical records are not saved.

The Department of Licensing sends the Department of Health monthly summaries of the number of tobacco licenses. The summaries contain data aggregated by county. A license is attributed to a county based on the location of the tobacco business. This report uses the monthly summaries for November. Using data for the same month each year provides comparable "snapshots" of tobacco licenses issued. November represents an average month in the year.

06 Department of Social and Health Services, Children's Administration, Administrative Services, Case And Management Information System (CAMIS).

The Department of Social and Health Services, Children's Administration, maintains CAMIS to manage data for Child Protective Services, Family Reconciliation Services, Child Welfare System, and case load information. The database contains historical and current data. Zip code and county of residence data are available for each child.

Mandated reporters, such as doctors, nurses, psychologists, pharmacists, teachers, child care providers, social service counselors, employees of the Department of Social and Health Services, and juvenile probation officers, are required by the Revised Code of Washington to notify Child Protective Services if they suspect a child is in danger of negligent treatment, physical abuse, sexual abuse, or other maltreatment. In addition, other concerned individuals may report suspected child abuse cases to Child Protective Services.

A report of suspected child abuse is a referral. If the information provided meets the sufficiency screen, the referral is accepted for intervention. Referrals are not accepted if the referral has no legal basis for complaint, the child cannot be located,

the child cannot be identified, or the perpetrator does not live with or care for the child (*third party* case). *Third party* cases are referred to the appropriate law enforcement agency.

A referral (or an accepted referral) may have one or more children identified as *victims*. The data in this report are based on the total number of victims reported in Child Protective Services referrals.

The data in this report only include information taken at the time of the referral. Information on intervention taken was not easily available. As a result, the proportion of the victims identified in accepted referrals that are actual victims of child abuse is unknown.

07 Department of Social and Health Services, Division of Alcohol and Substance Abuse, Client Tracking System, Treatment and Assessment Report Generation Tool (TARGET).

The Department of Social and Health Services, Division of Alcohol and Substance Abuse maintains TARGET to manage data on individuals admitted to state funded alcohol and other drug treatment programs. Admissions to both residential and outpatient programs are included. Individuals admitted to private alcohol and drug treatment programs are not included.

TARGET contains historical and current data at the individual level. The record of each individual includes the zip code of residence.

08 Department of Social and Health Services, Office of Research and Data Analysis, County Population Estimates (controlled to Office of Financial Management County Population Data).

The Department of Social and Health Services, Office of Research and Data Analysis developed yearly County Population Estimates to serve as denominators for rates. The Office of Research and Data Analysis purchased population estimates at the block group level for 1990, 1995, and 2000 from Claritas, a private firm that markets demographic data. These estimates were stratified by race, Hispanic ethnicity, gender, and single year of age. The Office of Financial Management has county-level population estimates for every year from 1990 to 1994 and state-level population forecasts for every year from 1995 through 2020. These estimates are reported by race and Hispanic ethnicity, gender, and single years of age for persons birth to 24 and five year age ranges for persons over 24. Both sets of estimates use the 1990 U.S. Census as a benchmark.

The Office of Research and Data Analysis estimated annual block group level populations by subgroup, using an interpolation process on the Claritas data, while controlling to the Office of Financial Management county and state level estimates. The annual block group population estimates are aggregated to county level estimates stratified by race, Hispanic ethnicity, gender, and single year of age. These estimates provide county-level population denominators for many different indicators.

09 Department of Social and Health Services, Office of Research and Data Analysis, Needs Assessment Database (NADB).

The Department of Social and Health Services, Office of Research and Data Analysis, maintains NADB to keep track of clients of the Department of Social and Health Services. The Office of Research and Data Analysis constructs NADB by combining extracts from 15 different Department of Social and Health Services automated administrative systems into a single client-centered database. Annual data are based on state fiscal year (i.e. data for state fiscal year 1995 are data for the year starting on July 1, 1994 and ending June 30, 1995).

Clients using more than one service in a state fiscal year are matched and unduplicated using automated rules. Therefore, each client and each service the client received are only recorded once.

Foster Care: The foster care data in NADB are extracted from the Social Service Payment Systems (SSPS). Each SSPS record includes data on the location of the field office involved with the child in foster care; the record does not include the residential zip code of the child. NADB uses an automated process to assign the child to a county based on the best geographic information available for that child. In addition to the field office, NADB examines records for all services the child received to determine the best geographic information. Records for services extracted from other databases may include residential zip code data.

In this report, foster care includes both short term crisis placements and longer-term placements with foster families. Some family placements with relatives are also included. No group care placements are included.

Division of Alcohol and Substance Abuse (DASA) Clients: Data on clients admitted to state funded alcohol and other drug (AOD) treatment programs were extracted from the Substance Abuse Management System (SAMS) for 1990, 1991, and 1992. The 1994 data were extracted from the Treatment and Assessment Report Generation Tool (TARGET, see source 7). In addition, data were also extracted from SSPS and from the Medicaid Management Information System for all four years. DASA clients include new admissions as well as clients admitted in an earlier year but still receiving services in the current year. In NADB, DASA clients include individuals receiving detoxification services, Alcohol and Drug Addiction Treatment and Support Act (ADATSA) Assessments, ADATSA Services, Residential Treatment, Outpatient Treatment, or Methadone Treatment . NADB data are rounded to the nearest five. Individuals admitted to private alcohol and drug treatment programs are not included.

10 Department of Social and Health Services, Office of Research and Data Analysis, Population Adjustments for Non-reporting Police Agencies.

The Department of Social and Health Services, Office of Research and Data Analysis, developed population adjustments to compensate for police agencies that did not report arrest data to the Washington Association of Sheriffs and Police Chiefs (see source 28). For each police agency that did not report in a specific year, a population estimate of the number of people served by that agency that

year was developed. Police departments serve municipalities (cities and towns) and county sheriff offices serve the unincorporated parts of counties and municipalities without police departments. The estimates of populations served were based on population data from the U.S. Census and from city, town, and county population estimates of the Office of Financial Management. Population estimates were created in age ranges that corresponded to the age ranges used in the arrest data.

The estimate of the population served for each non-reporting police agency was subtracted from the total population of the appropriate county and from the state population. If a police agency reported for part of a year (at least one month, but not 12 months), an appropriate portion of the population served by that agency was subtracted from the county and state populations. In other words, if a police agency reported three months of data, three-fourths of the population served by that agency would be subtracted from the county and state populations. One-fourth of the served population would remain in the new county and state populations because the agency reported for a quarter of the year.

11 Department of Social and Health Services, Office of Research and Data Analysis, Warrant Roll.

The Department of Social and Health Services uses the Warrant Roll to determine who is eligible for benefits (cash, medical coupons, food stamps) each month and to issue the benefits. The Office of Research and Data Analysis extracted data for the month of April from the Warrant Roll for this report. Although the number of benefits issued varies from month to month, April represents an average month in the year.

The Warrant Roll contains historical and current data at the individual level. The record of each individual includes a zip code of residence. In this report, individuals are unduplicated; each member of a family receiving welfare is counted separately.

There are two types of Aid to Families with Dependent Children (AFDC) grants, regular and employable. Clients who receive regular grants come from poor families with children under 18 (or between 18 and 19 and finishing high school) or low-income single women in the third trimester of pregnancy. The clients are either single-parent families or two-parent families where one parent is unemployable due to disability.

Clients who receive employable grants come from poor two-parent families with children under 18 (or between 18 and 19 and finishing high school) or from families with a woman in the third trimester of pregnancy, in which one or both parents are unemployed. At least one of the parents must have worked recently to qualify the family for this assistance.

In 1988, the Family Independence Program (FIP) was introduced to simplify the application process for AFDC; the program continued until 1993. FIP included both regular and employable grants. In this report, the indicator Children in AFDC includes regular and employable AFDC clients and regular and employable FIP clients where appropriate. Because FIP allowed people to participate in AFDC who

would not normally have participated and because the program was implemented in different regions at different times, caution should be used when comparing AFDC data over time or across space.

Clients who receive food assistance (Food Stamps and FIP food cash) are low-income individuals. Food stamps are coupons which can be redeemed for food. FIP grant recipients receive cash instead of coupons. In this report, both food stamps and FIP food cash, where appropriate, are included in the indicator Food Stamp Recipients.

Caution should be used when comparing food stamps data across time or across space. From 1988 to 1993, FIP may have increased the number of participants in food assistance. FIP did not change the eligibility criteria for food assistance, but the program may have encouraged people to participate who would not normally have participated. Also, FIP was implemented in different regions at different times.

Data in this report are different from data published in the *Blue Book* because the data in the *Blue Book* are from the Average Grant Reporting System, not from the Warrant Roll. The data from the Average Grant Reporting System include some corrections that are not available when the Warrant Roll is generated. This report uses Warrant Roll data because the Average Grant data do not include individual level detail at the level needed for the CORE-GIS.

12 Employment Security Department, Labor Market and Economic Analysis, Benefits Automated System (BAS).

The Employment Security Department uses BAS to determine who is eligible for benefits and the amount of benefits the applicant is eligible for. BAS contains information about several types of claims such as initial, continued, and exhausted. Both historical and current data are available at the claimant level. Annual data are based on state fiscal year (i.e. data for state fiscal year 1995 are data for the year starting on July 1, 1994 and ending June 30, 1995).

This report uses summarized data extracted from BAS. For each state fiscal year, people with exhausted unemployment benefits were allocated to counties based on residential zip codes. Thus, the county is the county of residence, not necessarily the county of employment.

Unemployed persons are age 16 and over, actively looking for work, currently available for work, and not working. In this report, exhausted refers to clients who have used up their unemployment benefits.

13 Employment Security Department, Labor Market and Economic Analysis, Local Area Unemployment Statistics (LAUS) Unit.

The Employment Security Department uses LAUS to develop estimates of total employment and unemployment by county. LAUS is based on data from a regular national survey of households supplemented by additional state data (for example, unemployment insurance claims and surveys of business establishments).

Unemployed persons are age 16 and over, actively looked for work, currently available for work, and not working. The civilian labor force includes persons ages 16 and over who are working or are actively looking for work (employed persons plus unemployed persons).

14 Liquor Control Board, *Report of Operations*.

The Liquor Control Board publishes summary data on retail alcohol licenses issued in the state of Washington in the *Report of Operations*. The data come from the financial system of the Liquor Control Board and are annual summaries based on the state fiscal year (i.e. data for state fiscal year 1995 are data for the year starting on July 1, 1994 and ending June 30, 1995). Historical records are not saved electronically. Each license is assigned to a county based on the location of the business. Retail alcohol facilities on reservations and military bases are not licensed by Washington State and, therefore, are not included in the data.

15 Office of the Administrator for the Courts, Juvenile Information System (JUVIS).

The Office of the Administrator for the Courts maintains JUVIS to manage information on juvenile offenders. JUVIS contains historical and current data at the individual level. The county of adjudication is recorded in JUVIS for each adjudication.

The data in this report is unduplicated by guilty adjudication incident. A single guilty adjudication can pertain to multiple crimes. In this report, a single guilty incident would be counted once regardless of how many crimes were involved. If a juvenile is adjudicated more than once during a year each guilty incident is counted separately.

This report includes adjudications for all juveniles (ages 0 to 17). However, the denominator for Guilty Adjudications of Juveniles is juveniles ages 10 to 17 because the vast majority of guilty adjudications are for juveniles ages 10 to 17.

16 Office of Superintendent of Public Instruction, Child Nutrition, Free and Reduced Price Eligibility.

The Office of Superintendent of Public Instruction, Child Nutrition, maintains records on Free and Reduced Price Eligibility for a federally funded program that provides free and reduced price lunches to students. Children are eligible for free lunches if their family income is at or below 130% of the federal poverty level or for reduced price lunches if their family income is at or below 185% of the federal poverty level. The data files contain counts of the number of students in public school who applied and were accepted for free and reduced price lunch by school district. Public school students who are accepted through letters of direct certification are also included. Annual data are based on the school year (i.e. 1995 data are data for the school year starting in the fall of 1995).

A few school districts do not participate in the federal free and reduced lunch program. In counties where school districts do not participate, low rates for the

indicator Free and Reduced Lunch Program may underestimate the eligibility rate of students in that county.

17 Office of Superintendent of Public Instruction, Information Services.

The Office of Superintendent of Public Instruction, Information Services maintains data on enrollment. In October, each school in Washington State submits enrollment data to the Office of Superintendent of Public Instruction. The data record the unduplicated number of students enrolled in each grade on the first of October. The data are available aggregated by school district. This report uses the public school October enrollment data. The annual data are based on the school year (i.e. 1995 data are data for the school year starting in the fall of 1995).

18 Office of Superintendent of Public Instruction, Information Services (in the future contact Washington State Board for Community & Technical Colleges).

This report received data on the number of people receiving their General Educational Development (GED) certificate from the Office of Superintendent of Public Instruction, Information Services, but in the future, all data inquires should be directed to the Washington State Board for Community & Technical Colleges.

The GED testing centers report data on individuals who qualify to receive GED certificates (passed five tests: writing, literature and arts, social studies, science, and math) to the Board for Community & Technical Colleges. The Board's database contains historical and current data at the individual level. The record of each individual includes a residential zip code.

19 Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment, Washington State Assessment Program.

The Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment maintains data for the Washington State Assessment Program. Each fall, the Washington State Assessment Program collects information about student achievement in fourth and eighth grade through the Comprehensive Tests of Basic Skills, 4th edition. Most students take the test although some students may not take it because of absence, enrollment in Special Education, limited English skills, or other special circumstances.

The database includes both current and historical data. The data for this report were provided aggregated by school district for each school year (i.e. 1995 data are data for the school year starting in the fall of 1995). Some school districts do not have any students enrolled in one or both grades. The *Battery* test includes the reading, language, and math subtests.

The state academic performance indicators measure the percent of Washington students whose *Battery* test scores were in the lowest 25% compared to the national norm group. The national norm group is designed to be representative of the nation. Thus, by definition, the national percentage of students scoring in the lowest 25% is 25%.

20 Office of Superintendent of Public Instruction with Department of Health and Department of Social and Health Services, *Washington State Survey of Adolescent Health Behaviors* (WSSAHB), December 1995 (school survey).

The 1995 WSSAHB, which has evolved since 1988, was the fourth biennial survey of health risk behaviors among Washington students. The contractor, RMC Research Corporation, worked with the Office of Superintendent of Public Instruction, the Department of Health, and the Department of Social and Health Services on the development and implementation of the survey. The University of Washington Social Development Research Group provided consultation on the risk and protective factor portion of the survey.

A random sample of schools, stratified by district size and region, was selected at each grade level to constitute a representative sample of students in grades 6, 8, 10, and 12. Some schools refused to participate in the survey. If a school refused to participate, a comparable school was asked to participate in its place. The survey was designed to produce estimates of risk and protective factors at the state and the regional level (see Chapter 3), not at the county or school district level. The students in the sixth grade participate in a shorter survey. They were excluded from this report because they did not receive all of the questions needed to develop the risk and protective factor measures.

21 Office of the Secretary of State, Elections Division, Certified Election Results.

The Office of the Secretary of State, Elections Division maintains data on Certified Election Results. Both historical and current data are available for the November Washington State General Elections. Data on registered voters and on votes cast are available aggregated by county.

22 Sentencing Guidelines Commission, Adult Felony Database. Data provided by the Washington State Sentencing Guidelines Commission. Analysis and interpretation of the data are the sole responsibility of the authors.

The Sentencing Guidelines Commission maintains the Adult Felony Database to monitor adult felony sentences. There are a few juveniles, most of whom were sentenced as adults, included in the Adult Felony Database. This report does not include juveniles in sentencing data even if they were sentenced as adults.

The Adult Felony Database contains historical and current data at the individual level. The record of each individual includes a county of conviction. The county of conviction is the county where the felon was sentenced.

23 State Patrol, Identification and Criminal History Section, Criminal History Database.

The State Patrol is mandated by the Revised Code of Washington (RCW) to manage a Criminal History Database. The database contains historical and current data at the individual level. Any adult arrested in Washington for a gross misdemeanor or a felony should be included in the database if the person was booked and fingerprinted. The State Patrol is not mandated to maintain data on

juveniles or data on individuals arrested for misdemeanors, but the database does include some of these type of records. Because the database does not include all juvenile arrests or all arrests for misdemeanors, juvenile arrests and arrests for misdemeanors are not included in this report. For some arrests in the database, the crime was identified, but the crime class (felony, gross misdemeanor, misdemeanor) was not. Most of these crimes are probably gross misdemeanors, so they are included in this report.

Each arrest record includes an arresting or booking agency. An agency can be a police department, which serves a municipality (city or town), or a county sheriff's department, which serves the unincorporated parts of a county and the municipalities without police departments. In some counties, the county sheriff's office is responsible for reporting all data to the State Patrol and is recorded as the booking agency regardless of where the initial arrest occurred. In other counties, each arresting agency forwards the data to the State Patrol and is recorded as the arresting agency. As a result, the data cannot be easily reported at geographic levels below the county, but data from arresting and booking agencies are easily aggregated to the county level.

If a crime is associated with domestic violence, then it is coded as a domestic violence crime in the Criminal History Database. In other words, a domestic violence-related assault is coded differently from an assault that is not related to domestic violence. Domestic violence is defined in the RCW and includes any violence by one family member against another family member. Family can include spouses, former spouses, parents who have a child in common regardless of their marital status, adults who live in the same household, and parents and children.

