

# 2007 Pennsylvania Youth Survey Report

## Statewide Report

Conducted by  
Pennsylvania Commission on Crime and Delinquency



**pennsylvania**  
COMMISSION ON CRIME  
AND DELINQUENCY



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# Section 1

## The Survey

### Introduction

Since 1989, the Commonwealth of Pennsylvania has conducted a survey of secondary school students on their behavior, attitudes and knowledge concerning alcohol, tobacco, other drugs and violence. The *Pennsylvania Youth Survey (PAYS)* of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade public school students is conducted every two years. The findings from the *PAYS* build upon the data gathered during the three previous waves of the survey in 2001, 2003 and 2005, as well as the *Generation at Risk* survey, a biennial study of drug use prevalence rates that was conducted from 1989 through 1997.

Administered in the fall of 2007, *PAYS* was sponsored by the Pennsylvania Commission on Crime and Delinquency (PCCD), in collaboration with other state agencies, including the Department of Education, Department of Health, Liquor Control Board, and Department of Public Welfare. The PCCD contracted with Westat, a private research company, to conduct the survey.

The data gathered in the *PAYS* serve two primary needs. First, the survey results provide an important benchmark for alcohol, tobacco, and other drug (ATOD) use and delinquent behavior among young Pennsylvanians, and help indicate whether prevention and treatment programs are achieving their intended results. Second, the survey assesses risk factors that are related to these behaviors and the protective factors that guard against them. This information allows community leaders and school administrators to direct prevention resources to areas where they are likely to have the greatest impact.

The *Communities That Care Youth Survey (CTCYS)* was adopted as the basis for the *PAYS*. Based on the work of Dr. J. David Hawkins and Dr. Richard F. Catalano, the *CTCYS* is designed to identify the levels of risk factors related to problem behaviors such as ATOD use—and to identify the levels of protective factors that help guard against those behaviors. In addition to measuring risk and protective factors, the *CTCYS* also measures the actual prevalence of drug use, violence and other antisocial behaviors among surveyed students. Three articles (Pollard, Hawkins & Arthur, 1999; Arthur, Hawkins, Pollard, Catalano & Baglioni, 2002; Glaser, Van Horn, Arthur, Hawkins & Catalano, 2005) describe the *CTCYS*, its uses and its ongoing development.

By administering the *PAYS*, Pennsylvania has assessed the risk and protective factors its young people face. This report identifies the risk and protective factors most in need of attention in the community. This

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information can be used to guide prevention efforts, to help address existing problems, and to promote healthy and positive youth development.

Of course, the survey would not have been possible without the support and cooperation of school superintendents, parents and students throughout the Commonwealth. The PCCD would like to take this opportunity to thank these individuals for supporting this valuable and worthwhile endeavor.

All together, 16,547 students out of 24,537 eligible students or 67.4% in grades 6, 8, 10 and 12 participated in the survey. All participating students came from 115 schools statewide out of a random sample of 226 schools or 50.9%. School participation in *PAYS* is voluntary and not state mandated. It is important to point out here that beyond the random sample nearly 125,000 volunteer students participated in the 2007 *PAYS*. Results from the voluntary effort are not included in this report. (See Appendix A for the complete sample description and weighting procedures, and see Appendix B for overall survey response rates by region and grade.)

## Key Findings

This report presents findings on a number of topics, including ATOD use, other antisocial behaviors, and risk and protective factors. A brief summary of the findings from each of these sections is presented here. A more detailed summary is presented at the start of each section, followed by an item-by-item discussion of the results. This report does not include historical trend *PAYS* data. Historical trend data appears in a separate PCCD report (a copy is available from the PCCD website at [www.pccd.state.pa.us](http://www.pccd.state.pa.us)).

