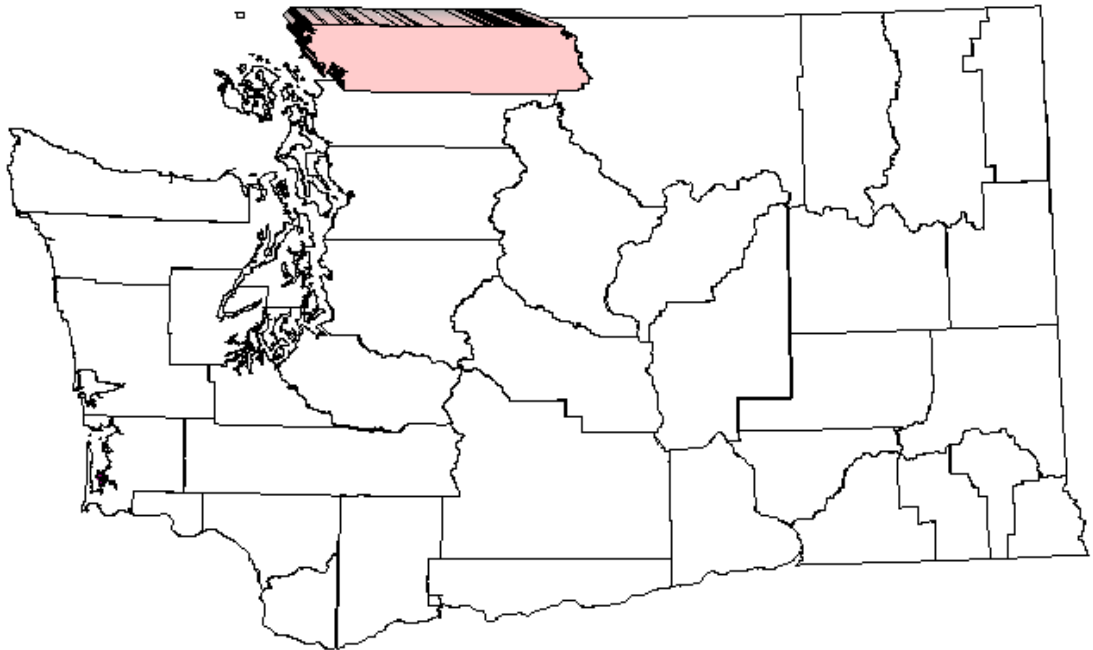


1999

# County Profile On Risk and Protection for Substance Abuse Prevention Planning

In

## WHATCOM COUNTY



Washington State  
DEPARTMENT OF SOCIAL  
& HEALTH SERVICES  
Division of Alcohol and  
Substance Abuse  
Research and Data Analysis

# COUNTY PROFILE ON RISK AND PROTECTION FOR SUBSTANCE ABUSE PREVENTION PLANNING

WHATCOM COUNTY

Linda Becker, Ph.D.  
Vera Barga, BS  
Maija Sandberg, BA  
Monica Stanley, BA  
Debbie Clegg, BA  
Nora Ellsworth, PRES

## **School Survey Analysis**

Martin Hankins, Ph.D.

The authors are solely responsible for the interpretations, calculations, and manipulations of the data in this report.

August 1999

Research and Data Analysis  
Department of Social and Health Services  
Olympia, Washington 98504-5204

**Department of Social and Health Services**

*Lyle Quasim, Secretary*

**Research and Data Analysis**

*Elizabeth Kohlenberg, Ph.D., Acting Director*

in conjunction with

**Division of Alcohol and Substance Abuse**

*Kenneth D. Stark, Director*

*Antoinette Krupski, Ph.D., Research Supervisor*

## **Acknowledgement of Data Providers**

*Tim Norris*, Employment Security Department, Labor Market and Economic Analysis.

*Chuck Dalrymple*, Washington State Liquor Control Board.

*Linda Gibson*, Washington Association of Sheriffs and Police Chiefs.

*Theresa Lowe*, Office of Financial Management.

*David Elliott*, Office of the Secretary of State, Elections Division.

*Washington Center for Real Estate Research*, Washington State University, [www.cbe.wsu.edu/~wcrer](http://www.cbe.wsu.edu/~wcrer)

*Ed Strozyk*, Office of Superintendent of Public Instruction, Information Services.

*Jay Ahn*, Department of Social and Health Services, Economic Services Administration.

*Sharon Estee*, Patricia M. Starzyk, Department of Health, Center for Health Statistics.

*Fritz Wrede*, Department of Social and Health Services, Division of Alcohol and Substance Abuse.

*R. Peggy Smith*, Department of Corrections.

*Tammy Cordova*, *Cindy Ellingson*, Department of Social and Health Services, Children's Administration.

*Janice Gordon*, Washington State Patrol, Identification and Criminal History Section.

*Dick Doane*, Washington State Patrol, Records Section.

*Enrico Yapp*, Office of Superintendent of Public Instruction, Records Section.

*Lisa LaFond*, Department of Health, Tobacco Prevention Program (for The Department of Revenue).

*Leah Cochran*, Department of Health, Sexually Transmitted Disease (STD) Services.

*Vicki Hohner*, Department of Health, Office of Hospital and Patient Data Systems.

*Kathryn Beall*, *Curtis Mack*, *Ray Saeger*, *Rebecca Yette*, Department of Social and Health Services,

*Eric Einspruch*, RMC Research Corporation, for the Office of the Superintendent of Public Instruction

## ***The Social Development Model***

*Drs. David Hawkins and Richard Catalano of the University of Washington have elaborated a model for prevention that is based on a social development strategy. This model proposes that a young person with meaningful opportunities to participate in a pro-social group, along with the skills necessary to contribute to the group and recognition for those contributions, will develop strong bonds to that group. These bonds are characterized by attachment (positive relationships with others), commitment (an investment to the future), and a belief about what is right and wrong. The model suggests that those youth who develop strong bonds to family, school and community, and who live in an environment that has norms opposed to drug use, are more likely to live lives free from Alcohol, Tobacco, and Other Drug abuse and to experience personal success.*

# **OVERVIEW**

# OVERVIEW

## What this County Profile contains...

This report updates the analysis of risk and protective factor indicators that were presented in the 1996 County Profile of Risk and Protection for Substance Abuse Prevention Planning. We are reporting data in this profile that will assist you in planning for substance abuse prevention. Please read the overview carefully. It will alert you to the theoretical and practical issues involved in utilizing this data. If you are not familiar with the 1996 County Profiles, you can find them on the DSHS web page. The web address is <http://www.wa.gov/dshs/geninfo/rdapub.html>.

The contents of this new County Profile include:

- **Risk and Protective Factor Indicators**

The Overview section of the report briefly describes the differences between archival and survey data, and reviews the relationships between these two kinds of data and risk and protective factors.

- **County-Based Archival Data**

The second section of the county profile presents archival data for the county along with comparison data for the whole state, and for groups or clusters of counties that have some characteristics in common. We call these clusters “Counties Like Us”. For risk factors the data are organized by domain (community, family, school, and individual), followed by a section of substance abuse prevalence indicators. At the end of this section, there is a Glossary that alphabetically lists all of the archival indicators.

- **Student Survey Data**

Part three presents results from the 1998 administration of the Washington State Survey of Adolescent Health Behaviors (WSSAHB). State and regional results are presented for all counties. In addition, in their respective profiles, we present county data for counties in which a significant proportion of the school districts participated in the survey: Asotin, Franklin, Grays Harbor, Island, King, Pacific, Pierce, Skagit, Snohomish and Thurston.

- **Background Information**

The final two parts of the report are Technical Notes and Sources. The Technical Notes include explanations of methods used to analyze data (for instance Counties-Like-Us, standardization and correlation). In the Sources section you can read where archival data originates, how it was collected, and details about adjustments we have made to the original data. This information is also available in the briefer format of the alphabetical Glossary.

# Table of Contents

INTRODUCTION	1
ARCHIVAL DATA	
Interpreting Archival Data	7
Risk Profile - Standardized Summary Measures for Risk Factors by Domain	9
Chart Model - How to Read the Archival Indicator Data	10
Risk Factor Data	12
<i>Community Domain</i>	12
Availability of Drugs	12
Alcohol Retail Licenses	12
Tobacco Sales Licenses	13
Extreme Economic and Social Deprivation	14
Children in Aid to Families Programs	14
Food Stamp Recipients	15
Free and Reduced Lunch Program	15
Low Birthweight Babies Born	16
Unemployment	16
Low Neighborhood Attachment & Community Disorganization	17
Population Not Registered to Vote	17
Population Not Voting in Elections	18
Prisoners in State Correctional Systems	18
Residential Vacancies	19
Transitions and Mobility	20
Existing Home Sales	20
Households in Rental Properties	21
Net Migration	21
New Residence Construction	22
<i>Family Domain</i>	23
Family Conflict	23
Divorces	23
Domestic Violence Arrests	24
Family History of Substance Abuse	25
Adults in Alcohol and Drug Treatment	25
Family Management Problems	26
Children in Foster Care	26
Children Living Away From Parents	27
Victims in Accepted Child Abuse Referrals	27
<i>School Domain</i>	28
Low Commitment to School	28
High School Dropouts	28
Low School Achievement	29
Poor Academic Performance, Grade 4	29
Poor Academic Performance, Grade 8	30



## Table of Contents (continued)

<i>Individual/Peer Domain</i>	31
Early Initiation of Problem Behavior	31
Alcohol- and Drug-Related Arrests, Age 10-14	31
Property Crime Arrests, Age 10-14	32
Vandalism Arrests, Age 10-14	32
<i>Prevalence Measures</i>	33
<i>Crime</i>	33
Non-Violent Crime	33
Adult Property Crime Arrests	33
Juvenile Vandalism and Conduct Type Arrests	34
Juvenile Property Crimes Arrests	34
Violence	35
Adult Violent Crime Arrests	35
Violent Crime Arrests, Age 10-17	36
<i>Substance Use</i>	37
Substance Use	37
Adolescents in Alcohol and Drug Treatment	37
Adult Alcohol-Related Arrests	38
Adult Drug-Related Arrests	38
Adult Drunken Driving Arrests	39
Alcohol-Related Traffic Fatalities	39
Juvenile Alcohol Violation Arrests	40
Juvenile Drug Law Violation Arrests	40
<i>Other</i>	41
Adolescent Sexual Behavior	41
Adolescent Sexually Transmitted Diseases	41
Birthrate Among Adolescents	42
Suicide	43
Adolescent Suicide and Suicide Attempts	43
GLOSSARY OF ARCHIVAL INDICATORS	47
SCHOOL SURVEY DATA	57
Interpreting survey results	57
Geographic Variation and Data Availability	59
<i>Prevalence Measures</i>	61
Alcohol - 30 Day Use	61
Alcohol - Lifetime Use	61
Drug - 30 Day Use	61
Drug - Lifetime Use	62
Tobacco - 30 Day Use	62
Tobacco - Lifetime Use	62
<i>Community Domain</i>	63
<i>Risk Factors</i>	63
Low Neighborhood Attachment	63

## Table of Contents (continued)

Low Neighborhood Attachment	63
Community Disorganization	63
Personal Transition and Mobility	63
Community Transition and Mobility	64
Laws and Norms Favorable to Drug Use	64
Perceived Availability of Drugs	64
<i>Protective Factors</i>	65
Opportunities for Prosocial Involvement	65
Rewards for Prosocial Involvement	65
<i>School Domain</i>	66
<i>Risk Factors</i>	66
Academic Failure	66
Little Commitment to School	66
<i>Protective Factors</i>	67
Opportunities for Prosocial Involvement	67
Rewards for Prosocial Involvement	67
<i>Peer/Individual Domain</i>	68
<i>Risk Factors</i>	68
Rebelliousness	68
Early Initiation of Antisocial Behavior	68
Impulsiveness	68
Antisocial Behavior	69
Attitudes Favorable toward Antisocial Behavior	69
Attitudes Favorable toward Drug Use	69
Perceived Risk from Drug Use	70
Interaction with Antisocial Peers	70
Friend's Use of Drugs	70
Sensation Seeking	71
Rewards for Antisocial Behavior	71
<i>Protective Factors</i>	72
Belief in the Moral Order	72
Social Skills	72
Religiosity	72
TECHNICAL NOTES	76
DATA SOURCES	87

## Introduction

Since 1993 the Division of Alcohol and Substance Abuse (DASA) has required counties to develop prevention strategies based on needs assessments that incorporate analyses of risk and protective factors. Many years worth of research has shown that these risk and protective factors have a direct relationship to adolescent substance abuse. A key requirement of this approach is that planners assess the need for prevention based on a risk profile specific to their planning area. In other words, prevention efforts must be targeted at a specific set of risks for a particular part of the population. The purpose of this report is to provide risk and protective factor profiles that can be used to support this county level prevention planning. [See Research in the Technical Notes for a brief list of resources that point to the literature behind this model of prevention.] We measure the levels of these risk and protective factors by collecting two kinds of indicator data—archival and survey.

*It is important to understand how archival and survey data differ.* In the next section we explain that archival data are “proxy” or surrogate measures. That means that these indicators are statistically correlated with substance abuse measures, but they do not directly measure the behaviors or risk factors. The benefit of archival indicators is that they are available uniformly across the state. With these data, therefore, we can make meaningful comparisons between the risk profiles of different geographic areas.

In contrast to archival data, survey data is designed specifically to answer questions about substance use and about the risk and protective factors that affect substance use. Therefore, the indicators from survey results are *directly* related to the risk and protective factors, and have hypothesized causal connections. We collect survey data from the Washington State Survey of Adolescent Health Behaviors (WSSAHB). This is a survey, administered in schools approximately every two years, that asks young people about their use of and attitudes about alcohol, tobacco and other drugs, and other health related behavior questions. More and more school districts are choosing to administer this survey because they want more precise information for substance abuse prevention planning and evaluation. However, currently only a quarter of the counties in the state have valid county level data. The rest of the counties use state and regional data.

### **Interpreting Archival Data – Some Background**

We collect archival indicator data from already existing databases in state and federal agencies. In other words, the data are not originally collected for the purpose of measuring risk for substance abuse—they serve as “proxies” for risk factor indicators. The proxy relationship means that the archival indicators serve as stand-ins for direct measures of risk factors. The choice of which kinds of archival data can be used as indicators of risk is based on a comparison between the rates of risk calculated from archival data to rates of risk measured directly in the Washington State Survey of Adolescent Health Behaviors (WSSAHB). Valid archival indicators show a statistical correlation to risk indicators in the survey. Statistical correlation means that the values or rates associated with each indicator tend to follow the same pattern of rise and fall as do the levels of directly measured risk and substance abuse indicators from the survey.

The implication of this proxy relationship (that archival data are not directly related to the risk factor they measure) is that it is not the indicator itself in which we are interested. For instance, research shows that community bonds are weakened in places where there is a lot of turnover—a lot of people moving in and out. This adds to the risk that an adolescent will engage in unhealthy behavior. As a risk factor, this has been named *Transitions and Mobility*. We cannot exactly measure the amount of transition in a community, so we use the 1990 U.S. Census measure of households living in rental property. To establish this proxy relationship, we compared the census numbers of rental property to the results from the survey (the WSSAHB) scale that measured the risk factor *Transitions and Mobility*. The results of this comparison show that this measure of rental property can serve as a proxy indicator: the amount of rental property is statistically correlated with survey respondents' perception of rate of transition in their communities.

As a proxy, *the number of rental properties does not cause high rates of transition and does not cause adolescents to engage in risky behavior*. But the **correlation** exists: communities in which there is a lot of turnover (*Transitions and Mobility*) are often communities where there are high rates of risky behavior, and these are also often communities where there is a high proportion of rental properties. That is, the relationship is indirect, not causal. What is the significance of this? If your county's level of risk for this factor is high, you would not design prevention activities to reduce the frequency of the *indicator* (the number of rental properties). But what you might want to do is some additional research into the *risk factor* (*Transitions and Mobility*) to learn what kinds of interventions would be helpful in neighborhoods with high rates of transition.

The benefit of archival data is that they come from a wide variety of sources and are available uniformly across the state. This uniformity of data allows us to present county data in comparison to both the state as a whole, and to the grouping of counties called "Counties Like Us". Some of the exceptions to the uniformity are police jurisdictions that do not report their arrest data, and some reservation lands that are served by local agencies that do not have state report requirements. In these cases, however, you may be able to get data from the relevant agencies.

*To learn the police jurisdictions in your county for which we do not have complete arrest data, see the table following "Uniform Crime Report – Non-Reporting Police Jurisdictions" in the Technical Notes.*

**NOTE: Changes in the Risk Factor Indicators**

Based on the research cited above, we have made a few modifications in the risk factors that were presented in the 1996 profiles. This new organization of risk factors, and changes in some of the indicators is especially important to those of you who have based previous needs assessment on the 1996 risk profile for your county. See Technical Notes for a table with the specific changes.

## Interpreting Survey Data - Washington State Survey of Adolescent Health Behaviors (WSSAHB)

Approximately every two years since 1988, some of the 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders of Washington have been participating in health behavior surveys. The surveys have included questions about alcohol, tobacco and other drug use (ATOD), and related risk and protective factors. In contrast to archival measures, then, these questions **directly** measure the risk and protective factors. For instance, the risk factor *Transitions and Mobility* is measured by survey questions about the student's experience of moving and changing schools, as well as whether or not the community seems to have a lot of people moving in and out.

The WSSAHB is the best source of information about ATOD use, attitudes about drug use, and risk levels among adolescents in Washington. Because the WSSAHB is uniquely designed for measuring levels of risk and protection, these survey measures provide information that enhances our planning for substance abuse prevention and allows for long-term outcome evaluation. While evaluation tools designed for specific prevention interventions must be used to judge the immediate effectiveness of a prevention activity, a comprehensive community-wide strategy designed to reduce certain risk factors and enhance protective factors should over time produce change in the levels of risk and protection measured in a school or community.

*Some counties have county-level WSSAHB results and others do not.*

Initially the state's adolescent health behavior survey collected data for the purpose of a state level of result so that we could see how Washington compared to other states, and whether on average across the state ATOD use was going up or down or staying the same. Recently the focus of survey administration has expanded to include the collection of survey results for local prevention planning. For local results, however, all but the largest school districts have to survey all or nearly all of their 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders. This is because the **sample size** is based on the number of classrooms, and a random sample cannot be drawn when the total number of classrooms is small. While in 1998 more than 50,000 students participated in the survey, survey data are still not available uniformly across the state. Only ten counties had the widespread participation in the survey required to yield valid local results, and only a few have valid results at every grade level. For large counties, school district reports may be the preferred unit for analysis.

*For detailed discussions of the survey, its results and interpretation at the level of the state, there are a number of sources of information. Longitudinal data from this survey has been presented in the core **Analytic Report** which is available from the Safe and Drug Free Schools office at the Office of the Superintendent of Public Instruction (OSPI), 360-753-5595. (Under "Research" in the Technical Notes you will find some additional publications based on this survey.)*



## **ARCHIVAL DATA**

Interpreting Archival Data

Risk Profile - Standardized Summary Measures for Risk Factors Grouped by Domain

Chart Model - How to Read Your Charts

Risk Factors, Indicators, Charts and Tables

Glossary of Archival Indicators





## INTERPRETING ARCHIVAL DATA

Archival indicators of risk factors support needs assessments by creating a distinctive profile of a county's average levels of risks. Comparing your county's levels of risks to other counties and the state will help your community or county prioritize risk factors. Thus the risk profile creates a research basis for targeting prevention interventions.

The archival indicators are presented in two basic formats—as **rates** (and the 5-year average rate), and as **standardized scores**. There is also a **summary measure**, which is simply the average of a set of standardized scores.

The difference between rates and standardized scores is important. Rates are calculated from the number of events that are being counted for each indicator. For example, the first rate in this section is based on the number of retail liquor licenses in the county divided by the number of people in the county. The standardized scores, on the other hand, are based on a comparison of rates from all other counties to see—on average—how different each county's scores are from the average state score. (See the Technical Notes for a description of how rates and standardized scores are calculated.)

### County Risk Profile

The first page of this section of archival data is the overall risk profile, which is based on summary measures. A summary measure is the average of the standardized scores of **all indicators associated with each individual risk factor**. The profile compares the county and Counties Like Us to the state average rate, which is represented by the line down the middle of the profile. For instance, there are two indicators for the risk factor *Availability of Drugs*. The rates from these two indicators are first standardized (see Technical Notes) and then the two standard scores are averaged to come up with a single Standardized Summary Score. The standardized score graphically represented by the county bar shows the difference between the county's score for that risk factor and the state's mean score.

### Indicator Data

Following the risk profile you will find the details behind the standardized summary measures. For each risk factor there is a section with the annual rates for every indicator used for that risk factor, again compared to the state and the Counties Like Us. With this annual data you can look at trends over time for most indicators. (We have created a model to help you read the data.)

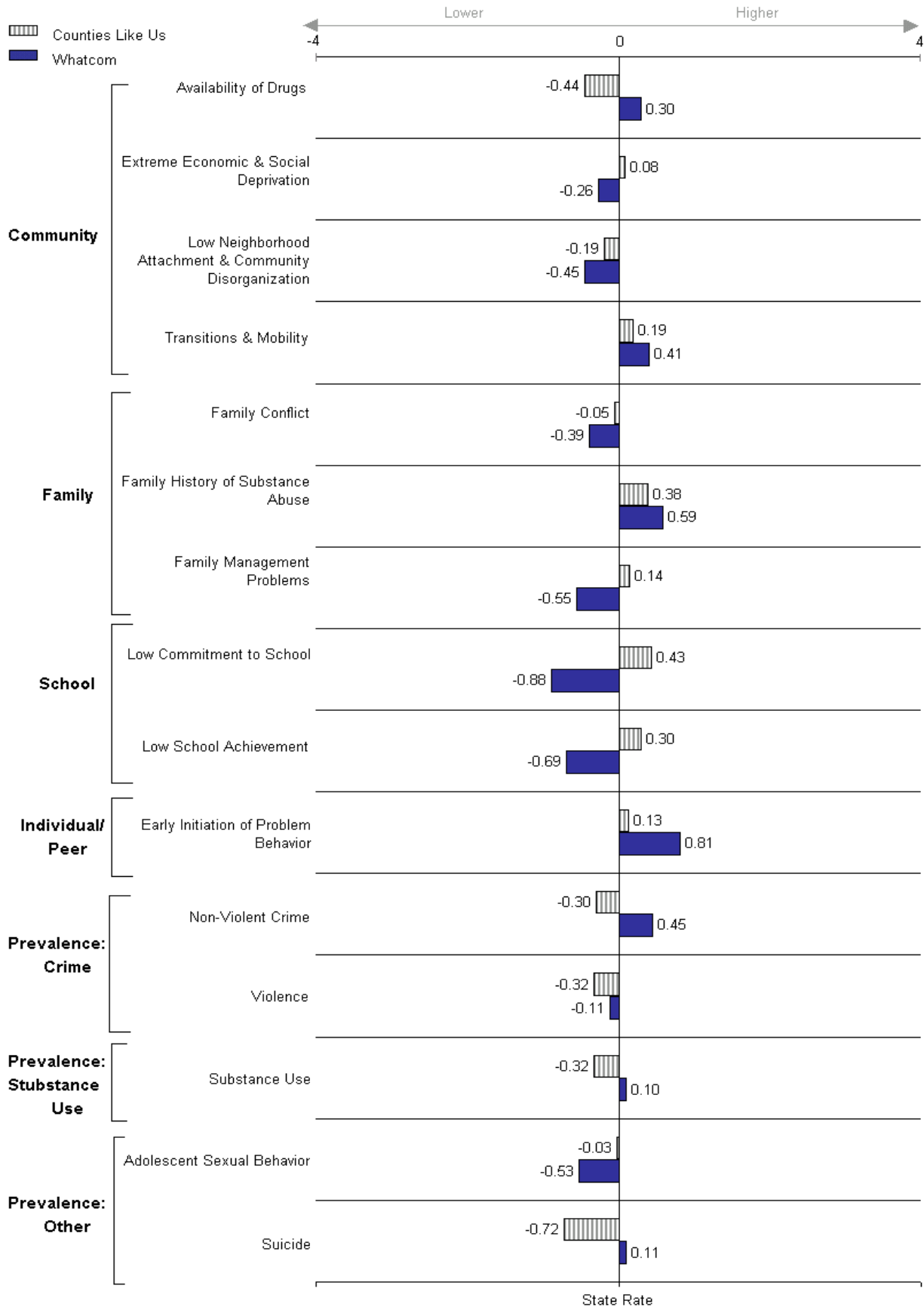
Especially in the data for smaller counties, some indicators are unstable from year to year. An unstable rate is one that may radically change from one year to the next. That is especially likely for indicators with a small number of events (say, alcohol related traffic fatalities), or in counties with small populations. For instance, if in a county or community there have been no traffic fatalities for several years, and all of a sudden in one year there are two, does that represent a trend? Probably not. You would have to look at many years worth of data to detect a meaningful trend—one that you would want to base your prevention planning on. When we encounter this “small number problem”, we have not calculated annual rates, but only the average for the most recent five years, which is a better representation of the typical rate. The drawback is that you will not have longitudinal data—you will not be able to see change over time. One solution to this is to calculate rolling averages for indicators with few events. See Technical Notes for a brief explanation.

## **Local Context**

Along with each bar chart and table of data we have included a short section called “Notes”. In this paragraph we call your attention to interpretation issues that are specific to each risk indicator. In some of these we simply draw your attention to a data anomaly that is probably an artifact of the database from which it came, other notes suggest possible complexities in data interpretation. Most of these kinds of notes could be summarized in one word: context. To interpret this risk profile, you must be sure to consider the meaning of these indicators in the context of local events or changes. In a way, the background to your needs assessment is a kind of natural history. Local knowledge about the economy, the political climate, social and cultural attitudes about any and everything that affects kids, families and schools—all of this has an impact on the nature of the risk climate in which adolescents develop.

Certain details in this natural history will be particularly critical in your analysis. Changes in laws, county and state budgets, scientific opinion—any change that affects policy can also affect your interpretation of risk factor data. For instance, a big change in the number of arrests for loitering could be due to an increase in the amount of delinquency among youth, but it could also be due to a new police chief’s policies, or a new city ordinance. Similarly, changes in funding for drug abuse treatment could increase the number of people in treatment without (at least at first) changing the number of people who are abusing substances. Or a highly publicized domestic murder could lead to increases in reports of domestic violence. These changes probably reflect changes in public awareness of these problems, and an increased willingness to report them or ask for help. Be sure to consider the local context in which these incidents occur—especially, talk to key informants to learn their interpretations of changes in indicator levels.

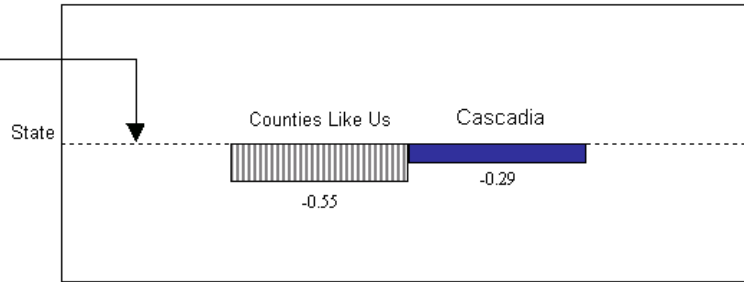
# Standardized Summary Measures for Risk Factors Grouped by Domain



These are the same summary measures that appear in the Risk profile on pg 9.

**Standardized Summary Measure**

This line represents the average measure of this risk factor for the entire state. When a bar goes above the line, the risk factor is higher than the state average. If it is below the line, the risk factor is lower.