The Office of Research and Data Analysis unduplicated the data from the Washington State Patrol by "arrest incident." Thus, if a person appeared in the Criminal History Database more than once on a single day, the person was counted only once (one arrest incident). If a person was arrested on more than one day, then the person was counted each time (two or more arrest incidents).

24 State Patrol, Records Section, Accident Records Database (data received from Traffic Safety Commission, Traffic Records Data Center, *Traffic Collisions in Washington State: Data Summary and Highway Safety Problem Analysis*).

The Revised Code of Washington mandates that the State Patrol maintain an Accident Record Database which includes all collisions on public trafficways that result in an injury, death, or property damage over $500. Each accident record includes the city and county where the collision occurred. In this report, the fatalities are allocated to a county based on the location of the accident not the residence of the individuals involved.

Fatal accidents are a subset of all traffic accidents, and alcohol-related fatal accidents are a subset of fatal accidents. Alcohol-related fatalities include fatalities where a driver (not necessarily the victim) involved in the accident *had been drinking*, as determined by the officer on the scene. An individual does not have to be legally drunk (have a blood alcohol level of .10) to be counted as *had been*

drinking. The victim of a fatal accident may be a driver, a passenger, a pedestrian, or other non-motorist.

This report used data from *Traffic Collisions in Washington State: Data Summary and Highway Safety Problem Analysis*, a report published by the Traffic Safety Commission, Traffic Records Data Center. The report contains data on traffic fatalities and alcohol-related traffic fatalities summarized at the county level.

OTHER SOURCES

25 U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File (STF) 1A.

STF1A provides data and statistics based on the *short* form or the *100-percent* form of the 1990 U.S. Census. Questions on the *short* form were asked of all persons and housing units in the United States; the questions related to basic demographic and housing information (for example, race, age, marital status, housing value, or rent). STF1A data are available aggregated to the census block or the county level.

26 U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File (STF) 3A.

STF3A provides data and statistics based on the *long* form or the *sample* form of the 1990 U.S. Census. Questions on the *long* form were asked of a sample of the population and housing units. Additional questions provided more detail than the *short* form and pertained to income, occupation, and housing costs in addition to the basic demographic and housing information. The STF3A data are estimates of the actual figures that would have been obtained if all persons and housing units had responded to the *long* form. STF3A data are available aggregated to the census block group level.

27 U.S. Department of Commerce, Bureau of Economic Analysis, Economics and Statistics Administration, Regional Economic Measurement Division, Regional Economic Information System (REIS).

The Bureau of Economic Analysis publishes data on personal income and employment through the Regional Economic Information System. The data are available for the entire country and are updated annually. The data in this report were downloaded from a Regional Economic Information System site on the Internet.

The state level Per Capita Income data were updated by the Bureau of Economic Analysis since the publication of the *County Profiles on Risk and Protection for Substance Abuse Prevention Planning*, but the county level data have not been updated yet. As a result, the Per Capita Income data in the national and graph and in Appendix J are updated, but all other Per Capita Income data are as the previously reported.

28 Washington Association of Sheriffs and Police Chiefs (WASPC), Uniform Crime Reporting (UCR) Database and Seattle Police Department Annual UCR Data.

The UCR Program was initially developed to help the Federal Bureau of Investigation (FBI) collect national statistics on crime. Law enforcement agencies throughout the country voluntarily submit crime data to the FBI; the FBI provides instructions and report forms to ensure the data are recorded in a uniform manner. UCR data included data on offenses, arrests, homicides, and law enforcement officers killed or assaulted.

In Washington, law enforcement agencies voluntarily submit UCR data to WASPC. WASPC then forwards the data to the FBI. Law enforcement agencies include police departments for municipalities and county sheriff offices for unincorporated parts of counties and for municipalities without police departments. Most agencies that submit data, do so monthly; the Seattle Police Department submits annual summaries instead. Some agencies do not provide any data to WASPC or provide less than a full year's worth of data. Agency participation varies from year to year.

Non-reporting affects the data in this report. Numerators (the number of arrests) are not comparable across time because the police agencies that report within in a county may not be the same from year to year. In other words, if all the police agencies in a county report a full year of data in 1990, but one agency does not report any data in 1991, then the 1990 and the 1991 arrests cannot be compared because the 1991 arrests are missing the arrests of one agency.

In this report, the population denominators were adjusted to compensate for non-reporting. If a police agency did not report any data, then the population under the jurisdiction of that agency was removed from the denominators (see source 10) of both the county and the state. This adjustment makes it possible to compare the rates of arrests from year to year. Nevertheless, extreme caution should be used when interpreting the arrest data. Comparison of the rates from year to year assumes that the data of the reporting agencies are representative of the data for the county as a whole. If a large percentage of the population of a county is under the jurisdiction of non-reporting agencies, then the data of the reporting agencies may not be representative of the population of the entire county. Appendix I shows counties for which reported arrest rates were based on less than 80 percent of the population of the county.

Most reservations have tribal police departments. A few tribal police departments report to WASPC, but most do not. Some tribal police departments work closely with the sheriff's office and report data through the sheriff's office, but some do not. There was no easy way to determine which tribal police departments reported data indirectly (through another law enforcement agency) to WASPC from 1990 to 1993. As a result, the reservation population was subtracted from the denominator for any tribal police department that did not report to WASPC, except for the Puyallup Reservation. The vast majority of people who reside on the Puyallup Reservation are under the jurisdiction of local city and county police agencies, so they were not removed from the denominator. If a town on a reservation had its own police department that reported, but the tribal police did not report, the town was included

in the denominator, but the rest of the reservation was removed from the denominator.

If a person is arrested once for multiple crimes, only the most serious crime is counted for UCR data. If a person is arrested multiple times, each arrest is counted under the most serious crime for that arrest. If two or more people are arrested for one crime, each person is counted as an arrest. Arrest data are reported by the location of the arrest, not the residence of the person arrested. The arrest data are a measure of the number of people arrested; they are not a measure of the number of crimes committed or the number of charges lodged.

The Seattle Police Department does not report juvenile arrests for Driving Under the Influence (DUI). For the indicator Juvenile Arrests for Alcohol Violations, the Seattle juvenile population was removed from the denominator. The Seattle juvenile population was not removed from any other arrest denominators.

Arrests by the State Patrol cannot be allocated to counties. A significant percentage of Washington arrests for DUI (41 percent of adult DUI arrests) are reported by the State Patrol. The State Patrol DUI arrests are included in the state totals in this report, but they were not included in state totals in the previously released *County Profiles on Risk and Protection for Substance Abuse Prevention Planning* because all county comparisons to the state rate would appear too low. Therefore, three indicators (Adult Drunken Driving Arrests, Adult Alcohol-related Arrests, and Juvenile Arrests for Alcohol Violations) have different state rates reported in this report than in the county profile reports, mentioned above. The State Patrol does not report a significant percentage of Washington arrests for any other crime. Therefore, for all other crimes, any arrest made by the State Patrol is included in the state data in both reports.

29 Washington Center for Real Estate Research, Washington State University, *Washington State's Housing Market: A Supply/Demand Assessment*.

The Washington Center for Real Estate Research publishes *Washington State's Housing Market: A Supply/Demand Assessment* quarterly. The report contains data regarding home sales, housing affordability, residential building permits, and housing inventories aggregated by county.

The data on existing home sales are estimates of the number of homes that are being resold (i.e. new homes are not included). The data are based on information from multiple listing services, firms that monitor deeds, and local realtors associations. The Washington Center for Real Estate Research collects data on the number of residential building permits from the U.S. Department of Commerce, C-40 Reports. A separate building permit is issued for each unit in a multifamily complex (ex. each apartment in an apartment building). Thus, permits for large multifamily complexes can cause a huge swings in the number of residential building permits issued from year to year.

APPENDIX A2: NATIONAL DATA SOURCES

AA American Council on Education, The Center for Adult Learning and Educational Credentials, GED Testing Service, *Who Took the GED? GED 1989-1995 Statistical Report.*

The Center for Adult Learning and Education Credentials helps adults earn educational credit for the learning that they have acquired through life experience, workplace training, military service, and other educational experiences outside the classroom. One component of the Center is the GED Testing Service, which helps adults to get high school credentials.

The GED tests cover five academic areas: writing, social studies, science, literature and the arts, and mathematics. The tests were developed by committees of professional educators in each subject area under the direction of the GED Testing Service, but the standards for passing the GED tests are set by the individual states, provinces, and territories. The tests are administered in all 50 states, the U.S. territories, and 11 Canadian provinces. The national data in this report cover the 50 states and the District of Columbia.

BB National Association of Realtors (data received from Washington Center for Real Estate Research, Washington State University).

The National Association of Realtors (NAR) maintains data on existing home sales (i.e. resale of homes). NAR is composed of residential and commercial real estate professionals, who work as brokers, salespeople, property managers, appraisers, counselors, and other occupations related to real estate. The purpose of NAR is to aid in professional development, research, exchange of information, and interaction with the government.

CC U. S. Department of Agriculture, Food, Nutrition, & Consumer Service, Food & Consumer Service, Food & Consumer Service National Database (provided by the San Francisco office)

The Food and Consumer Service (FCS) administers the nutrition assistance programs of the U.S. Department of Agriculture. The programs are designed to provide needy people with access to a more nutritious diet, to improve the eating habits of the nation's children, and to stabilize farm prices through the distribution of surplus food.

The Food Stamp Program helps low-income families buy the food they need. The FCS administers the Food Stamp Program, and state and local welfare offices determine most administrative details regarding distribution of food benefits and eligibility of participants. The program operates in all 50 states, the District of Columbia, Guam, and the Virgin Islands. Puerto Rico, the Northern Marianas Islands, and American Samoa participate in a block grant program instead.

Eligibility for food stamps and the size of the allotments are based on household size, income, assets, and other factors. Participants receive coupons (or in

some states an Electronic Benefit Transfer System debit card) to buy food in approved food stores, which include most grocery stores. The coupons can be used like cash for any food or food product for human consumption, except lunch counter items or foods to be eaten in the store. They can also be used for seeds or plants for use in home gardens to produce food. They cannot be used for alcohol, tobacco, vitamins, medicine, pet food, or non-food items, and they cannot be exchanged for cash. Some restaurants are authorized to accept food stamps in exchange for low-cost meals for qualified homeless, elderly, or disabled people.

Participation in the Food Stamp Program generally peaks in periods of high unemployment, inflation, and recession. Both the national and the state data are for the month of April. Participation in the program may vary seasonally as well as annually. The data are counts of the number of people receiving food stamps; each member of a family is counted separately.

DD U. S. Department of Agriculture, Food, Nutrition, & Consumer Service, Food & Consumer Service, National School Lunch Program

The Food and Consumer Service (FCS) administers the nutrition assistance programs of the U.S. Department of Agriculture. The programs are designed to provide needy people with access to a more nutritious diet, to improve the eating habits of the nation's children, and to stabilize farm prices through the distribution of surplus food.

FCS operates several food assistance programs including the National School Lunch Program (NSLP), the School Breakfast Program, the Summer Food Service Program, and the Child and Adult Care Food Programs. FCS also provides nutrition education to the programs through the Nutrition Education and Training Program.

NSLP is a federally assisted meal program that operates in public schools, nonprofit schools, and residential child care institutions. FCS administers NSLP at the federal level, and in most states, the education agencies operate the program through agreements with local school districts. School districts and independent schools that choose to take part in the program receive cash reimbursement and donated commodity assistance from USDA for each meal served. The schools must offer free and reduced-price lunches to eligible children, and they must serve lunches that meet federal nutrition requirements. The program is available in almost 99 percent of all public schools and in many private schools.

Children from families with incomes at or below 130 percent of the poverty level (currently $29,280 for a family of four) are eligible for free meals. Those between 130 percent and 185 percent of the poverty level (currently $28,860 for a family of four) are eligible for reduced-price meals, for which students can be charged no more than 40 cents. Children in families with incomes over 185 percent of poverty pay full price, but their meals are subsidized to some extent. Local school food authorities set their own prices for full-price meals. Families must apply annually for eligibility.

FCS maintains NSLP data. The data used in this report were provided by FCS in response to a special request. Both the national and the state data are the number of children in public school whose applications have been accepted for participation in either the free or the reduced-price lunch program. Each child from an eligible family is counted separately.

EE U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File (STF) 1A.

STF1A provides data and statistics based on the *short* form or the *100-percent* form of the 1990 U.S. Census. Questions on the *short* form were asked of all persons and housing units in the United States; the questions related to basic demographic and housing information (for example, race, age, marital status, housing value, or rent). STF1A data are available aggregated to the census block or the county level.

FF U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File (STF) 3A.

STF3A provides data and statistics based on the *long* form or the *sample* form of the 1990 U.S. Census. Questions on the *long* form were asked of a sample of the population and housing units. Additional questions provided more detail than the *short* form and pertained to income, occupation, and housing costs in addition to the basic demographic and housing information. The STF3A data are estimates of the actual figures that would have been obtained if all persons and housing units had responded to the *long* form. STF3A data are available aggregated to the census block group level.

GG U.S. Department of Commerce, Bureau of the Census, Population Distribution Branch and Population Estimates Branch, Resident Population of the U.S. and States, by Single Year of Age and Sex: July 1st, Annual Estimates.

The U.S. Bureau of the Census produces population estimates for each year. The estimates are calculated using a *demographic components of change* model that incorporates information on natural change (births and deaths) and net migration (both domestic and international) that have occurred since the census count. The Bureau uses existing data series such as births, deaths, federal tax returns, Medicare enrollment, and immigration for the update.

This report uses the annual July 1st state resident population estimates. The resident population is the computed number of civilians and members of the Armed Forces who are living in the state as of July 1st. The data for each state are broken down by single year of age (except 85 and older are grouped) and by sex. This data series was flexible enough to produce all the national level population denominators in this report.

The resident population includes all 50 states and the District of Columbia. It excludes Puerto Rico, other areas under U.S. jurisdiction, and U.S. citizens

residing abroad. With each new issue of July 1 st estimates, the estimates for years back to the last census are revised, and previously released estimates are superseded. The data in this report were downloaded from the U.S. Bureau of the Census site on the Internet.

HH U.S. Department of Commerce, Bureau of the Census, Populations Division, Fertility and Family Statistics Branch, *Current Population Reports, Series P-20*.

As part of the November Current Population Survey (the Voting and Registration Supplement), the Bureau of the Census collects data on voting and registration in years with presidential or congressional elections (i.e. every other year). In general, surveys tend to overestimate both voter turn out and voter registration, but the Current Population Survey estimates are probably better than national estimates created by summing official state registration records. This is because of inconsistent practices in purging registration records. The Bureau of the Census calculates registration rates based on the total civilian non-institutional population of the United States, including non-citizens. The data in this report were downloaded from the U.S. Bureau of the Census site on the Internet.

II U.S. Department of Commerce, Bureau of the Census, Residential Construction Branch, C-40 Reports.

The Residential Construction Branch maintains data on the number of new housing units authorized by building permits. New housing units are units intended for occupancy on a housekeeping basis. They exclude mobile home units, hotels, motels, and group residential structures such as nursing homes and college dormitories. They include apartment buildings and apartment complexes. Nationally, less than five percent of all privately owned housing units are constructed in areas not requiring building permits.

Local building permit officials report data in response to a mailed survey, Form C-404, “Report of Privately-Owned Building or Zoning Permits Issued.” Permit offices serve municipalities, counties, townships, or other types of towns. Statistics are collected monthly and annually. Monthly statistics are based on a sample, but annual statistics are collected from all permit offices.

According to the Residential Construction Branch, current surveys indicate that construction is ultimately undertaken for all but a very small percentage of housing units authorized by building permits.

The data in this report were downloaded from the Bureau of the Census site on the Internet.

JJ U.S. Department of Commerce, Bureau of Economic Analysis, Economics and Statistics Administration, Regional Economic Measurement Division, Regional Economic Information System (REIS).

The U.S. Bureau of Economic Analysis publishes data on personal income and employment through the Regional Economic Information System. The data are available for the entire country and are updated annually. The data in this report were downloaded from a Regional Economic Information System site on the Internet.

KK U.S. Department of Health & Human Services, Administration for Children and Families.

The Aid to Families with Dependent Children (AFDC) program provides financial assistance to needy families. Both the federal and the state governments supply funds for AFDC. The federal government sets broad guidelines and program requirements, and the state governments determine program formulation, benefit determinations, and administration. All 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam participate in the AFDC program. In addition, American Samoa is authorized under the Family Support Act of 1988 to operate an AFDC program. The national data in this report are based on the 50 states and the District of Columbia and were provided by the Administration for Children and Families in response to a special request.

The national rates are average monthly rates for federal fiscal years, but the Washington rates are for the month of April. Some variation between the state and the federal rates may be due to seasonal variation.

LL U.S. Department of Health & Human Services, Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), ad hoc query of Compressed Mortality dataset through CDC WONDER and special request.

NCHS collects and publishes data on births, deaths, marriages, and divorces in the United States through the National Vital Statistics System. NCHS, Division of Vital Statistics obtains data on births and deaths from the state birth and death registration offices. The division also maintains data for the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. Since 1985, all 50 states and the District of Columbia have been sending data to NCHS through the Vital Statistics Cooperative Program.

NCHS recommends a standard death certificate. Although each registration area modifies the certificate to meet the area's needs, most certificates closely conform to the standard, and all certificates contain a minimum data set specified by NCHS. Demographic information such as race and ethnicity are provided by the funeral director based on information supplied by an informant. Medical certification of cause of death is provided by a physician, medical examiner, or coroner.