### *Alcohol, Tobacco, and Other Drug Use*

In 2007, with a few exceptions, alcohol, tobacco, and other drug (ATOD) use by Pennsylvania youth was lower than ATOD use measured by *Monitoring the Future* (MTF), a 2007 national representative survey of adolescent drug use. In addition, nearly all 2007 *PAYS* ATOD prevalence rates were down compared to rates from previous *PAYS* administrations. Data in Tables 3 and 4 show ATOD lifetime and 30-day use data for both the 2007 *PAYS* and the 2007 MTF. Important ATOD highlights are as follows:

- **Lifetime Alcohol and 30-Day Use**

- For younger Pennsylvanians, lifetime and 30-day use of alcohol are extremely low. In 2007, 3.3 percent of the 6th graders reported using alcohol in the past 30 days.
- For older Pennsylvania teens, lifetime use of alcohol is slightly higher than MTF use rates. For example, 78.4 percent of the 12th graders in Pennsylvania reported lifetime alcohol use compared to 72.2 percent of 12th graders nationally. For both 8th and 10th graders, 30-day use of alcohol is lower than MTF use rates. For example, 31.9 percent of the 10<sup>th</sup> graders in Pennsylvania reported using alcohol in the past 30 days compared to 33.4 percent of 10th graders nationally.

- **Binge Drinking**

- Pennsylvania youth have lower binge drinking rates than do young people nationally. For example, 6.5 percent of the 8th graders in Pennsylvania reported binge drinking the past 30 days compared to 10.3 percent of the 8th graders nationally.

- **Cigarette Smoking**

- Pennsylvania youth have lower lifetime and 30-day rates of cigarette smoking than do young people nationally. For example, 20.6 percent of the 12th graders in Pennsylvania

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reported smoking cigarettes the past 30 days compared to 21.6 percent of 12th graders nationally.

- **Smokeless Tobacco Use**

- Pennsylvania youth mostly have higher lifetime and 30-day rates of smokeless tobacco use than do young people nationally. For example, 9.7 percent of the 12th graders in Pennsylvania reported using smokeless tobacco the past 30 days compared to 6.6 percent of 12th graders nationally.

- **Marijuana Use**

- Pennsylvania youth have lower lifetime marijuana use rates than do young people nationally; however, 12th graders in Pennsylvania have higher 30-day marijuana use rates than do their counterparts elsewhere in the nation. For example, 23.5 percent of the 10th graders in Pennsylvania reported using marijuana during their lifetime compared to 31.0 percent of the 10<sup>th</sup> graders nationally. In addition, 19.2 percent of the 12th graders in Pennsylvania reported using marijuana in the past 30 days compared to 18.8 percent of 12th graders nationally.

### *Other Antisocial Behaviors*

- Students in Pennsylvania reported very low levels of participation in the following antisocial behaviors: *Being Arrested*, *Bringing a Weapon to School* and *Attempting to Steal a Vehicle*.
- In Pennsylvania, 10.5% of students reported *Attacking Someone with Intent to Harm* in the past year, making it the most prevalent antisocial behavior. *Getting Suspended* is the second most prevalent antisocial behavior, with 9.1% of Pennsylvania students reporting having been suspended in the past year.

### *Risk and Protective Factor Profile*

- For the overall sample of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders in Pennsylvania, percentile scores across the nine protective factor scales range from a low of 49 to a high of 64, with an average score of 55, which is five points higher than the normative average of 50 (see Appendix C for a list of survey items that are used to construct each factor scale). The three lowest overall scores were for the following protective factor scales: *Religiosity* (49), *Community Rewards for Prosocial Involvement* (52) and *Family Opportunities for Prosocial Involvement* (53). Pennsylvania students reported the three highest overall scores for the following protective factor scales: *Belief in the Moral Order* (64), *Community Opportunities for Prosocial Involvement* (60) and *School Opportunities for Prosocial Involvement* (56).
- For the overall sample of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders in Pennsylvania, percentile scores across the nine protective factor scales range from a low of 49 to a high of 64, with an average score of 55, which is five points higher than the normative average of 50. The three lowest overall scores were for the following protective factor scales: *Religiosity* (49), *Community Rewards for Prosocial Involvement* (52) and *Family Opportunities for Prosocial Involvement* (53). Pennsylvania students reported the three highest overall scores for the following protective factor scales: *Belief in the Moral Order* (64), *Community Opportunities for Prosocial Involvement* (60) and *School Opportunities for Prosocial Involvement* (56).
- Overall percentile scores across the 23 risk factor scales range from a low of 37 to a high of 51, with an average score of 44, which is six points lower than the normative average of 50.