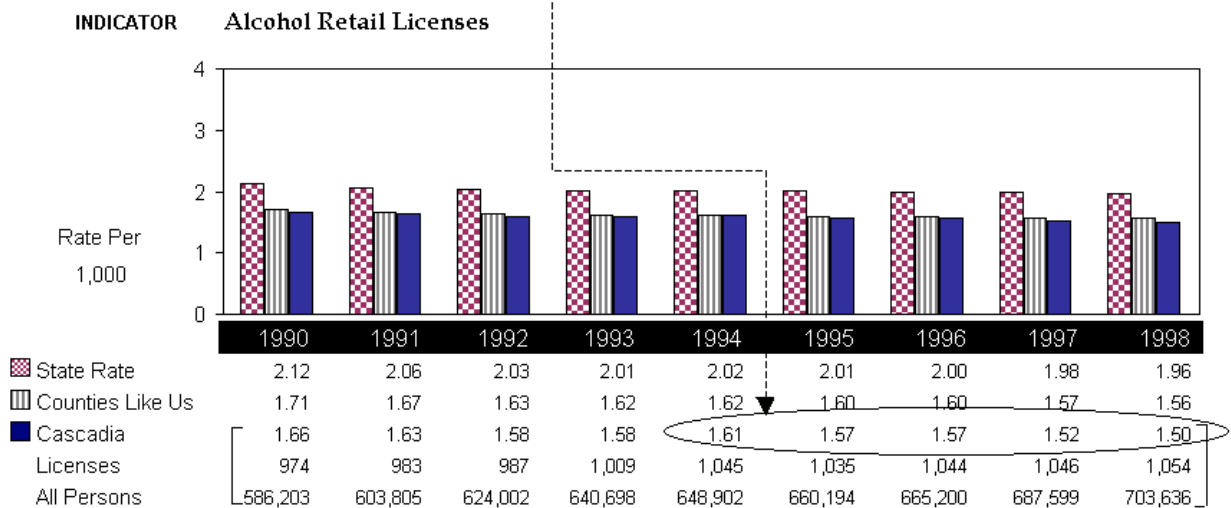
The standardized scores for all the indicators of a particular risk factor are averaged to come up with the Standardized Summary Measure. "The scale on this chart changes. It is usually +2 to -2, but is sometimes +3 to -3, and rarely +4 to -4."

Summary measures are the 5-yr average of standard scores for all indicators of a risk factor. (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Alcohol Retail Licenses	1.55	-0.31
Tobacco Sales Licenses	1.52	-0.26

The average rate across five years.  
Read this rate as "1.55 licenses per 1,000 people". 1,000 is the factor. (See factor on next page.)

Each five year average is standardized to see how different the rate is from the state average. Approximately 95% of the state will fall between a -2.0 and +2.0. (For more details see Technical Notes.)

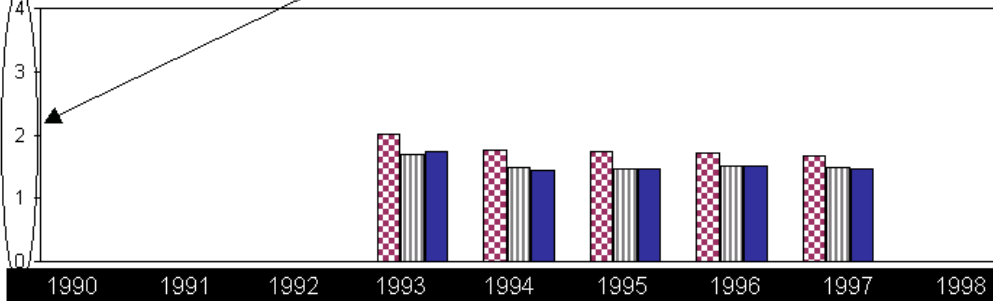


Note: Retail alcohol facilities on reservations and military bases are not licensed by Washington State and, therefore, are not included in these data.

INDICATOR Tobacco Sales Licenses

Pay close attention to these scales. The differences between the state and county rates may appear higher or lower depending on the scale used.

Rate Per 1,000



- State Rate
  - Counties Like Us
  - Cascadia
- Licenses  
All Persons

numerator

denominator

	1993	1994	1995	1996	1997
State Rate	2.02	1.77	1.73	1.72	1.67
Counties Like Us	1.69	1.49	1.47	1.52	1.48
Cascadia	1.74	1.45	1.46	1.51	1.46
Licenses	1,117	943	965	1,005	1,002
All Persons	640,698	648,902	660,194	665,200	687,599

Note: Tobacco retailers on reservations and military bases are not licensed by Washington State and therefore are not included in these data.

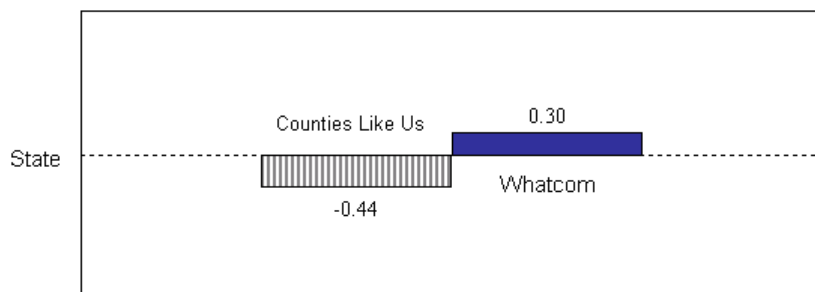
This is the factor. Different rates use different factors—some per 100 (percent), 1,000 or 100,000.

These are rates. "1.74" means 1.74 Tobacco Sales Licenses per 1,000 members of the population.

**Formula—**  
 Rates: (numerator / denominator) × factor

Example:  $\frac{1,117}{640,698} \times 1,000 = 1.74$

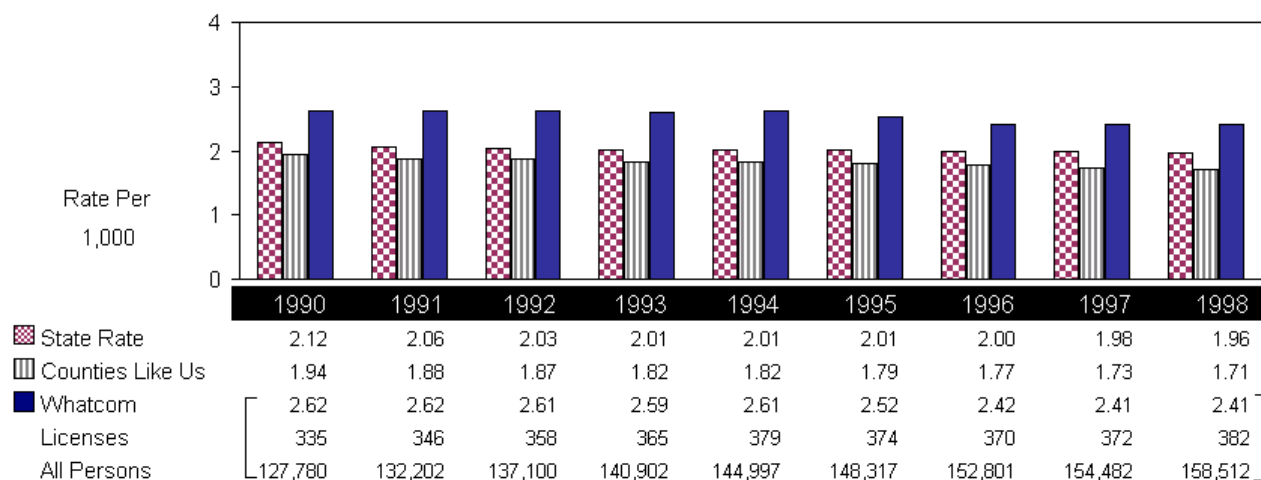
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor. (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Alcohol Retail Licenses	2.47	0.34
Tobacco Sales Licenses	2.03	0.25

**INDICATOR Alcohol Retail Licenses**



Note: Retail alcohol facilities on reservations and military bases are not licensed by Washington State and, therefore, are not included in these data.

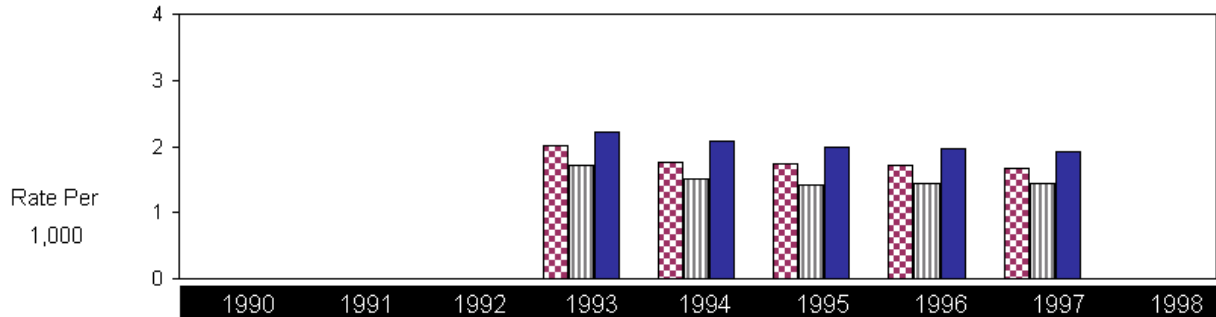
DOMAIN

Community

RISK FACTOR

Availability of Drugs

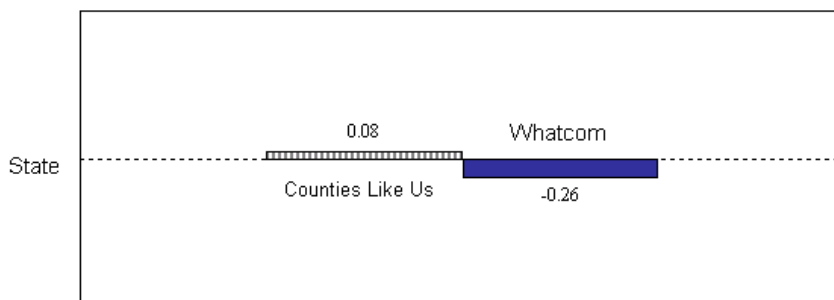
INDICATOR Tobacco Sales Licenses



State Rate		2.02	1.77	1.73	1.72	1.67	
Counties Like Us		1.72	1.50	1.42	1.45	1.43	
Whatcom		2.22	2.07	1.99	1.96	1.92	
Licenses	[	313	300	295	299	296	]
All Persons		140,902	144,997	148,317	152,801	154,482	

Note: Tobacco retailers on reservations and military bases are not licensed by Washington State and therefore are not included in these data.

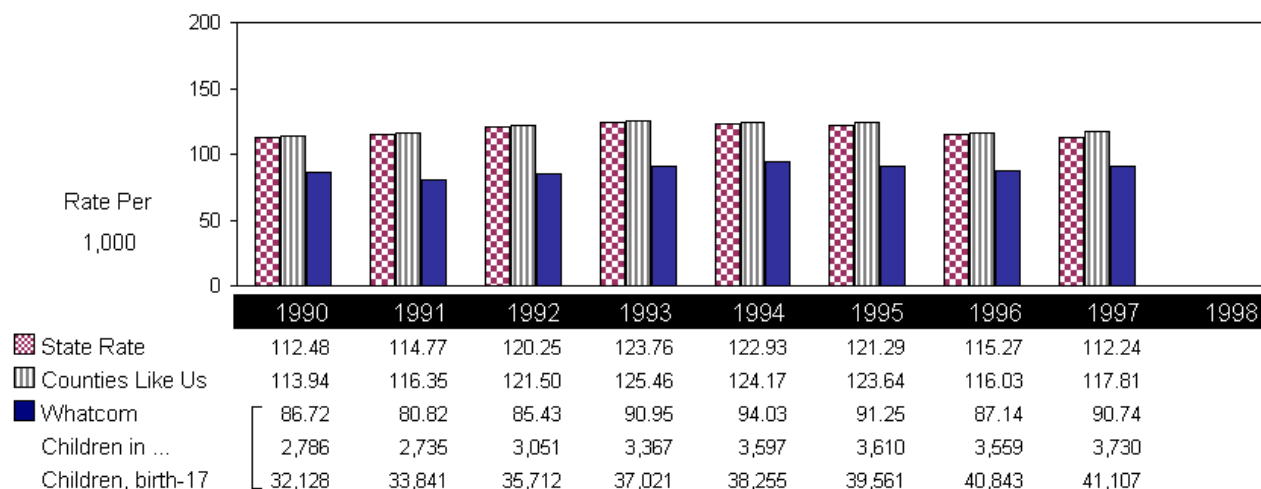
Standardized Summary Measure



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Children in Aid to Families Programs	90.77	-0.58
Food Stamp Recipients	70.50	-0.22
Free and Reduced Lunch Program	30.26	-0.04
Low Birthweight Babies Born	44.10	-0.72
Unemployment	7.14	0.24

INDICATOR Children in Aid to Families Programs



Children in ...	2,786	2,735	3,051	3,367	3,597	3,610	3,559	3,730
Children, birth-17	32,128	33,841	35,712	37,021	38,255	39,561	40,843	41,107



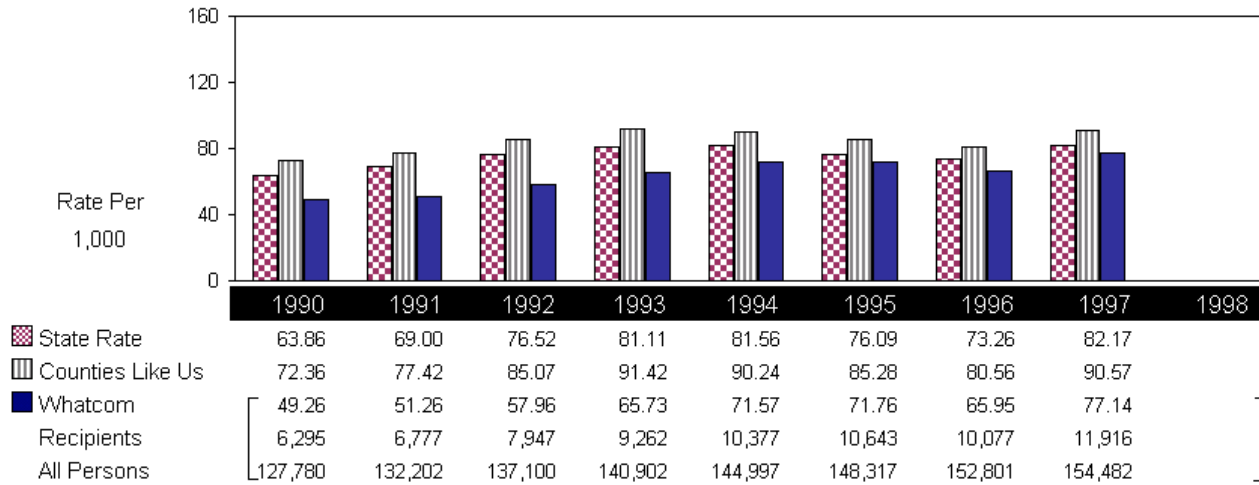
DOMAIN

Community

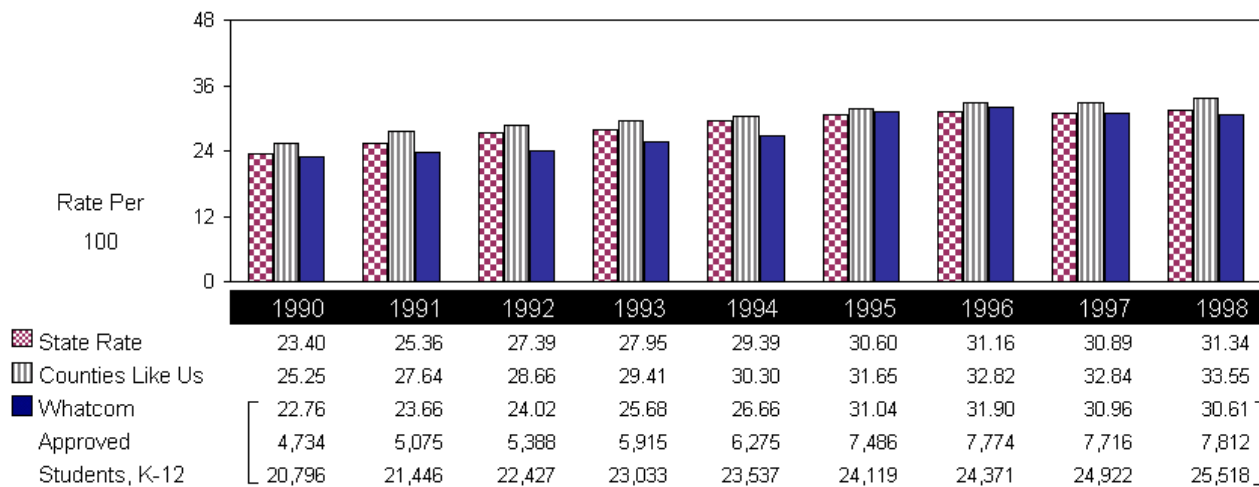
RISK FACTOR

Extreme Economic and Social Deprivation

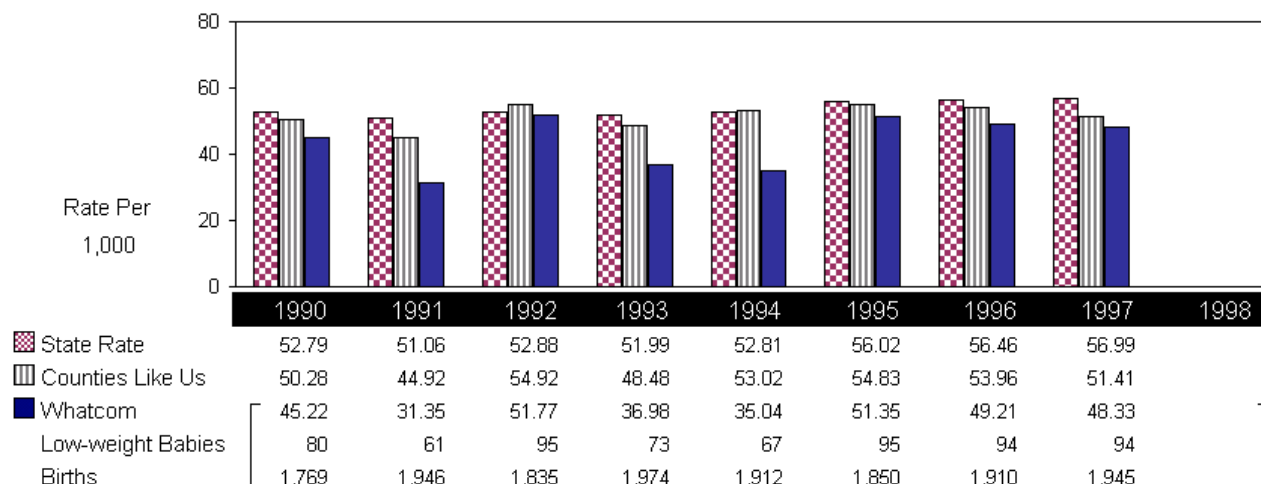
INDICATOR **Food Stamp Recipients**



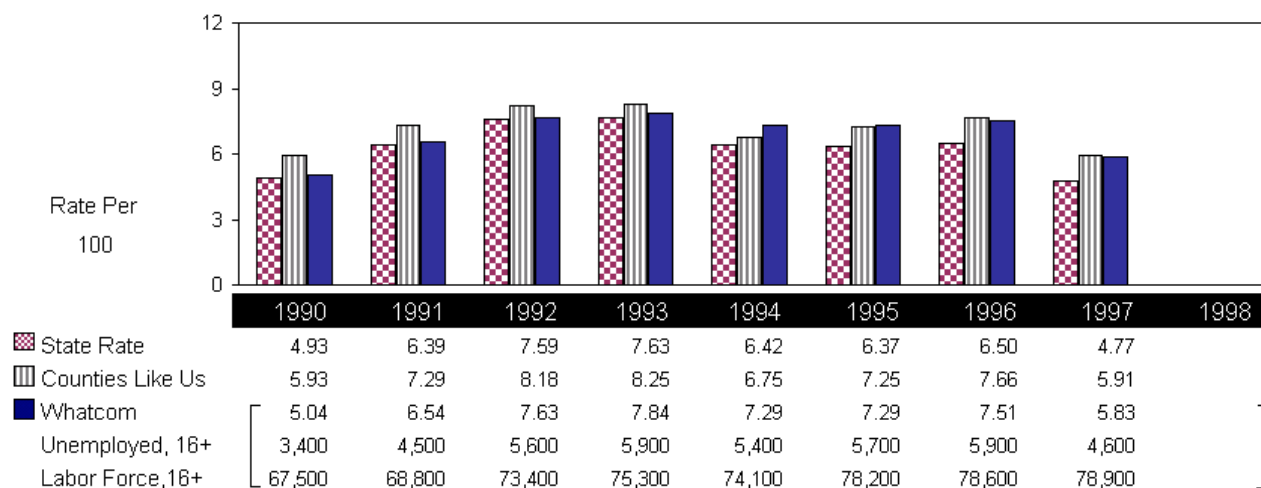
INDICATOR **Free and Reduced Lunch Program**



**INDICATOR** Low Birthweight Babies Born

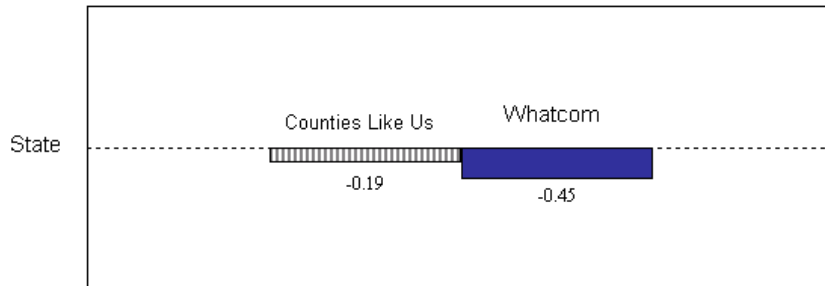


**INDICATOR** Unemployment



*Note: These data differ from those reported in previous county reports. The differences result from changes in the official numbers provided by Employment Security.*

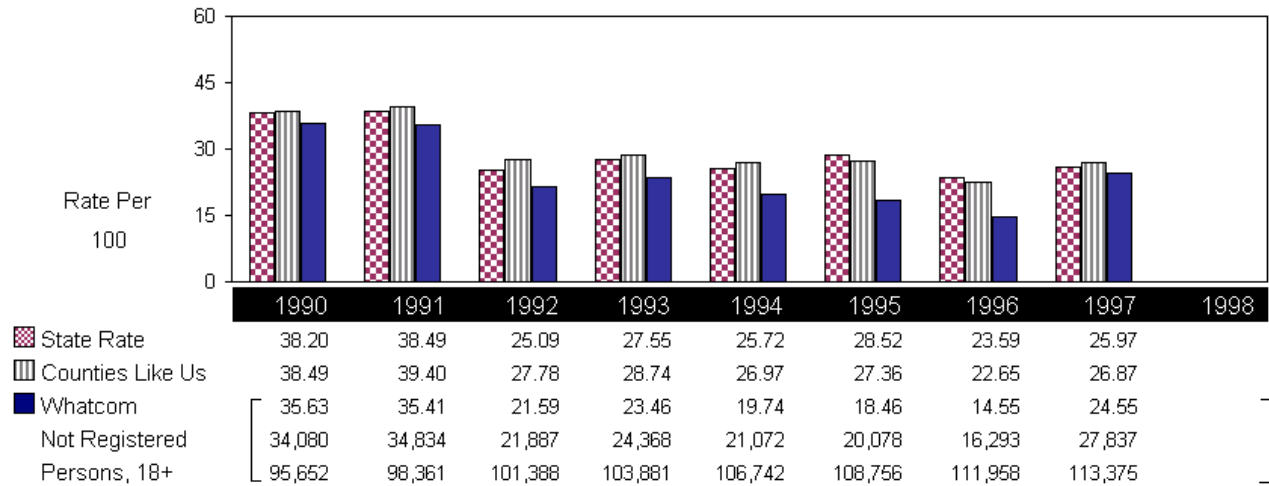
Standardized Summary Measure



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Population Not Registered to Vote	20.13	-0.70
Population Not Voting in Elections	41.32	0.12
Prisoners in State Correctional Systems	75.92	-0.66
Residential Vacancies	2.36	-0.56

INDICATOR Population Not Registered to Vote



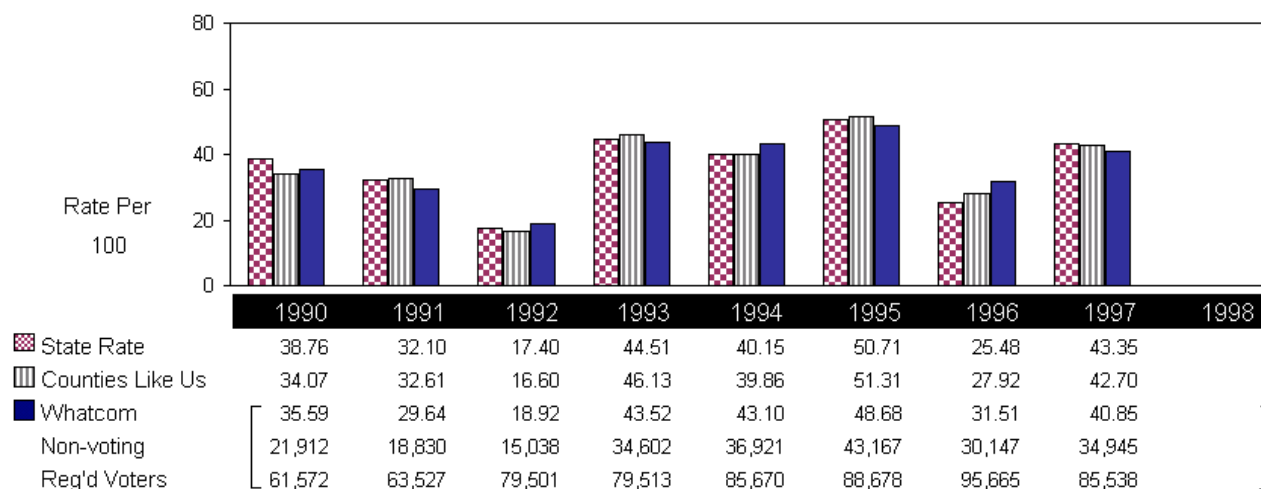
DOMAIN

Community

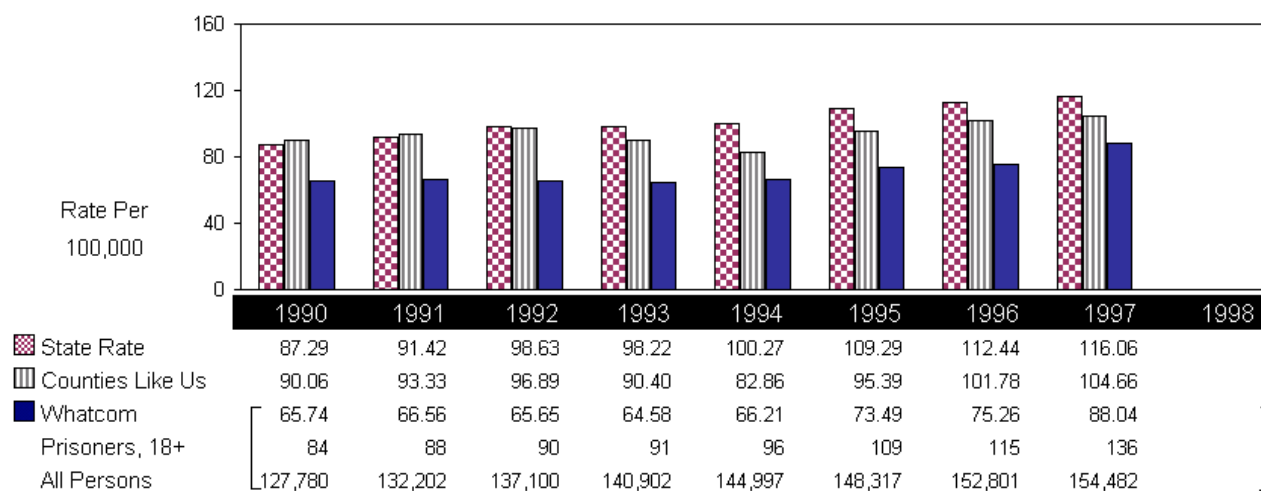
RISK FACTOR

Low Neighborhood Attachment & Community Disorganization

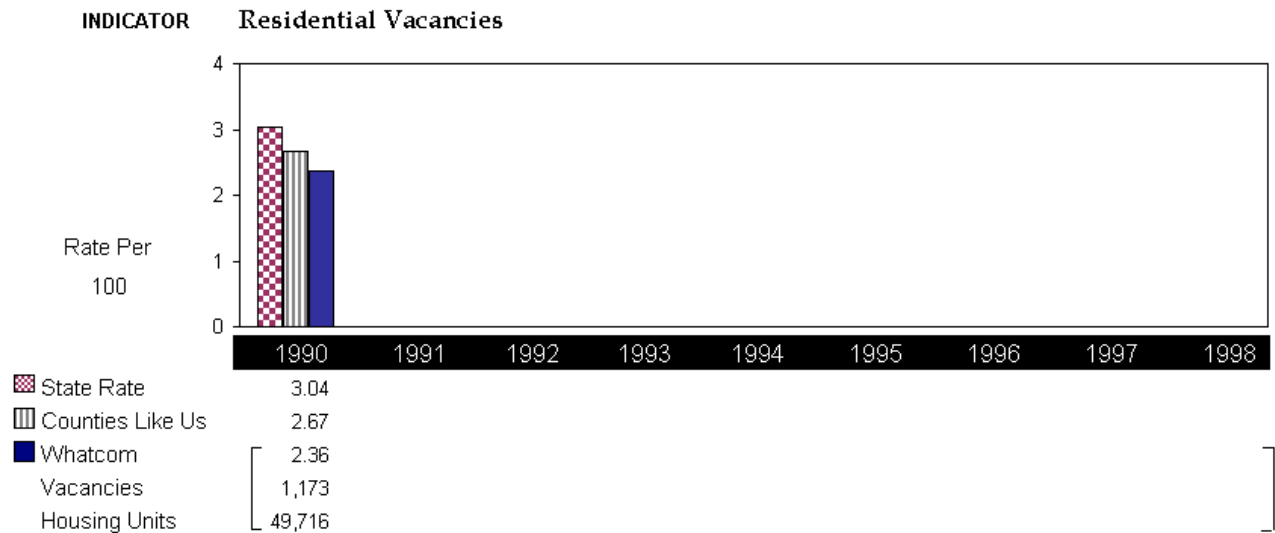
INDICATOR Population Not Voting in Elections