A single underlying cause of death is reported on every death certificate. The underlying cause of death is coded in accordance with the International Classification of Diseases, Ninth Revision. See Appendix B for more information on how the underlying cause of death is used for the indicator AOD-related Death. For the indicator Adolescent Suicides, the suicide data include all deaths where the underlying cause of death was coded as E950-E959.

The AOD-related Death data in this report were downloaded from the Internet. The CDC maintains a site on the World Wide Web called WONDER where ad hoc queries may be made on a number of datasets including the compressed mortality dataset.

The age ranges available through WONDER did not match the age range needed for the Adolescent Suicides data. As a result, the data were obtained through a special request to the National Center for Injury Prevention and Control of the CDC. The data are from the Mortality Data Tapes of NCHS.

All the mortality data in this report include the 50 states and the District of Columbia.

MM U.S. Department of Health & Human Services, Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, annual supplements: Advance Report of Final Divorce Statistics, 1989 and 1990, *Monthly Vital Statistics Report* and Births, Marriages, Divorces, and Deaths for 1991-1995, *Monthly Vital Statistics Report*.

NCHS collects and publishes data on births, deaths, marriages, and divorces in the United States through the National Vital Statistics System. NCHS, Division of Vital Statistics obtains data on divorce from state operated divorce registration systems.

Both national and state divorce data include divorces and reported annulments. The national data for 1991 through 1995 are provisional and include estimates for areas with incomplete reporting. The 1988 through 1990 national data are final.

NN U.S. Department of Health & Human Services, Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, annual supplement: Advance Report of Final Natality Statistics, *Monthly Vital Statistics Report*.

NCHS collects and publishes data on births, deaths, marriages, and divorces in the United States through the National Vital Statistics System. NCHS, Division of Vital Statistics obtains data on births and deaths from the state birth and death registration offices. The division also maintains data for the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. Since 1985, all 50 states and the District of Columbia have been sending data to NCHS through the Vital Statistics Cooperative Program.

NCHS recommends a standard birth certificate. Although each registration area modifies the certificate to meet the area's needs, most certificates closely conform to the standard, and all certificates contain a minimum data set specified by NCHS. Demographic information such as race and ethnicity are provided by the mother at the time of the birth. Medical and health information are based on hospital records.

The data in this report include the 50 states and the District of Columbia. The denominators for the national indicator Low Birthweight Babies Born only include live births where the weight of the baby is know. The denominator for the national indicator Drug Treatment During Pregnancy is the number of live births in the 37 states that report drug treatment data (see source PP). The numerator for the national indicator Birthrate Among Adolescents includes the number of live births to females ages 10-17.

OO U.S. Department of Health & Human Services, National Center on Child Abuse and Neglect, National Child Abuse and Neglect Data System (NCANDS), *Child Maltreatment 1991-1994: Reports from the States to the National Center on Child Abuse and Neglect* (data received from Walter R. McDonald & Associates, Inc.).

The National Center on Child Abuse and Neglect, in compliance with the amended Child Abuse Prevention and Treatment Act, coordinates the collection of national data on child abuse and neglect through NCANDS. NCANDS compiles information on abused and neglected children known to state child protective service agencies. The data system has two components, the Summary Data Component and the Detailed Case Data Component. The data in this report are from the Summary Data Component, which is a compilation of key aggregate indicators of child abuse and neglect statistics. The data collection instrument consists of 15 data items in four child maltreatment areas: report data, disposition data, victim data, and perpetrator data. The Detailed Case Data Component is a compilation of case-level data that allows for more detailed analysis than is possible with aggregated data.

In this report, the numerator for the national indicator is the duplicated number of children who were the subject of a report. The NCANDS phrase *subject of a report* is comparable to the Washington state phrase *victim in an accepted referral*. Some states may have provided unduplicated numbers in years prior to 1994, and some states may have provided estimates. As in the state data, the proportion of the subjects of reports that are actual victims of child abuse is unknown.

The data are for all 50 states and the District of Columbia. Data are available for the Armed Services, Guam, Puerto Rico, and the Virgin Islands but were not used in this report.

PP U.S. Department of Health & Human Services, The Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies, Treatment Episode Data Set (TEDS)

SAMHSA maintains TEDS as a repository for data on clients admitted to substance abuse treatment programs. The states submit demographic and drug history data on individuals admitted to primarily publicly-funded treatment programs. Publicly funded programs account for approximately half of all admissions to substance abuse treatment in the United States.

Each state that participates reports a minimum set of data on a regular basis. In addition, the states may report optional data items. The data in this report are based on 37 states which have complete reporting for all three years. The denominators for the indicators using treatment data were adjusted to the 37 states as well.

The rates and the numerators for the indicator Drug Treatment During Pregnancy may be low. Pregnancy status is an optional data item. For some individual records, it is not clear whether the item was skipped or whether the individual was not pregnant. No adjustment was made to compensate for this problem.

Extreme caution should be used when comparing data for Washington State to national data. Although TEDS contains primarily publicly funded treatment data, some states may include privately funded treatment. In addition, the eligibility criteria for publicly funded treatment may vary from state to state. Finally, the Washington data is unduplicated, but some states may report duplicated data to SAMHSA.

QQ U.S. Department of Justice, Bureau of Justice Statistics (BJS), Office of Justice Programs, *Bureau of Justice Statistics Bulletin, Felony Sentences in State Courts, 1988, 1990, 1992*.

States have different definitions of drug crimes and different classifications (felony, gross misdemeanor, misdemeanor) of drug crimes. In addition, state sentencing practices may vary. For example, a person convicted of a drug crime felony in Washington may be sentenced to prison or jail, but in some states, the person may be sentenced to straight probation with no jail or prison time to serve. As a result, it is difficult to collect comparable data.

The National Judicial Reporting Program (NJRP) is part of the attempt by BJS to provide national statistics on courts and adjudications. Every two years, NJRP surveys State felony trial courts in 300 counties and compiles detailed information on the sentences and characteristics of convicted felons. The survey is designed to provide national estimates. The first survey was conducted on a smaller scale in 1986.

NJRP samples 300 counties selected to be nationally representative. The survey only includes State courts that adjudicate felonies. Generally, felonies

are defined as crimes that have the potential of being punished by more than a year in prison. Specific felony offenses are defined in the State penal codes.

The types of drug offenses tried in State courts vary from state to state. NJRP includes offenses involving drug manufacturing, distributing, selling, smuggling or possessing with intent to sell under drug trafficking. NJRP includes the possession of an illegal drug without the intent to sell under drug possession. NJRP drug offense data combine drug trafficking and drug possession offenses.

RR U.S. Department of Justice, Bureau of Justice Statistics (BJS), Office of Justice Programs, *Correctional Populations in the United States, 1988-1994.*

BJS maintains data on the correctional system, including data on jail, prison, probation, parole, military corrections, and capital punishment.

BJS collects data using rules and reporting protocols that attempt to provide comparability over time without causing undo burden to the respondents. Nevertheless, some jurisdictions depart from the reporting conventions and some data definitions have changed over time, so caution should be used when comparing the data over time or space.

Generally, national admissions include prisoners sentenced to more than a year. This serves as a proxy measure for felony admissions to prison, because definitions and classifications of crimes are not uniform from state to state. In some states, jails and prisons are part of one correctional system, so the national data may include some admissions to jail.

The neither the Washington data nor the national data include admissions to federal prisons. The national numerators include new court commitments, returned parole or other conditional release violators, and returns from appeal or bond. Returned escapees, returned individuals who were absent without leave, transfers from other jurisdictions, and other admissions were not included in the national data. Some states provided estimates of admissions in each category.

SS U.S. Department of Justice, Federal Bureau of Investigation (FBI), Uniform Crime Reports (UCR), *Crime in the United States 1990-1993*.

The UCR Program was initially developed to help the FBI collect national statistics on crime. Law enforcement agencies throughout the country voluntarily submit crime data to the FBI; the FBI provides instructions and report forms to ensure the data are recorded in a uniform manner. UCR data included data on offenses, arrests, homicides, and law enforcement officers killed or assaulted.

Some police jurisdictions do not provide any data to the FBI or provide less than a full year's worth of data. The national arrest data used in this report only include data from police jurisdictions that reported for a full year. Agency

participation varies from year to year. Thus, numerators (the number of arrests) are not comparable across time.

In this report, the population denominators were adjusted to compensate for non-reporting (see source TT). The denominators only include the population under the jurisdiction of agencies that reported data to the FBI for a full year. This adjustment makes it possible to compare the rates of arrests from year to year.

If a person is arrested once for multiple crimes, only the most serious crime is counted for UCR data. If a person is arrested multiple times, each arrest is counted under the most serious crime for that arrest. If two or more people are arrested for one crime, each person is counted as an arrest. Arrest data are reported by the location of the arrest, not the residence of the person arrested. The arrest data are a measure of the number of people arrested; they are not a measure of the number of crimes committed or the number of charges lodged.

TT U.S. Department of Justice, Federal Bureau of Investigation (FBI), Uniform Crime Reports (UCR), *Crime in the United States 1990-1993* adapted by the Department of Social and Health Services, Office of Research and Data Analysis, National Population Estimates for Reporting Police Agencies.

The UCR annual report from the FBI (see source SS) includes an estimate of the population under the jurisdiction of police agencies that reported a full year of data. The estimate is for total (all ages) population. The Department of Social and Health Services, Office of Research and Data Analysis used national population data from the U.S. Bureau of the Census (see source GG) to develop population estimates in age ranges that corresponded to the age ranges used in the arrest data.

The Office of Research and Data Analysis calculated the percent of the national population in each age range, and then applied the resulting percents to the FBI total reporting population estimates. This procedure assumes that the age distribution of the population under the jurisdiction of the non-reporting police agencies is similar to that of the population under the jurisdiction of the reporting police agencies.

If a police agency reported for part of a year (at least one month, but not 12 months), the reported arrests were not included in the national data and therefore the population under the jurisdiction of that agency were not included in the denominator. In other words, no adjustment was necessary for partial reporting.

UU U.S. Department of Labor, Bureau of Labor Statistics, Division of Labor Force Statistics, Current Population Survey (data received from Employment Security Department, Labor Market and Economic Analysis).

Each month, the Bureau of Labor Statistics conducts a sample survey called the Current Population Survey to measure the extent of unemployment in the country. The survey has been conducted every month since 1940 when it

began as a Work Projects Administration project. The survey has been expanded and modified several times and was dramatically redesigned in 1994. According to the Bureau of Labor Statistics, unemployment statistics are intended to provide counts of unused, available labor resources; they are not measures of the number of persons who are suffering economic hardship.

The Current Population Survey samples about 60,000 households and is designed to be representative of the entire population of the United States. The interviewed households represent about one in every 1,600 households in the country. The Bureau of the Census designs and selects a sample to represent each state and the District of Columbia. The state-based design reflects urban and rural areas, different types of industrial and farming areas, and the major geographic divisions of each state.

The data in this report are the annual average of the seasonally adjusted unemployment and civilian labor force data.

Unemployed persons are age 16 and over, actively looked for work, currently available for work, and not working. The civilian labor force includes persons ages 16 and over who are working or are actively looking for work (employed persons plus unemployed persons). Persons in institutions such as prisons or mental hospitals or on active duty in the Armed Forces are not counted in the labor force.

VV U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service (data received from Employment Security Department, Labor Market and Economic Analysis).

The Federal-State unemployment insurance system was initiated by the Social Security Act of 1935. The system is designed to provide benefits to most workers out of work due to no fault of their own for periods between jobs; the payments ensure that a significant proportion of the necessities of life (food, shelter, and clothing) can be obtained during the search for work. Almost all wage and salary workers are covered by the system.

In most states, the system is financed by a payroll tax on employers. State agencies, usually Employment Security, take applications and administer payments. Originally most states paid benefits for a maximum of 13 to 16 weeks; now most states pay a maximum of 26 weeks and a few pay for longer. Clients who have used up their full entitlement of regular unemployment insurance benefits are exhaustees. In periods of very high unemployment in individual states, benefits are paid for an additional 13 to 39 weeks. The extend periods are funded by both state and federal sources.

The state Employment Security departments supply weekly data to the Employment and Training Administration.

WW U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, Fatal Accident Reporting System (FARS), special request.

The FARS data system was conceived, designed, and developed by the National Center for Statistics and Analysis to assist in identifying traffic safety problems, developing and implementing vehicle and driver counter measures, and evaluating motor vehicle safety standards and highway safety initiatives. FARS was established in 1975 and contains data on all fatal traffic crashes within the 50 states, the District of Columbia, and Puerto Rico. The national data in this report include the 50 states and the District of Columbia only.

The National Center for Statistics and Analysis has a contract with an agency in each state to provide information on fatal crashes. FARS analysts are state employees who extract information from the state's source documents and put it in a standard format. Each fatal accident has more than 100 coded data elements that characterize the crash, the vehicles, and the people involved. To be included in FARS, a crash must involve a motor vehicle traveling on a traffic way customarily open to the public and result in the death of a vehicle occupant or a non-motorist (such as a pedestrian) within 30 days of the crash.

Each fatal accident record contains information on driver and non-occupant blood alcohol levels. FARS defines a fatal crash as alcohol-related if either a driver or a non-motorist (usually a pedestrian) had a measurable or estimated blood alcohol concentration of .01 or more grams per deciliter, but in this report, a fatal crash is defined as alcohol-related only if a driver had a measurable or estimated blood alcohol concentration of .01 or higher. A driver did not have to be legally drunk (have a blood alcohol level of .10) to be counted as alcohol-related.

XX State of Oregon and Department of Education, *The 1994 Oregon Public School Drug Use Survey*, December 1995 (school survey).

The 1994 Oregon Public School Drug Use Survey, which has evolved since 1986, was the fifth biennial survey of substance abuse-related behavior among Oregon students. The contractor, Northwest Professional Consortium, worked with the Oregon Office of Alcohol and Drug Abuse Programs and the Oregon Department of Education on the development and implementation of the survey. The University of Washington Social Development Research Group provided consultation on the risk and protective factor portion of the survey.

A random sample of schools, stratified by district size and region, was selected at each grade level to constitute a representative sample of students in grades 6, 8, 10, and 12. Some schools refused to participate in the survey. If a school refused to participate, a comparable school was asked to participate in its place. The survey was designed to produce estimates of risk and protective factors at the state and the regional level, not at the county or school district level. They were excluded from this report because they did not receive all of the questions needed to develop the risk and protective factor measures.

APPENDIX B: COUNTING AOD-RELATED DEATHS

Alcohol- or drug-related deaths are identified by matching the underlying cause of death from death certificate records to a list of causes that are considered AOD-related. The deaths identified as AOD-related then may be summed to provide county and state totals. Dividing the total AOD-related deaths by all deaths in a county or state gives the percent of all deaths that are alcohol and drug related.

Lists of underlying causes of death that are AOD-related have been developed in several studies (see first three in list below). AOD-related deaths used in this report are determined using a comprehensive assembly of disease, accident, and injury codes identified in those studies. The codes are based upon the *International Classification of Diseases*, Ninth Revision (ICD-9).

The identified AOD-related causes of death may be either fully attributable or sometimes attributable to alcohol or drugs. Some underlying causes of death are explicit in their mention of alcohol or drugs. Examples include alcoholic cirrhosis of the liver (ICD-9 code 571.2), alcohol and drug dependence syndromes (ICD-9 codes 303 and 304, respectively), and drug poisonings (ICD-9 codes E850 through E859). All deaths of this sort are fully, or 100%, attributable to alcohol or drug abuse and are considered AOD-related deaths.

Other underlying causes of death are related only sometimes to alcohol or drugs. For example, epidemiological studies have shown that, among persons over 35 years of age, 60% of deaths due to chronic pancreatitis (ICD-9 code 577.1) and 75% of malignant neoplasms of the esophagus (ICD-9 code 150) are alcohol-related. For persons of all ages, 42% of motor vehicle traffic and nontraffic deaths (ICD-9 codes E810 through E825) are alcohol-related. The appropriate percentage of such indirectly attributable deaths are also counted toward totals for AOD-related deaths.

Table B-1 on the following page characterizes the different diseases, injuries, and accidents by: name, ICD-9 code, percent attributable to alcohol or drugs, age of inclusion, percent of all AOD-related deaths, and source of information. Information sources are listed according to the numbers given below.

1. Schultz J, Rice D, & Parker D. 1990. Alcohol-related mortality and years of potential life lost - United States, 1987. *Morbidity and Mortality Weekly Report*, 39, 173-178.

2. Rice D, et al. 1990. *The Economic Costs of Alcohol and Drug Abuse and Mental Illness: 1985*. Report submitted to the Office of Financing and Coverage Policy of the Alcohol, Drug Abuse, and mental health Administration, U.S. Department of Health and Human Services. San Francisco, CA: Institute for Health and Aging, University of California.

3. Fox K, Merrill J, Chang H, & Califano J. 1995. Estimating the Costs of Substance Abuse to the Medicaid Hospital Care Program. *American Journal of Public Health*, 85(1), 48-54.

4. Seattle-King County HIV/AIDS Epidemiology Unit and Washington State Office of HIV/AIDS Epidemiology and Evaluation. 1994. *Washington State/Seattle-King County HIV/AIDS Epidemiology Report (2nd Quarter, 1994)*, p. 4.