INDICATOR Prisoners in State Correctional Systems

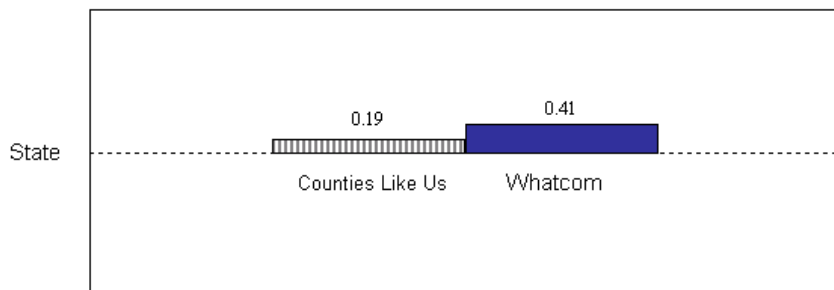


**DOMAIN** Community  
**RISK FACTOR** Low Neighborhood Attachment & Community Disorganization



*Note: This data comes from the U. S. Census and is collected only once per decade.*

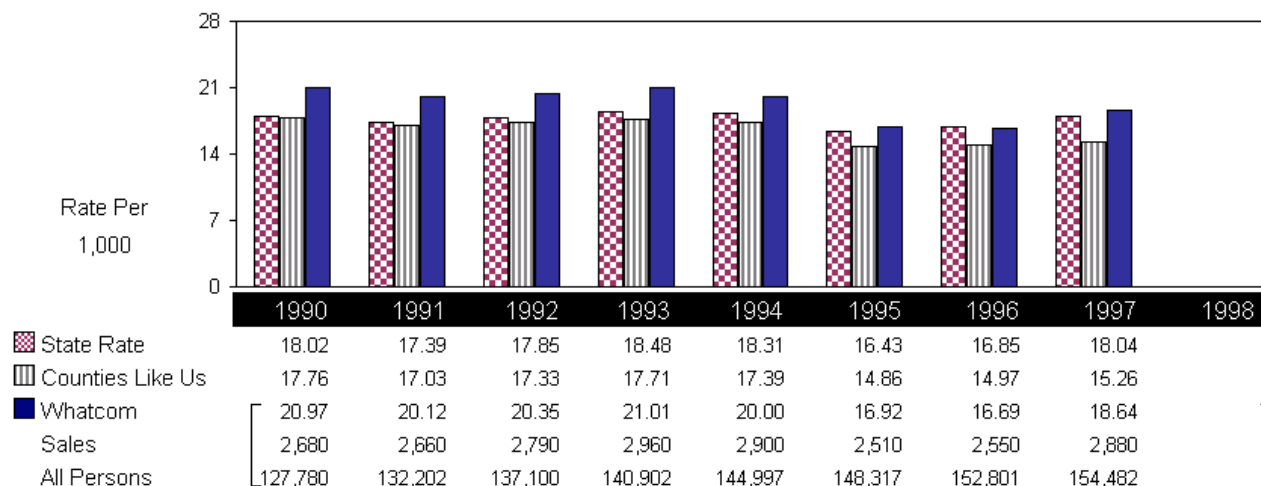
**Standardized Summary Measure**



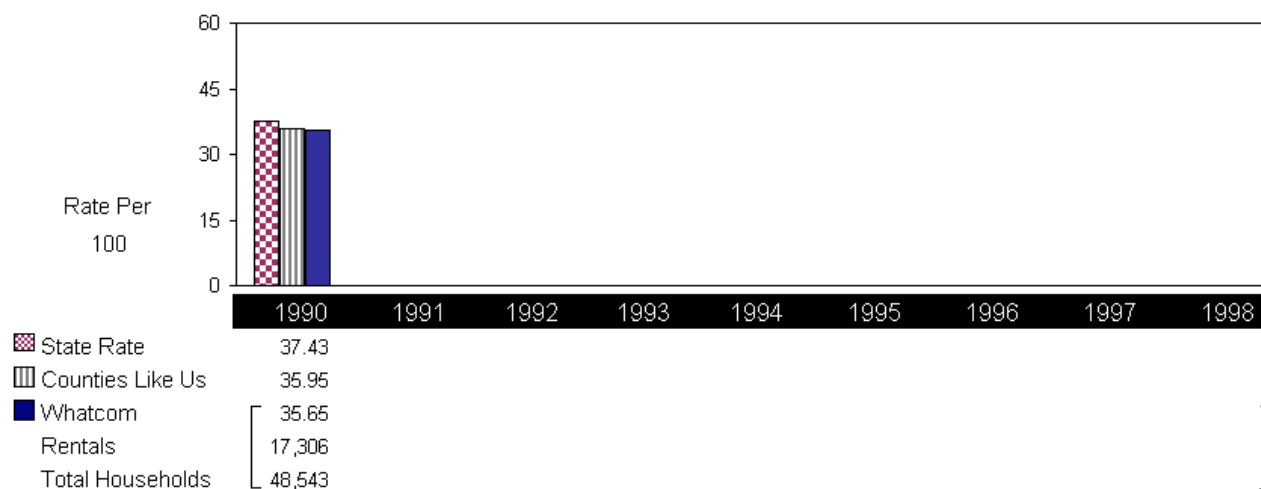
Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Existing Home Sales	18.61	0.29
Households in Rental Properties	35.65	-0.25
Net Migration	21.94	1.07
New Residence Construction	9.74	0.53

**INDICATOR Existing Home Sales**

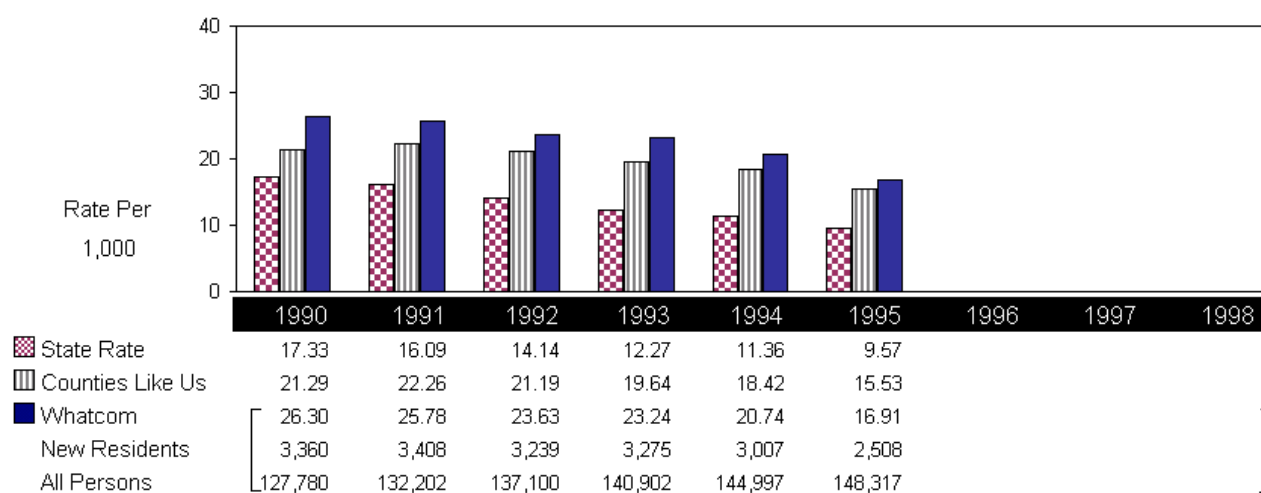


**INDICATOR** Households in Rental Properties



Note: This data comes from the U. S. Census and is collected only once per decade.

**INDICATOR** Net Migration



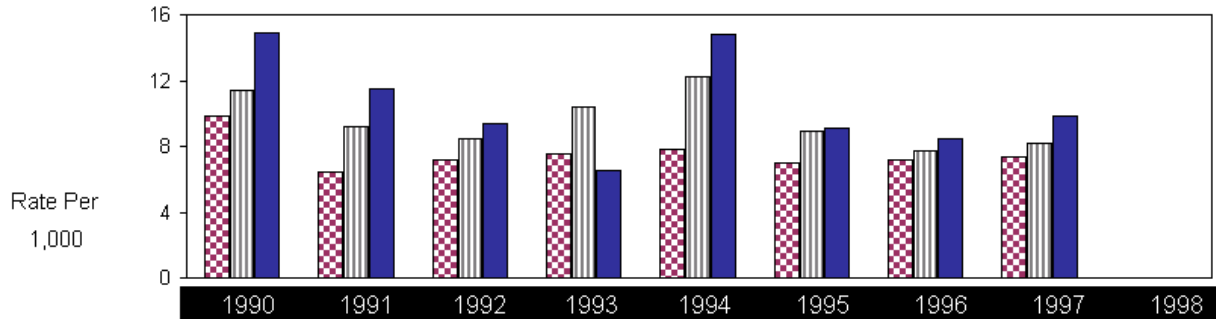
DOMAIN

Community

RISK FACTOR

Transitions and Mobility

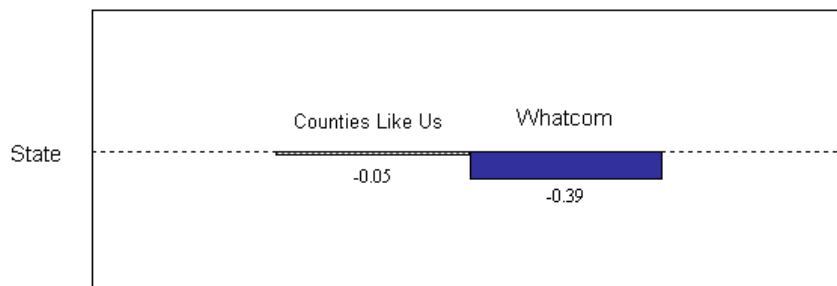
INDICATOR **New Residence Construction**



State Rate	9.85	6.45	7.21	7.56	7.78	7.03	7.19	7.33
Counties Like Us	11.40	9.21	8.43	10.37	12.20	8.90	7.71	8.20
Whatcom	14.88	11.53	9.40	6.57	14.77	9.09	8.43	9.84
New Residence	1,902	1,524	1,289	926	2,142	1,348	1,288	1,520
All Persons	127,780	132,202	137,100	140,902	144,997	148,317	152,801	154,482



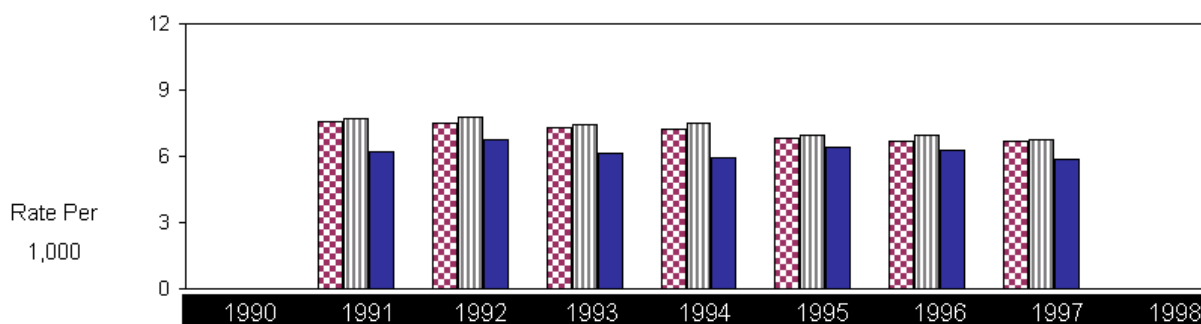
Standardized Summary Measure



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Divorces	6.12	-0.74
Domestic Violence Arrests	7.17	-0.04

INDICATOR Divorces

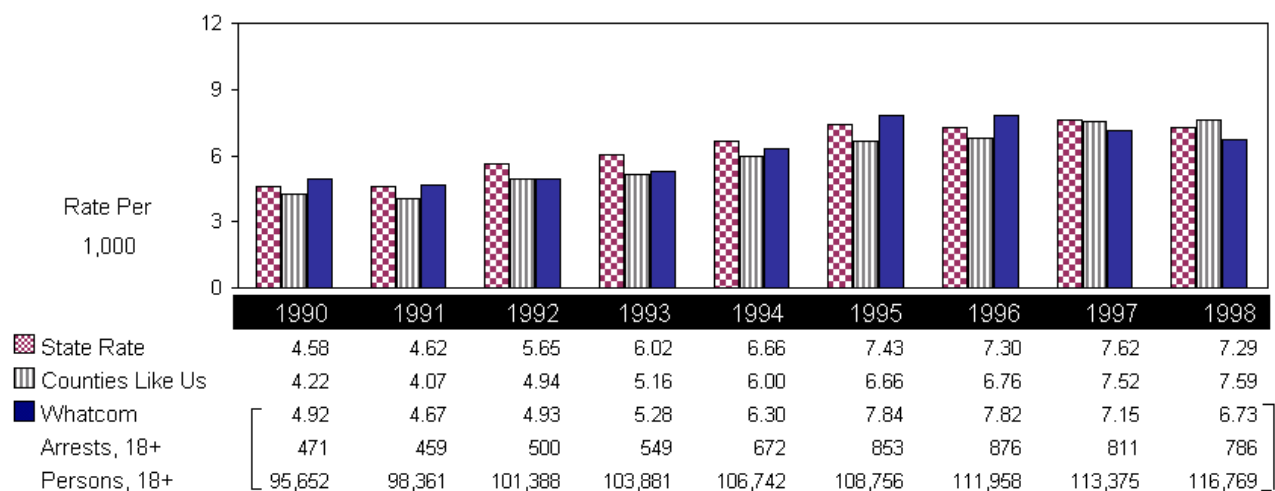


	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate		7.60	7.47	7.27	7.22	6.79	6.69	6.65	
Counties Like Us		7.71	7.79	7.45	7.47	6.93	6.94	6.76	
Whatcom		6.23	6.74	6.13	5.96	6.39	6.24	5.88	
Divorces		645	723	674	674	741	746	710	
Persons, 15+		103,600	107,205	109,991	113,173	115,933	119,633	120,782	

Note: Divorces, which were reported by county of decree in prior county reports, are now reported by county of residence. This avoids the high incidences reported for Lincoln County due to decrees issued to residence of other counties.

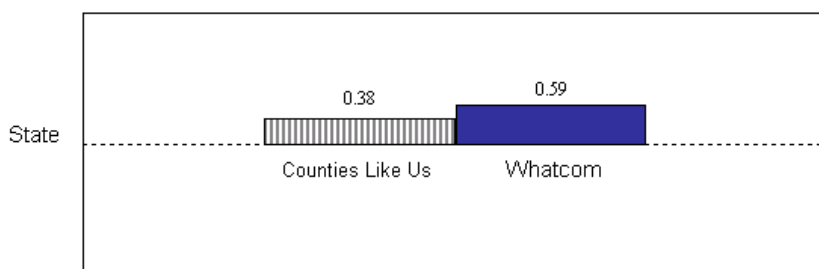
**DOMAIN** Family  
**RISK FACTOR** Family Conflict

**INDICATOR** Domestic Violence Arrests



*Note: These data differ slightly from previous county reports because arrests of juveniles and arrests for misdemeanors, previously omitted, are included in this report for all years.*

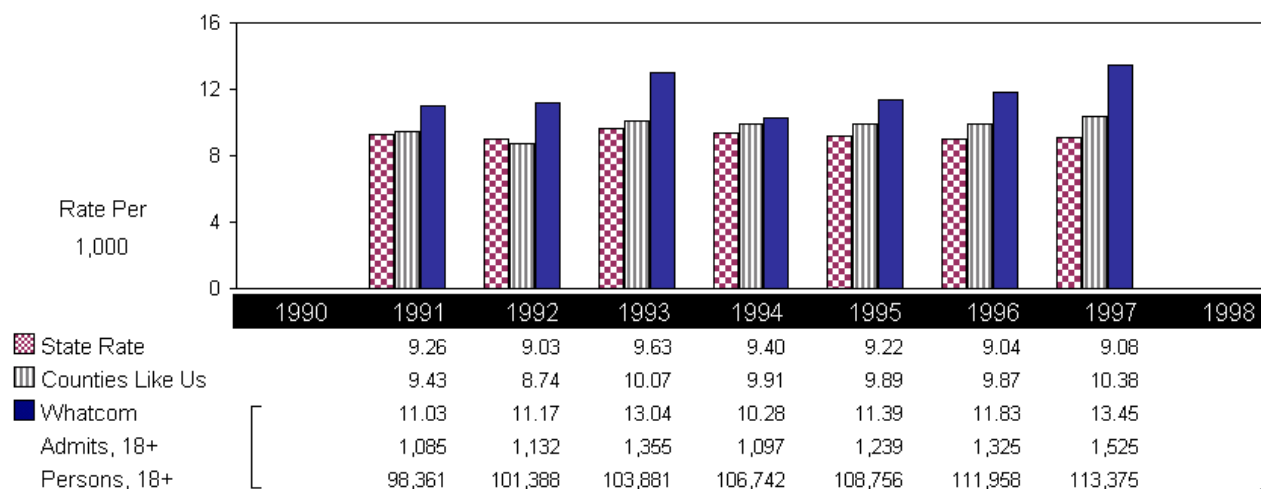
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adults in Alcohol and Drug Treatment	12.01	0.59

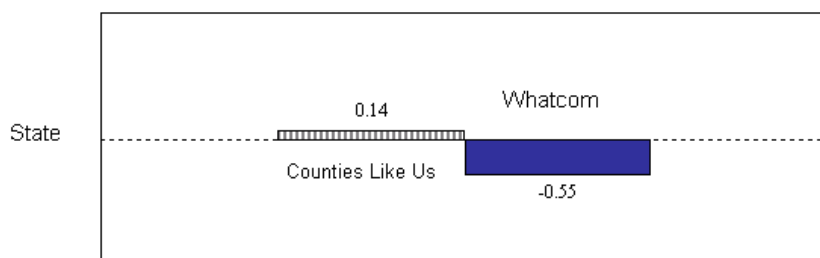
**INDICATOR Adults in Alcohol and Drug Treatment**



*Note: These numbers differ from those reported from the DSHS Needs Assessment Database. The differences result from changes and up-dates in the source systems and unduplication methods. Persons enrolled more than one year in the same outpatient or methadone treatment are not included. (In Technical Notes, see Duplicated and Unduplicated Counts.)*

**DOMAIN** Family  
**RISK FACTOR** Family Management Problems

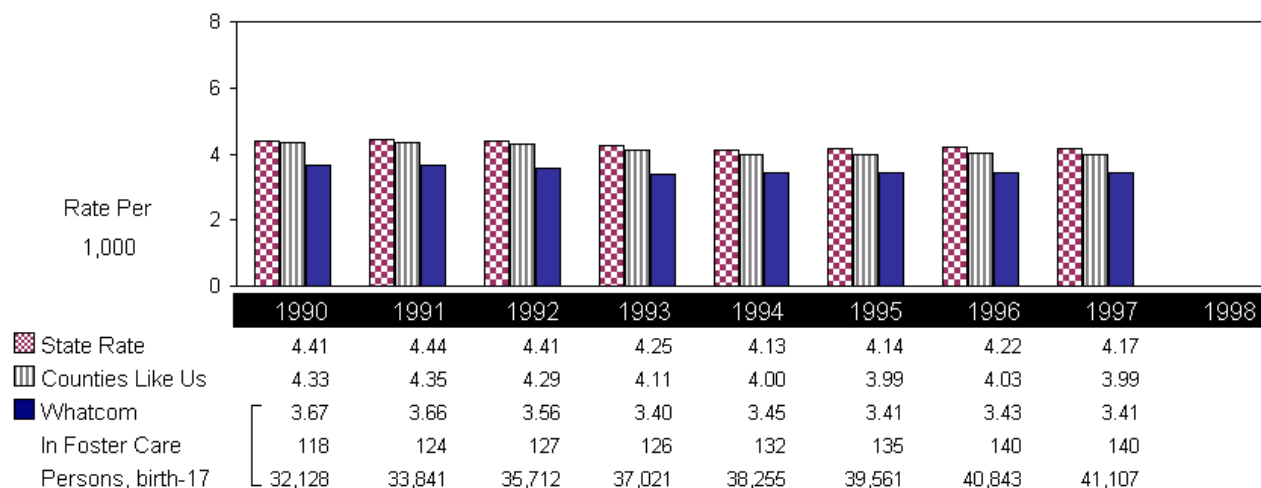
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Children in Foster Care	3.42	-0.48
Children Living Away From Parents	66.25	-0.51
Victims in Accepted Child Abuse Referrals	28.41	-0.68

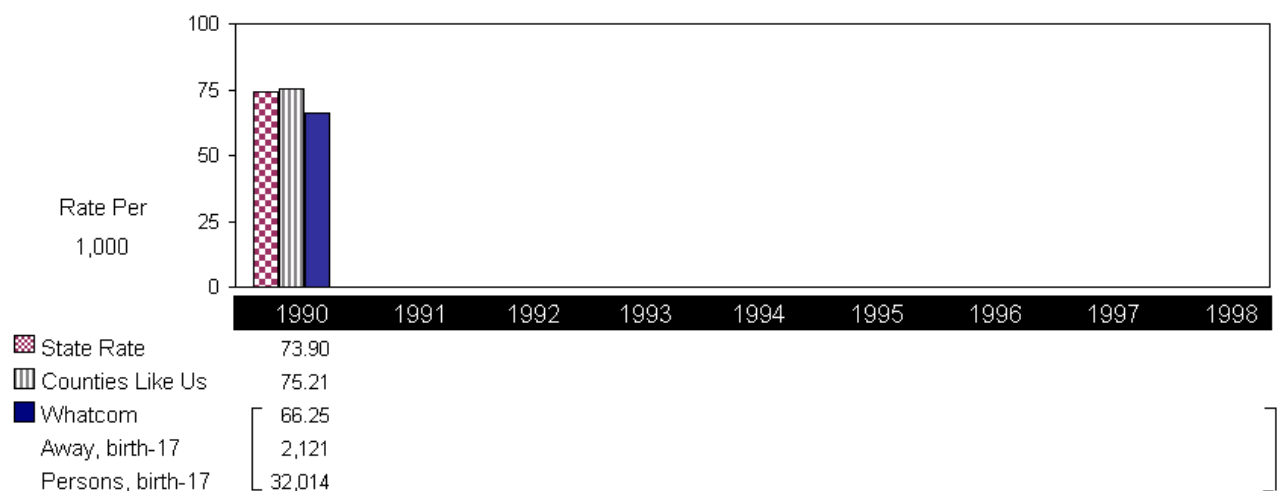
**INDICATOR** Children in Foster Care



Note: This data shows the average monthly duplicated number of children in foster care. Previous county reports gave the total annual unduplicated number of children in foster care. (In Technical Notes, see Duplicated and Unduplicated Counts.)

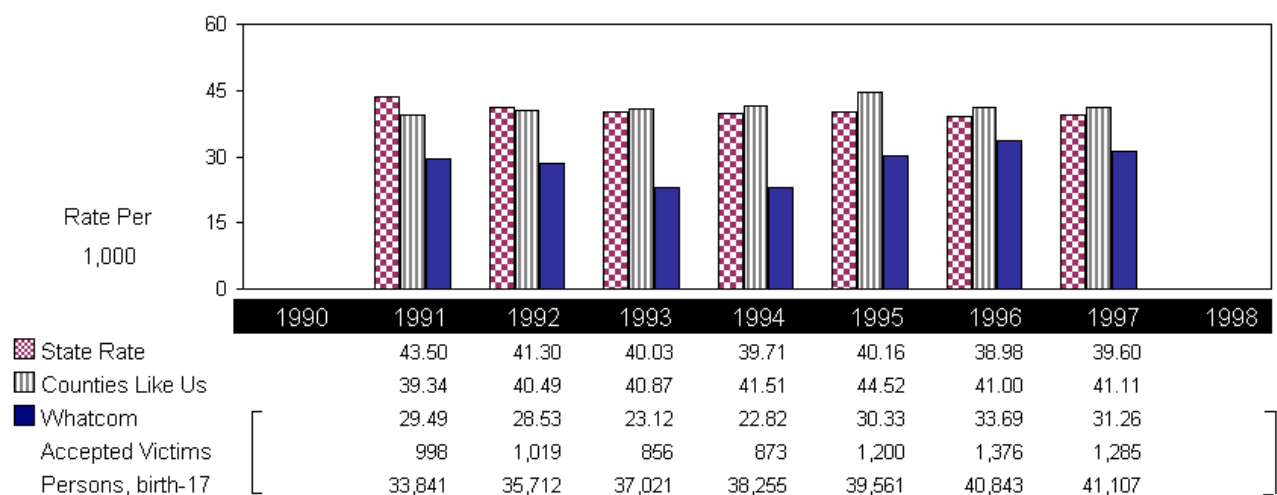
**DOMAIN** Family  
**RISK FACTOR** Family Management Problems

**INDICATOR** Children Living Away From Parents



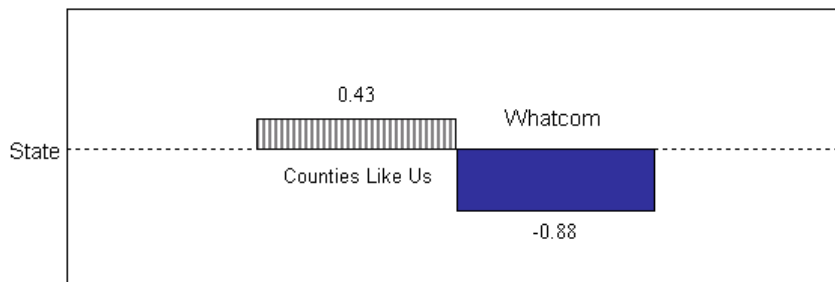
Note: This data comes from the U. S. Census and is collected only once per decade.

**INDICATOR** Victims in Accepted Child Abuse Referrals



Note: Referral is a report of suspected child abuse.

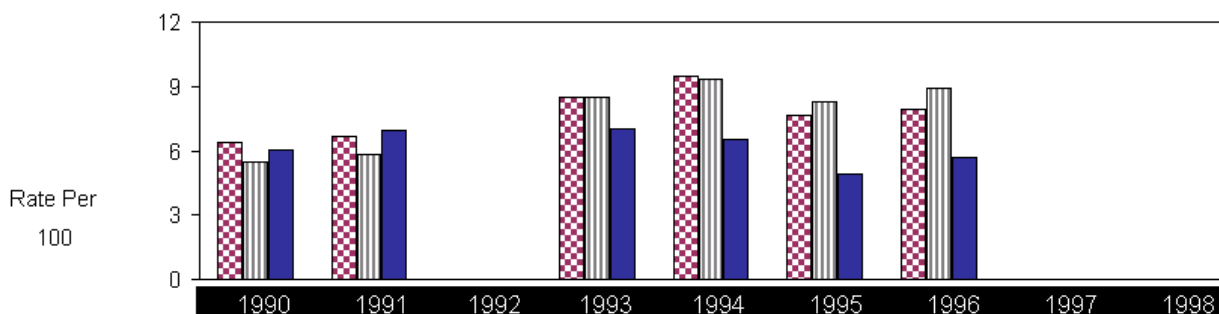
Standardized Summary Measure



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
High School Dropouts	5.00	-0.88

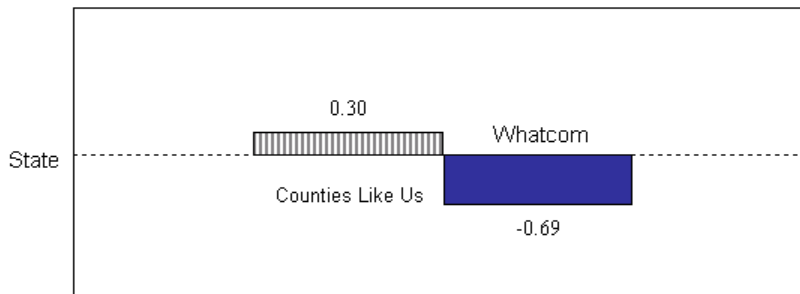
INDICATOR High School Dropouts



Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	6.36	6.68		8.47	9.45	7.62	7.94		
Counties Like Us	5.44	5.83		8.47	9.32	8.29	8.92		
Whatcom	6.07	6.93		7.00	6.54	4.92	5.65		
Dropouts, 9th-12th	347	413		450	437	387	460		
Students, 9th-12th	5,714	5,963		6,430	6,685	7,862	8,139		

Note: These data from the Office of Superintendent of Public Instruction are provided instead of the Census data used in previous county reports. No data are available for 1992.

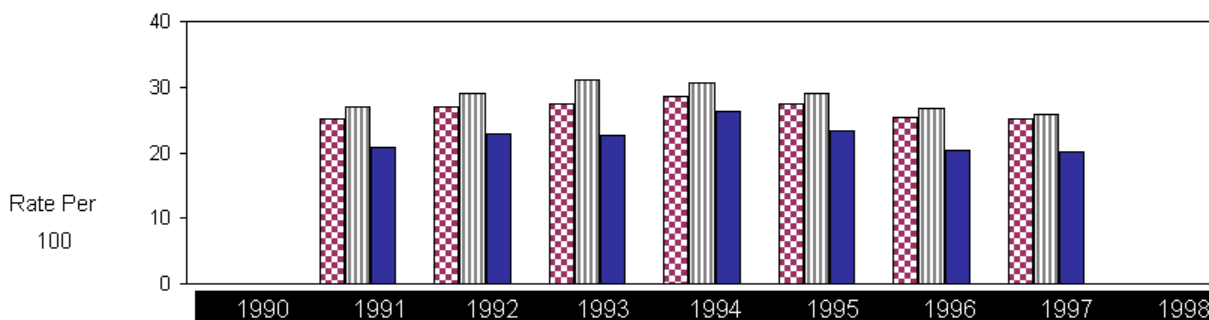
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Poor Academic Performance, Grade 4	22.57	-0.56
Poor Academic Performance, Grade 8	14.90	-0.82

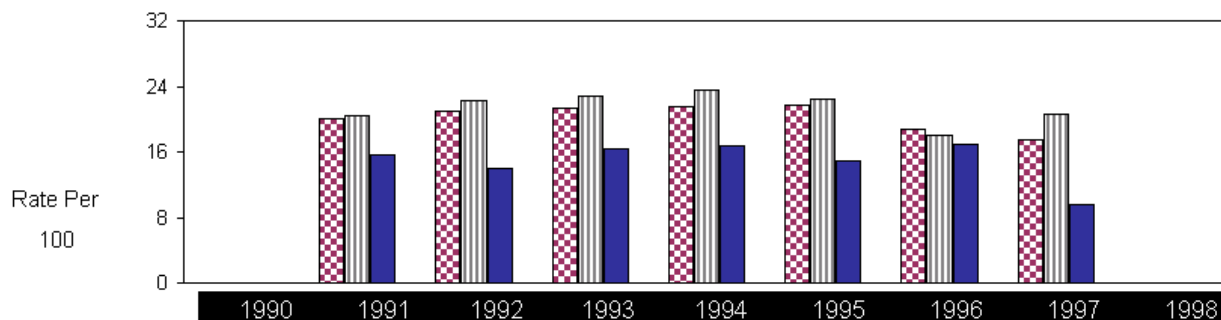
**INDICATOR Poor Academic Performance, Grade 4**



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	25.21	26.98	27.52	28.46	27.43	25.39	25.06	25.06	
Counties Like Us	26.96	29.13	31.12	30.57	29.01	26.83	25.87	25.87	
Whatcom	20.71	22.94	22.67	26.35	23.42	20.37	20.13	20.13	
Low Scorers	344	390	377	450	378	329	364	364	
Tested, 4th grade	1,661	1,700	1,663	1,708	1,614	1,615	1,808	1,808	

**DOMAIN** School  
**RISK FACTOR** Low School Achievement

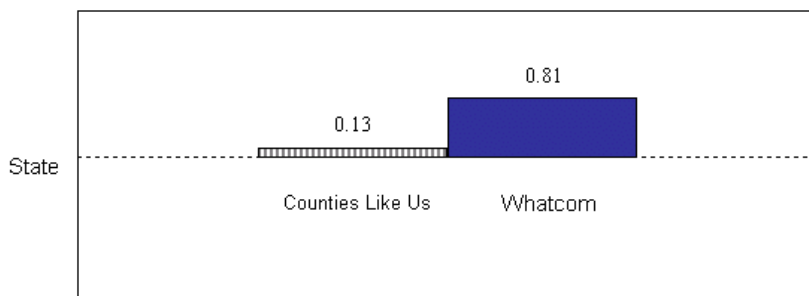
**INDICATOR** Poor Academic Performance, Grade 8



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate		20.05	20.98	21.32	21.60	21.61	18.76	17.43	
Counties Like Us		20.38	22.18	22.84	23.47	22.37	18.11	20.54	
Whatcom		15.66	14.05	16.30	16.80	14.92	16.97	9.65	
Low Scorers		242	224	265	298	258	304	172	
Tested, 8th grade		1,545	1,594	1,626	1,774	1,729	1,791	1,782	



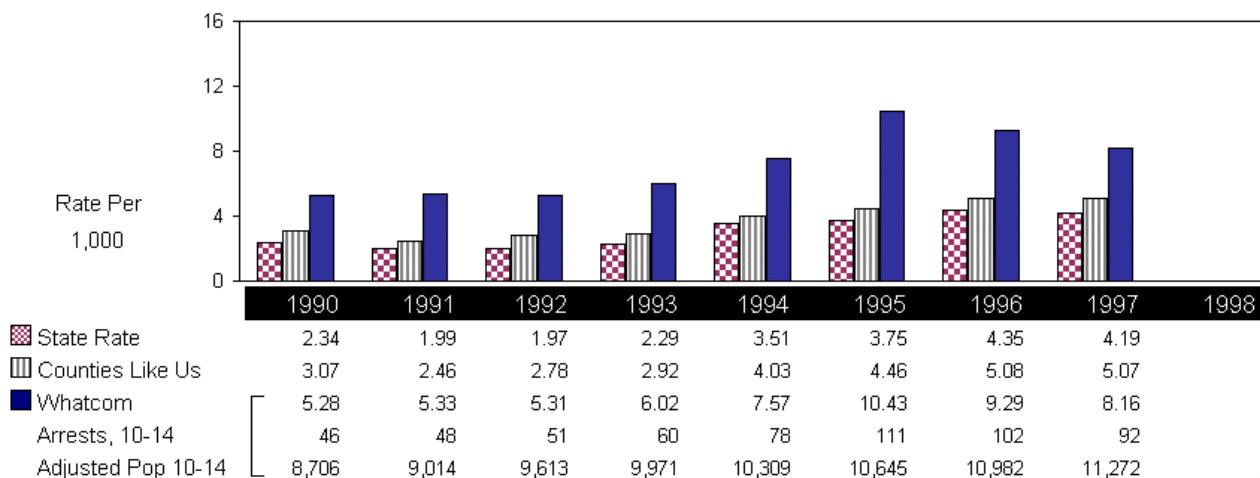
Standardized Summary Measure



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

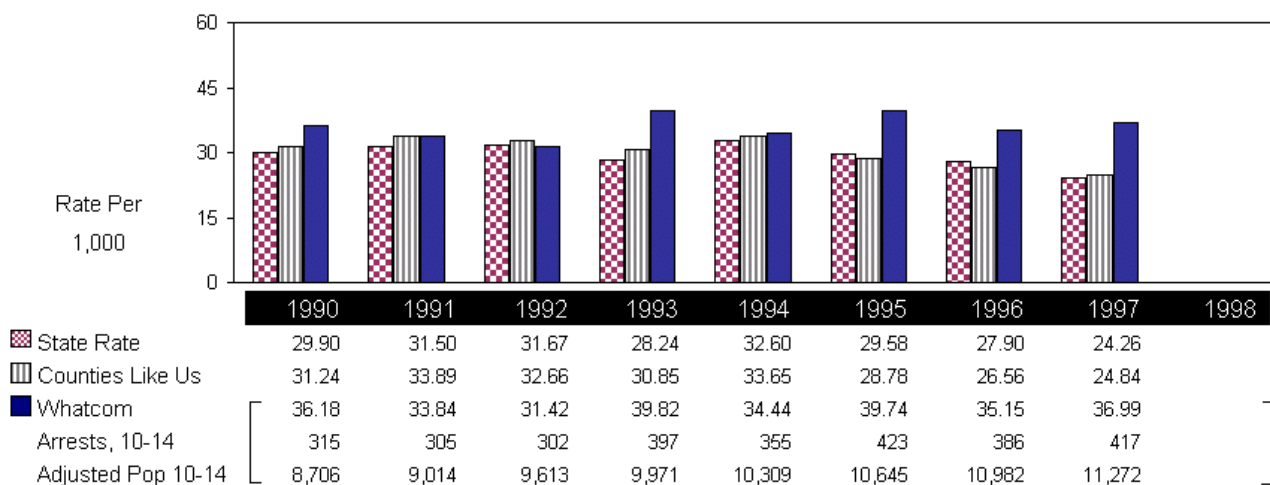
Indicator	5yr Rate	Std. Score
Alcohol- & Drug-Related Arrests, Age 10-14	8.33	1.26
Property Crime Arrests, Age 10-14	37.20	0.79
Vandalism Arrests, Age 10-14	5.51	0.40

INDICATOR Alcohol- and Drug-Related Arrests, Age 10-14



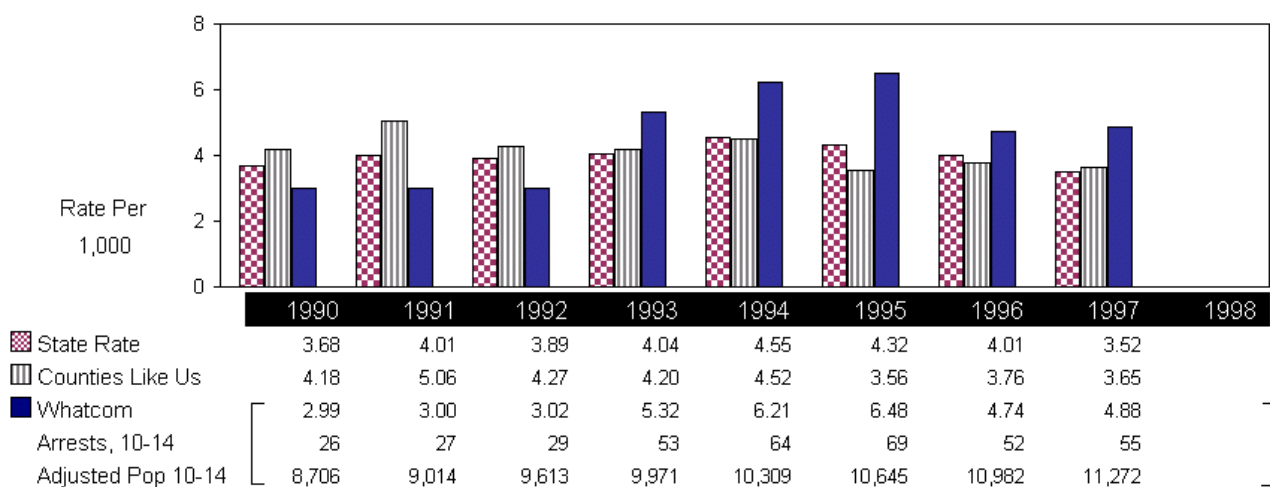
Note: 1. Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.) 2. It is probable that county numbers under report the DUI arrests. This is because State Patrol arrests, which account for up to 40% of all DUI arrests, cannot be attributed to counties. State Patrol arrests are included in the calculation of state rates.

INDICATOR Property Crime Arrests, Age 10-14



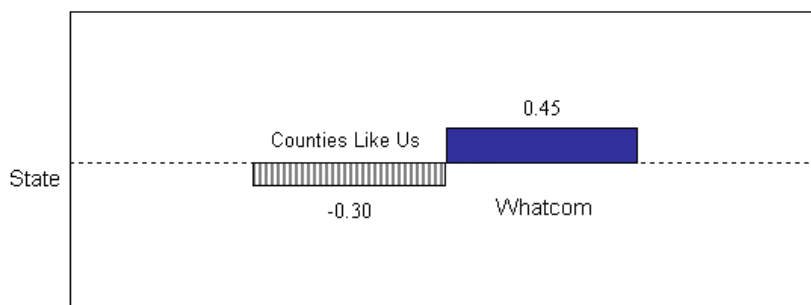
Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

INDICATOR Vandalism Arrests, Age 10-14



Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

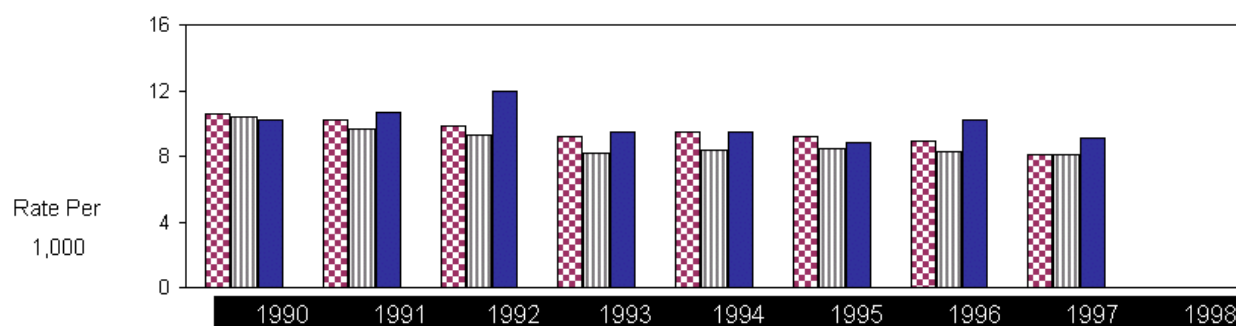
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adult Property Crime Arrests	9.41	0.12
Juvenile Vandalism & Conduct Type Arrest	11.81	0.56
Juvenile Property Crimes Arrests	51.24	0.68

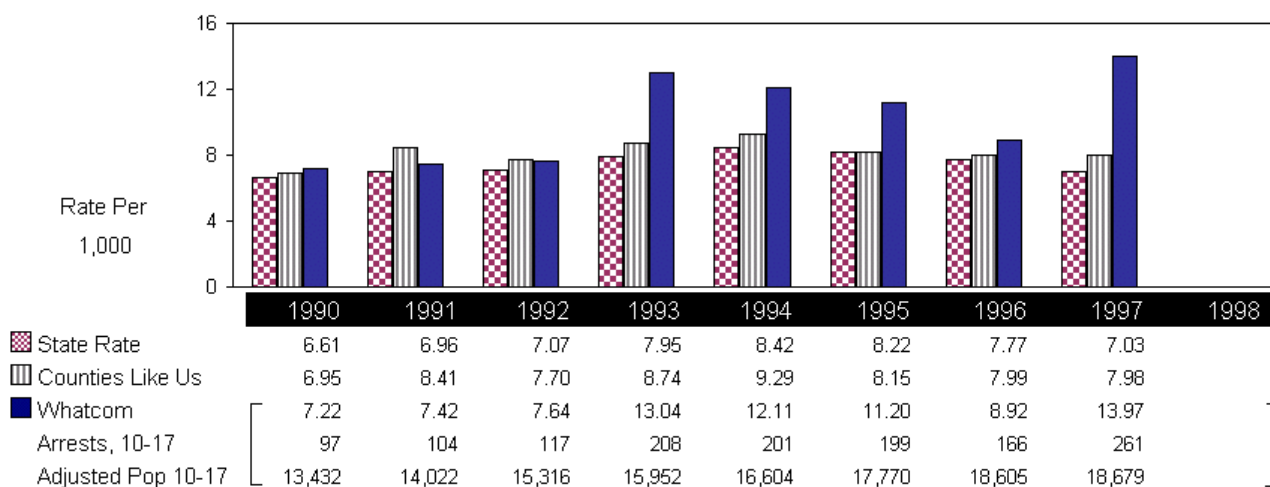
**INDICATOR Adult Property Crime Arrests**



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	10.54	10.17	9.88	9.16	9.47	9.21	8.93	8.13	
Counties Like Us	10.38	9.64	9.26	8.22	8.36	8.43	8.25	8.08	
Whatcom	10.17	10.69	11.95	9.43	9.44	8.87	10.17	9.12	
Arrests, 18+	956	1,013	1,193	964	992	959	1,133	1,034	
Adjusted Pop 18+	93,995	94,804	99,791	102,244	105,110	108,126	111,384	113,375	

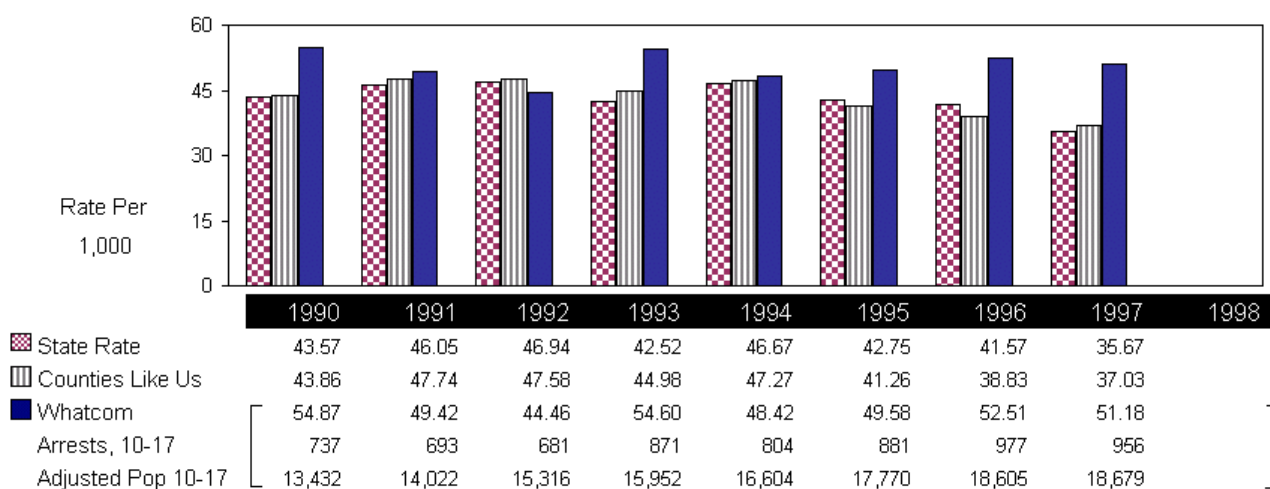
Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

INDICATOR **Juvenile Vandalism and Conduct Type Arrests**



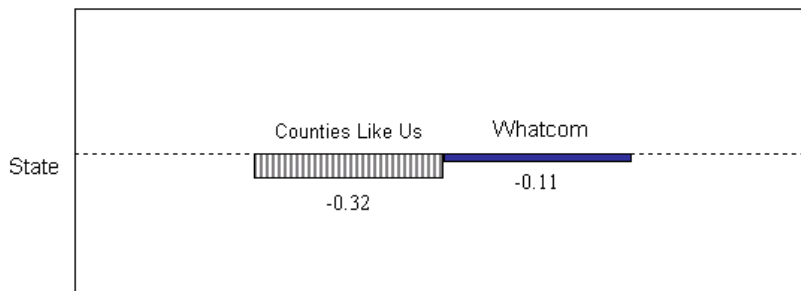
Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

INDICATOR **Juvenile Property Crimes Arrests**



Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

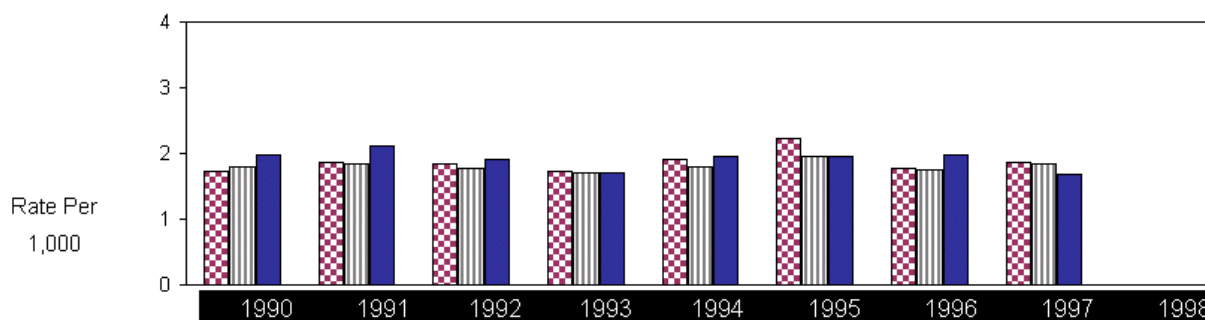
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adult Violent Crime Arrests	1.86	-0.05
Violent Crime Arrests, Age 10-17	4.03	-0.17

**INDICATOR Adult Violent Crime Arrests**

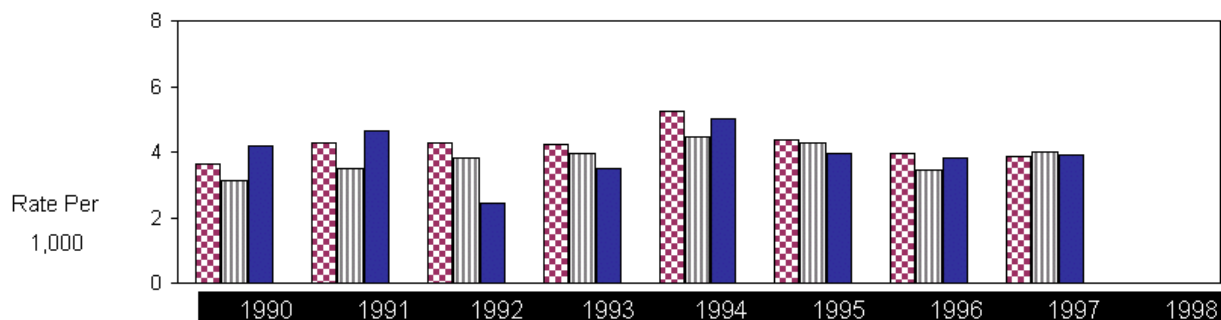


	1990	1991	1992	1993	1994	1995	1996	1997
State Rate	1.73	1.87	1.83	1.73	1.91	2.23	1.78	1.86
Counties Like Us	1.79	1.85	1.77	1.70	1.80	1.95	1.75	1.84
Whatcom	1.98	2.12	1.92	1.71	1.96	1.95	1.98	1.68
Arrests, 18+	186	201	192	175	206	211	221	190
Adjusted Pop 18+	93,995	94,804	99,791	102,244	105,110	108,126	111,384	113,375

*Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)*

DOMAIN            Prevalence: Crime  
RISK FACTOR      **Violence**

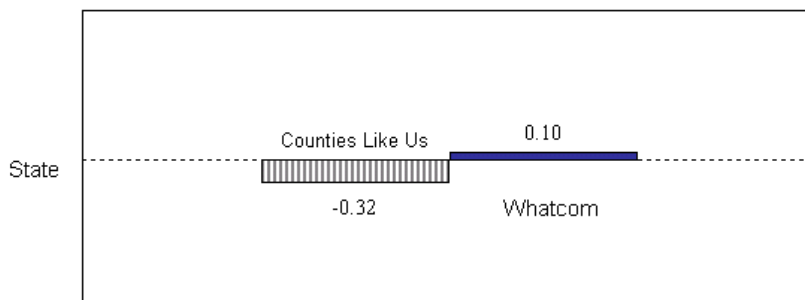
INDICATOR      **Violent Crime Arrests, Age 10-17**



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	3.62	4.28	4.26	4.24	5.22	4.36	3.97	3.88	
Counties Like Us	3.14	3.50	3.81	3.96	4.44	4.27	3.43	4.02	
Whatcom	4.17	4.64	2.42	3.51	5.00	3.94	3.82	3.91	
Arrests, 10-17	56	65	37	56	83	70	71	73	
Adjusted Pop 10-17	13,432	14,022	15,316	15,952	16,604	17,770	18,605	18,679	

*Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)*

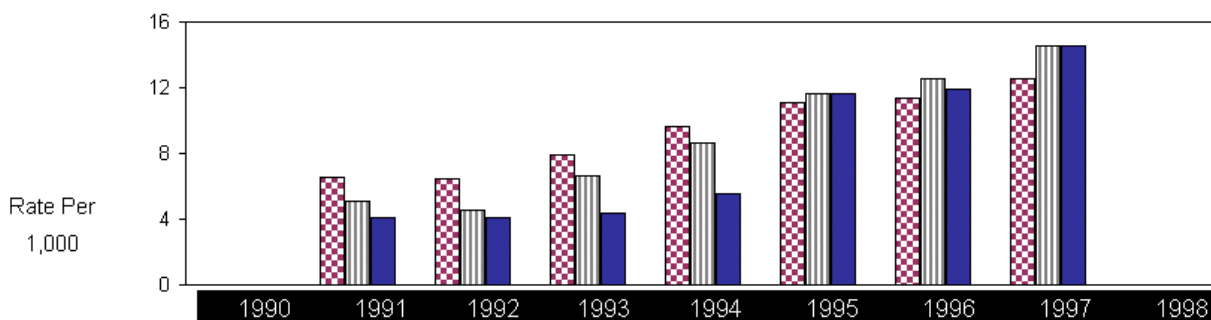
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adolescents in Alcohol & Drug Treatment	9.79	-0.14
Adult Alcohol-Related Arrests	15.29	0.33
Adult Drug-Related Arrests	3.34	-0.87
Adult Drunken Driving Arrests	5.78	-1.08
Alcohol-Related Traffic Fatalities	52.48	0.62
Juvenile Alcohol Violation Arrests	21.21	1.09
Juvenile Drug Law Violation Arrests	6.08	0.72

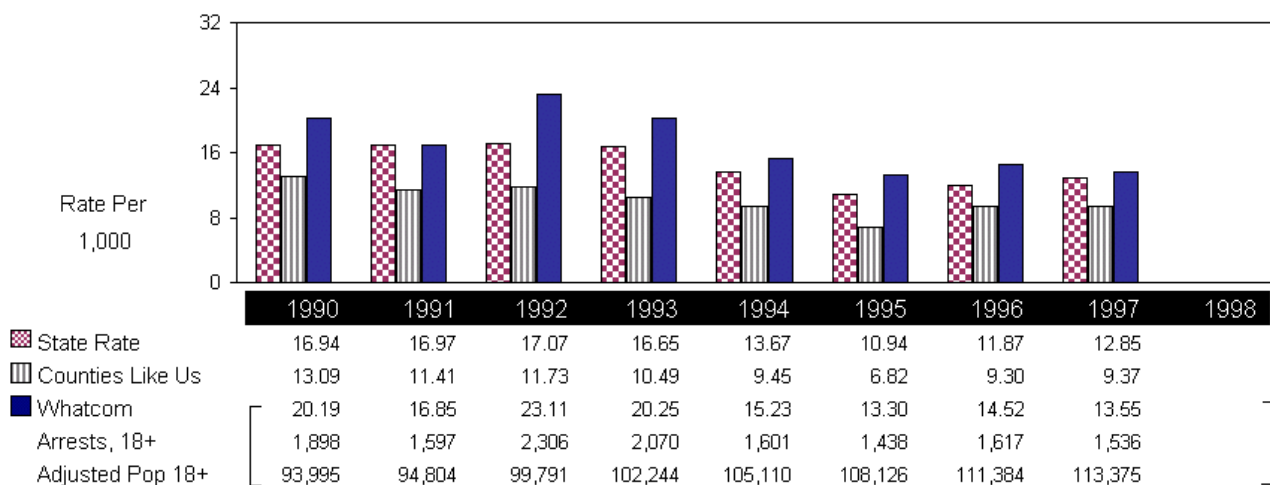
**INDICATOR Adolescents in Alcohol and Drug Treatment**



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate		6.58	6.47	7.94	9.62	11.10	11.35	12.57	
Counties Like Us		5.08	4.54	6.68	8.66	11.60	12.56	14.52	
Whatcom		4.08	4.08	4.35	5.53	11.68	11.91	14.51	
Admits, 10-17		60	64	71	94	209	223	271	
Persons, 10-17		14,706	15,672	16,338	16,987	17,899	18,729	18,679	

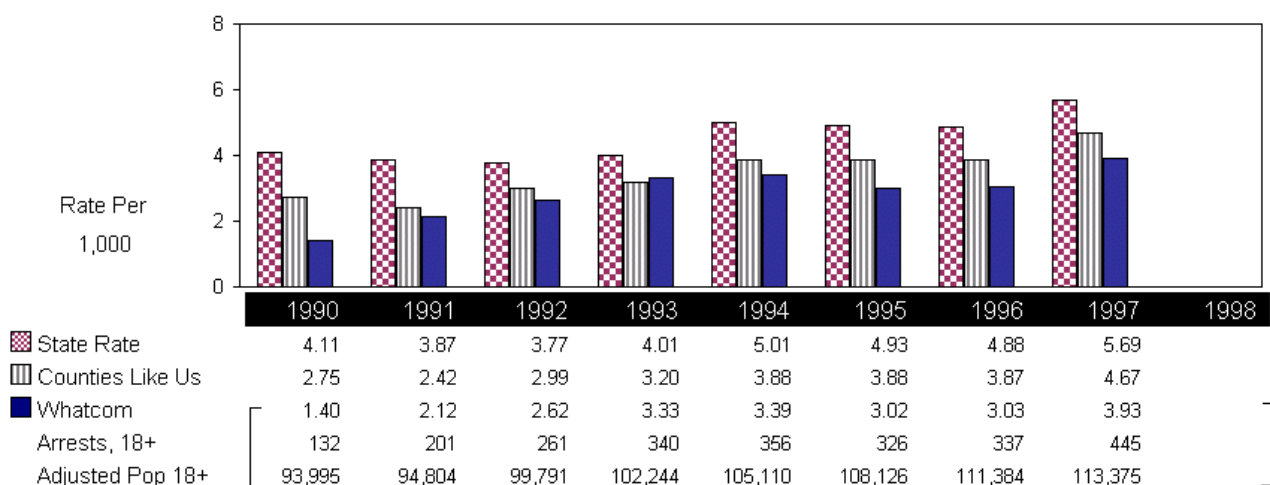
Note: These numbers differ from those reported from the DSHS Needs Assessment Database. The differences result from changes and up-dates in the source systems and unduplication methods. Persons enrolled more than one year in the same outpatient or methadone treatment are not included. (In Technical Notes, see Duplicated and Unduplicated Counts.)