Table B-1. Categories and Criteria for Calculating Alcohol and Drug-related Deaths

Disease Category	ICD-9 Code	Percent of Deaths Attributable to AOD	Age of Inclusion	Percent of All AOD Deaths 1990-1994	Source
Diseases directly attributable to alcohol					
Alcoholic psychoses	291	100%	>=15	0.56%	1
Alcohol dependence syndrome	303	100%	>=15	4.08%	1
Alcoholic polyneuropathy	357.5	100%	>=15	0.01%	1
Alcoholic cardiomyopathy	425.5	100%	>=15	0.96%	1
Alcoholic gastritis	535.3	100%	>=15	0.11%	1
Alcoholic fatty liver	571.0	100%	>=15	0.61%	1
Acute alcoholic hepatitis	571.1	100%	>=15	1.13%	1
Alcoholic cirrhosis of the liver	571.2	100%	>=15	9.14%	1
Alcoholic liver damage, unspecified	571.3	100%	>=15	2.61%	1
Excessive blood level of alcohol	790.3	100%	>=15	0.00%	1
Accidental poisoning by alcohol	E860.1, E860.2, E860.8, E860.9	100%	>=15	0.20%	3
Diseases indirectly attributable to alcohol					
Neoplasms					
Breast	174.0-174.9, 233.0	13% F	>=35	4.81%	3
Esophagus	150.1-150.9, 230.1	75%	>=35	7.28%	1
Larynx	161.0-.161.9, 231.0	50% M, 40% F	>=35	1.23%	1
Lip, oral cavity, pharynx	140.1-141.9,143.0-149.9,230.0	50% M, 40% F	>=35	3.06%	1
Liver	155.0-155.2, 230.8	29%	>=35	2.39%	3
Cardiovascular					
Cardiomyopathy	425.1, 425.4, 425.9	40% M	>=35	4.12%	3
Hypertension	401.0-404.9, 642.0, 642.2, 642.9	11%	>=35	2.77%	3
Digestive System					
Cirrhosis	571.5	74%	>=35	4.71%	1
Duodenal Ulcers	532.0-532.9	10%	>=35	0.17%	1
Pancreatitis, acute	577.0	47%	>=35	0.72%	1
Pancreatitis, chronic	577.1, 577.2, 577.9	72%	>=35	0.19%	1
Other					
Epilepsy	345.1, 345.3, 345.9	30%	>=15	0.45%	3
Seizures	780.3	41%	>=15	0.12%	3
Tuberculosis	011-013, 017, 018	25%	>=15	0.16%	3
Other (Schultz, Rice, & Parker 1990)					
Motor vehicle traffic and non-traffic accidents	E810-E825	42%	>=0	15.58%	1
Pedal cycle and other road vehicle accidents	E826, E829	20%	>=0	0.02%	1
Water transport accidents	E830-E838	20%	>=0	0.35%	1
Air & space transport accidents	E840-E845	16%	>=0	0.27%	1
Accidental falls	E880-E888	35%	>=15	4.89%	1
Accidents caused by fire and flames	E890-E899	45%	>=0	1.20%	1
Accidental drowning and submersion	E910	38%	>=0	1.55%	1
Suicide and self-inflicted injury	E950-E959	28%	>=15	9.45%	1
Homicide & other purposely inflicted injury	E960-E969	46%	>=15	5.65%	1
Other	E901, E911, E917-E920, E922, E980	25%	>=15	1.48%	1
Diseases directly attributable to drugs					
Drug psychoses	292	100%	>=15	0.00%	2
Drug dependence syndrome	304	100%	>=15	0.11%	2
Polyneuropathy due to drugs	357.6	100%	>=15	0.00%	3
Drug dependence during pregnancy	648.3	100%	>=15	0.00%	3
Suspected damage to fetus from drugs	655.5	100%	>=15	0.00%	3
Noxious influences affecting fetus	760.7	100%	>=15	0.01%	3
Drug reactions, intox., withdrawal specific to newborn	779.4, 779.5	100%	>=15	0.00%	3
Selected drug poisonings	962, 965,967-971, 977	100%	>=15	0.00%	3
Selected accidental drug poisonings	E850-854, E858.0, E858.8, E858.9	100%	>=15	5.56%	3
Diseases indirectly attributable to drugs					
AIDS (from IV drug use exposure)	042.0-044.9	5%	>=15	1.13%	4
Cardiovascular					
Endocarditis	421.0, 421.9	75%	>=15	0.52%	3
Other					
Hepatitis A	70.1	12%	>=15	0.01%	3
Hepatitis B	70.2, 70.3	36%	>=15	0.46%	3
Hepatitis C	70.5, 70.9	10%	>=15	0.17%	3

APPENDIX C: PLANNING FOR PREVENTION USING RISK AND PROTECTION

Key Principles of Risk and Protection-Focused Prevention Planning

Several important and interrelated principles of risk and protection need to be understood in planning prevention strategies. They are:

The more risk factors, the greater the risk.

Exposure to more risk factors increases the likelihood of abuse exponentially (Newcomb et al., 1986). Therefore, it is critical to design coordinated prevention efforts aimed both at reducing risk (where possible) and providing protection as a buffer (especially for risks which cannot be reduced). Multiple risks require coordinated, multiple strategies.

Target coordinated prevention to those at highest risk.

Because of the exponential increase in risk as risk factors increase, directing coordinated prevention to young people exposed to multiple risk factors is critical to the success of any prevention strategy. For some interventions (such as school-based curriculums or efforts to reduce local availability), geographic targeting works best. For others (such as visiting nurses in high-risk families) it may be more cost-effective to target high-risk families or individuals.

Risk factors exist in multiple environmental domains. Therefore, prevention strategies should attempt to take all domains into account.

Because young people live in multiple environmental domains and are affected by risk and protection in all of them, it is important to explore all domains before deciding where to invest in prevention. It is unlikely that investing only in one domain (e.g., concentrating only on families or only on schools or only on peer strategies) will be as effective as a coordinated, inter-domain approach.

The relative importance of risk and protective factors varies with age and stage of development.

Effective prevention strategies pay attention to the risk and protection factors which are important at the age and stage of development of the targeted persons. For example, tutoring or classroom intervention programs may be indicated for children who are having conduct and behavior problems in early elementary school, but that would probably be too early to begin a “drug resistance” curriculum.

Common risk factors predict diverse behavior problems.

While this report concentrates upon substance abuse risk, it should be understood that a number of adolescent problem behaviors are predicted by the presence of common risk factors. When one of those risk factors is reduced, it will affect a number of different problem behaviors. In a similar manner, common risk factors occur in cardiovascular disease reduction. Reducing one risk factor, such as smoking, decreases the risks for lung, throat and mouth cancer and emphysema, as well as heart disease.

Protective factors buffer exposure to risk. Therefore, prevention efforts should enhance protection among those exposed to greatest risk

The importance of protective factors cannot be overstated. Because many of the young people at greatest risk live in multiple high-risk environments, the process of reducing their risk may seem overpowering. However, strengthening protection in more than one sphere provides a way to work with those young people immediately, without feeling that the seemingly insoluble interconnected risks in the environment must first be overcome.

Effective prevention programs must be "culturally competent." However, risk and protective factors operate similarly in persons of different races, cultures and classes.

It appears that risk and protective factors operate similarly in persons of differing classes, races and cultures. However, levels of risk factors, ideas about appropriate parent-child behavior, reasonable expectations of citizenship, and attitudes towards middle-class "success" vary across social and cultural groups. Therefore, any prevention strategy needs to be developed and implemented in a culturally competent manner if it is to be effective across groups.

Commonly Used Prevention Approaches and Their Effectiveness

The National Structured Evaluation (NSE) Study of Prevention reviewed 1,642 prevention study reports and evaluated 309 that met requirements for scientific rigor.

There are many substance abuse prevention interventions being developed, used and (sometimes) evaluated. The National Structured Evaluation (NSE) study, a recent Congressionally mandated prevention evaluation study (Emshoff, 1996), reviewed 1,642 prevention study reports which had "sufficient detail to permit initial coding of activities, population served, and implementation characteristics. However … only 309 of those initiatives provided sufficiently rigorous evaluation reports to meet the NSE's analytical requirements" (pages 2-3)

The NSE researchers used a cluster analysis to derive seven often-used prevention approaches from combinations of the 1,642 interventions in their database, and used the 309 programs with rigorous evaluations to review the effectiveness of each approach across three dimensions: changes in AOD attitudes, changes in AOD outcomes, and changes in risk and protective factors.

The approaches described in the NSE are probably familiar to most persons active in substance abuse prevention. Brief descriptions and the overall assessments of effectiveness are shown in Table 2 on the following page.

Table 2: Common Prevention Approaches and Their Effectiveness Ratings (NSE)

Prevention Approach	*Targeted Population & Duration*	*AOD Knowledge & Attitudes*	*AOD Behavior*	*Risk & Protective Factors*
Positive Decision-making (149 examples). *Didactic AOD education.* *Personal skill development.*	Schools. Semester or less.	Child 2.9 Teen 3.3 Adult 2.9	Adult 2.9	Adult 3.0
Safety/Health Skills (15 examples): *General safety or health education.* *Didactic AOD education.* *Personal skills development.* *Specific, task-oriented skill training.*	Suburban schools. No high-risk. Semester to Year.	Teen 3.3	Teen 3.0	Child 3.5
Psychosocial Skills (68 examples). *Specific, task-oriented training.* *Personal skill training.* *50% added either drug free recreation or wilderness challenge.* *25% added "cultural regrounding."*	Schools in large cities or small rural areas and tribes. Times varied.	Adult 3.0	Child 3.7 Teen 3.0 Adults 2.9	Teen 3.2 Adult 3.2
Counseling Intensive (67 examples). *Individual/family counseling* *Didactic AOD education.* *75% added personal skill training.* *50% added specific task training.*	High-risk individuals & families. 3-6 months.	Adult 3.0		Teen 2.9
Case Management (46 examples). *Individual counseling.* *Case management.* *Specific, task-oriented training.*	High-risk or former AOD clients. 12+ months.			Adult 3.0
Multidirectional (81 examples): *Access to drug-free activities* *Personal skill development.* *Specific, task-oriented training* *Didactic AOD education* *Cultural re-grounding.* *60% added individual counseling.*	High-risk minority youth. All services provided to all clients. Times varied.			
Environmental Change (207 examples) *Formal and informal linkages across groups and individuals.* *10% added restrictions on AOD sales, distribution and use, or increased reinforcement of existing restrictions.* *20% added training of community intermediaries such as bartenders and wait-persons.*	Whole population. Individual change agents targeted because they affect the population.		Adult 2.9	Teen 3.4 Adult 3.2

SOURCE: Emshoff, 1996. Effectiveness ratings are a modification of table on page 93. Ratings were derived from a modified Q-sort, in which several independent raters assessed each approach, using the following scale: 1 was "negative impact," 2 was "no net impact," 3 was "net small positive impact," 4 was "moderately effective," and 5 was "most effective." Approaches scoring less than 2.8 were deemed "not effective" and were not included on this table.

Promising Interventions Which Reduce Risk and Enhance Protection

Newer Approaches

The Congressionally-mandated NSE concentrated on the most commonly used substance abuse prevention interventions. This section, however, describes some more unusual types of prevention interventions which show promise for substance abuse prevention because they:

- address risk factors at appropriate developmental stages;
- enhance bonding to groups and individuals who promote healthy behaviors, beliefs and standards;
- promote both cognitive and social skill development; and
- use intervention techniques which have empirically demonstrated positive effects either in reducing substance abuse, risk factors for substance abuse, or other related poor behavioral outcomes.

Six Types

The following types of promising interventions are discussed:

Prenatal/Infancy (ages 0-2)	Interventions targeted to high-risk mothers and infants. Offers home visits covering health, parenting and family support, and health screens/medical care.
Early Childhood (ages 2-5)	Interventions targeted to high-risk preschoolers and their families. Offers early childhood cognitive/developmental screens to children and parenting/health/support to parents.
Early Elementary (ages 6-11)	Interventions targeted to high-risk elementary schools. Focus on improving school success by changing school environments and/or child's readiness and/or home environment.
Middle and High School (ages 12-17)	Interventions targeted to middle and high-school students. Focused on strengthening norms against drugs and social resistance, enhanced by general social/school skills.
Limit drug availability in community	Community interventions to limit access to and availability of alcohol and other drugs.
Community programs involving multiple strategies	Community-wide interventions involving multiple interacting prevention strategies in all domains.

Additional Reading

For additional information about new prevention approaches, consult the following review articles (Hawkins, Arthur and Catalano, 1995; Institute of Medicine, 1994; Yoshikawa, 1994; U.S. General Accounting Office, 1994; Botvin, 1990).

Prenatal and Infancy Programs Providing Parenting and Family Support

These programs are aimed at the prenatal period for high-risk families. They generally feature prenatal care, home visits (often by a nurse) during the first year of the infant's life.

After four years, intervention mothers in the Prenatal/Early Infancy Project had fewer additional pregnancies, more months employed, fewer days on welfare, fewer child abuse cases, and fewer premature deliveries.

In 1986, David Olds and his colleagues (Olds et al., 1986, 1988) began the evaluation of a sample of pregnant women in a high-risk geographic area characterized by high levels of poverty, teen and unmarried parents, and child abuse and neglect. The test compared randomly assigned groups who received either developmental screening of the children at one and two years of age, referrals for services, and transportation to well-child clinics or all of those services combined with home nurse visitation during pregnancy and until the children were two years old (the intervention group).

Positive outcomes which reduced substance abuse risk factors for both the mothers and children were found. At the four-year follow-up, intervention group mothers had 43 percent fewer additional pregnancies, had worked 82 percent more months, and had spent fewer days on welfare. Moreover, there were 75 percent fewer child neglect cases and a 75 percent reduction in premature deliveries. These are all reductions of risk factors for later substance abuse among the children of those mothers. Unfortunately, there were no long-term evaluations of the effects on intervention group children.

The Yale Child Welfare Project intervention cost $20,000 per family and saved $40,000 in each of the succeeding ten years

The Yale Child Welfare Project (Provence and Naylor, 1983; Seitz, Rosenbaum, and Apfel, 1985; Seitz, 1990). Seventeen women expecting their first child who were below the federal poverty level and neither seriously retarded nor acutely psychotic were selected and agreed to participate. The intervention began during the mother's pregnancy and lasted only thirty months. It included an average of 28 home visits, intensive pediatric care, 13 months of very high quality day care, and seven to nine developmental exams. A matched set of mothers recruited from the same clinic after the intervention ended served as the control group.

Positive outcomes which reduced risk factors were found after ten years. These included: higher levels of mother's education, fewer additional children, greater likelihood of full-time maternal employment, and a greater tendency for the mother to contact the child's teacher. Intervention group children had better student ratings, were less likely to be absent from school without excuse, and were less likely to have been referred to classes for emotionally disturbed children. The authors estimate that the intervention cost

$20,000 per family and saved $40,000 in each of the succeeding ten years.

Early Childhood Programs Providing Education and Family Support

The next set of promising interventions begins with children at about one year of age and works with them until they are three, addressing the major cognitive tasks of this age, which include preparation for success in school, as well as modifying parental behavior in ways which support children's school success.

In grades 2 through 5, intervention group children from the Houston Parent-Child Development Project had fewer behavior problems, were less likely to have been referred for special services and scored higher on the Iowa Test of Basic Skills.

The goal of the Houston Parent-Child Development Center (HPCDC) was to promote school competence among Mexican-American children from below-poverty families. Approximately 100 families per year were recruited over an eight-year period, fully informed about the project, and then randomized into equal-sized control and intervention groups.

The intervention had two phases. During the first year, trained female para-professionals visited the homes 25 times, covering child development issues and information about how the mothers could affect their child's development. Workshops were provided for fathers and siblings. Mothers were encouraged to attend ESL classes, and additional social, health and referral services were provided as needed.

During the second year, the mothers and their children attended four-hour sessions four days a week at the center, where the children were taught cognitive and group skills while the mothers continued to learn child management and developmental skills, as well as home management, human sexuality and driver's education classes. Fathers continued to be involved through a monthly parent council. Transportation and day care was provided for siblings and all teachers were bilingual. Even so, attrition was a serious problem and almost half of the families dropped out before the end of the intervention.

Despite the attrition, positive findings which reduced risk factors for substance abuse were reported. In grades 2 through 5, intervention group children had fewer behavior problems, were only one fourth as likely to have been referred for special services and scored higher on the Iowa Test of Basic Skills than control group children (Johnson and Breckenridge, 1982; Johnson, 1988).

The Perry Preschool Project, based in a low-income, predominantly African-American neighborhood in Ypsilanti, Michigan, is a second example of a successful preschool intervention. The intervention targeted three and four year olds and used the High/Scope curriculum. Children were actively involved in planning their classroom activities, and met every weekday for thirty weeks each year. There were also weekly

home visits to each child by one of the preschool teachers. Families participated for one to two years.

At age nineteen, Perry Preschool Project children were less likely to have been arrested, to have been arrested five or more times, to have had special education placements, to have dropped out of school, or been on welfare. Intervention children had higher grade-point averages.

Perry preschool long-term follow-ups have been remarkable. During elementary school, the intervention children had lower rates of aggressive, disobedient and disruptive behavior than the control group. At age nineteen, intervention children were less likely to have been arrested, to have been arrested five or more times, to have had special education placements, to have dropped out of school, or been on welfare. Intervention children had higher grade-point averages. These long-term findings were related to teacher ratings of conduct in elementary school, suggesting that the effects on long-term outcomes were through more successful grade school experiences. The Perry Preschool Project did not evaluate substance abuse outcomes, but it did succeed in affecting many of the risk factors leading to substance abuse.