INDICATOR **Adult Alcohol-Related Arrests**



Note: 1. Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.) 2. It is probable that these county numbers under report the DUI arrests. This is because State Patrol arrests, which account for up to 40% of all DUI arrests, can not be attributed to counties. State Patrol arrests are included in the calculation of state rates.

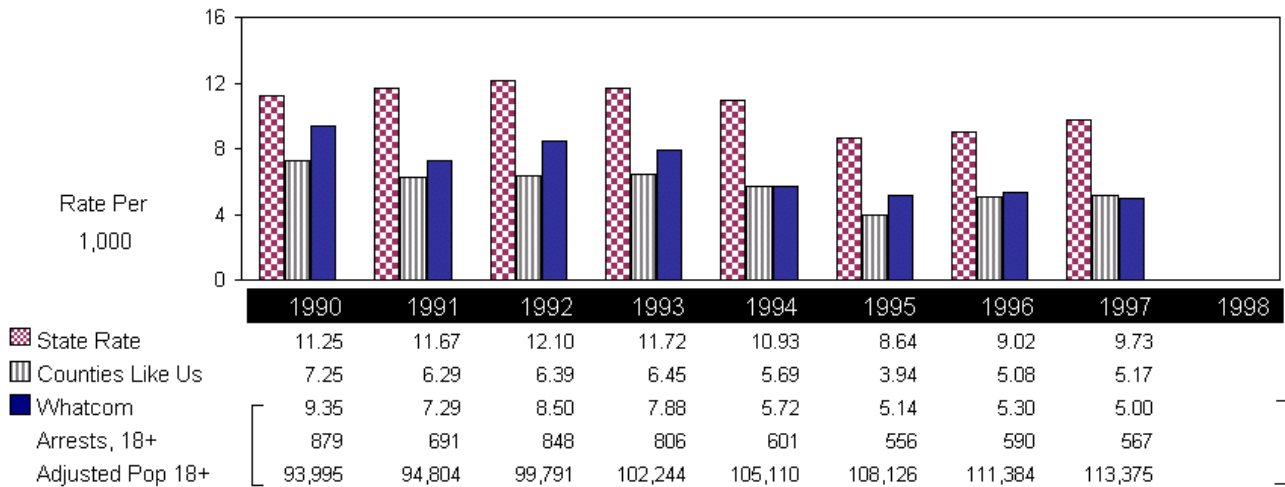
INDICATOR **Adult Drug-Related Arrests**



Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.)

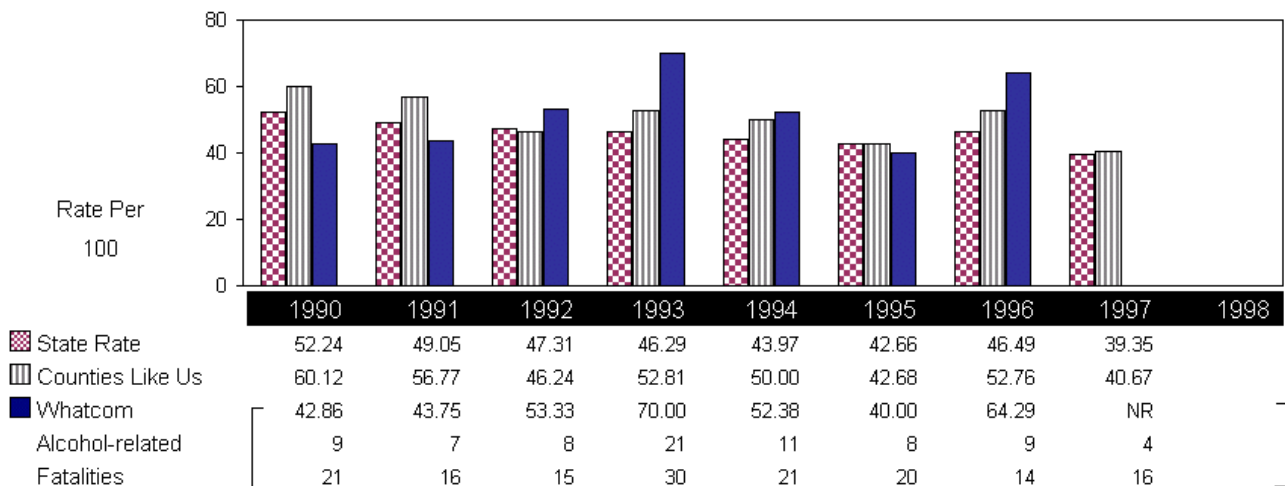


INDICATOR **Adult Drunken Driving Arrests**



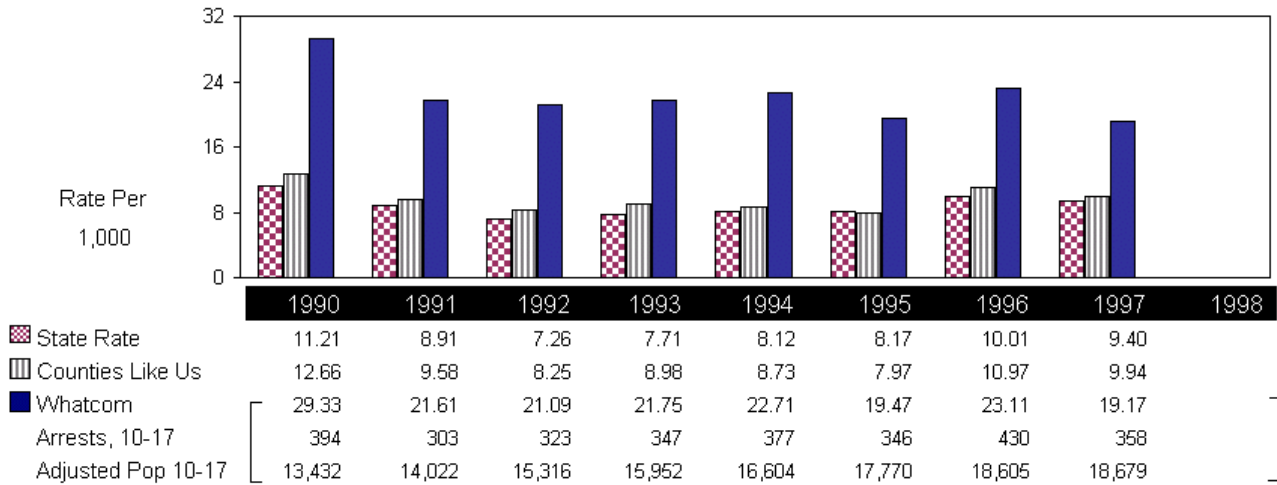
Note: 1. Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (**For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.**) 2. It is probable that these county numbers under report the DUI arrests. This is because State Patrol arrests, which account for up to 40% of all DUI arrests, can not be attributed to counties. State Patrol arrests are included in the calculation of state rates.

INDICATOR **Alcohol-Related Traffic Fatalities**



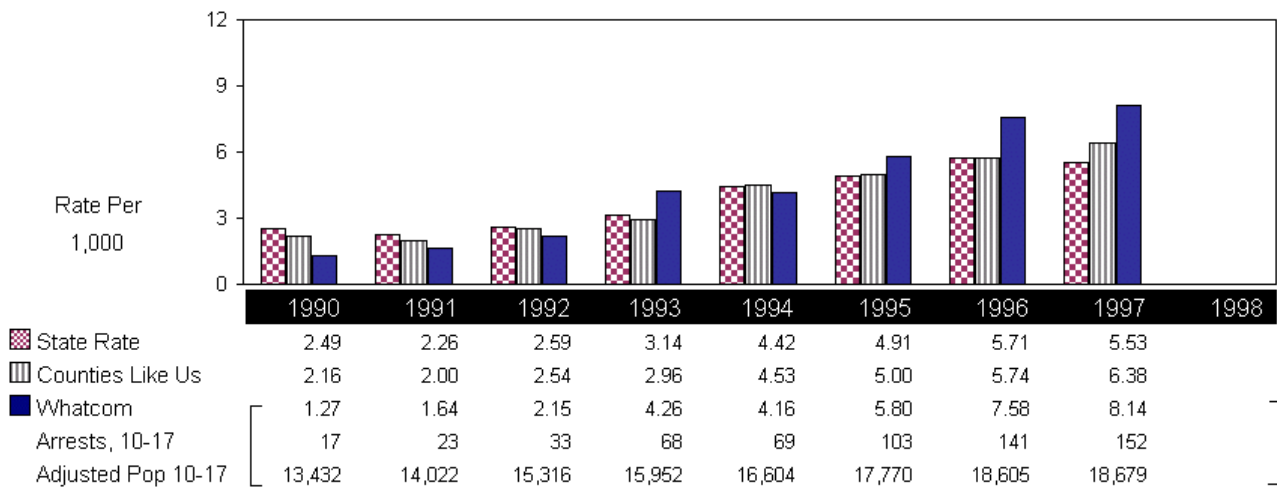
Note: NR – A rate is not calculated when the numerator is less than 5. (In Technical Notes, see Small Number Problem.)

INDICATOR **Juvenile Alcohol Violation Arrests**



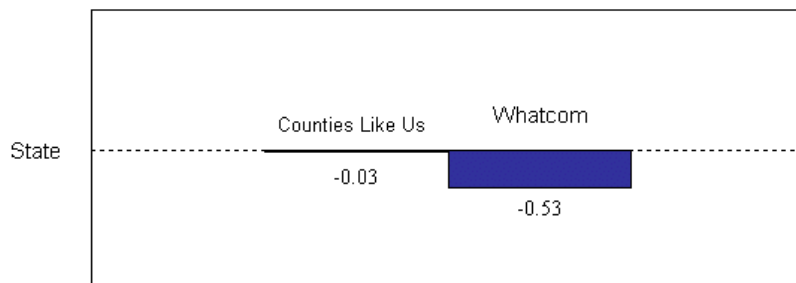
Note: 1. Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (**For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.**) 2. It is probable that these county numbers under report the DUI arrests. This is because State Patrol arrests, which account for up to 40% of all DUI arrests, can not be attributed to counties. State Patrol arrests are included in the calculation of state rates.

INDICATOR **Juvenile Drug Law Violation Arrests**



Note: Denominator populations are adjusted by subtracting the population of police jurisdictions that did not report arrests to UCR. In spite of this adjustment, rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. (**For a table of agencies in your county that did not report to UCR, see Technical Notes, Non-Reporting Police Jurisdictions.**) NR – A rate is not calculated when the numerator is less than 5. (In Technical Notes, see Small Number Problem.)

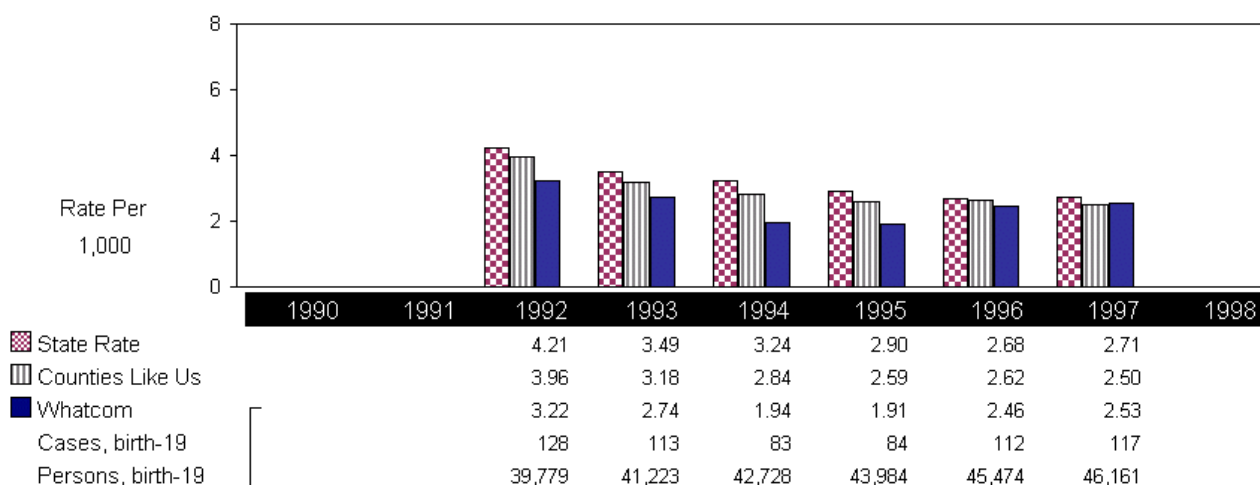
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adolescent Sexually Transmitted Diseases	2.32	-0.59
Birthrate Among Adolescents	8.02	-0.47

**INDICATOR Adolescent Sexually Transmitted Diseases**



Note: SDT counts, formerly available by zip code, are now available only by city. This caused a slight change in data for some counties.

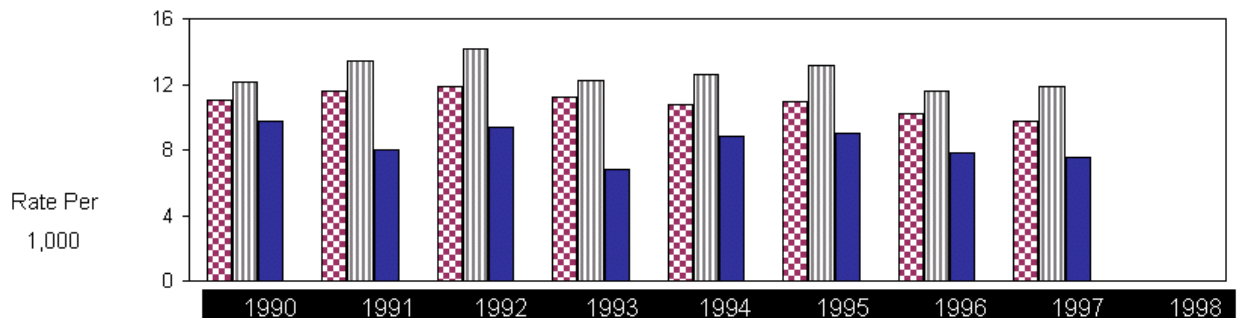
DOMAIN

Prevalence: Other

RISK FACTOR

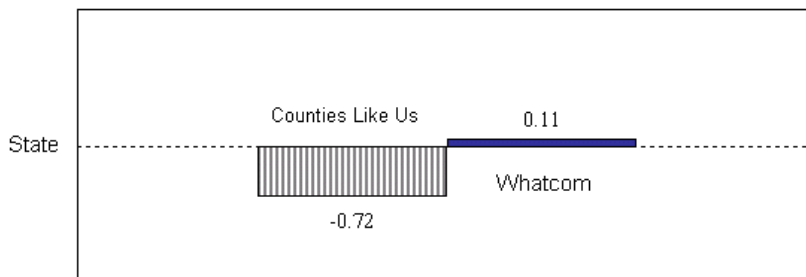
Adolescent Sexual Behavior

INDICATOR Birthrate Among Adolescents



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	11.05	11.61	11.85	11.25	10.80	10.94	10.20	9.77	
Counties Like Us	12.17	13.47	14.14	12.22	12.63	13.15	11.58	11.84	
Whatcom	9.76	8.03	9.39	6.83	8.81	9.02	7.84	7.54	
Birthed, 10-17	65	57	71	54	73	78	71	68	
Females, 10-17	6,663	7,102	7,565	7,902	8,289	8,651	9,051	9,013	

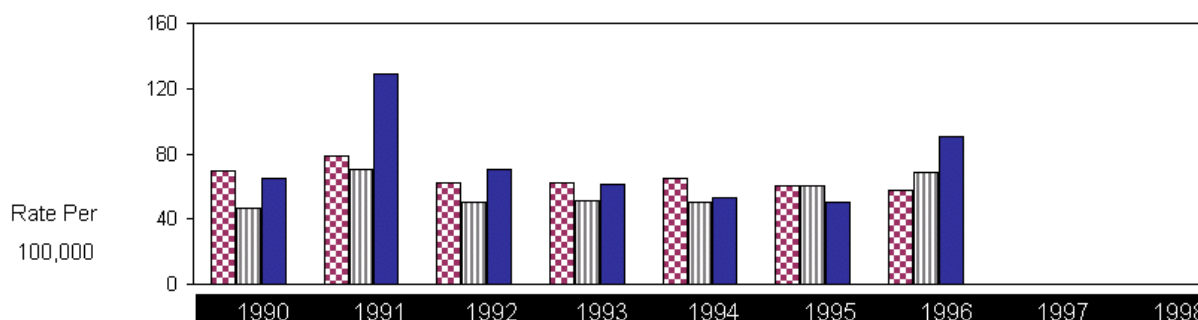
**Standardized Summary Measure**



Summary measures are the 5-yr average of standard scores for all indicators of a risk factor (See Technical Note: Standardized Scores and Summary Measures.)

Indicator	5yr Rate	Std. Score
Adolescent Suicide and Suicide Attempts	65.40	0.11

**INDICATOR Adolescent Suicide and Suicide Attempts**



	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Rate	69.31	78.85	61.96	62.54	64.68	60.76	57.88		
Counties Like Us	46.37	70.40	50.51	50.78	50.45	60.32	68.55		
Whatcom	65.26	129.20	70.19	61.21	52.98	50.28	90.77		
Suicide & Attempt Persons, 10-17	9	19	11	10	9	9	17		
	13,790	14,706	15,672	16,338	16,987	17,899	18,729		



## **GLOSSARY**





## Glossary of Archival Indicators

### ***Adolescent Sexually Transmitted Diseases*** (p. 41)

Department of Health, Sexually Transmitted Disease (STD) Services, Sexually Transmitted Disease Reported Cases

The annual number of reported cases of gonorrhea, syphilis, or chlamydia in adolescents (age birth-19) per 1,000 adolescents (age birth-19). The smallest available geography is self-reported city.

### ***Adolescent Suicide and Suicide Attempts*** (p. 43)

Department of Health, Office of Hospital and Patient Data Systems, Comprehensive Hospital Abstract Reporting System (CHARS) and Department of Health, Center for Health Statistics Death Certificate Data

The annual number of adolescents (age 10-17) who committed suicide or were admitted to the hospital for suicide attempts, per 100,000 adolescents (age 10-17). Suicides are based on death certificate information. Suicide attempts are based on hospital admissions, but do not include admissions to federal hospitals. The smallest available geography is zipcode.

### ***Adolescents in Alcohol and Drug Treatment*** (p.37)

Department of Social and Health Services, Division of Alcohol and Substance Abuse, Treatment and Assessment Report Generation Tool (TARGET)

The annual number of adolescents (age 10-17) admitted or assessed in state-funded alcohol and other drug treatment programs, per 1,000 adolescents (age 10-17). Adolescents admitted to treatment more than once during the year were only counted once for that year. The smallest available geography is zipcode.

### ***Adult Alcohol-Related Arrests*** (p. 38)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of adults (age 18 and over) for alcohol violations, 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. The smallest available geography is police jurisdiction.

### ***Adult Drug-Related Arrests*** (p. 38)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of adults (age 18 and over) for drug law violations, per 1,000 adults. Drug law violations include all crimes involving sale, manufacturing, and possession of drugs. The smallest available geography is police jurisdiction.

### ***Adult Drunken Driving Arrests*** (p.39)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

Adults (age 18 and over) arrested for driving under the influence (DUI) per 1,000 adults (age 18 and older). The smallest available geography is police jurisdiction.

***Adult Property Crime Arrests*** (p. 33)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50  
The annual number of arrests of adults (age 18 and over) for property crimes, per 1,000 adults. Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. The smallest available geography is police jurisdiction.

***Adult Violent Crime Arrests*** (p. 35)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50  
The annual number of arrests of adults (age 18 and over) for violent crimes, 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. The smallest available geography is police jurisdiction.

***Adults in Alcohol and Drug Treatment*** (p. 25)

Department of Social and Health Services, Division of Alcohol and Substance Abuse, Treatment and Assessment Report Generation Tool (TARGET)

The annual number of adults (age 18 and over) admitted or assessed in state-funded alcohol or drug treatment programs, per 1,000 adults. Counts of adults are unduplicated so that those in treatment more than once during the year are only counted once for that year. The smallest available geography is zipcode.

***Alcohol Retail Licenses*** (p. 13)

Washington State Liquor Control Board, Annual Operations Report

The number of alcohol retail licenses active during the year, per 1,000 persons (all ages). Retail licenses include places such as restaurants, grocery stores, and wine shops that sell alcohol and do not include liquor stores and agencies. The smallest available geography is county.

***Alcohol- and Drug-Related Arrests, Age 10-14*** (p. 31)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of adolescents (age 10-14) for alcohol and drug law violations, per 1,000 children (age 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. The smallest available geography is police jurisdiction.

***Alcohol-Related Traffic Fatalities*** (p. 39)

Washington State Patrol, Records Section, Traffic Collisions in Washington State, Accident Records Database

The annual number of alcohol-related traffic fatalities, per 100 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. The smallest available geography is county.

***Birthrate Among Adolescents*** (p. 42)

Department of Health, Center for Health Statistics, Birth Certificate Data File

The annual number of live births to females (age 10-17) per 1,000 females (age 10-17). The smallest available geography is zipcode.

***Children in Aid to Families Programs*** (p. 14)

Department of Social and Health Services, Research and Data Analysis, Automated Client Eligibility System and Warrant Roll

The annual number of children (age birth-17) participating in Aid to Families (AFDC/TANF) programs in the month of April, per 1,000 children (age birth-17). April was selected as the month with an average number of recipients. The smallest available geography is zipcode.

***Children in Foster Care*** (p. 26)

Department of Social and Health Services, Research and Data Analysis, CORE-GIS, Foster Care Files

The annual average monthly number of children (age birth-17) in state-paid, family-based foster care or guardianship; regardless of parental rights termination or length of care; per 1,000 children (age birth-17), per year. The smallest available geography is zipcode.

***Children Living Away From Parents*** (p. 27)

U.S. Department of Commerce, Bureau of the Census, 1990 Census - STF1

The annual number of children (age birth-17) who do not live with either or both of their parents or guardians, 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). The smallest available geography is zipcode.

***Divorces*** (p. 23)

Department of Health, Center for Health Statistics, Dissolution and Annulment Data

The annual number of divorces per 1,000 adults (age 15 and over). Divorce includes dissolutions, annulments, and unknown decree types; it does not include legal separations. Divorce data is reported by the woman's residence, if in Washington at the time of decree. If the woman lived outside Washington, the man's residence was used. If both parties lived out of state, the county of decree was issued. The smallest available geography is self-reported city.

***Domestic Violence Arrests*** (p. 24)

Washington State Patrol, Identification and Criminal History Section, Domestic Violence-Related Arrests File

The annual number of domestic violence-related arrests, per 1,000 adults. Domestic violence includes any violence of one family member against another family member. Family can include spouses, former spouses, parents who have children in common regardless of marital status, adults who live in the same household, as well as parents and their children. The smallest available geography is county.

***Existing Home Sales*** (p. 20)

Washington Center for Real Estate Research, Washington State University, Washington State's Housing Market: A Supply/Demand Assessment

The annual number of previously-owned homes sold, per 1,000 persons (all ages). Previously-owned homes sold 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. The smallest available geography is county.

***Food Stamp Recipients*** (p. 15)

Department of Social and Health Services, Research and Data Analysis, Automated Client Eligibility System and Warrant Roll

The annual number of persons (all ages) receiving food stamps in the month of April, per 1,000 persons (all ages). April was selected as the month with an average number of recipients. The smallest available geography is zipcode.

***Free and Reduced Lunch Program*** (p. 15)

Office of Superintendent of Public Instruction, Child Nutrition, Free and Reduced Price Lunch

The annual number of students in public schools (K-12) whose applications have been approved for free and reduced price lunch programs, per 100 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. The smallest available geography is school district.

***High School Dropouts*** (p. 28)

Office of Superintendent of Public Instruction, Information Services, School Dropout Files

The annual number of students (grades 9-12) who dropped out of school in a single year without completing high school, per 100 students (grades 9-12) enrolled in school in May. The smallest available geography is school district.

***Households in Rental Properties*** (p. 21)

U.S. Department of Commerce, Bureau of the Census, 1990 Census - STF1

The annual number of rental households, per 100 households. A household is defined as an occupied residential housing unit. The smallest available geography is zipcode.

***Juvenile Alcohol Violation Arrests*** (p. 40)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of juveniles (age 10-17) for alcohol violations, per 1,000 juveniles (age 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. The smallest available geography is police jurisdiction.

***Juvenile Drug Law Violation Arrests*** (p. 40)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of juveniles (age 10-17) for drug law violations, per 1,000 juveniles (age 10-17). Drug law violations include all crimes involving sale, manufacturing, and possession of drugs. The smallest available geography is police jurisdiction.

***Juvenile Property Crimes Arrests*** (p. 34)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of juveniles (age 10-17) for property crimes, per 1,000 juveniles (age 10-17). Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. The smallest available geography is police jurisdiction.

***Juvenile Vandalism and Conduct Type Arrests*** (p. 34)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of juveniles (age 10-17) for curfew, loitering, vandalism, and disorderly conduct, per 1,000 juveniles (age 10-17). The smallest available geography is police jurisdiction.

***Low Birthweight Babies Born*** (p. 16)

Department of Health, Center for Health Statistics, Birth Certificate Data File

The annual number of babies born with low birthweight, per 1,000 live births. Low birthweight is less than 2,500 grams. The smallest available geography is zipcode.

***Net Migration*** (p. 21)

Office of Financial Management, Net Migration Data

Net migration is the annual number of new residents that moved into an area minus the number of residents that moved out of an area. Net migration does not include numbers of births and deaths within an area. Calculating a 5-year moving average smoothes net migration. Annual net migration estimates are summed for 5-year ranges then averaged to calculate the numerator. The median year of the average is used for the population denominator and the year label for the 5-year moving average net migration value. A factor of 1,000 is used to calculate the 5 year moving average net migration per 1,000 population. The smallest available geography is county.

***New Residence Construction*** (p. 22)

Washington Center for Real Estate Research, Washington State University, Washington State's Housing Market: A Supply/Demand Assessment

The annual number of new building permits issued 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. The smallest available geography is zipcode.

***Poor Academic Performance, Grade 4*** (p. 29)

Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment, Grade 4 Low Quartile Test File

The annual number of fourth graders whose Battery test score was in the lowest 25% compared to the national norm group, per 100 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. The smallest available geography is school district.

***Poor Academic Performance, Grade 8*** (p. 30)

Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment, Grade 8 Low Quartile Test File

The annual number of eighth graders whose Battery test score was in the lowest 25% of the national norm group, per 100 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. The smallest available geography is school district.

***Population Not Registered to Vote*** (p. 17)

Office of the Secretary of State, Elections Division, Registered Voters

The annual number of persons not registered to vote in the November elections, per 100 adults (age 18 and over). The smallest available geography is county.

***Population Not Voting in Elections*** (p. 18)

Office of the Secretary of State, Elections Division, Voting Records

The annual number of registered voters who do not vote in the November election, per 100 registered voters. The smallest available geography is county.

***Prisoners in State Correctional Systems*** (p. 18)

Department of Corrections, Inmates File

The annual number of adult (age 18 and over) admissions to prison, per 100,000 persons (all ages). Admissions include new admissions, re-admissions, 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. The smallest available geography is county.

***Property Crime Arrests, Age 10-14*** (p. 32)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of children (age 10-14) for property crimes, per 1,000 children (age 10-14). Property crimes include all crimes involving burglary, larceny-theft, motor vehicle theft, and arson. The smallest available geography is police jurisdiction.

***Residential Vacancies*** (p. 19)

U.S. Department of Commerce, Bureau of the Census, 1990 Census - STF1

The annual number of vacant housing units, per 100 housing units. Housing units include homeowner-owned housing units and rental housing units. The smallest available geography is zipcode.

***Tobacco Sales Licenses*** (p. 13)

Department of Health (from the Department of Licensing), Tobacco Prevention Program, Tobacco Statistics

The annual 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. November counts are selected as representative of the average yearly number of retailers. The smallest available geography is county.

***Unemployment*** (p. 16)

Employment Security Department, Labor Market and Economic Analysis, County Unemployment File

The annual number of unemployed persons (age 16 and over) per 100 persons in the civilian labor force. Unemployed persons are individuals (age 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 (age 16 and over) who are working or looking for work. The smallest available geography is county.

***Vandalism Arrests, Age 10-14*** (p. 32)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50

The annual number of arrests of adolescents (age 10-14) for vandalism (including residence, non-residence, vehicle vandalized objects, police cars, or other) per 1,000 children (age 10-14). The smallest available geography is police jurisdiction.

***Victims in Accepted Child Abuse Referrals*** (p. 27)

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

The annual number of children (age birth-17) identified as victims in reports to Child Protective Services that were accepted for further action, per 1,000 children (age birth-17). Children are counted more than once if they are reported as a victim more than once during the year. The smallest available geography is zipcode.

***Violent Crime Arrests, Age 10-17*** (p. 36)

Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Tables 40 and 50  
The annual number of arrests of juveniles (age 10-17) for violent crimes, per 1,000 juveniles (age 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. The smallest available geography is police jurisdiction.





# **WASHINGTON STATE SURVEY OF ADOLESCENT HEALTH BEHAVIORS**

Interpreting Survey Data

Geographic Variation and Data Availability

Student Survey Data



## Survey Data

### Washington State Survey of Adolescent Health Behavior

Since 1988 the Washington State Survey of Adolescent Health Behaviors (WSSAHB) has provided prevention workers with state-level information on trends in alcohol, tobacco and other drug (ATOD) use. From the 1995 and 1998 surveys, reports include profiles of the risk and protective factors that predict health-risk behavior. This survey data allows prevention planners to learn how the average student's attitudes and behavior regarding substance abuse have changed over time, and how Washington kids compare to the rest of the nation. However, as the field of prevention has become more focused on science-based (or evidence-based) prevention practices, we have been increasing our efforts to base prevention planning on **local data**. To that end, OSPI and DASA and DCTED (Department of Community, Trade and Economic Development) have worked hard to increase participation in the WSSAHB, and other state agencies have joined this effort. The goal is to construct risk and protective factor profiles and measures of ATOD use for school districts and counties in order to better target prevention efforts.

For detailed discussions of the survey, its results and interpretation at the level of the state, there are a number of sources of information. Longitudinal data from this survey (1988-1998) have been presented in the core **Analytic Report** which is available from the Safe and Drug Free Schools office at the OSPI, 360-753-5595. (Under "Research" in the Technical Notes you will find some additional publications based on this survey.) In the *Analytic Report* OSPI's researchers explain the ideas behind the survey and the significance of survey results, comparing them across years of the survey and to national adolescent health statistics.

#### **Interpreting survey results**

In this County Profile we include 1998 WSSAHB grade-specific results for substance use and risk and protective factors. Ten counties have county, regional and state results; twenty-nine counties have only regional and state level results. What can you do with WSSAHB data? As with archival data, interpreting survey data should always be a joint project among key informants. Depending on the geographic level of your data (whether county or region, or if you have data available from school districts), the comparisons with state and national statistics can help you select risk factors for intervention or further investigation. A comparison of your survey data with your archival data can suggest additional questions or research that will be required for your needs assessment. For the analysis of protective factors, 1998 survey data presents profiles for all but family domain protective factors.

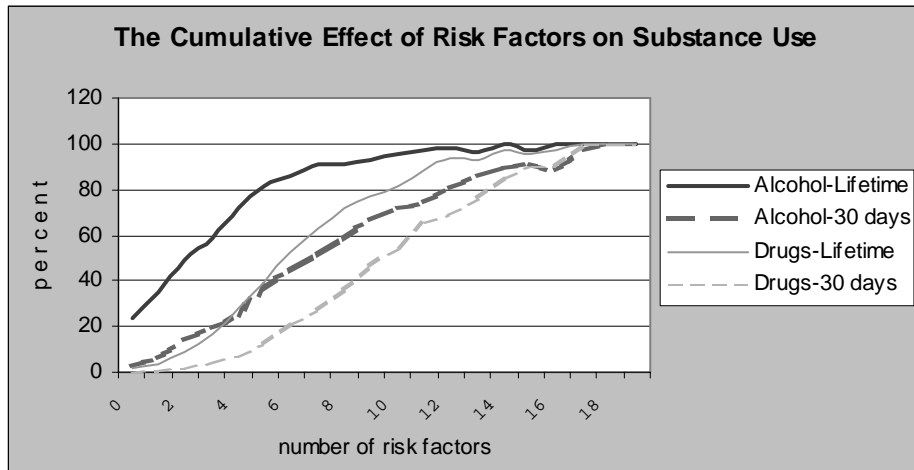
If any school district in your planning area has longitudinal data, that is, if it has been participating in the WSSAHB since 1988, then it is likely that people working in the district have already have experience analyzing it. If, on the other hand, this is the first time you have looked at student survey data, the publications mentioned above will help you to analyze your local data. In any geographic area (county or school district) for which there is not a valid sample or a census (all students participating), the results from individual schools must only be applied to that school. In other words, you cannot make inferences to non-participating schools.

#### **The Importance of Risk Factors:**

The more risk factors present, the greater the likelihood of substance use.

Based on the most current research, the analysis of risk and protective factors is the necessary first step in planning for prevention. Individual risk factors suggest specific interventions, but the simple number of risk factors faced by any one child or youth, and the relationship of that

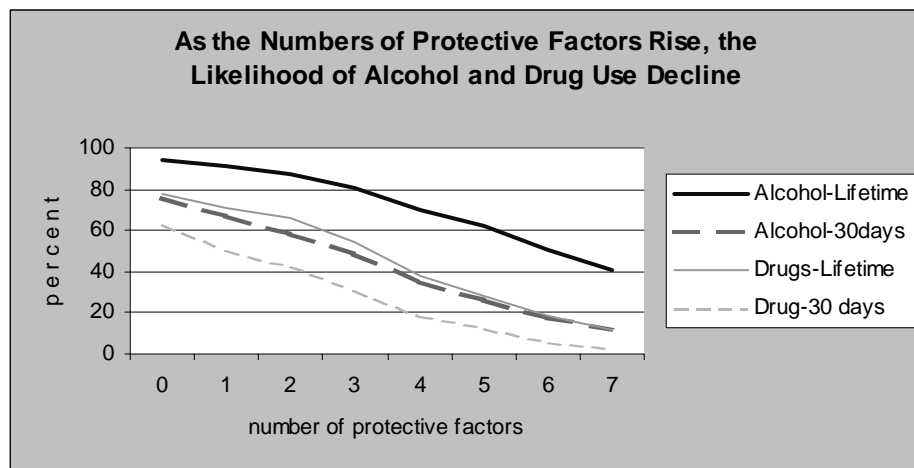
number to the likelihood of substance use, suggests a cumulative effect for risk. In other words, while exposure to one risk factor does not mean that a child will certainly engage in substance abuse, research shows that exposure to a greater number of risk factors increases a young person's risk. The following chart shows that with an increase in the number of risks that a person is exposed to, it is increasingly likely that the student is using alcohol or drugs. As this makes clear, reducing the risks present in a young person's life decreases substance use among young people in a community.



*This table represents the relationship between the number of risk factors and the likelihood of substance use. Among students with only 0-3 risk factors, fewer than 20% experiment with drugs other than alcohol. As the number of risk factors rise, the percent of students using drug and alcohol rise. In other words, research show that the liklihood of ATOD use is related to the "dose" of risk factors.*

**The more protective factors, the lower the risk.**

The importance of protective factors cannot be overstated. For instance, in a high-risk community the seemingly insoluble problems of poverty or addiction can overwhelm our efforts at prevention. Enhancing protective factors allows us to build on the strengths of the community while methodically tackling those risk factors that are susceptible to



*The more protective factors in a students life, the less likely it is that they will use alcohol or other drugs. There is a very high percentage of alcohol and drug use among students with only one protective factor.*

intervention. Researchers tallied the number of risk factors for each student/respondent, and compared each student's total to their use of alcohol and other drugs. The above graph shows that as the number of protective factors rises, the use of drugs and alcohol declines. Conversely, the fewer the protective factors, the greater the likelihood of substance use.

### **Geographic Variation and Data Availability**

In 1998 the state sample for the WSSAHB included 14,601 students in 102 elementary, middle and high schools. These randomly selected schools formed the sample for the state profile. The 1998 survey also produced data for a set of regional profiles: Eastern, Southwest, Northwest and Puget Sound. (The counties included in each region are listed in the Technical Notes.) For the most part, the differences between regions and the state are not statistically significant.

Another 258 schools (and 37,731 students) participated voluntarily (these were called "piggybacks") in order to obtain school-specific results to use in prevention planning. This is more than twice as many schools as had participated in the 1995 survey, illustrating the growing interest across the state in evidence-based prevention planning. Based on the combined results from the state sample and the piggyback surveys, we present county level survey data for ten counties, and regional data for other counties. At the county and school district level there are extremely important and interesting differences, differences that will focus prevention efforts more precisely. Regional and state data mask geographic variation, but the level of particular risk factors, and the change in level of risk across grades gives us extremely valuable information.

How many school districts have to participate in the survey to yield valid county-level data? The answer to this question varies from county to county. We can easily imagine that in no county would survey data from a **single** school district allow for interpretation of the entire county—schools vary by population or demographics, and by location. For instance rural, inner city and suburban locations are very different and probably have different risk profiles.

### **The county data available in this report**

In the largest counties, a random-sample method of selecting school buildings is possible. This method produces valid county-wide data, even though all schools do not participate. In 1998 four counties drew random samples: King, Pierce, Snohomish and Thurston. For some counties, however, there are not enough school buildings to create the sample size required for a random sample. In these counties all school districts and most school buildings have to participate in the survey to achieve a true picture of the county's representative ATOD use and risk profile. The latter case is a **census**.

In order to incorporate geographic variability in the delivery of prevention services, a census is preferable to a sample. With a census you can do an analysis of school district and even school building survey results. This analysis will reveal what is probably a great deal of variation across the county and between school districts, and allow carefully focussed prevention planning and evaluation. However, in the rural areas of counties where there are often small schools, it may not be possible to report school district and school building data due to the need to preserve confidentiality of the survey's results. When the data of several school districts are aggregated, or added together, this is not a problem.

Asotin and Skagit achieved a near census in most grades, so at the aggregated level (that is, adding all the school districts together) these are valid county level reports three or four grade levels. Four other counties achieved widespread participation and a census or near census in at least one grade. **In every case, a significant omission of a key school district, or uneven participation among school districts means that the results are not scientifically valid as county rates, but they can provide useful information if used with caution.**

There are no county level survey results in the county profiles for those counties in which only a few buildings participated in the survey. Data may be available from those schools that did participate, but will not create an adequate picture of risk for the whole county. (All school buildings and districts that participated in the survey have already received building level results along with an interpretation guide.) In those areas where no school districts participated, state and regional data can still provide very helpful information for a planning process.

(If you do not know which school districts in your county participated in the WSSAHB, contact your DASA regional prevention coordinator, or contact the Safe and Drug-Free Schools office at OSPI.)

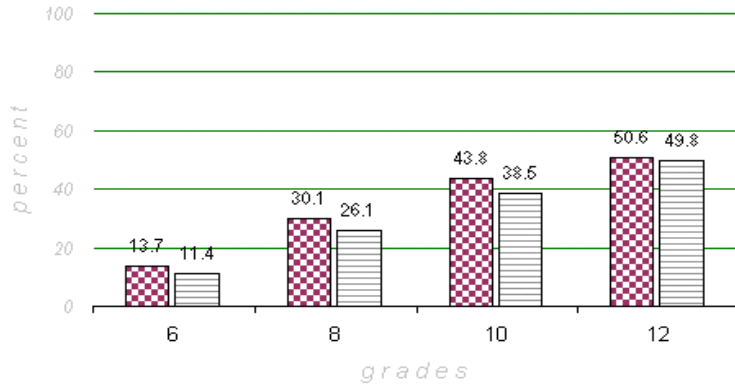
<b>County</b>	<b>Valid grades at county</b>	<b>Description of representativeness of county-level aggregation of survey results.</b>
Asotin	6, 8, 10	Less than 40% of 12th graders participated, although both school districts are represented in the aggregated 12th grade results. These are probably not representative.
Franklin	10	County level results are over 50% for 6th and 8th grades, but only one school district is represented, and so should be used with caution. 12th grade results should be used only anecdotally---less than 20% of the 12th graders participated.
Grays Harbor	[8]	Participation of 8th graders was excellent in all but the smallest school districts. 6th, 10th and 12th graders are not as evenly represented: less than 40% of 6th graders, and less than 50% of 12th graders participated.
Island		Representation is excellent in two of the three school districts, but cannot be extrapolated to county-wide valid survey results.
King	6, 8, 10, 12	A sample was drawn for this county.
Pacific	8	Representation for 6th, 10th and 12th graders was high but uneven across the county. Aggregated results for those three grades do not reach 50%, and should be used by stipulating their lack of representativeness.
Pierce	6, 8, 10, 12	A sample was drawn for this county.
Skagit	6, 8, 10, 12	Skagit achieved a near census in all grades. 6th, 8th and 12th grades are each underrepresented in at least one school district.
Snohomish	6, 8, 10, 12	A sample was drawn for this county.
Thurston	6, 8, 10, 12	A sample was drawn for this county.

# **SCHOOL SURVEY DATA**

# Prevalence of Alcohol, Tobacco and Other Drug Use

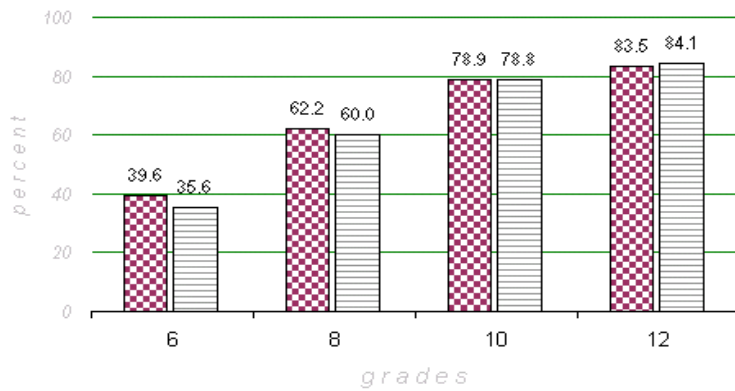
state
  northwest region \*

INDICATOR **Alcohol - 30 Day Use**



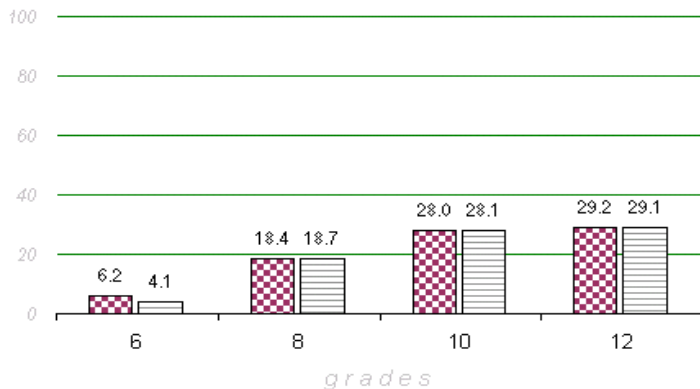
This is a measure of how many students in each grade have used alcohol during the last 30 days. These and the other substance use questions are identical to the questions in the Monitoring the Future national survey. Therefore these measures allow direct comparison to the widely published national figures.

INDICATOR **Alcohol - Lifetime Use**



This is a measure of how many students have used alcohol even once in their lifetime.

INDICATOR **Drug - 30 Day Use**



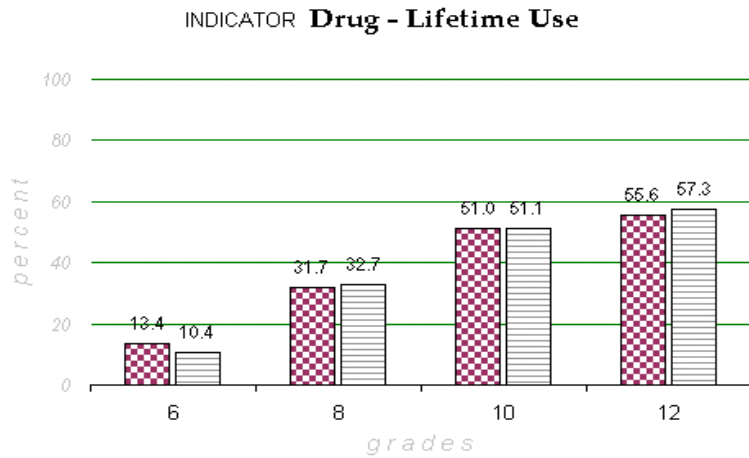
Drug use questions were based on the following drugs: marijuana, cocaine, inhalants, hallucinogens, heroin, amphetamines or methamphetamines, and steroids. The first indicator is a measure of how many respondents have used any of those drugs during the last 30 days.

\*Counties in the Northwest Region: Island, San Juan, Snohomish, and Whatcom.

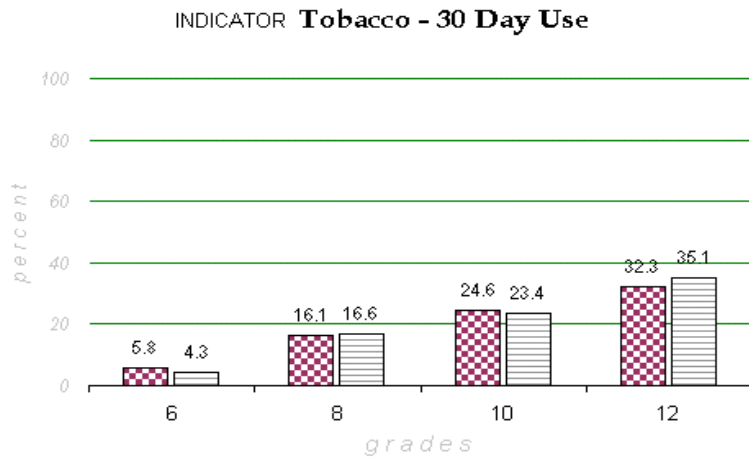


# Prevalence of Alcohol, Tobacco and Other Drug Use

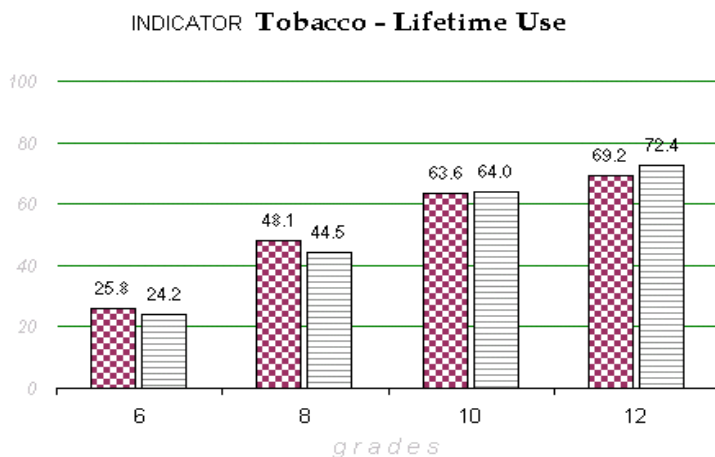
state northwest region



This chart shows the percentage of student/respondents who have used any of those drugs (listed above) even once in their lifetime.



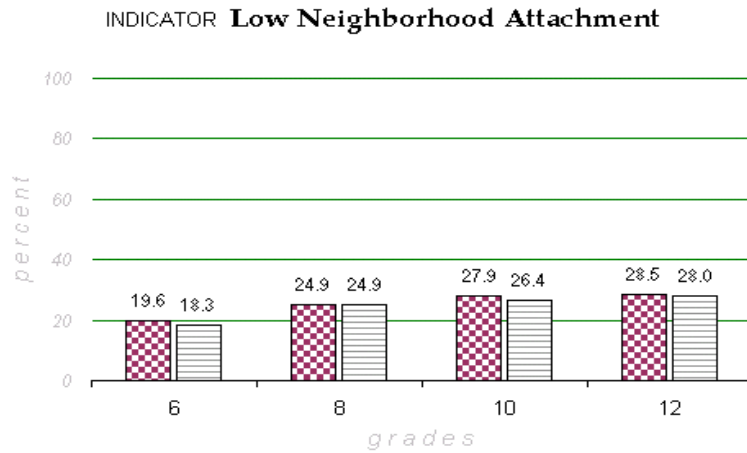
How many students have smoked tobacco during the last 30 days? For more information on tobacco use, see "Tobacco & Health in Washington State", published in 1999 by the Department of Health.



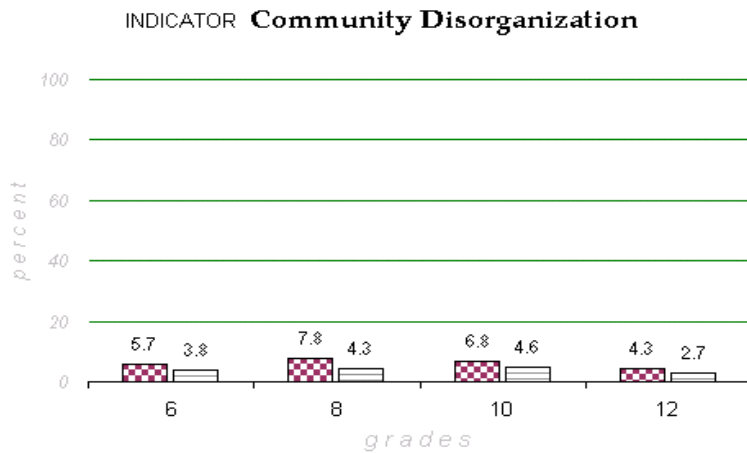
What percent of the students have smoked tobacco even once in their lifetime?

## Community Domain - Risk Factors

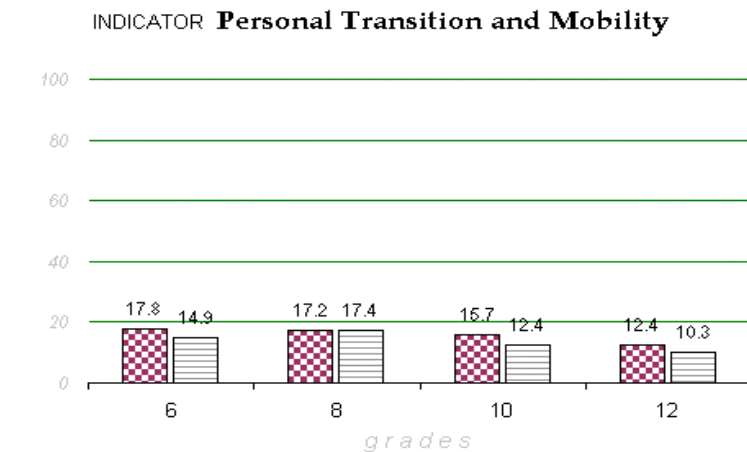
state
  northwest region



Neighborhood attachment refers to the extent to which students feel like they are a part of their neighborhood and whether what they do in the neighborhood makes a difference in their lives.



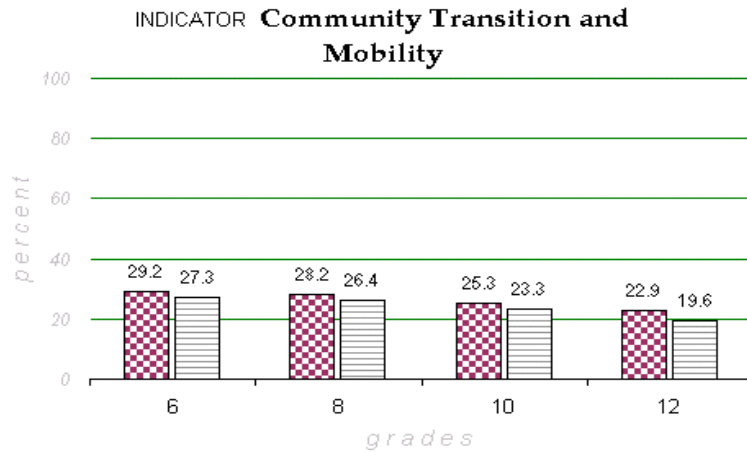
Research has shown that neighborhoods that lack surveillance of public places, physical deterioration, low levels of bonding to the neighborhood, and high rates of adult crime also have higher rates of juvenile crime and drug selling. The survey questions students about their neighborhoods---the presence of crime, fights, abandoned buildings and graffiti.



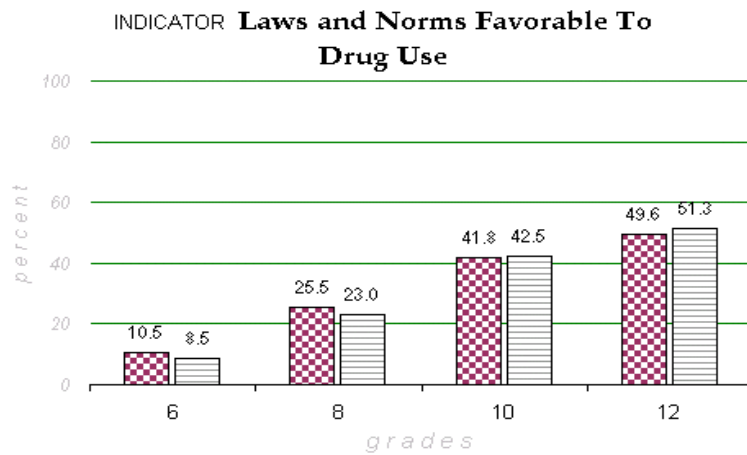
Kids who move a lot often experience stressful life transitions. These students often have difficulty feeling a part of their community or adjusting to school, and are shown to have higher risk for school failure, delinquency, and drug use. The scale measures the extent to which students change homes or schools.