Providing Academic and Social Skills for Early Elementary Children and Enhancing School Environments: Targeted to High-Risk Schools

Elementary school represents the first major domain in which a child must succeed or fail outside the family. New cognitive, social and impulse control skills are required to succeed in school. Failure in elementary school has powerful effects on the child's future life. Risk reduction interventions during this period typically focus on enhancing parenting and family functioning to support children's school success, enhancing the child's own social and academic competence, and changing the school environment to be more supportive and inclusive of children who are having difficulties.

The Seattle Social Development Project (Hawkins, Von Cleve, and Catalano, 1991; and Hawkins, Catalano, Morrison et al., 1992) began with first graders in eight Seattle schools which were selected based on high crime rates in their attendance areas. One school was selected as treatment, and one as control; first graders in the other six schools were randomly assigned either to a treatment or control classroom.

The intervention continued for four years, following a cohort of students from first through fourth grades, and combined teacher training, parent training and social skills training for first graders in eight Seattle schools. Teachers were trained in proactive classroom management, interactive teaching, and cooperative learning techniques to increase opportunities for students to participate successfully, be involved, and be rewarded for their involvement. First grade teachers were also trained in a social skills curriculum developed by Shure and Spivak (1988). Parents of first graders were offered training on monitoring children's behavior, using appropriate and consistent rewards and discipline, and involving children in family activities. Parents of second and third graders were

offered a program which helped them foster a child's school achievements.

By fifth grade, intervention students in the Seattle Social Development Project reported higher bonding to family and school and more proactive family management, and were less likely than controls to have initiated alcohol use or delinquent behavior.

Positive effects were seen at the end of second and fifth grades. By the start of fifth grade, students who had participated in an intervention classroom for at least one semester reported significantly higher bonding to family, school and more proactive family management and communication than control students. Intervention group students were less likely to have initiated alcohol use or delinquent behavior by fifth grade than students in the control group.

A second intervention designed to change school environments to enhance the success of students is the School Development Program created by Comer and his associates at the Yale Child Study Center (Comer, 1985, 1988). The intervention aims to create a positive school climate by involving a range of stakeholders in the schools. Parents, teachers, school administrators and mental health professionals join to form a school management team, a mental health team, and a parent involvement team. The management team meets weekly to address school issues; the mental health team also meets weekly to consider student behavior problems in an interdisciplinary perspective, to determine if the school is contributing to the behavior problems, and to recommend changes in the school functioning to improve school climate and student well-being. The parent group creates a parent handbook describing opportunities for involvement in the school.

In Year 1, two schools in the Yale School Development Program were close to the bottom in the community's reading and mathematics scores. Twelve years later, with no change in the population demographics, the same two schools were third and fourth in the city, scoring above national averages. Truancy and discipline problems also decreased.

Quasi-experimental evaluations of the School Development Program applied to two inner city schools serving low-income, mostly African-American schools showed positive results. At the start of the intervention those two schools were close to the bottom in the community's reading and mathematics scores. Twelve years later, with no change in the population demographics, the two schools were third and fourth in the city, scoring above national averages. Truancy and discipline problems also decreased (Comer, 1988). A follow-up study comparing children in the schools to children in matched schools without the intervention found higher achievement and social competence scores among the intervention students (Cauce, Comer, and Schwartz, 1987).

Middle and High School Programs Providing Normative Drug Education, Social Influence and Resistance Skills, and General Social Competence

Young people in middle and high school are struggling with: critical life decisions about educational and vocational goals and lifestyles; intimate connections outside the family; developing autonomy from the family; and coping with emerging sexuality (Elliot and Feldman, 1990). In all these tasks, the influence of peers is as or more important than the influence of parents. Research has also shown that early first use of substances is strongly associated with later problem use (Kandel, Yamaguchi, and Chen, 1992). So delaying the age of initiation becomes an important prevention target, particularly during the teenage years when substance use becomes most likely.

Therefore, risk interventions directed towards adolescents focus on delaying the early onset of use and problem use by affecting social influences to use drugs, social norms regarding use, and attitudes favorable to use. Two types of interventions with demonstrated promise are: (1) programs which focus on learning about social influences and changing social norms about use and (2) programs which focus on enhancing social competence.

The Adolescent Alcohol Prevention Trial showed that normative education had the greatest effect on reducing drinking, marijuana use and smoking.

The Adolescent Alcohol Prevention Trial (Hansen and Graham, 1991) examined the relative effects of social influence and social norm change strategies in an experimental study in twelve junior high schools. The schools were divided into groups defined by size, test scores, and ethnic composition. Classrooms were randomly chosen to receive one of four types of programs: (1) information about drug use (2) training in skills to resist peer and advertising pressure to use (3) a normative education program and (4) a combination of information, resistance skill training, and normative education. The results indicated that the normative education had the greatest effect on reducing drinking, marijuana use and smoking.

Results from another study suggest that the effectiveness of normative education may be reversed in youth at highest risk.

Other researchers have suggested that establishing clear social norms against use is an important part of substance abuse prevention (Ellickson and Bell, 1990) and several have suggested using peer leaders in teaching (Perry et al., 1989; Botvin et al., 1990). However, young people who are already alienated from their peers and from school, and who have already been exposed to multiple risks, may respond to normative education by increasing their alcohol and other drug use. Specifically, Ellickson and Bell (1990) found that while their curriculum was effective in delaying initiation among those 7th graders who had not yet begun smoking, their

curriculum increased tobacco use among those already smoking.

Intervention students in the Positive Youth Development Program had higher teacher ratings of impulse control and conflict resolution than control students. Intervention students reported lower rates of heavy alcohol use than control students, though the two did not differ in self-reported initiation of alcohol, tobacco or marijuana.

Social competence strategies may be more effective with this high-risk group. These programs focus on teaching a broad array of generic life skills, such as social problem-solving, stress reduction, self-regulation, social interaction, and assertiveness (Botvin, 1990). Some of the "psychosocial skill" prevention programs discussed by Emshoff (1996) may represent these approaches.

The Positive Youth Development Program (Caplan and Weissberg et al., 1992) randomly assigned classrooms in one urban and one suburban middle school to a "control" (no intervention) or "intervention" condition. The intervention consisted of 20 sessions, two lessons per week. According to their teachers, the students who received the intervention had better impulse control and conflict resolution than control students. The intervention students themselves reported less intent to use alcohol and lower rates of heavy alcohol use than did the controls, though the two groups did not differ in self-reported initiation of alcohol, tobacco or marijuana.

Several researchers have examined implementation issues around social competence strategies (Botvin et al., 1984; 1990; Botvin and Eng, 1990; Perry et al., 1989). These studies suggest that peer-led programs may be more effective than teacher-led programs and that booster sessions are important for long-term impacts.

Community-Wide Efforts to Reduce Availability or Restrict Access

Increasing drinking ages led to lower alcohol use and fewer alcohol-related crashes.

Manipulating use through legalization, increasing costs or restricting access are not new strategies, but there is some recent evidence which suggests that such measures have both short-term and long-term impacts on use and harm reduction.

Increasing the drinking age to 21 years of age was associated both with lower levels of alcohol use among high school seniors and recent graduates, and with lowered involvement in alcohol-related fatal crashes among drivers under 21 (O'Malley and Wagenaar, 1991). These lower use levels persisted into the early twenties, beyond the legal drinking age.

A study from the 1980s examining the effect of legislation permitting patrons to buy distilled spirits by the drink showed increases in both consumption and the frequency of alcohol-related car accidents (Holder and Blose, 1987).

Community-Wide Efforts with Multiple Components

These community-wide programs focus on involving the entire community and its multiple parts in an interconnected prevention effort. These efforts are really the substance abuse prevention frontier, since the evidence on multiple pathways to abuse suggests that no single risk reduction strategy carried out in isolation can be very effective. Instead, multi-strategy approaches which address multiple risks while enhancing protection hold the most promise.

The partial evaluation of the Midwestern Prevention Program showed that the complete intervention was more effective than media exposure alone in reducing weekly use of cigarettes, alcohol and marijuana after the second year of intervention, and monthly use of cigarettes and marijuana three years after the intervention

An early example is provided by the Midwestern Prevention Program, in which Pentz and her colleagues (1989) tested a curriculum change for students in grades 6 and 7 which also involved homework assignments with parents, booster sessions in the year after the intervention, organizational and training opportunities for parents in positive parent-child communication; training of community leaders to organize drug abuse prevention task forces, and news coverage via articles, television clips, and a press conference. The complete intervention was more effective than media exposure alone in reducing weekly use of cigarettes, alcohol and marijuana after the second year of intervention, and monthly use of cigarettes and marijuana three years after the intervention (Johnson et al., 1990).

Because of its design, the Midwestern Prevention Program cannot answer questions about the relative contribution of the various components. Studies currently underway by Cheryl Perry and her colleagues at the University of Minnesota and Dennis Ary and Tony Biglan at the Oregon Research Institute are also using community mobilization and empowerment models to address substance abuse risks. They are expected to provide important information on the effects of this strategy" (Hawkins, Arthur, and Catalano, 1995, page 405).

Hawkins and Catalano and their colleagues are currently working in collaboration with sixty communities in Washington and Oregon. Their program is designed to mobilize communities to achieve significant self-defined reductions in adolescent health and behavior problems. The mobilization has three phases:

1) Establish an oversight board of key community leaders.
2) Form and train a community prevention board responsible for
    - gathering archival and survey data similar to that presented in this report,
    - prioritizing risk factors for preventive action, and
    - designing a prevention strategy.

3) Implement, monitor and evaluate the prevention strategy, using subsequent years of archival and survey data.

Most Important Points to Remember In Planning Prevention Interventions

The next chapters present the data on risk and protection which have been assembled to assist you in planning substance abuse prevention for your county. As you work to understand and use the data, keep these basic principles of risk and protection-focused prevention in mind:

- **The more risk factors, the greater the risk.** Therefore, prevention efforts must coordinated, and those at highest risk must be an important target for prevention interventions.
- **Risk factors exist in multiple environmental domains.** Therefore, prevention strategies should attempt to take all domains into account.
- **Protective factors buffer exposure to risk.** Therefore, prevention efforts should enhance protection, particularly among those exposed to greatest risk.
- **The relative importance of risk and protective factors varies with age and stage of development.** Therefore, prevention strategies should be designed around the developmental stage of the target population.
- **Common risk factors predict diverse behavior problems.** Therefore, it may be cost-effective to share prevention efforts among agencies.
- **Risk and protective factors operate similarly across different races, cultures and classes.** However, to be effective, prevention programs must be developed in a culturally competent way.

APPENDIX D: SELECTED STUDIES IDENTIFYING RISK FACTORS FOR SUBSTANCE ABUSE

The model of risk and protective factors for chemical dependency prevention presented in this series of reports is based on the work of J. David Hawkins, Richard Catalano and their team of researchers at the University of Washington. In the early 1980s, they reviewed and organized thirty years of research on factors influencing adolescent drug abuse (Hawkins, Lishner and Catalano 1985) and delinquency (Hawkins, Lishner, Jenson and Catalano (1987). The team has conducted subsequent research on risk factors for violence, and has periodically published new reviews in which they have incorporated new research and refined their organizing framework (Hawkins, Catalano and Miller 1992; Hawkins, Arthur and Catalano 1995). The table below briefly presents some of their research.

RISK FACTOR	STUDY	FINDINGS
Individual and Peer Domain		
ALIENATION AND REBELLIOUSNESS	Jessor & Jessor, 1977; Kandel, 1982; Jessor et al., 1980; Robins, 1980; Penning & Barnes, 1982	Alienation from dominant societal values and low religiousity were positively associated with drug use.
	Smith & Fogg, 1978; Bachman, Johnson, & O'Malley, 1981; Kandel, 1982	Rebelliousness and resistance to traditional authority were positively associated with drug use.
	Jessor, 1976; Jessor & Jessor, 1977; Paton & Kandel, 1978	High toleration of deviance, resistance to authority, strong need for independence, and "normlessness" were associated with drug use.
	Shedler & Block, 1990	Interpersonal alienation at age 7 predicted frequent marijuana use at age 18.
FRIENDS WHO USE	Kandel, 1978, 1986; Jessor et al., 1980; Barnes & Welte, 1986; Kandel & Andrews, 1987; Brook et al., 1990	Peer use of substances was among the strongest factors associated with substance use among youth.
	Newcomb & Bentler, 1986; Gillmore et al., 1990	Influence of peers on drug use was stronger than that of parents for non-Hispanic Whites, African-Americans, Asians, and Hispanics.
	Harford, 1985	Non-drinking African-American youths reported fewer drinking friends than did African-American youth who drank.
	Brook et al., 1990, 1992	The most powerful linkage in the causal pathway to marijuana non-use was association with non-drug-using peers.
ATTITUDES FAVORABLE TO DRUG USE	Kandel et al., 1978; Smith & Fogg, 1978; Krosnick & Judd, 1982; Johnston, 1991	Initiation into substance use was preceded by values favorable to its use.
EARLY ONSET OF DRUG USE	Rachal et al., 1982; Kandel, 1982; Robins & Pryzbeck, 1985	Problem drinkers began drinking earlier than users; earlier onset of drug use was associated with greater and more persistent use of more dangerous drugs.
	Kandel et al., 1976	Later onset of drug use predicted lower drug involvement and higher probability of discontinuation of use.
CONSTITUTIONAL FACTORS	Cloniger et al., 1988; Zuckerman 1987	Sensation-seeing & low-harm avoidance predict early-onset alcoholism.

RISK FACTOR	STUDY	FINDINGS
Community Domain		
AVAILABILITY OF ALCOHOL AND OTHER DRUGS	Gorsuch & Butler, 1976	Increased alcohol availability preceded increases in drinking prevalence, amount of alcohol consumed, and heavy drinking.
	Maddahian, Newcomb & Bentler, 1988; Gottfredson, 1988; Dembo et al., 1979.	Availability affected the use of alcohol and illegal drugs.
LAWS AND NORMS		
TAXATION	Levy & Sheflin, 1985	A one-dollar increase in tax on alcohol preceded a one-half percent decrease in consumption.
	Cook & Tauchen, 1982	An increase in the alcohol tax preceded a sharp decrease in consumption and cirrhosis mortality.
	Saffer & Grossman, 1987	Higher taxes were associated with lower teen drinking and fatalities, and were more salient than drinking age.
HIGHER LEGAL DRINKING AGES	Joksch, 1988; Saffer & Grossman, 1987; Krieg, 1982; Cook & Tauchen, 1982	Higher drinking age was associated with fewer teenage traffic fatalities and citations for driving while intoxicated.
CRIMINAL LAWS MAKING DRUGS ILLEGAL	Polich et al., 1984	Neither doubling of interdiction nor increased arrests of drug dealers affect retail prices or availability of illegal drugs.
	Goldstein & Kalant, 1990	Prohibition reduced alcohol consumption substantially.
CULTURAL NORMS	Flewelling et al. 1992; Flasher & Maisto, 1984; Robins, 1984; Vaillant, 1983	Alcohol and illegal drug consumption are associated with differences in race, ethnicity, country of origin and degree of acculturation into the United States
	Johnston, 1991	Changes in nationwide norms regarding the acceptability and harmfulness of marijuana and cocaine preceded changes in prevalence.
	Atkin, Hocking & Black, 1984	Teens reporting higher drinking levels had more exposure to ads promoting alcohol.
NEIGHBORHOODS WITH HIGH TRANSITIONS AND MOBILITY	Fagan, 1988	
LOW NEIGHBORHOOD ATTACHMENT AND COMMUNITY DISORGANIZATION	Sampson, 1986; Herting & Guest, 1985; Fagan, 1988	Children who grow up in disorganized neighborhoods were more likely to abuse drugs and be involved in drug trafficking.
	Brook, Nomura, & Cohen, 1989	Self-reports of low neighborhood attachment were associated with increased substance use indirectly, through more proximal school, peer and family variables.
EXTREME ECONOMIC DEPRIVATION	Murray et al., 1987; Robins & Ratcliff, 1979	Living in neighborhoods where most people are very poor and deprived is associated with higher use of illegal drugs.

RISK FACTOR	STUDY	FINDINGS
Family Domain		
FAMILY HISTORY OF CHEMICAL DEPENDENCY	Schuckit & Rayes, 1979; Schuckit et al., 1983; Schuckit, 1980,1987.	After administration of alcohol, the children of alcoholics had different muscle, serum prolactin, and other physical responses than did the children of non-alcoholics
	Pollock et al., 1983	There were differences in brain-waves between children of alcoholics and non-alcoholics.
	Goodwin, 1985	About half of hospitalized alcoholics had a family history of alcoholism.
	Kandel et al., 1978, 1986; McDermott, 1984.	Parental and sibling use of illicit drugs was associated with higher risk of drug use initiation and drug abuse in children.
	Ahmed et al., 1984	Importance of drug in household was best predictor of children's expectations to use and actual use of alcohol, tobacco and marijuana.
	Hansen et al., 1987	Parental modeling was directly related to friend's use of drugs, which in turn was related to adolescent's drug use.
	Brook et al., 1988	Oldest brothers and parents had independent effects on younger brother's use.
	Brook et al., 1990	Father's non-drug use and emotional stability enhanced effects of peer non-drug use.
	McDermott, 1984; Hansen et al., 1987; Barnes & Welte, 1986	Perceived parent permissiveness toward alcohol and other drugs had a greater impact upon adolescent use than did actual parental use of alcohol or other drugs.
FAMILY MANAGEMENT PRACTICES	Kandel & Andrews, 1987; Baumrind, 1983; Penning & Barns, 1982	Lack of or inconsistent parental discipline and low parent educational aspirations for children were associated with initiation into drug use.
	Ziegler-Driscoll, 1979; Kaufman & Kaufman, 1979	Over-involvement by one parent accompanied by distance or permissiveness by the other was associated with increased risk of drug use
	Baumrind, 1983	Parent authoritativeness was associated with children's prosocial, assertive behaviors. Parent non-directiveness and permissiveness were associated with high drug use.
	Reilly, 1979	Common characteristics of families of adolescent drug abusers were: negative communication patterns; inconsistent, unclear behavior limits; and unrealistic parental expectations.
FAVORABLE PARENTAL ATTITUDES AND DRUG INVOLVEMENT	Tec, 1974	Parental drug use in an unrewarding family structure was more linked to marijuana use than parental drug use in a rewarding family structure.
	Brook et al., 1990	Parent adolescent attachment was associated with less marijuana use. Psychological stability of mothers offsets peer drug use.
	Shedler & Block., 1990	Quality of mother's interactions with 5-year-olds was related to marijuana use at 18.