## Community Domain - Risk Factors

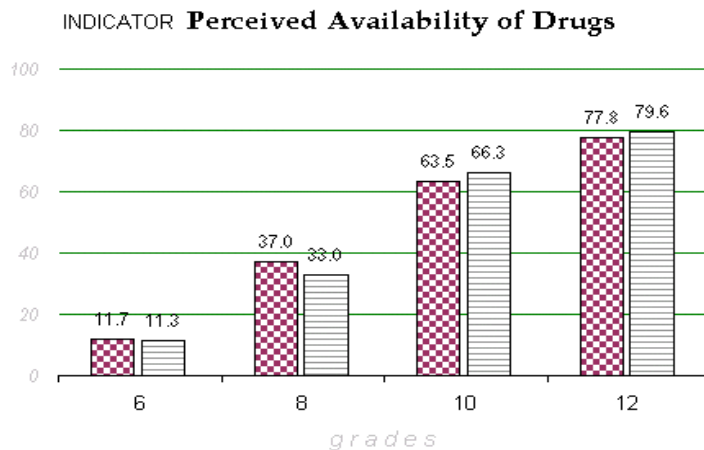
state
  northwest region



Communities that experience high rates of turnover in their population frequently experience higher rates of problem behavior. This indicator is based on a question about how much people move in and out of students' neighborhoods.



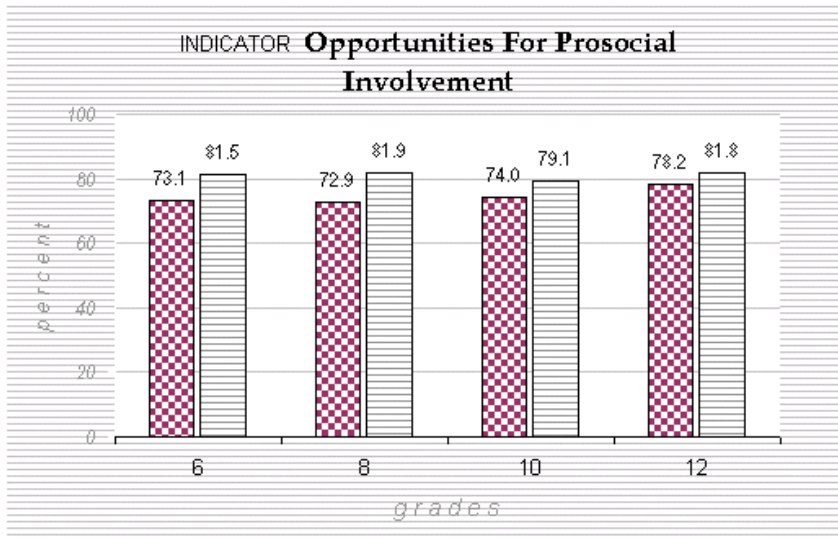
A community's attitudes about drug use are reflected in laws and their enforcement, social practices, and expectations. What are the students' perceptions of community attitudes and policies regarding drug use? National surveys of high school seniors have shown that shifts in attitudes toward drug use have preceded changes in prevalence.



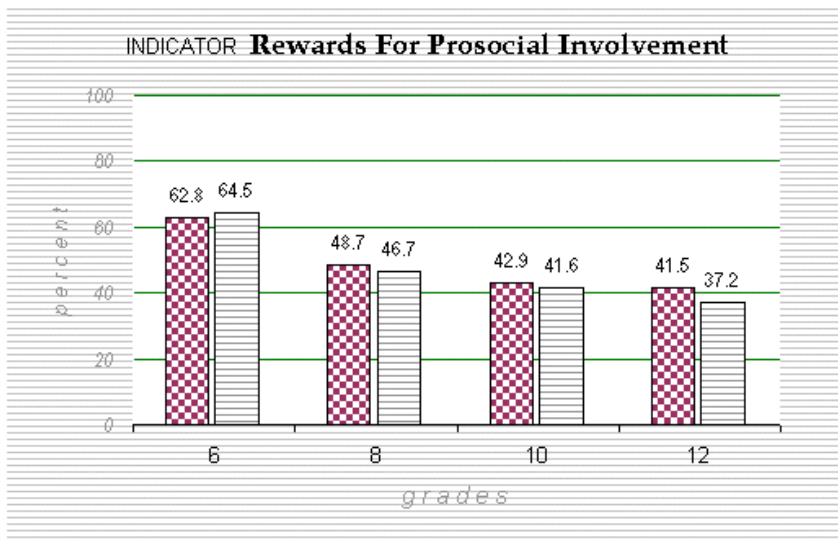
Student-respondents answered what they thought was the availability or access to alcohol, tobacco, and other drugs. Perception of availability can affect the likelihood of engaging in drug use.

## Community Domain - Protective Factors

state
  northwest region



This item measures the perception of the availability of positive activities like sports, scouting, or clubs for youth. 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.

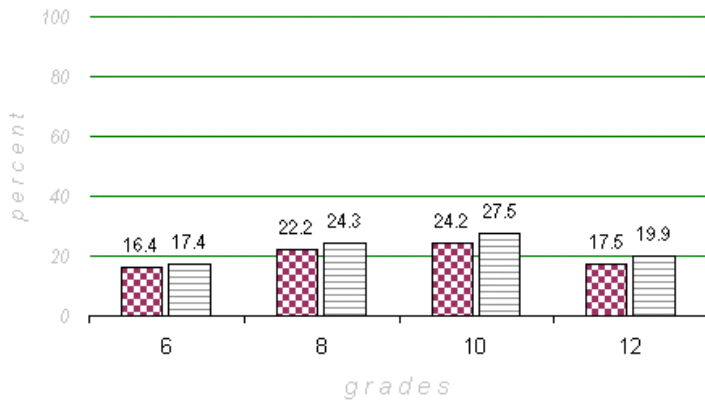


Being rewarded for positive activity (eg., doing a good job) is important in development. This measure indicates the experience individual students have had of receiving rewards (attention, praise, encouragement).

## School Domain - Risk Factors

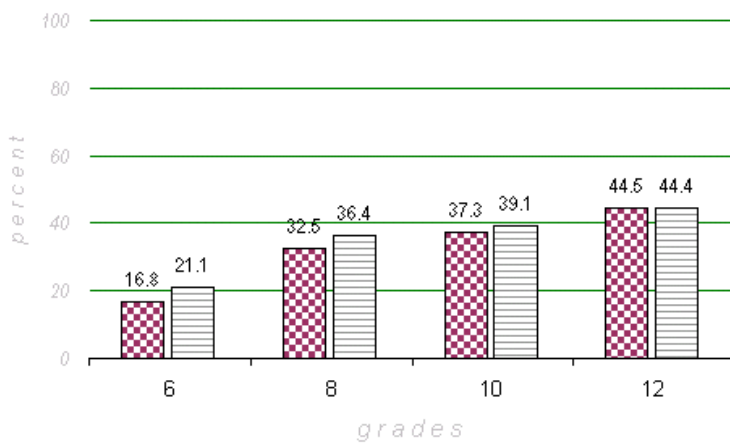
state northwest region

INDICATOR **Academic Failure**



Beginning in the late elementary grades (4th-6th) academic failure increases the risk of both drug abuse and delinquency. It appears that the experience of failure itself, for whatever reasons, increases the risk of problem behaviors.

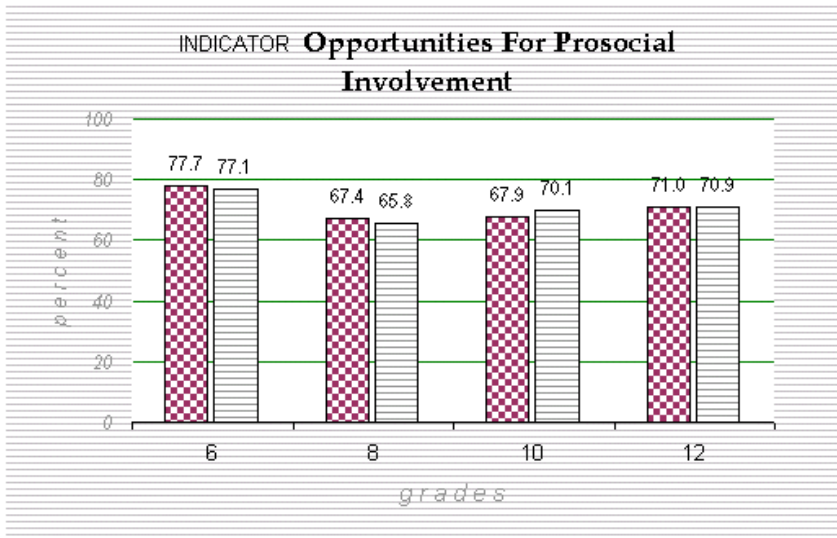
INDICATOR **Little Commitment To School**



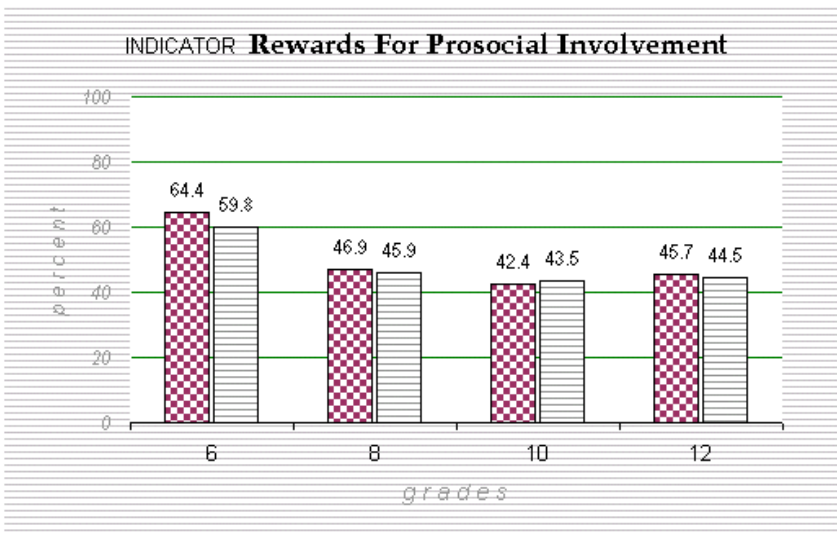
Research has shown that drug use is significantly lower among students who expect to attend college than those who do not. Factors such as liking school, spending time on homework, and perceiving their coursework as relevant are also negatively related to high levels of drug use. When young people cease to see school as meaningful or important in their lives, they are at higher risk of engaging in unhealthy behavior.

## School Domain - Protective Factors

state northwest region



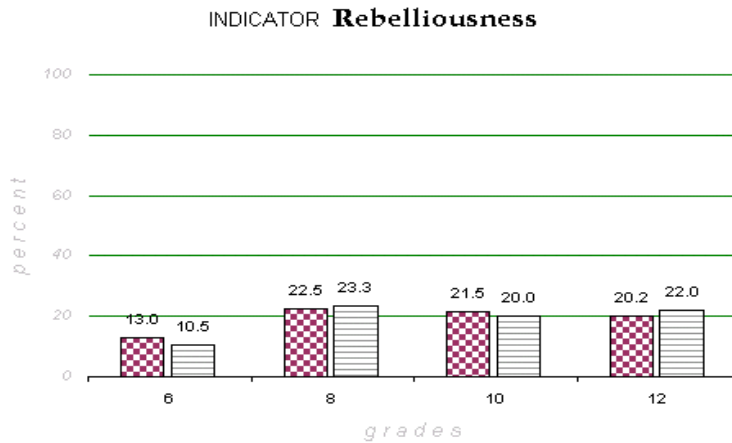
When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in problem behaviors.



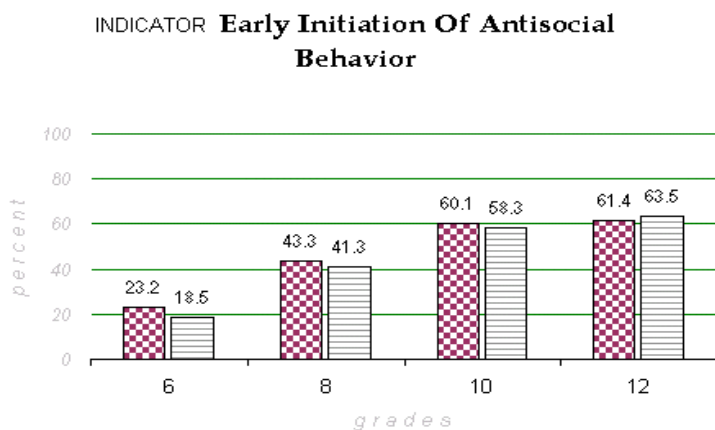
As in the community and family domains, when young people are recognized and rewarded for their contributions, they are less likely to get involved in health risk behaviors.

## Peer / Individual Domain - Risk Factors

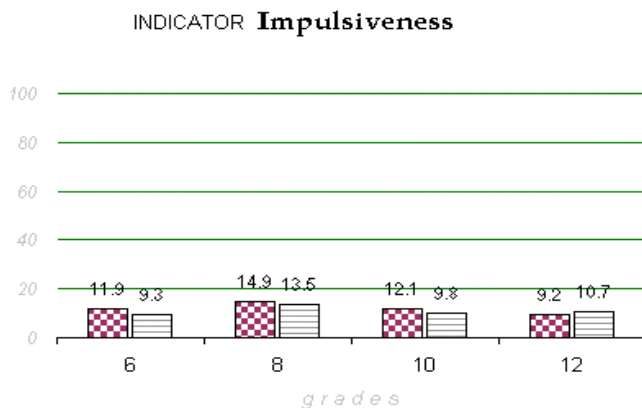
state northwest region



Young people who feel they are not part of society or are not bound by rules, who don't believe in trying to be successful or responsible, or who take an active, rebellious stance toward society, are at higher risk of engaging in problem behaviors.



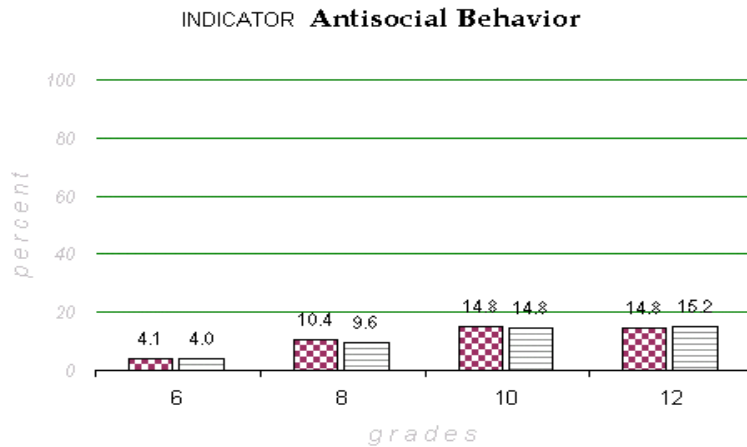
Whether it is alcohol, tobacco, or other drug use or violent behavior, research clearly shows that the earlier an individual begins participating in these behaviors, the more likely he or she is to develop problems with antisocial behavior in adolescence. Research also suggests that a later onset of drug use predicts lower drug involvement and a greater probability of discontinuation of use.



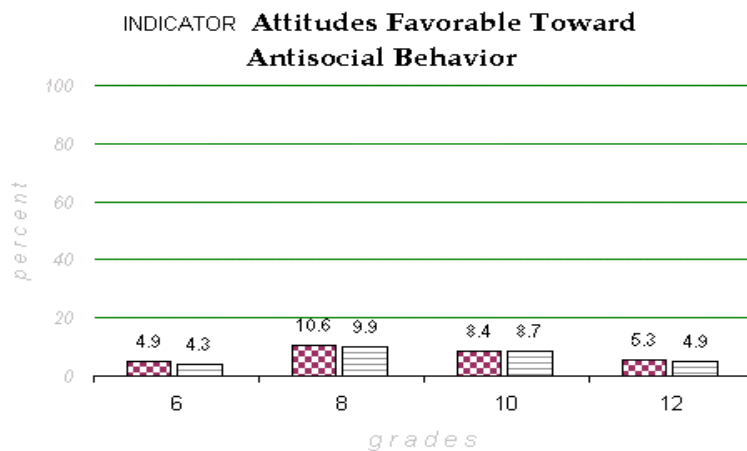
Young people who are prone to acting impulsively without considering the consequences of their actions are at higher risk.

## Peer / Individual Domain - Risk Factors

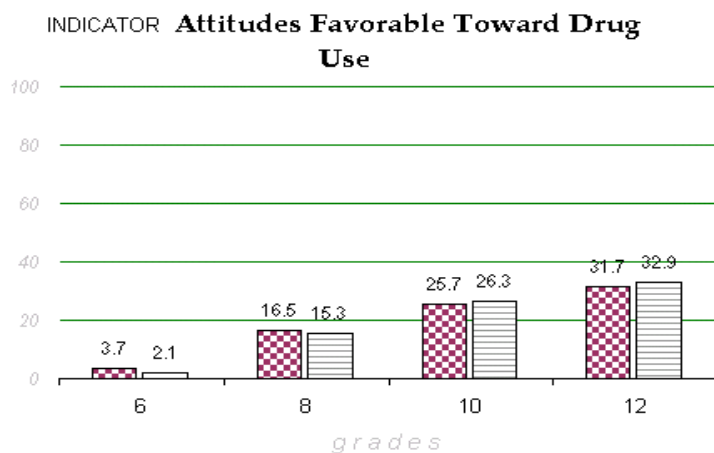
state northwest region



Young people who engage in generally antisocial behavior are also at higher risk for engaging in health risk behaviors.



Holding attitudes that accept or condone antisocial behavior increases the likelihood that young people will engage in health risk behaviors.

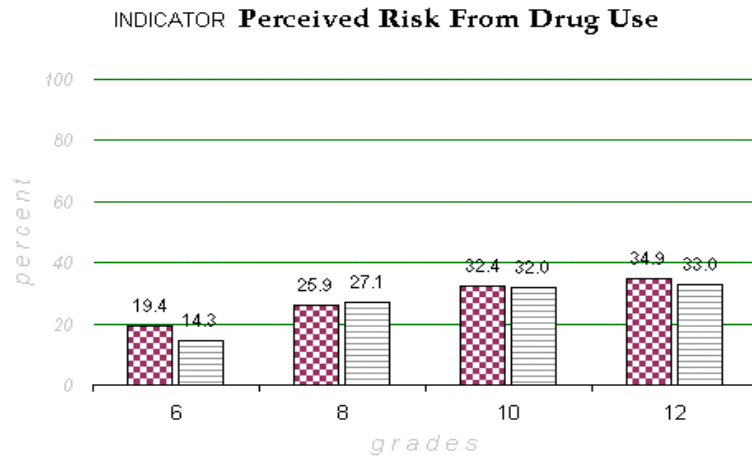


Initiation of use of any substance is preceded by values favorable to its use. During the elementary school years, most children express anti-drug, anti-crime and pro-social attitudes and have difficulty imagining why people use drugs. However in middle school, as more youth are exposed to others who use drugs, their attitudes often shift toward greater acceptance of these behaviors. Holding attitudes that condone drug use in particular increases the likelihood that young people will engage in a variety of health risk behaviors.

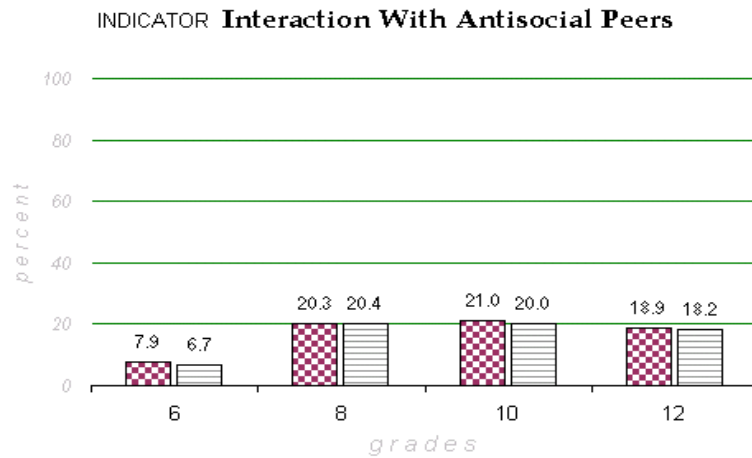


## Peer / Individual Domain - Risk Factors

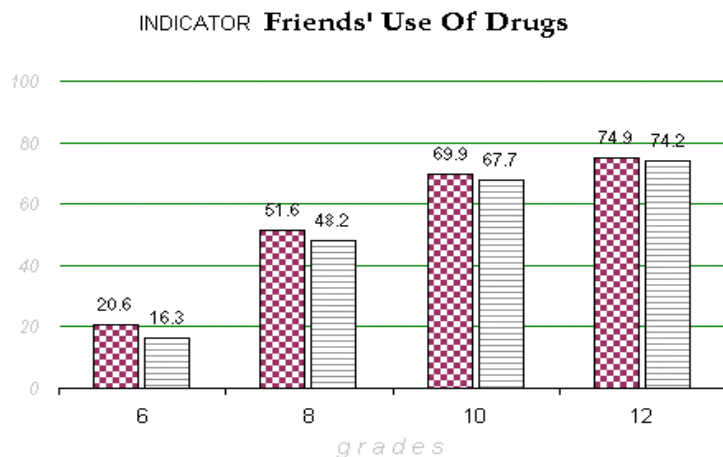
state northwest region



Young people who do not perceive risks associated with alcohol, tobacco or other drugs are more likely to use these substances.



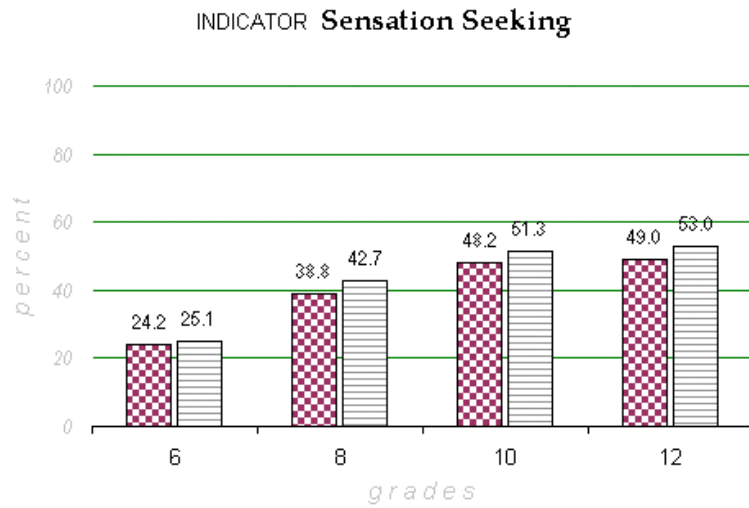
When their friends and peers engage in risky behavior, young people have increased risk for also engaging in that behavior.



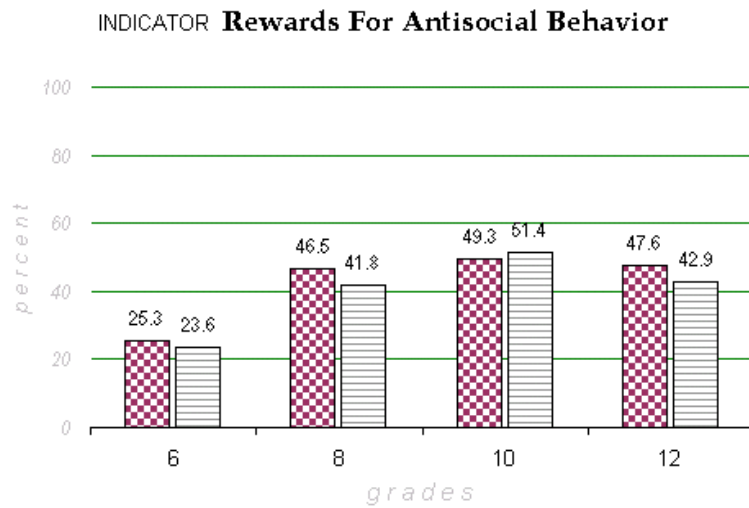
Peer drug use has consistently been found to be among the strongest predictors of substance use among youth. Even when young people come from well-managed families and do not experience other risk factors, spending time with friends who use drugs greatly increases the risk of the problem developing.

## Peer / Individual Domain - Risk Factors

state northwest region



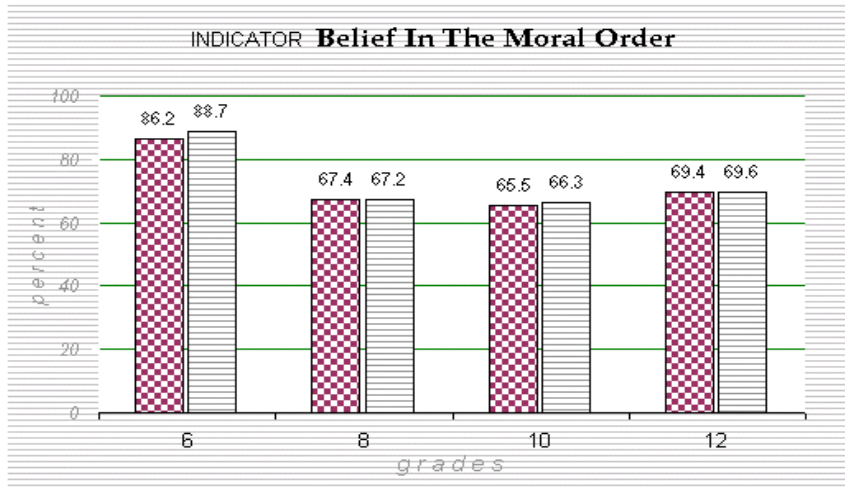
Young people who seek out opportunities for dangerous risk behavior in general are also at higher risk for participating in health risk behaviors.



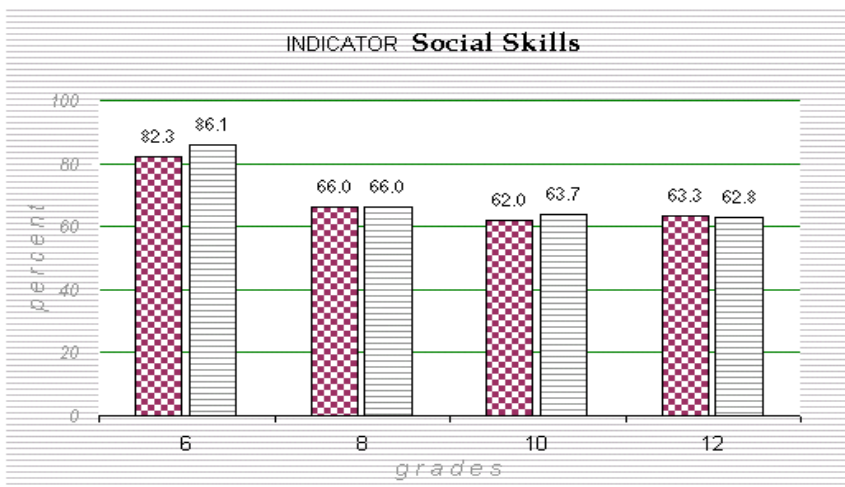
If they believe that their peers judge their antisocial behavior favorably, youth are more likely to engage in that behavior.

## Peer / Individual Domain - Protective Factors

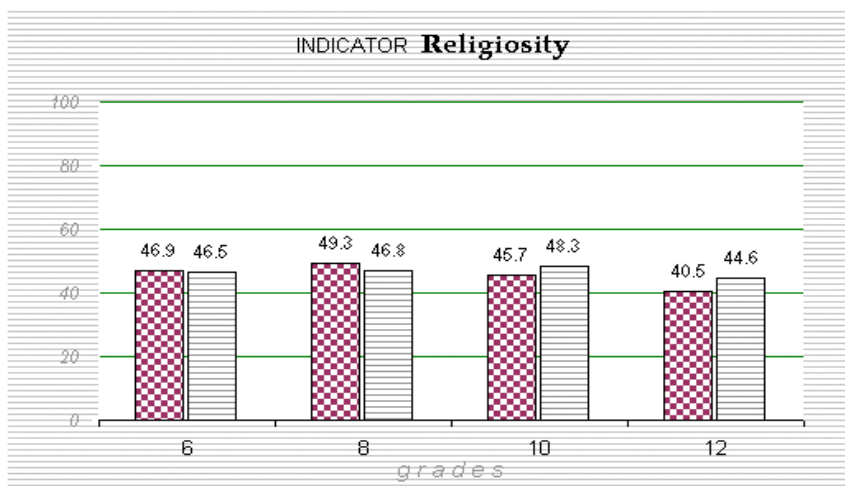
state
  northwest region



Young people who generally prescribe to society's belief in what is right or wrong are at lower risk of engaging in problem behaviors.



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.



Young people who participate in religious activities or belong to a church-based community are less likely to participate in negative health risk behaviors.