RISK FACTOR	STUDY	FINDINGS
***Family Domain** (continued)*		
LOW BONDING TO FAMILY	Kandel et al., 1978; Brook et al., 1992; Braucht et al., 1978; Penning & Barnes, 1982; Kandel & Andrews, 1987	Lack of parent-child closeness and lack of maternal involvement were associated with drug use initiation.
	Elliott et al., 1985; Brook et al., 1990	Family bonding interacts with peer variables to influence drug use.
	Gorsuch & Butler, 1976; Jessor & Jessor, 1977; Kim 1979; Brook et al., 1986; Selnow, 1987; Hundelby & Mercer, 1987	Family involvement and attachment were associated with lower levels of drug initiation and drug use.
FAMILY CONFLICT	Robins, 1980; Penning & Barnes, 1982; Baumrind, 1983	Children from homes broken by marital discord were at higher risk of drug use.
	Simcha-Fagan, Gersten & Langer, 1986	Family conflict was a stronger predictor of drug use than family structure (intact parental marriage).
	Needle, Su & Doherty, 1990	Parental divorces occurring during childhood were less associated with adolescent drug use than parental divorces occurring during adolescence.
School Domain		
ACADEMIC FAILURE	Jessor, 1976; Smith & Fogg, 1978; Robins 1980	Failure in school was associated with adolescent drug abuse, as well as initiation and level of drug use.
	Hundleby & Mercer, 1987	Good school performance was associated with reduced likelihood of frequent drug use in ninth graders.
LOW COMMITMENT TO SCHOOL	Johnston, O'Malley & Bachman, 1985	The use of a variety of drugs is significantly lower among students expecting to attend college.
	Kelley & Balch, 1971	How much students like school is associated with levels of drug use.
	Friedman, 1983	Time spent on homework and perception of the relevance of course work are associated with levels of drug use.
EARLY AND PERSISTENT PROBLEM BEHAVIORS	Brook et al., 1990	Irritable, distractible children who fight, have tantrums, or engage in pre-delinquent acts are more likely to use drugs as teenagers.
	Lerner & Vicary, 1984	"Difficult" temperament in 5-year-olds contributes to drug problems in adulthood.
	Lewis et al., 1985; Loeber 1988	Aggressiveness in boys 5-7 predicts frequent teenage drug use and other behavioral problems.

APPENDIX E: EMPIRICAL RESEARCH SHOWING THE EFFECTS OF PROTECTIVE FACTORS

PROTECTIVE FACTOR	STUDY	FINDINGS
INDIVIDUAL CHARACTERISTICS	Radke-Yarrow & Sherman, 1990; Rutter, 1990	Resilient temperament, positive social orientation, intelligence and skills buffered children against risk factors.
BONDING AND ATTACHMENT TO FAMILY	Brook et al., 1990	Both attachment to parents and attachment to fathers buffered substance abuse risk and enhanced other protections.
	Gorsuch & Butler, 1976; Jessor & Jessor, 1977; Kim, 1979; Brook et al., 1986; Selnow, 1987; Hundelby & Mercer, 1987	Family involvement and attachment were associated with lower levels of drug initiation and drug use.
BONDING AND ATTACHMENT TO OTHERS WHO SUPPORT NON-USE	Garmezy, 1985; Werner, 1989	Social supports from teachers, other adults and peers which both (1) reinforced the individual's competence and (2) supported non-drug use were associated with lower drug use.
HEALTHY BELIEFS AND CLEAR STANDARDS	Hansen & Graham, 1991	Norms, beliefs or standards which oppose the use of illegal drugs or alcohol by teenagers were associated with less use.

APPENDIX F: HISTORY OF SUBSTANCE ABUSE PREVENTION IN WASHINGTON STATE

The Division of Alcohol and Substance Abuse (DASA) that exists today has been administering prevention services since its inception in 1978 (though DASA's title prior to 1989 was the Bureau of Alcohol and Substance Abuse, or BASA). Before 1978 (prior to the establishment of a separate entity to address substance abuse services), prevention services planning and administration was managed by the Department of Social and Health Services' Office of Drug Abuse Prevention and the Governor's Office of Drug Abuse Prevention.

1978 - 1985. From 1978 through1985, substance abuse prevention services were developed and administered primarily from state funds and competitive federal project resources. The federal resources moved from competitive in nature to a block grant format in the early 1980s under the Reagan Administration. This block grant mandated a 20% set aside for primary prevention services from the total federal funding received for all substance abuse services. DASA worked with program developers to establish youth-focused strategies. Such strategies were implemented, for the most part, in school settings.

As public funds were limited at this time, DASA collaborated closely with the Office of the Superintendent of Public Instruction and Washington Traffic Safety Commission to share funds and strategy ideas.

During this time, DASA had established a contractual relationship with County Governments to manage prevention services at the local level.

1986 - 1992. In 1986, President Reagan declared a new "War on Drugs" in America, a declaration previously announced by President Nixon in the early 1970s. As a result of President Reagan's declaration and persuasion, Congress passed the 1986 Federal Omnibus Drug Act.

The Federal Block Grant defined in the Omnibus Drug Act dramatically increased the primary prevention resources allocated to states through the federal block grant process. Funding was also increased to schools, K-12 and Higher Education, and to communities through the development of the Drug Free Schools and Communities Programs.

As a result of the "War on Drugs", the Department of Health and Human Services created the Office of Substance Abuse Prevention (OSAP), now the Center for Substance Abuse Prevention. OSAP funded demonstration programs to states and local communities on a competitive basis. It is through these demonstrations, as well as the federal block grant to states, that the prevention field began to grow and develop new technologies and strategies to address the prevention needs in our country.

DASA established a prevention system infrastructure in Washington State with the new resources which retained the county government contracting process as the primary mechanism to provide community-based programs. In addition to the county-based services, federal resources were used to develop statewide programs (establishment of

a clearinghouse, conferences, training, and newsletters) which supported the county programs.

In order to support the infrastructure created, DASA encouraged county governments to hire county prevention specialists to manage the resources. DASA then was in a position to provide technical assistance and training to the local prevention specialists, and encourage them to mobilize their communities to prevent substance abuse problems. Most of the efforts at this time were focused on community organization and youth education.

In the late 1980s, a review and synthesis of research examining risk and protective factors for adolescent substance abuse and other problem behaviors was compiled by Professors J. David Hawkins and Richard Catalano at the University of Washington. Based upon the success and promise of this research, DASA began to adopt a risk and protective factor framework for primary prevention planning in the early 1990's. Complementing the new direction, a federal demonstration grant was secured from CSAP to pilot a planning process throughout the state.

1993 - Present. In 1993, DASA changed their contracting practices with counties and direct service providers. The change moved contractors from prioritizing programs and strategies to prioritizing risk factors associated with adolescent substance abuse. Once the risk factors were prioritized, the proposed prevention strategies were required to address high-priority risk factors and to also include the enhancement of protective factors. Counties were also asked to evaluate their strategies to address the question of "What Works?"

During the 1995-97 biennium, DASA began to prepare the county prevention specialists for the development of a county prevention action plan, grounded in the risk and protective factor framework and conducive to conducting viable outcome and process evaluation.

APPENDIX G - COMMUNITY OUTCOME AND RISK EVALUATION INDICATORS (CORE-GIS)

Construct / Indicator	Source	Lowest Geographic Level	Start Year	End Year
Availability of Drugs				
Alcohol retail licenses	WSLCB - Annual Operations Report Alcohol Outlet Data	County	1988	1994
Tobacco retailer licenses	DOL - (Master License Service) Tobacco Statistics (from DOH(DCFH/TPP))	County	1993	1995
Tobacco vending machine licenses	DOL - (Master License Service) Tobacco Statistics (from DOH(DCFH/TPP))	County	1993	1995
Community Laws & Norms Favorable to Crime & Drugs				
Average sentence (prison and service) for adult felony drug offenders	SGC - (Adult Felony Database) Length of prison sentence data	County	1988	1995
Low Neighborhood Attachment & Community Disorganization				
People registered to vote	OSS(Election Division) - (Certified Election Results) Registered Voters Tables	County	1988	1993
Number of vacant owned housing units	U.S. Census 1990 - STF1A	County	1990	1990
Number of vacant rental housing units	U.S. Census 1990 - STF1A	County	1990	1990
Transitions and Mobility				
Existing home sales	WCRER(WSU) - Housing Market Reports	County	1989	1994
Residential building permits	WCRER(WSU) - Housing Market Reports	County	1988	1993
Households in rental housing units	U.S. Census 1990 - STF1A	County	1990	1990
Housholds in owned housing units	U.S. Census 1990 - STF1A	County	1990	1990
Persons who moved within the same county during the last five years	U.S. Census 1990 - STF3A	Block Group	1990	1990
Persons who moved from outside the county during the last five years	U.S. Census 1990 - STF3A	Block Group	1990	1990
Extreme Economic and Social Deprivation				
Aid to Families with Dependent Children (AFDC)	DSHS(ORDA) - Warrant Role Data Files	Zip Code	1988	1994
Food stamps recipients	DSHS(ORDA) - Warrant Role Data Files	Zip Code	1988	1994
Accepted applicatins for free and reduced lunch	OSPI(Child Nutrition) - Free and Reduced Price Eligibility	School District	1989	1995
Unemployment	ESD(LMEA/LAUS Unit) - County Unemployment File	County	1988	1993
Civilians in the labor force	ESD(LMEA/LAUS Unit) - County Unemployment File	County	1988	1993
Exhausted unemployment	ESD(LMEA) - (BAS) County level exhausted employment benefits	County	1992	1995
All persons living below the poverty level	U.S. Census 1990 - STF3A	Block Group	1990	1990
All children living below the poverty level	U.S. Census 1990 - STF3A	Block Group	1990	1990
All families living below the poverty level	U.S. Census 1990 - STF3A	Block Group	1990	1990
Families	U.S. Census 1990 - STF3A	Block Group	1990	1990

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Extreme Economic and Social Deprivation (cont.)				
Female headed family households with own children	U.S. Census 1990 - STF3A	Block Group	1990	1990
Family households	U.S. Census 1990 - STF3A	Block Group	1990	1990
Per capita income	U.S. BEA - (REIS) Income Data	County	1988	1993
Low birthweight babies born	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate	Zip Code	1989	1994
Babies born	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate	Zip Code	1989	1994
Family History of High Risk Behavior				
AOD-Related Deaths	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Deaths	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Adults in AOD treatment programs	DSHS(DASA) - (TARGET) Treatment Admissions File	Zip Code	1991	1995
Less than 9th grade education	U.S. Census 1990 - STF3A	Block Group	1990	1990
Education in grades 9-12, but do no diploma	U.S. Census 1990 - STF3A	Block Group	1990	1990
Completed high school (or passed the GED) education	U.S. Census 1990 - STF3A	Block Group	1990	1990
Education included some college, but no degree	U.S. Census 1990 - STF3A	Block Group	1990	1990
Associate's degree education	U.S. Census 1990 - STF3A	Block Group	1990	1990
Bachelor's degree education	U.S. Census 1990 - STF3A	Block Group	1990	1990
Graduate or professional degree education	U.S. Census 1990 - STF3A	Block Group	1990	1990
Prisoners in state correctional systems	DOC - (OBTS) Prison Admissions File	County	1988	1994
Family Management Problems				
Children living away from parents	U.S. Census 1990 - STF1A	County	1990	1990
Children living with parents	U.S. Census 1990 - STF1A	County	1990	1990
Children placed in foster care	DSHS(ORDA) - NADB	Zip Code	1990	1994
Victims in reported child abuse and neglect referrals	DSHS(Children's Administration) - (CAMIS) Referral Victim Counts for Kids Count Report	County	1991	1995
Victims in accepted child abuse and neglect referrals	DSHS(Children's Administration) - (CAMIS) Referral Victim Counts for Kids Count Report	County	1991	1995
Family Conflict				
Dissolutions and annulments	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Divorce	County	1991	1994
Domestic violence-related arrests	WSP(Identificaton and Criminal History Section) - (Criminal History Database) DV-Related Arrest File	County	1988	1994
Single parent family households	U.S. Census 1990 - STF1A	County	1990	1990

NOTE: Acronyms are defined on the last page of this appendix.

Construct / Indicator	Source	Lowest Geographic Level	Start Year	End Year
Family Conflict (cont.)				
Married couple family households	U.S. Census 1990 - STF1A	County	1990	1990
Domestic violence-related arrests	WSP(Identificaton and Criminal History Section) - (Criminal History Database) DV-Related Arrest File	County	1988	1994
Favorable Parental Attitudes and Involvement in Crime and Drugs				
Alcohol-related traffic fatalities	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Annual Collision Report Fatality Data)	County	1989	1994
Traffic fatalities	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Annual Collision Report Fatality Data)	County	1989	1994
Adult drunken driving arrests	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Adult alcohol-related arrests	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Adult drug-related arrests	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Adult violent crimes arrests	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Adult property crimes arrests	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Pregnant women admitted to state funded AOD treatment programs	DSHS(DASA) - (TARGET) Treatment Admissions File	Zip Code	1991	1995
Lack of Commitment to School				
High school dropouts, age 16-19	U.S. Census 1990 - STF3A	Block Group	1990	1990
Academic Failure				
GED certificates issued	OSPI(Information Services) - GED data (future source - WA State BCTC)	Zip Code	1988	1995
4th grade students scoring in the lowest 25% on standardized test	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
4th grade students taking standardized test	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
8th grade students scoring in the lowest 25% on standardized test	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
8th grade students taking standardized test	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Early and Persistent Antisocial Behavior				
Antisocial behavior average scale score	WSSAHB (School Survey)	Region	1995	1995

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Alienation, Rebelliousness, and Lack of Social Bonding				
Adolescent suicides	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Adolescent attempted suicides	DOH(OHPDS) - CHARS	Zip Code	1988	1992
Early Initiation of the Problem Behavior				
Juvenile arrests for alcohol violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for drug law violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for violent crimes	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for property crimes	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for vandalism	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Friends Who Engage in the Problem Behavior				
Substance use by peers average scale score	WSSAHB (School Survey)	Region	1995	1995
Favorable Attitudes Toward the Problem Behavior				
Personal attitude favorable towards substance use average scale score	WSSAHB (School Survey)	Region	1995	1995
Constitutional Factors				
Sensation seeking average scale score	WSSAHB (School Survey)	Region	1995	1995
Protective Factors				
Community rewards for conventional involvement average scale score	WSSAHB (School Survey)	Region	1995	1995
Family rewards for conventional involvement average scale score	WSSAHB (School Survey)	Region	1995	1995
School rewards for conventional involvement average scale score	WSSAHB (School Survey)	Region	1995	1995
Opportunitites for positive involvement in the family average scale score	WSSAHB (School Survey)	Region	1995	1995
Opportunities for positive involvement in the school average scale score	WSSAHB (School Survey)	Region	1995	1995
Belief in the moral order average scale score	WSSAHB (School Survey)	Region	1995	1995
Social skills average scale score	WSSAHB (School Survey)	Region	1995	1995
Additional Indicators of Substance Abuse and Other Problem Behavior				
Juvenile arrests for driving under the influence	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for liquor law violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for alcohol violations drunkenness	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Additional Indicators of Substance Abuse and Other Problem Behavior (cont.)				
Juvenile arrests for drug law violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for violent crimes	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for property crimes	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for curfew and loitering law violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for vandalism	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Juvenile arrests for disorderly conduct	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Adjudications of juveniles sentenced to JRA	OAC - JUVIS File	County	1988	1995
Adjudications of juveniles sentenced to detention	OAC - JUVIS File	County	1988	1995
Adjudications of juveniles sentenced to community supervision	OAC - JUVIS File	County	1988	1995
Placements of juveniles into diversion programs	OAC - JUVIS File	County	1988	1995
Adolescents admitted to state funded AOD treatment programs	DSHS(DASA) - (TARGET) Treatment Admissions File	Zip Code	1991	1995
Adolescents with gonorrhea	DOH(STD Services) - STD Reported Cases	Zip Code	1992	1994
Adolescents with syphilis	DOH(STD Services) - STD Reported Cases	Zip Code	1992	1994
Adolescents with chlamydia	DOH(STD Services) - STD Reported Cases	Zip Code	1992	1994
Births to adolescents	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate	Zip Code	1989	1994
Other Indicators (Adolescent Problem Substance Use)				
Lifetime prevalence of ATOD use	WSSAHB (School Survey)	Region	1992	1994
Annual prevalence of ATOD use	WSSAHB (School Survey)	Region	1992	1994
30-day prevalence of ATOD use	WSSAHB (School Survey)	Region	1992	1994
30-day prevalence: daily ATOD use	WSSAHB (School Survey)	Region	1992	1994
Trends in perceived availability of ATOD	WSSAHB (School Survey)	Region	1992	1994
Trends in exposure to ATOD use	WSSAHB (School Survey)	Region	1992	1994
Grade of first ATOD use	WSSAHB (School Survey)	Region	1992	1994
Reported ATOD use by friends	WSSAHB (School Survey)	Region	1992	1994
Perceived harmfulness of ATOD use	WSSAHB (School Survey)	Region	1992	1994
Other Indicators (Adult Problem Substance Use)				
Adult arrests for driving under the influence	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
AOD-related hospital admissions	DOH(OHPDS) - CHARS	Zip Code	1988	1992