## **TECHNICAL NOTES**

## Technical Notes

TOPICS, in alphabetical order:

*CORE-GIS*

*Correlation*

*Counties Like Us*

*Duplicated and Unduplicated Counts*

*Rates – Why is Raw Data Converted to Rates?*

*Regions for Analysis of Student Survey Results*

*Research*

*Risk Factor Indicators - Changes between 1996 and 1999*

*Rolling Averages*

*Small Number Problem*

*Standardized Scores and Summary Measures*

*Student Survey Scales compared to Archival Indicators, by Risk Factor and Domain*

*Uniform Crime Report - Non-Reporting Police Jurisdictions*

### **CORE-GIS**

The Community Outcome and Risk Evaluation - Geographic Information System is the analytical database in which the data for County Risk Profiles is stored. The data is drawn from 53 local, state and national agencies and organizations. The CORE-GIS processes the data through an ACCESS controlled SAS database, includes a UNIX data repository, and draws upon ARC-INFO processes for geographic distribution.

The system produces summary information, profiles and reports to DSHS management, the Governor, Legislature, other state agencies doing prevention planning (OSPI, DCTED, Washington State Traffic Safety Commission, DOH, and the Liquor Control Board) and local prevention planning organizations such as cities, counties, public health, and safety networks, and school districts.

### **Correlation**

Statistical correlation is a measure of the relationship or association between variables: if, when the value of one variable changes, another one changes in a predictable way, the two variables are correlated. The CORE-GIS uses archival risk factor indicators that are statistically correlated to risk behaviors as measured by the student survey. For instance, from the student survey we have reliable direct measures of the availability of adolescent alcohol, tobacco and other drugs (ATOD), but we also want to measure the availability of ATOD for the communities without student survey data. In the initial research phase of this project, we looked for readily available archival data that would behave the same way as ATOD availability measures from the survey—in other words, what could we measure in the community that would be high wherever student perception of ATOD availability was high?

The strength of correlation is usually described with correlation coefficients, represented with an 'r'. We are not reporting on those correlation coefficients in this county profile. That research was done in conjunction with the Social Development Research Group and five other states. The results of the research that led to the current set of archival indicators is reported

in Hawkins, David, Michael Arthur and Richard Catalano, 1997, "Six State Consortium for Prevention Needs Assessment Studies: Alcohol and Other Drugs – Final Report." National Institute on Drug Abuse.

For a friendly primer on correlation and other prevention statistics, go to Prevention On Line, research briefs, and look for "Prevention Statistics Made Easy: Understanding Correlation, Explained Variance, and Causation." The URL is [www.health.org/pubs/corella2.htm](http://www.health.org/pubs/corella2.htm).

### **Counties Like Us**

Knowing that your county has a particular rate for one of the indicators—say, number of tobacco sales licenses—does not help you evaluate the importance of that indicator to your risk profile. You do not know if it is higher or lower than you could reasonably expect. It is more useful to compare your county rate to the state rate, which is the average for the whole state, and to other counties, especially counties that have some characteristics in common with your county. This is especially important when urban rates differ substantially from rural rates. The comparison we present is for a group of counties that are similar in characteristics related to prevention planning: population of young people (aged 10-24), the percentage of deaths in the county that are alcohol and drug-related, and a simple geographic division into Eastern and Western Washington. For each indicator the Counties Like Us rate is the average rate across all of the counties in the cluster.

[For a detailed explanation of how these Counties Like Us Groupings were made, see Appendix H in the 1996 County Profile.]

The groupings for "Counties Like Us" are as follows:

*Urban A\** – King County

*Urban B\** – Pierce, Snohomish, and Spokane

*Urban C* – Benton, Clark, Kitsap, Thurston, Whatcom, and Yakima

*Rural A* – Ferry, Franklin, Grant, Klickitat, Okanogan, Pend Oreille, and Skamania

*Rural B* – Adams, Asotin, Chelan, Columbia, Douglas, Garfield, Kittitas, Lincoln, Stevens, Walla, and Whitman

*Rural C* – Clallam, Cowlitz, Grays Harbor, Island, Jefferson, Lewis, Mason, Pacific, San Juan, Skagit, Wahkiakum

\* For comparison, King County is compared to Urban B, but average scores for the indicators in Urban B do not include King County.

### **Duplicated and Unduplicated Counts**

In an unduplicated count, each person is counted only once in a year for the specified activity or service type. Examples include Children in Aid to Families Programs, Food Stamp Recipients, and alcohol and drug treatment.

Duplicated counts are made of events such as prison admissions, arrests, births, or admission to a hospital for attempted suicide. For instance, each time a person is admitted to a prison, that "event" is counted. Therefore, a person admitted more than once is included more than once in the total count.



### **Rates: why is “raw data” converted to rates?**

In order to make comparisons between counties and the state, and between counties that have different sizes, we use rates to describe an event in terms of a standard size population—either per 100 (percent), per 1,000 or per 100,000. For instance, what does it mean if County A has 42 alcohol retail licenses, and County B has 399? Does it mean that based on this indicator, the risk factor (Availability) is much higher in County B than it is County A? No, not if County B is a much bigger county. If County B is bigger, then the “rate” of liquor licenses per population might be the same or even lower. The only way to compare them is to convert the raw numbers to rates, based on the same population factor.

For instance:

County A: # of licenses – 42, # of persons (all ages) – 14, 297  
County B: # of licenses – 399, # of persons (all ages) – 186,185

To calculate the **rate per 1,000**:

$42 / 14,297 = .002937$                        $.002937 \times 1,000 = 2.94$   
 $399 / 186,185 = .002143$                        $.002143 \times 1,000 = 2.14$

So the rate of alcohol retail licenses is 2.94 per 1,000 people in County A, and 2.14 per 1,000 people in County B.

### **Regions of Analysis for Student Survey Results**

Regions for the school survey were designed to have similar student counts for sampling purposes while balancing urbanicity and geographic contiguity. Regional estimates mask variation in responses at the county and community level. That is, regional measures are 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.

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

### **Research**

For a list of the research upon which the original model of risk and protective factor prevention planning was based, see Chapter 2, and also Appendix C of the 1996 County Profile. The archival indicators were developed as part of a research project done in conjunction with the Social Development Research Group and five other states. Funding for the research was provided by the Center for Substance Abuse Prevention. For the full report of that research, see Hawkins, David, Michael Arthur and Richard Catalano, 1997, “Six State Consortium for Prevention Needs Assessment Studies: Alcohol and Other Drugs – Final Report.” National Institute on Drug Abuse.

Be sure to visit the web site for the Western Regional Center for the Application of Prevention Technologies (CAPT) - <http://www.unr.edu/westcapt> and <http://unr.edu/educ/cep/prac>.

You will also find helpful information on the Department of Health’s Web page for the Youth Risk Assessment Database. The YRAD is available from the DOH homepage, <http://www.doh.wa.gov>, or go to <http://198.187.0.44/nice/yrad>.

For research based on the Washington State Survey of Adolescent Health Behaviors, see the core **Analytic Report** which is available from the Safe and Drug Free Schools office at the Office of the Superintendent of Public Instruction (OSPI), 360-753-5595. In association with the WSSAHB Analytic Report, OSPI also published WSSAHB - Risk and Protective Factors in January 1997, and WSSAHB – Relationships Among Health Risk Behaviors and Related Risk and Protective Factors in March 1999. There are Technical Reports available, as well.

Also see **Kids Count**, a report from the Human Services Policy Center at the University of Washington. The web address is <http://hspsc.org>, and from there you can go to their publications page.

**Join Together** published a useful brochure, “Working the Web: Using the Internet to Fight Substance Abuse”. That brochure will lead you to many other sources of information. Join Together can be reached by phone at 617-437-1500, e-mail at [info@jointogether.org](mailto:info@jointogether.org), and at their web site, [www.jointogether.org](http://www.jointogether.org).

**Factor Indicators – Changes between 1996 and 1999**

Based on ongoing research, we have slightly changed the organization and relationship between risk factors and indicators. We are exploring new indicators, and will distribute addenda to this county profile as they become available.

<b>1996 Risk Factor</b>	<b>1999 Changes in Risk Factors and/or Indicators</b>
<i>Community Laws and Norms Favorable to Crime and Drugs</i>	We have no valid archival indicator. You will have to depend exclusively on the WSSAHB data to assess this risk factor.
<i>Low Neighborhood Attachment and Community Disorganization</i>	We have moved the archival indicator “Prisoners in State Correctional Systems” to this risk factor. It was in <i>Family History of High Risk Behavior</i> .
<i>Extreme Economic and Social Deprivation</i>	Reduced number of indicators are reduced in this report. The indicators removed were either not validated by the research, or were from the 1990 census and therefore out of data.
<i>Family History of Substance Abuse and other High Risk Behaviors</i>	This risk factor has been changed to <i>Family History of Substance Abuse</i> .
<i>Favorable Parental Attitudes and Involvement in Crime and Drugs</i>	As a result of the research, some indicators have been moved to a new set of constructs we call <b>prevalence indicators</b> : <i>Substance Use, Violence, Non-Violent Crime, Suicide, and Adolescent Sexual Behavior</i> .
<i>Academic Failure</i>	The name of this risk factor has been changed to <i>Low School Achievement</i> .

### **Rolling Averages**

For indicators with small occurrences, we have calculated only an average rate for the most recent five years. Obviously this will not give you a trend. You may be able to look for a trend, however, if you calculate rolling averages. To do that, calculate average five-year rates for over-lapping sets of five years. So you could have an average rate for 1988-1992, an average rate for 1990-1994, then 1992-1996, and finally 1994-1998. This will give you four points and therefore possibly a trend line.

### **Small Number Problem – OR - Why do we not calculate annual rates for certain indicators?**

When looking at indicator rates, we are often looking for trends in risk factor indicators. In a particular county, for instance, has there been an increase during the last five years in the rate of availability of drugs, or the level of family conflict? When the events we are counting occur very rarely, however (that is, when the numbers are small), a change in the rate from one year to the next is not necessarily indicative of a trend. Here is an example. Say in your county there was no drug related traffic fatality for three years, and then the next year there were two. Does that represent a trend? You would not know unless you had more years worth of data. It could be that the next year there were none. Again, is that a trend? Because of its dubious value as a rate, we have not calculated annual rates for indicators where this small number problem exists. Rather, we have calculated an average rate for the most recent five years. This occurs most often in small counties.

In the 1996 County Profile we calculated **annual** rates only for indicators that had at least 30 occurrences. However, in the 1999 profile, we report rates when the occurrences are at least 5. By choosing the lower threshold, we place some of the burden of interpretation into your hands. If the rates move sharply up and down from one year to the next, you are not looking at a trend, and you would not want to plan prevention interventions on those variations. You might want to calculate a rolling average. (See Technical Note #X).

### **Standardized Scores and Summary Measures**

Each individual risk factor is measured by more than one indicator. An individual indicator by itself is interesting because you can compare your county's rate for that indicator to all other counties, and to the state. But it is more difficult to compare all the indicators for one risk factor to each other—that's like comparing apples and oranges. For instance, you cannot compare the number of people voting in the last election to the number of residential vacancies—this would not be meaningful. And, since we cannot add those two indicators together—they do not have a common denominator—we cannot average the indicators together to determine the average level of risk for the risk factor *Low Neighborhood Attachment and Community Disorganization*.

The preferred way to compare and average rates is to find out how much each individual indicator rate varies from some common point, and the point we use is the average rate for the state. In more technical terms, we transform the original absolute rates to a common scale of measure: the relative deviation from the state mean. This is called a **standardized score**, and is based on the mathematical calculation of the standard deviation. For a particular indicator, the county with the highest absolute rate (say, for alcohol retail licenses), will have the highest standardized measure. A standardized score of 1.2, for instance, means that the county's rate is 1.2 standard measures (or standard deviations) above the state rate, and a -1.2 would be 1.2 standard measures *below* the state rate. Approximately 95% of the state will fall between +2 and -2 standard measures.

### **Summary Measure...**

Once we have standardized all of the rates for a particular risk factor, we can find the average of the standardized scores to come up with an average value for the risk factor. This is called a **summary measure**. To stay with the same example, we find the average of the standardized scores for tobacco retail sales licenses and liquor sales licenses to come up with one summary measure for the risk factor *Availability of Drugs*. For instance, if the standardized score for alcohol retail licenses is  $-.31$ , and the standardized score for tobacco sales licenses is  $-.26$ , the standardized **summary** measure is  $-.31$  plus  $-.26$ , divided by 2, or  $-.29$ . This means that the summary measure for the risk factor *Availability of Drugs* is  $.29$  below the state average rate for that risk factor.

### **Uniform Crime Report - Non-Reporting Police Jurisdictions**

The arrest data we have provided in this profile is not complete for the whole state. Most law enforcement agencies report arrest data to the Washington Association of Sheriffs and Police Chiefs (WASPC), which in turn provides data to the FBI's Uniform Crime Reporting Program. This is the source of our arrest data. Some jurisdictions do not report at all arrests, some report partial years, and some withhold certain categories of arrests. If your county is one with a significant amount of incomplete arrest data, be very careful that you adjust your risk assessment to reflect this. In other words, the reported arrest rates may not adequately reflect the entire county. This will be true especially in those cases where the non-reporting police jurisdictions have either very high or very low arrest rates, compared to the rest of the county.

In order to compensate for missing police reports, we have adjusted the denominator in the rate calculation so that it reflects only the proportion of the county for which we do have data. For instance, say County A, with a population of 40,000, has 8 police districts. Now, if one of the police districts in the county did not report their arrests, the number of arrests would not be representative of the whole county. Therefore, we would not want to use the population of the whole county in the denominator because that would make the rate lower than it should be. The solution used in this report is to subtract the population of that missing police district from the county population. We follow the same procedure for police districts that report partial years: if they report only six months, we use only half of the population to calculate the rate.

We have included a list of all non-reporting or partial-reporting police jurisdictions for your county. If the rates we calculated are based on at least 80% of the county's population, we report the rate without noting it—the rates are likely to be good representations for the county. If your county's rates are based on less than 80% of the population, you should be cautious in your use of the arrest data—use key informants to put your arrest data in a local context. If you are doing a needs assessment in the part of the county for which we have no arrest data, you may be able to receive it directly from the police department.

**Population Subtracted for Non-Reporting Police Agencies**

---

These are the calculations that we have made for your county to compensate for police agencies that did not always, or did not completely report to the Uniform Crime Report. (See Technical Notes and Sources for more information about the UCR data and these adjustments.)

The bottom line in each chart is the total population, before adjustment, for the age group indicated. The middle line is the amount subtracted from that total, and the top line is the percentage. This amount is determined by the size of the population in the non-reporting police jurisdiction. NA - No adjustment was required.

It is important to note that rates may differ markedly from one year to the next due to the geographically uneven occurrences of crime. For instance, if the jurisdiction that did not report is one where the arrest occurrences are usually the highest in the county, the rate calculation will show a big change in arrests even though we have adjusted the population to account for the missing data. That is because the numerator will be affected far more than the denominator.

**Population Subtracted (age 10-14)**

	1990	1991	1992	1993	1994	1995	1996	1997
% Subtracted	2.80	4.79	2.46	2.51	2.34	0.72	0.65	NA
Subtracted, 10-14	251	453	242	257	247	77	72	0
Persons, 10-14	8,967	9,467	9,855	10,228	10,566	10,722	11,054	11,272

**Population Subtracted (age 10-17)**

	1990	1991	1992	1993	1994	1995	1996	1997
% Subtracted	2.60	4.65	2.27	2.36	2.25	0.72	0.66	NA
Subtracted, 10-17	358	684	356	386	383	129	124	0
Persons, 10-17	13,790	14,706	15,672	16,338	16,987	17,899	18,729	18,679

**Population Subtracted (age 18+)**

	1990	1991	1992	1993	1994	1995	1996	1997
% Subtracted	1.73	3.62	1.58	1.58	1.53	0.58	0.51	NA
Subtracted, 18+	1,657	3,557	1,597	1,637	1,632	630	574	0
Persons, 18+	95,652	98,361	101,388	103,881	106,742	108,756	111,958	113,375

## Jurisdictions

### Population Subtracted for Non-Reporting Police Agencies

These are the police agencies in your county that did not report, or reported incompletely, during each specific year.

**KEY:**

X No Reporting in the year

#A Number of month no adults reported

#J Number of months no juveniles reported

Jurisdictions	1990	1991	1992	1993	1994	1995	1996	1997
Bellingham Police Department/Western Washin								
Blaine Police Department		X						
Everson Police Department	X	X	X	X	X			
Ferndale Police Department	1A1J							
Lummi Tribal Police Department								
Lynden Police Department								
Skagit County Sheriff's Office								
Sumas Police Department	X	X	X	X	X	X	X	
Whatcom County Sheriff's Office								



## **ARCHIVAL DATA SOURCES**





## Archival Data Sources

### **Department of Corrections**

#### *Inmates File*

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 1997 are data for the year starting on July 1, 1996 and ending June 30, 1997). 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.

### **Department of Health (from the Department of Licensing), Tobacco Prevention Program**

#### *Tobacco Statistics*

The Department of Health receives tobacco retailer data from the Department of Licensing. Licensing maintains the Master License Service to track 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 current tobacco outlets. November represents an average month in the year.

### **Department of Health, Center for Health Statistics**

#### *Birth Certificate Data File*

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.

The information for Certificates of Live Birth is reported by midwives, birthing centers, hospitals, and birth attendants. In this report, each birth to a Washington resident 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.

## **Department of Health, Center for Health Statistics**

### *Death Certificate Data*

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.

Physicians, medical examiners, and coroners certify the cause of death on Certificates of Death; the certificates are then filed by funeral directors. A single underlying cause of death is reported on every death certificate. In this report, each death is assigned to a county based on the zip code and county of residence reported on the death certificate. Homeless and transient persons are assigned to the county of death.

Washington participates in an interstate data exchange agreement which provides for 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.

## **Department of Health, Center for Health Statistics**

### *Dissolution and Annulment Data*

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 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.

Data in this report differs slightly from previous county reports. In this report each divorce is assigned to a county of residence. Previously, divorces were assigned to the county where the certificate of dissolution was issued. The new method gives a more accurate picture since it assigns divorces to the area where the affected children are most likely to reside. It also avoids Lincoln County being assigned divorces it processed for Washington residents living in other counties. Lincoln County does not require Washington couples to appear in court for amicable divorces, so it attracts many absentee divorces. As a result, previous reports showed Lincoln County with an extremely high divorce rate.

The data in this report only include dissolutions and annulments. Also, there is no interstate data agreement for divorces, so Washington residents who get divorced in other states or in Canada are not included in the registry. Legal separations (one to two percent of total dissolutions) are not included because they are not final dissolutions of marriages. Cases where the decree type was unknown (only 19 for 1991-1995) were included in the data for this report.

## **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 current edition of International Classification of Diseases — Clinical Modification.

### **Department of Health, Sexually Transmitted Disease (STD) Services**

#### *Sexually Transmitted Disease Reported Cases*

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.

### **Department of Social and Health Services, Children's Administration, Administrative Services**

#### *Case 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.

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 further action. 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 a victim. 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.

## **Department of Social and Health Services, Division of Alcohol and Substance Abuse** *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. TARGET includes data from its predecessor system, the Substance Abuse Management System (SAMS).

In previous reports, data for treatment services came from SAMS and TARGET as reported in the DSHS Needs Assessment Database. In NADB, data were extracted from SAMS for 1990, 1991, and 1992. The 1994 data were extracted from TARGET. Data were also extracted from SSPS and from the Medicaid Management Information System for all four years. In NADB, DASA clients include new admissions as well as clients admitted in an earlier year but still receiving services in the current year. DASA clients may receive 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.

This report does not include any person in outpatient treatment, such as Methadone Treatment, for more than a year without re-admission.

## **Department of Social and Health Services, Research and Data Analysis** *UCR Non-Reporting Adjustments*

Washington police agencies voluntarily submit Uniform Crime Report data to the FBI through Washington Association of Sheriffs and Police Chiefs for inclusion in national crime statistics. (See Data Source: Washington Association of Sheriffs and Police Chiefs, Uniform Crime Report, Table 40 and 50.) Not all police agencies report arrest data for all age categories for all months of every year.

In this report, the Department of Social and Health Services, Research and Data Analysis, CORE-GIS data system formulated adjustments to attempt to compensate for police agencies that did not report arrests. To make it somewhat possible to compare the rates of arrests from year to year, the population denominators for UCR arrest data are adjusted in four ways. 1) If a police agency did not report any data for the year, the population under the agency's jurisdiction was removed from the denominator (see source 10) of both the county and the state. 2) If an agency did not report for part of the year, a relative portion of the population was deducted from the denominator. 3) If only adults (or only juveniles) were not reported, the population for the non-reported age category was deducted. 4) If adults (or juveniles) were reported for less than the full year, rules 2 and 3 were applied.

This report also provides rates that help reveal the impact of non-reporting on the arrest data for each county. UCR data are provided in three age ranges, (10-14, 10-17, 18+). A new rate for each age range has been calculated that indicates the percent of the population being deducted for non-reporting. (See table at the end of Technical Notes: UCR Non-Reporting Police Jurisdictions.)

Tribal Police Departments: 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 effective way to determine which tribal police departments reported data indirectly (through another law enforcement agency) to WASPC from 1990 to 1993. Although prior County Reports did not adjust for non-reporting tribal jurisdiction, in this report the reservation population was subtracted from the denominator to compensate for non-reporting tribal police departments.

#### EXCEPTIONS

Seattle Juvenile DUI: 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 not removed from the denominator. However, since the affected counts would result in unreliable rates, this report shows a UN (unreliable) rather than a rate.

State Patrol Arrests: 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. The State Patrol does not report a significant percentage of Washington arrests for any other crime.

CAUTION: Use caution 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.

#### **Department of Social and Health Services, Research and Data Analysis**

##### *Automated Client Eligibility System and Warrant Roll*

The Department of Social and Health Services maintains ACES, which replaced Warrant Roll during 1996, to manage information on persons eligible for DSHS services and to issue benefits. Data for the month of April is used for this report. Although the number of benefits issued varies from month to month, April represents an average month in the year. In this report, individuals are unduplicated; each member of a family receiving welfare is counted separately.

To provide comparable data over time, this report combines data from ACES and Warrant Roll. Data for 1997 and the years that follow come from ACES. Data prior to 1996 comes from the Warrant Roll. For 1996, extracts from both systems are used. Warrant Roll and ACES contain individual level data, including a zip code of residence data used for this report.

CAUTION: Caution should be used when comparing welfare data over time or across geographic boundaries. Not only have administrative systems changed, family aid programs changed significantly with the implementation of Temporary Aid to Needy Families (TANF) which replaced Aid to Families with Dependent Children AFDC in 1996. Washington State supplements federal TANF funding. The numbers in this report include state and federally funded recipients.

Washington State data on Food Stamp recipients is considered unreliable during 1996. Also, from 1988 to 1993, the Family Independence Act allowed people to participate in AFDC who would not normally have participated and may have increased the number of recipients in food assistance.

Data in this report are different from data published in the DSHS Blue Book. This is because the data in the Blue Book are from the Average Grant Reporting System, not from ACES or Warrant Roll. Average Grant data do not include individual level detail needed for the CORE-GIS system that generates this report.

## **Department of Social and Health Services, Research and Data Analysis**

### *CORE-GIS, Foster Care Files*

The foster care data in this report come from a combination of two sources: 1) Case And Management Information System (CAMIS) data, as reported by the Executive Management Information System and; 2) Social Service Payment System (SSPS), as reported in the Needs Assessment Database for 1990, 1992, and 1994.

EMIS reports monthly state counts of those receiving selected DSHS services. The number of children receiving Basic Foster Care, as recorded in CAMIS, was used for this report. They include placements with foster families and some placements with relatives. No group care placements are included. In EMIS, those receiving more than one foster care service in a month are counted more than once.

NADB reports annual number of persons receiving DSHS services by county, legislative district, city, and zip code counts. In NADB, each person receiving foster care services during the year is counted only once. Records in NADB are extracted from the agency's 17 automated administrative systems. The best available geographic information is used to assign persons to counties. For foster care, client counts come from the Social Service Payment Systems (SSPS). The geography is most often the zip code for the foster care provider.

This report uses NADB zip code counts apportion the EMIS average monthly counts to counties. The result is a duplicated average monthly count by county. Since the average length of stay is greater than one month, this also represents the average daily count for the year.

## **Department of Social and Health Services, Research and Data Analysis**

### *RDA Population Estimates*

The Department of Social and Health Services, Research and Data Analysis, develops yearly County Population Estimates, controlled to Office of Financial Management County Population Data, to serve as denominators for rates. The Office of Financial Management has county-level forecasts and population estimates for every year for the last two decades. RDA purchased population estimates at the block group level from Claritas, a private demographic data firm, which include single-year age estimates. Claritas and OFM estimates use the most recent U.S. Census as a benchmark.

RDA estimated annual block group 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.



## **Employment Security Department, Labor Market and Economic Analysis**

### *County Unemployment File*

The Employment Security Department uses Local Area Unemployment Statistics 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 include those who are age 16 and over, actively looking 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).

## **Office of Financial Management**

### *Net Migration Data*

Office of Financial Management develops the official state population figures. Annual population figures for cities, towns and counties have been developed and released for over two decades. These population estimates for cities and towns are used in the allocation of selected state revenues. County level estimates of persons in and out of counties are also developed.

From these estimates, this report calculates net migration using five-year moving averages. For 1990, the net migration data for 1988-1989 through 1992-1993 was averaged. For 1991, the data for 1989-1990 through 1993-1994 was averaged, and so on, continuing in this manner for the remaining years. This process smoothes the data without hiding any long-term trends.

## **Office of Superintendent of Public Instruction, Child Nutrition**

### *Free and Reduced Price Lunch*

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. 1997 data are data for the school year starting in the fall of 1997).

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.

## **Office of Superintendent of Public Instruction, Information Services**

### *May School Enrollment Files*

The Office of Superintendent of Public Instruction, Information Services maintains data on enrollment submitted by the schools in Washington State. No data exists for 1992. Prior to 1992, schools reported summary data by grade, gender and race/ethnicity for each school building. Beginning in 1993, schools were required to report data for each student. Several of the largest schools could not comply with the new reporting requirements. OSPI considers the data reliable again in 1997. The data are based on the school year (i.e. 1997 data are for the school year starting in the fall of 1997).



## **Office of Superintendent of Public Instruction, Information Services**

### *School Dropout Files*

The Office of Superintendent of Public Instruction, Information Services maintains data on enrollment submitted by the schools in Washington State. No data exists for 1992. Prior to 1992, schools reported summary data by grade, gender and race/ethnicity for each school building. Beginning in 1993, schools were required to report data for each student. Several of the largest schools could not comply with the new reporting requirements. Their dropout counts are estimates based on the averages for the prior year. OSPI considers the data reliable again in 1997. The data are based on the school year (i.e. 1997 data are for the school year starting in the fall of 1997).

## **Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment**

### *Grade 4 Low Quartile Test File*

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 by school district for each school year (i.e. 1997 data are data for the school year starting in the fall of 1997). 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%.

## **Office of Superintendent of Public Instruction, Instructional Programs, Curriculum and Assessment**

### *Grade 8 Low Quartile Test File*

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. 1997 data are data for the school year starting in the fall of 1997). 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%.

## **Office of the Secretary of State, Elections Division**

### *Registered Voters*

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 number of persons registered to vote are available aggregated by county.

## **Office of the Secretary of State, Elections Division**

### *Voting Records*

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 number of persons voting are available aggregated by county.

## **U.S. Department of Commerce, Bureau of the Census**

### *1990 Census - STF1*

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.

## **Washington Association of Sheriffs and Police Chiefs**

### *Uniform Crime Report, Tables 40 and 50*

The Uniform Crime Report contains the number of arrests voluntarily submitted by law enforcement agencies throughout the country to the Federal Bureau of Investigation for compilation of national crime statistics. For Washington State, the Washington Association of Sheriffs and Police Chiefs receives UCR data from local law enforcement agencies, 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).

Not all agencies file complete reports every year. The Department of Social and Health Services, Research and Data Analysis adjusted population denominators where data were missing. This makes it possible to compare the rates of arrests from year to year. (See Data Source Department of Social and Health Services, Research and Data Analysis, UCR Non-reporting Adjustments.) This report also provides rates that reveal the impact of non-reporting on the arrest data for each county.

CAUTION: Use caution 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.

## **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.

### **Washington State Liquor Control Board**

#### *Annual Operations Report*

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 1997 are data for the year starting on July 1, 1996 and ending June 30, 1997). 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.

### **Washington State Patrol, Identification and Criminal History Section**

#### *Domestic Violence-Related Arrests File*

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. This report includes the available data on arrests of juveniles and arrests for misdemeanors.

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, as well as parents and their children.

### **Washington State Patrol, Records Section**

#### *Traffic Collisions in Washington State, Accident Records Database*

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 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.