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Other Indicators (Adult Problem Substance Use) (cont.)				
Traffic collisions where the driver was drunk	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
Traffic collisions where the driver was AOD impaired	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
Drunk drivers involved in traffic collisions	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
AOD-impaired drivers involved in traffic collisions	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
Drivers involved in traffic collsions who used any AOD	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
Traffic collisions where the driver had used any AOD	WSP(Records Section) -(Accident Records Database) (from WTSC(TRDC) - Crash Database)	Municipality	1993	1993
Average length of stay in prison for adult felony drug offenders	DOC - (OBTS) Prison Release File	County	1991	1995
Average prison portion of sentence for adult felony drug offenders	SGC - (Adult Felony Database) Length of prison sentence data	County	1988	1995
Chronic liver disease and cirrhosis deaths	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Medicaid mothers with indications of substance abuse	DSHS(ORDA) - First Steps Database	Zip Code	1990	1993
Babies born with Fetal Alcohol Syndrome	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate	Zip Code	1989	1994
Babies born with Drug Withdrawal Syndrome	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate	Zip Code	1989	1994
Other Indicators (Adolescent Violent Behavior)				
Adolescent homicides	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Arrests for simple assault	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Other Indicators (General Violent Crime)				
Homicides	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Death Certificate	Zip Code	1988	1994
Other Indicators (Juvenile Delinquency)				
Juveniles sentenced to JRA	DSHS(JJS) - GJJAC Annual Report Guilty Adjudication Data	County	1988	1993
Juveniles adjudicated guilty but not sentenced to JRA	DSHS(JJS) - GJJAC Annual Report Guilty Adjudication Data	County	1988	1993
All juveniles adjudicated guilty	DSHS(JJS) - GJJAC Annual Report Guilty Adjudication Data	County	1988	1993
Juvenile arrests for running away	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Arrests for vagrancy	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Other Indicators (Availability of Weapons)				
Licensed firearm dealers	DOL - Licensed Gun Dealers File	Zip Code	1994	1994
Arrests for weapons violations	WASPC - (UCR Database) Monthly Arrest Data & WASPC -Seattle P.D. Annual UCR Data	Police Jurisdiction	1990	1993
Firearm incidents in schools	OSPI(Weapons in Schools) - Weapons incidents reports	School District	1992	1993
Knife incidents in schools	OSPI(Weapons in Schools) - Weapons incidents reports	School District	1992	1993
Other weapons incidents in schools	OSPI(Weapons in Schools) - Weapons incidents reports	School District	1992	1993
Other Indicators (Adolescent Sexual Activity)				
Adolescents with herpes	DOH(STD Services) - STD Reported Cases	Zip Code	1992	1994
Adolescents with acute pelvic inflammatory disease	DOH(STD Services) - STD Reported Cases	Zip Code	1992	1994
Adolescent pregnancies	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificate & DOH(Center for Health Statics) - Abortion data (12-17)	Postal City	1991	1993
Other Indicators (Community)				
People who voted	OSS(Elections Division) - (Certified Election Results) Voter Turnout Tables	County	1988	1993
Vacant housing units	U.S. Census 1990 - STF3A	Block Group	1990	1990
Net migration	OFM - Net migration data	County	1988	1992
Rental housing units	U.S. Census 1990 - STF1A	County	1990	1990
Housholds in rental housing units	U.S. Census 1990 - STF3A	Block Group	1990	1990
Housholds in owned housing units	U.S. Census 1990 - STF3A	Block Group	1990	1990
Families in rental housing	U.S. Census 1990 - STF4A	County	1990	1990
Families in owned housing	U.S. Census 1990 - STF4A	County	1990	1990
Persons who moved in the last five years	U.S. Census 1990 - STF3A	Block Group	1990	1990
Persons living inside urbanized areas	U.S. Census 1990 - STF3A	Block	1990	1990
Person living in suburban areas of urban counties	U.S. Census 1990 - STF3A	Block	1990	1990
Persons living in rural areas	U.S. Census 1990 - STF3A	Block	1990	1990
Other Indicators (Economic)				
New admissions to state homeless shelters	DCD(HD/ESAP) - State homeless shelters data	County	1989	1994
New admissions of children to state homeless shelters	DCD(HD/ESAP) - State homeless shelters data	County	1989	1994
Homeless population	U.S. Census 1990 - STF1A	Block	1990	1990
Median Income	OFC - County Income Data	County	1988	1992
Unemployment claimants	ESD(LMEA) - (BAS) Claimants File (by zip)	Zip Code	1990	1994
Young children on food stamps or AFDC	DSHS(ORDA) - NADB	Zip Code	1992	1992
Medicaid mothers	DSHS(ORDA) - First Steps Database	Zip Code	1990	1993

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Other Indicators (Family)				
Children not living with one or both parents or guardians	U.S. Census 1990 - STF3A	Block Group	1990	1990
Unduplicated victims in accepted referrals to CPS	DSHS(Children's Administration) - (CAMIS) Accepted refer Abuse/Neglect	Zip Code	1991	1993
Victims in accepted referrals which allege sexual abuse to CPS	DSHS(Children's Administration) - (CAMIS) Accepted refer Abuse/Neglect	Zip Code	1992	1993
Children in foster care	DSHS(Children's Administration) - (SSPS) Placement File	Zip Code	1989	1993
Sexual assault examinations	L & I - Crime Victimization Sexual Assaults File	Zip Code	1988	1994
Young children in foster or group care	DSHS(ORDA) - NADB	Zip Code	1992	1992
Petitions for domestic violence & civil anti-harassment protection orders	OAC - L.J. DV and Civil Anit-harrassment Data File & OAC - Superiou DV and Civil Anit-harassment Data File	County	1990	1993
Persons who are divorced or separated	U.S. Census 1990 - STF3A	Block	1990	1990
Single parent households with own children	U.S. Census 1990 - STF3A	Block Group	1990	1990
Adolescents living with a single parent	U.S. Census 1990 - STF3A	Block Group	1990	1990
Other Indicators (Child Health Status)				
Singleton low birthweight babies	DOH(Center for Health Statistics) - (Vital Statistics Registration System) Birth Certificatefrom (DSHS(ORDA) - First Steps Database)	Zip Code	1990	1993
Birth to 3 enrollees	DSHS(ORDA) - Infant Toddler Early Intervention Database	Zip Code	1990	1993
Birth to 3 predicted enrollees	DSHS(ORDA) - First Steps Database	Zip Code	1995	1995
Other Indicators (Marital Status)				
Persons who have never married	U.S. Census 1990 - STF3A	Block	1990	1990
Other Indicators (School)				
Students enrolled in public and private school	OSPI(Information Services) - Public & Private school enrollment data (R1345)	School District	1988	1994
Grade 4 reading proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 8 reading proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 11 English/Language Arts proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 4 math proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 8 math proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 11 math proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994

NOTE: Acronyms are defined on the last page of this appendix.

Construct Indicator	Source	Lowest Geographic Level	Start Year	End Year
Other Indicators (School)				
Grade 4 science proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 8 science proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Grade 11 science proficiency	OSPI(Instructional Programs/Curriculum and Assessment) - (WA State Assessment Program) Standardized Test Score File	School District	1991	1994
Annual dropouts	OSPI(Information Services) - School Dropout Files	School District	1988	1991

This list includes all indicators currently in the CORE-GIS Database. Some of the indicators in this list are composites of two or more types of events which could be broken out separately if needed (e.g., violent crime arrests). In other situations, a single type of event from a source file may have been differentiated into two or more indicators based on age. For reporting purposes, most of the indicators are subsequently represented as rates by dividing through by an appropriate denominator (e.g. total number of persons). The constructs under which the indicators are grouped provide a preliminary framework for conceptualizing risk and protective factors, and may be revised or reorganized according to future research findings. Although each indicator is assigned to only one category, there are some indicators that could be appropriately classified under several different constructs.

APPENDIX H: DETERMINING "COUNTIES LIKE US"

Counties were grouped using characteristics that were related to the scope of prevention planning. A variety of groupings were examined, but the one finally chosen was based upon three distinguishing county attributes: population of young persons, alcohol- and drug-related deaths as a percent of all deaths, and the geographic Eastern/Western Washington split.

Urban Groups: A primary objective was to distinguish between urban and rural counties. The total number of persons ages 10-24 represents a majority of the target population for prevention activities and is also a good descriptor of county urbanicity. Counties with greater numbers of young persons typically have a larger percent of the population living in a metropolitan or city environment of some density, while smaller population totals are more indicative of rural counties. Urban counties were separated from rural counties and then subdivided using this measure.

Three sets of urban counties seemed to cluster well based on their populations of young adults (see Figure H-1, x-axis in both graphs):

- ***Urban A*.** King County. 1990 population (ages 10-24): 288,796. Since there are no other counties in its group, King County rates are compared to, but not included in, the rates of the *Urban B* group.
- ***Urban B*.** Pierce, Snohomish, and Spokane Counties. Average 1990 population (ages 10-24): 100,310
- ***Urban C*.** Benton, Clark, Kitsap, Thurston, Whatcom, and Yakima Counties. Average 1990 population (ages 10-24): 37,335

Rural Groups: After removing the 10 urban counties, the 29 remaining rural counties were split into three groups (Figure H-1, larger graph).

- **Rural A.** Ferry, Franklin, Grant, Klickitat, Okanogan, Pend Oreille, and Skamania Counties. This group is comprised of rural counties showing a high percentage of alcohol- and drug-related deaths as a percentage of all deaths over the period 1988-1995 (Figure H-1, y-axis). These counties, all in eastern Washington, have the seven highest percentages of AOD-related deaths in the state with an average of 6.6% of all deaths being AOD-related. In contrast, the percentage of AOD-related deaths for the urban counties is 5.3% and 4.9% for the other 22 rural counties. AOD-related deaths are determined using cause of death information from death certificates (see Appendix B for details).

  From the standpoint of prevention needs, clustering the *Rural A* counties appears useful as they are geographically and economically similar and are tied by a strong indication of substance use problems. Some care should be used in evaluating indicator levels with this group since the basis for their cluster is a variable related to substance abuse. Rates for these counties may not seem so high or low relative to rates for "Counties Like Us", but may exhibit considerable deviation from the state rate.

The remaining 22 rural counties are split between eastern and western Washington, 11 in each. None of these counties had more than 17,500 10-24 year olds with the eastern counties averaging 6,088 10-24 year olds and the western counties averaging 8,648 10-24 year olds. The groups include:

- **Rural B:** Adams, Asotin, Chelan, Columbia, Douglas, Garfield, Kittitas, Lincoln, Stevens, Walla Walla, and Whitman Counties.
- **Rural C:** Clallam, Cowlitz, Grays Harbor, Island, Jefferson, Lewis, Mason, Pacific, San Juan, Skagit, and Wahkiakum Counties.

APPENDIX I: REFERENCES

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APPENDIX J: COUNTIES FOR WHICH REPORTED ARREST RATES ARE BASED ON LESS THAN 80 PERCENT OF THE POPULATION

	PERCENT OF POPULATION COVERED											
	1990			1991			1992			1993		
County	10-14	10-17	18+	10-14	10-17	18+	10-14	10-17	18+	10-14	10-17	18+
Clallam	--	--	--	--	--	--	--	--	--	58.7	57.9	60.5
Cowlitz	--	--	--	--	--	--	--	--	--	64.7	65.4	61.2
Ferry	71.0	74.8	76.5	72.8	75.5	77.3	73.8	76.0	78.0	75.0	76.8	78.6
Grant	37.2	37.6	--	38.2	37.1	--	38.3	36.6	--	66.1	65.0	--
Kitsap	4.7	4.6	74.0	9.1	7.2	67.9	16.0	13.3	77.2	16.8	13.7	79.0
Kittitas	47.8	48.1	62.1	--	--	--	--	--	--	--	--	--
Lincoln	--	--	--	--	--	--	79.6	77.5	76.5	--	--	--
Pacific	--	--	--	28.5	26.3	29.2	29.0	25.4	28.8	--	--	--
Skagit	78.5	78.3	77.5	78.6	77.8	76.6	--	--	--	--	--	--
Snohomish	--	--	--	--	--	--	--	--	--	49.7	48.1	45.7
Spokane	--	--	--	61.7	60.6	65.3	--	--	--	--	--	--

-- Percentage is greater than 80%

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Availability of Drugs										
Alcohol Retail Licenses	Rate per 1,000	NOT AVAILABLE								
	# of Licenses									
	# of Persons (all ages)									
Tobacco Sales Licenses	Rate per 1,000	NOT AVAILABLE								
	# of Licenses									
	# of Persons (all ages)									
Community Laws & Norms Favorable to Crime & Drugs										
Average Length of Prison Sentence for Drug Offenses	Average			44		43				
	# of Months	NOT AVAILABLE								
	# of Prisoners (18+)									
Low Neighborhood Attachment & Community Disorganization										
Population Registered to Vote	Percent	66.6		62.2		68.2		62.5		
	# Registered	NOT AVAILABLE								
	# of Adults (18+)									
Residential Vacancies	Percent			4.47						4.47
	# Vacant			4,306,871						4,306,871
	Total Housing Units			96,254,281						96,254,281
Transitions and Mobility										
Existing Home Sales	Rate per 1,000	14.37	13.56	12.87	12.77	13.80	14.75	15.16	14.47	13.99
	# of Sales	3,513,000	3,346,000	3,211,000	3,220,000	3,520,000	3,802,000	3,946,000	3,802,000	3,584,000
	# of Persons (all ages)	244,498,836	246,819,119	249,403,447	252,137,973	255,038,739	257,800,487	260,349,838	262,755,270	256,247,626
Residential Building Permits	Rate per 1,000	5.95	5.42	4.45	3.76	4.29	4.65	5.27	5.07	4.59
	# of Permits	1,455,623	1,338,423	1,110,766	948,794	1,094,933	1,199,063	1,371,637	1,332,549	1,176,290
	# of Persons (all ages)	244,498,836	246,819,119	249,403,447	252,137,973	255,038,739	257,800,487	260,349,838	262,755,270	256,247,626
Households in Rental Properties	Percent			35.81						35.81
	# of Rentals			32,922,599						32,922,599
	Total Households			91,947,410						91,947,410
Moved Within County During Last 5 Years	Percent			25.46						25.46
	# Moved within County			58,675,635						58,675,635
	# of Persons (5+)			230,445,777						230,445,777
Moved From Outside County During Last 5 Years	Percent			21.25						21.25
	# Moved from Outside			48,973,172						48,973,172
	# of Persons (5+)			230,445,777						230,445,777

*Averages are based on all available years of data from 1990 to 1995.
The Average Rate = Average Numerator / Average Denominator * a factor (i.e. 100 or 1,000 or 100,000).
**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Extreme Economic and Social Deprivation										
Children in AFDC	Rate per 1,000	115.82	116.14	120.88	130.36	139.04	142.12	141.05	135.05	134.88
	# of Children in AFDC	7,325,008	7,369,883	7,755,394	8,488,398	9,200,516	9,538,573	9,595,846	9,283,374	8,977,017
	# of Children (0-17)	63,247,010	63,456,320	64,156,459	65,116,022	66,172,440	67,116,482	68,033,369	68,739,952	66,555,787
Food Stamp Recipients	Rate per 1,000						106.15	106.50	101.64	104.75
	# of Recipients (all ages)						27,365,479	27,726,864	26,707,357	27,266,567
	# of Persons (all ages)						257,800,487	260,349,838	262,755,270	260,301,865
Free and Reduced Lunch Program	Percent				35.45	35.47	37.45	38.24		36.69
	# Accepted in Program				13,462,921	14,606,648	15,616,106	16,279,504		14,991,295
	Total Students (K-12)				37,979,283	41,180,755	41,695,738	42,570,832		40,856,652
Unemployment	Percent	5.5	5.3	5.5	6.7	7.4	6.8	6.1	5.6	6.3
	# Unemployed (16+)	6,701,000	6,528,000	6,874,000	8,426,000	9,375,000	8,727,000	7,971,000	7,415,000	8,131,000
	# in Civilan Labor Force	121,669,000	123,869,000	124,787,000	125,303,000	126,972,000	128,035,000	131,033,000	132,331,000	128,077,000
Exhausted Unemployment Benefits	Percent						36.57	37.34	35.93	36.63
	# Exhausted (16+)						3,191,694	2,976,626	2,664,250	2,944,190
	# Unemployed (16+)						8,727,000	7,971,000	7,415,000	8,037,667
Persons Living Below the Poverty Level	Percent			13.12						13.12
	# Below Poverty (all ages)			31,742,864						31,742,864
	# of Persons (all ages)			241,977,859						241,977,859
Children Living Below the Poverty Level	Percent			18.26						18.26
	# Below Poverty (0-17)			11,428,916						11,428,916
	# of Children (0-17)			62,605,519						62,605,519
Families Living Below the Poverty Level	Percent			9.97						9.97
	# Below Poverty (families)			6,487,515						6,487,515
	# of Families			65,049,428						65,049,428
Female Headed Family Households	Percent			21.02						21.02
	# Single Female Headed			6,987,624						6,987,624
	Total Family Households			33,240,605						33,240,605
Per Capita Income	Average	17,015	18,127	19,142	19,636	20,581	21,224	22,047	23,208	20,997
Low Birthweight Babies Born	Rate per 1,000	69.31	70.47	69.69	71.17	70.80	72.20	72.84		71.32
	# with Low Birthweight	270,681	284,391	289,418	292,230	287,493	288,482	287,607		289,046
	Total Live Births	3,905,276	4,035,725	4,152,908	4,106,163	4,060,531	3,995,448	3,948,213		4,052,653

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**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Family History of High Risk Behavior										
AOD-related Deaths	Percent	5.90	6.03	6.14	6.14	6.11				6.13
	# of AOD-Related Deaths	127,931	129,635	131,925	133,311	132,936				132,724
	Total Deaths	2,167,999	2,150,466	2,148,463	2,169,518	2,175,613				2,164,531
Adults Admitted to AOD Treatment Programs	Rate per 1,000					7.45	7.60	7.70		7.58
	# Admitted (18+)					1,145,555	1,179,568	1,206,232		1,177,119
	# of Adults (18+)					153,731,231	155,291,636	156,665,271		155,229,379
Adults in AOD Treatment Programs	Rate per 1,000	NOT AVAILABLE								
	# Admitted (18+)									
	# of Adults (18+)									
Educational Attainment - Less than High School Graduate	Percent			24.77						24.77
	# without Diplomas (25+)			39,343,718						39,343,718
	# of Adults (25+)			158,868,436						158,868,436
Educational Attainment - High School Grad. Only	Percent			29.99						29.99
	# of Graduates (25+)			47,642,763						47,642,763
	# of Adults (25+)			158,868,436						158,868,436
Prisoners in State Correctional Systems	Rate per 100,000	141.04	169.85	183.49	182.54	187.15	180.41	188.09		184.35
	# of Admissions (18+)	344,848	419,224	457,636	460,259	477,316	465,088	489,682		469,996
	# of Persons (all ages)	244,498,836	246,819,119	249,403,447	252,137,973	255,038,739	257,800,487	260,349,838		254,946,097
Family Management Problems										
Children Living Away from Parents	Rate per 1,000			96.59						96.59
	# Living Away (0-17)			6,143,412						6,143,412
	# of Children (0-17)			63,604,432						63,604,432
Children Placed in Foster Care	Rate per 1,000	NOT AVAILABLE								
	# with Foster Family (0-17)									
	# of Children (0-17)									
Victims in Reported Child Abuse and Neglect Referrals	Rate per 1,000	NOT AVAILABLE								
	# of Reported Victims									
	# of Children (0-17)									
Victims in Accepted Child Abuse and Neglect Referrals	Rate per 1,000			40.18	41.40	44.17	43.75	43.15		42.55
	# of Accepted Victims			2,577,645	2,695,658	2,922,513	2,936,554	2,935,470		2,813,568
	# of Children (0-17)			64,156,459	65,116,022	66,172,440	67,116,482	68,033,369		66,118,954
Family Conflict										
Divorce	Rate per 1,000	6.44	6.31	6.38	6.35	6.43	6.22	6.19	6.03	6.27
	# of Divorces	1,167,000	1,157,000	1,182,000	1,187,000	1,215,000	1,187,000	1,191,000	1,169,000	1,189,000
	# of Persons (18+)	181,251,826	183,362,799	185,246,988	187,021,951	188,866,299	190,684,005	192,316,469	194,015,318	189,691,838

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**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Single Parent Family Households	Percent			25.89						25.89
	# Single Parent Headed			8,605,962						8,605,962
	Total Family Households			33,240,605						33,240,605
Domestic Violence Arrests	Rate per 1,000	NOT AVAILABLE								
	# of Arrests									
	# of Adults (18+)									
Favorable Parental Attitudes and Involvement in Crime and Drugs										
Alcohol-related Traffic Fatalities	Percent	46.31	45.13	45.50	43.94	41.18	38.08	36.79	37.31	40.53
	# Alcohol-related	21,804	20,573	20,291	18,238	16,163	15,806	14,979	15,593	16,845
	Total Traffic Fatalities	47,087	45,582	44,599	41,508	39,250	41,508	40,716	41,798	41,563
Adult Drunken Driving Arrests	Rate per 1,000			9.57	8.89	9.13	8.52			9.02
	# of Arrests (18+)			1,375,134	1,275,439	1,307,627	1,219,249			1,294,362
	# of Adults (18+)			143,729,324	143,532,750	143,299,606	143,128,860			143,422,635
Adult Alcohol-related Arrests	Rate per 1,000			17.41	15.79	16.07	14.94			16.05
	# of Arrests (18+)			2,502,286	2,265,783	2,302,291	2,137,722			2,302,021
	# of Adults (18+)			143,729,324	143,532,750	143,299,606	143,128,860			143,422,635
Adult Drug-related Arrests	Rate per 1,000			5.60	5.02	5.91	6.12			5.66
	# of Arrests (18+)			804,415	720,822	846,443	875,290			811,743
	# of Adults (18+)			143,729,324	143,532,750	143,299,606	143,128,860			143,422,635
Adult Violent Crime Arrests	Rate per 1,000			3.28	3.21	3.69	3.69			3.47
	# of Arrests (18+)			471,164	460,992	528,841	528,738			497,434
	# of Adults (18+)			143,729,324	143,532,750	143,299,606	143,128,860			143,422,635
Adult Property Crime Arrests	Rate per 1,000			8.36	8.11	8.59	8.27			8.33
	# of Arrests (18+)			1,201,680	1,163,846	1,230,873	1,183,185			1,194,896
	# of Adults (18+)			143,729,324	143,532,750	143,299,606	143,128,860			143,422,635
Drug Treatment During Pregnancy	Rate per 1,000					5.52	5.60	5.41		5.51
	# Pregnant in Treatment					18,587	18,550	17,699		18,279
	# of Live Births					3,367,567	3,313,367	3,270,395		3,317,110
Lack of Commitment to School										
High School Dropouts, Age 16-19	Percent			11.22						11.22
	# of Dropouts (16-19)			1,605,494						1,605,494
	# of Persons (16-19)			14,315,448						14,315,448
Academic Failure										
GED Certificates Issued	Rate per 1,000		1.51	1.73	1.87	1.79	1.82	1.89	1.92	1.84
	# Receiving GED (all ages)		371,775	430,377	471,669	456,590	468,781	491,156	503,813	470,398
	# of Persons (all ages)		246,819,119	249,403,447	252,137,973	255,038,739	257,800,487	260,349,838	262,755,270	256,247,626

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**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Poor Academic Performance, Grade 4	Percent				25.00	25.00	25.00	25.00	25.00	25.00
	# with Low Score	NOT APPLICABLE								
	# of 4th Graders Tested									
Poor Academic Performance, Grade 8	Percent				25.00	25.00	25.00	25.00	25.00	25.00
	# with Low Score	NOT APPLICABLE								
	# of 8th Graders Tested									
Early and Persistent Antisocial Behavior										
Antisocial Behavior**	Average Scale Score								1.22	1.22
Alienation, Rebelliousness, and Lack of Social Bonding										
Adolescent Suicides and Suicide Attempts	Rate per 100,000	NOT AVAILABLE								
	# of Suicides & Attempts									
	# of Children (10-17)									
Adolescent Suicides	Rate per 100,000	4.66	4.37	4.28	4.24	4.38	4.32	4.43		4.33
	# of Suicides	1,272	1,180	1,165	1,174	1,239	1,247	1,304		1,226
	# of Children (10-17)	27,292,218	27,031,395	27,245,040	27,680,334	28,309,207	28,891,374	29,431,474		28,311,486
Early Initiation of the Problem Behavior										
AOD-related Arrests, Age 10-14	Rate per 1,000			1.59	1.46	1.60	1.87			1.63
	# of Arrests (10-14)			21,245	19,734	22,039	26,032			22,263
	# of Children (10-14)			13,336,448	13,559,210	13,731,845	13,902,656			13,632,540
Violent Crime Arrests, Age 10-14	Rate per 1,000			1.83	1.97	2.38	2.52			2.18
	# of Arrests (10-14)			24,352	26,659	32,712	35,026			29,687
	# of Children (10-14)			13,336,448	13,559,210	13,731,845	13,902,656			13,632,540
Property Crime Arrests, Age 10-14	Rate per 1,000			16.38	16.28	17.76	17.08			16.88
	# of Arrests (10-14)			218,445	220,780	243,812	237,517			230,139
	# of Children (10-14)			13,336,448	13,559,210	13,731,845	13,902,656			13,632,540
Vandalism Arrests, Age 10-14	Rate per 1,000			3.25	3.45	3.78	3.69			3.55
	# of Arrests (10-14)			43,401	46,797	51,864	51,279			48,335
	# of Children (10-14)			13,336,448	13,559,210	13,731,845	13,902,656			13,632,540
Friends Who Engage in the Problem Behavior										
Substance Use by Peers**	Average Scale Score								1.39	1.39
Favorable Attitudes Toward the Problem Behavior										
Personal Attitude Favorable towards Substance Use**	Average Scale Score								1.99	1.99

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**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Constitutional Factors										
Sensation Seeking**	Average Scale Score								2.84	2.84
Protective Factors										
Community Rewards for Conventional Involvement*	Average Scale Score								2.38	2.38
Family Rewards for Conventional Involvement*	Average Scale Score								3.14	3.14
School Rewards for Conventional Involvement*	Average Scale Score								2.45	2.45
Opportunities for Positive Involvement in the Family**	Average Scale Score								2.85	2.85
Opportunities for Positive Involvement in the School**	Average Scale Score								2.59	2.59
Belief in the Moral Order**	Average Scale Score								2.56	2.56
Social Skills**	Average Scale Score								2.86	2.86
Additional Indicators of Substance Abuse and Other Problem Behavior										
Juvenile Arrests for Alcohol Violations	Rate per 1,000			7.41	6.29	5.78	5.35			6.20
	# of Arrests (10-17)			156,711	133,603	124,116	115,993			132,606
	# of Children (10-17)			21,138,866	21,243,680	21,479,206	21,686,084			21,386,959
Juvenile Arrests for Drug Law Violations	Rate per 1,000			3.05	2.84	3.44	4.30			3.41
	# of Arrests (10-17)			64,547	60,280	73,813	93,142			72,946
	# of Children (10-17)			21,138,866	21,243,680	21,479,206	21,686,084			21,386,959
Juvenile Arrests for Violent Crimes	Rate per 1,000			4.26	4.44	5.16	5.46			4.83
	# of Arrests(10-17)			90,047	94,284	110,888	118,324			103,386
	# of Children (10-17)			21,138,866	21,243,680	21,479,206	21,686,084			21,386,959
Juvenile Arrests for Property Crimes	Rate per 1,000			25.82	25.44	27.57	26.63			26.37
	# of Arrests (10-17)			545,856	540,412	592,239	577,496			564,001
	# of Children (10-17)			21,138,866	21,243,680	21,479,206	21,686,084			21,386,959
Juvenile Arrests for Curfew, Loitering, Vandalism, & Disorderly	Rate per 1,000			12.05	12.75	13.63	14.65			13.28
	# of Arrests (10-17)			254,798	270,857	292,846	317,784			284,071
	# of Children (10-17)			21,138,866	21,243,680	21,479,206	21,686,084			21,386,959

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National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Guilty Adjudications of Juveniles	Rate per 1,000	NOT AVAILABLE								
	# of Adjudications (10-17)									
	# of Children (10-17)									
Juveniles Diversions	Rate per 1,000	NOT AVAILABLE								
	# of Placements (0-17)									
	# of Children (10-17)									
Adolescents Admitted to AOD Treatment	Rate per 1,000					3.08	3.04	3.47		3.20
	# Admitted (10-17)					71,234	71,841	83,608		75,561
	# of Children (10-17)					23,155,145	23,639,410	24,085,433		23,626,663
Adolescents in AOD Treatment	Rate per 1,000	NOT AVAILABLE								
	# in Treatment (0-17)									
	# of Children (10-17)									
Adolescent Sexually Transmitted Diseases	Rate per 1,000	NOT AVAILABLE								
	# of Cases (0-19)									
	# of Persons (0-19)									
Birthrate Among Adolescents	Rate per 1,000	14.08	14.62	14.70	14.85	14.49	14.43	14.51		14.59
	# of Births	187,212	192,530	194,984	200,240	199,769	203,089	208,070		201,230
	# of Females (10-17)	13,294,650	13,165,711	13,266,981	13,480,617	13,788,695	14,074,792	14,338,496		13,789,916

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**1996 Oregon School Survey Data.

National Annual Indicator Data

National		1988	1989	1990	1991	1992	1993	1994	1995	National Average 1990-1995*
Poverty Indicators										
White Children Living Below the Poverty Level	Percent			12.47						12.47
	# Below Poverty			5,876,267						5,876,267
	# White Children (0-17)			47,107,037						47,107,037
Black Children Living Below the Poverty Level	Percent			39.82						39.82
	# Below Poverty			3,717,128						3,717,128
	# Black Children (0-17)			9,335,908						9,335,908
Native American Children Living Below the Poverty Level	Percent			38.79						38.79
	# Below Poverty			260,403						260,403
	# Native Am.Children (0-17)			671,231						671,231
Asian Children Living Below the Poverty Level	Percent			17.10						17.10
	# Below Poverty			346,491						346,491
	# Asian Children (0-17)			2,026,375						2,026,375
Other Race Children Living Below the Poverty Level	Percent			35.46						35.46
	# Below Poverty			1,228,627						1,228,627
	# Other Children (0-17)			3,464,968						3,464,968
Hispanic Children Living Below the Poverty Level	Percent			25.44						25.44
	# Below Poverty			2,407,466						2,407,466
	# Hispanic Children (0-17)			9,464,467						9,464,467

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**1996 Oregon School Survey Data.

“Counties Like Us” County Groups

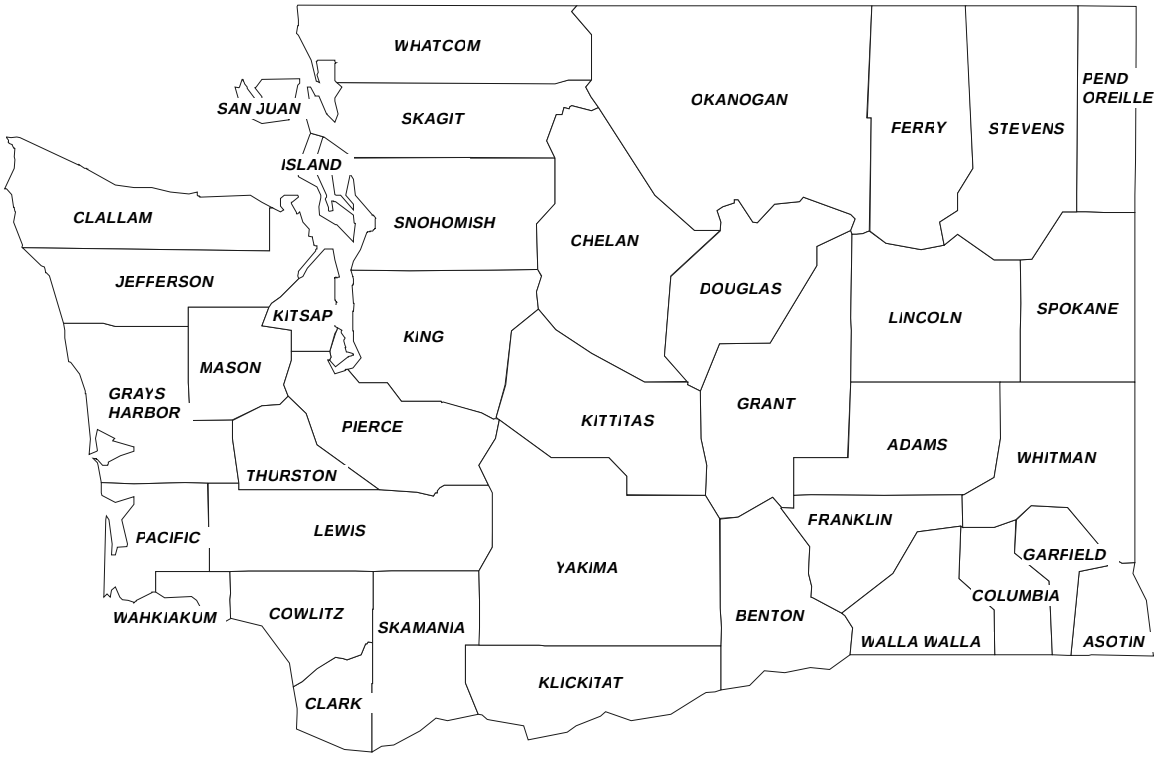
Urban A
King

Urban B
Pierce
Snohomish
Spokane

Urban C
Benton
Clark
Kitsap
Thurston
Whatcom
Yakima

Rural A
Ferry
Franklin
Grant
Klickitat
Okanogan
Pend Oreille
Skamania

Rural B
Adams
Asotin
Chelan
Columbia
Douglas
Garfield
Kittitas
Lincoln
Stevens
Walla Walla
Whitman

Rural C
Clallum
Cowlitz
Grays Harbor
Island
Jefferson
Lewis
Mason
Pacific
San Juan
Skagit
Wahkiakum

Washington Counties