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Pennsylvania students reported the four highest overall scores for the following risk factor scales: *Transitions and Mobility* (51), *Community Disorganization* (50), *Family Conflict* (49) and *Peer Rewards for Antisocial Behavior* (49). The three lowest overall scores were for the following risk factor scales: *Favorable Attitudes toward ATOD Use* (37), *Early Initiation of Drug Use* (38) and *Favorable Attitudes toward Antisocial Behavior* (38).

## Survey Methodology

The *CTCYS* was developed to provide scientifically sound information to communities. It measures a variety of risk and protective factors by using groups of survey items, which are called scales. Please note that some of the risk factors are measured with more than one scale.

The *CTCYS* was developed from research funded by the Center for Substance Abuse Prevention of the U.S. Department of Health and Human Services. This research supported the development of a student survey to measure the following items:

- risk and protective factors that predict alcohol, tobacco and other drug (ATOD) use, delinquency and other problem behaviors in adolescents.
- the prevalence and frequency of drug use.
- the prevalence and frequency of antisocial behaviors.

This survey instrument became the *CTCYS*. The original research involved data collection in five states: Kansas, Maine, Oregon, South Carolina and Washington. Over 72,000 students participated in these statewide surveys, and analysis of the collected data contributed to the development of the *CTCYS*.

### Administration

The survey was administered in the classroom and required approximately one class period to complete. Each teacher received an appropriate number of surveys and survey collection envelopes. The teachers reviewed the instructions with their students and asked the students to complete the survey. The instructions informed the students that there were no right or wrong answers. The instructions also explained the proper way to mark the answers. In some schools, some or all of the student respondents completed the survey in a computer lab using an internet-based survey administration system. Statewide, the overall paper-and-pencil/internet administration split was 92 percent paper and 8 percent internet.

Students were asked to complete the survey but were also told that participation is voluntary. Furthermore, students were told that they could skip any question that they were not comfortable answering. Both the teacher and the written instructions on the front of the survey form assured students that the survey was anonymous and confidential.

### Survey Validation

Four strategies were used to assess the validity of the surveys. The first two strategies eliminated the surveys of students who appeared to exaggerate their drug use and other antisocial behavior. The third strategy eliminated students who reported use of a fictitious drug. The fourth strategy eliminated the surveys of students who repeatedly reported logically inconsistent patterns of drug use.

- In the first strategy, surveys from students who reported an average of four or more daily uses of the following drugs—inhalants, cocaine, hallucinogens, Ecstasy, methamphetamine and heroin—were eliminated from the survey data set. This strategy removes from the survey any student who did not take it seriously.



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- The second strategy supplements the drug use exaggeration test by examining the frequency of four other antisocial behaviors: *Attacking Someone with Intent to Harm*, *Attempting to Steal a Vehicle*, *Being Arrested*, and *Getting Suspended*. Respondents who reported an unrealistically high frequency of these behaviors—more than 80 instances within the past year—were removed from the analysis.
  - In the third strategy, students were asked if they had used a fictitious drug in the past 30 days or in their lifetimes. If students reported any use of the fictitious drug, their surveys were not included in the analysis of the findings.
  - The fourth strategy was used to detect logical inconsistencies among responses to the drug-related questions. Students were identified as inconsistent responders in the following circumstances only: (1) if they were inconsistent on two or more of the following drugs: alcohol, cigarettes, smokeless tobacco and marijuana/hashish; or (2) if they were inconsistent on two or more of the remaining drugs. An example of an inconsistent response would be if a student reported that he or she had used alcohol three to five times in the past 30 days but had never used alcohol in his or her lifetime.

A total of 845 survey records (4.9%) were eliminated by the four strategies described above.

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## Margin of Error

When reviewing survey results people often ask, “What is the margin of error?” This is referred to as the “confidence interval,” and it reflects the precision of a statistical estimate. For example, a confidence interval of  $\pm 3.0$  points for a drug use prevalence rate of 50.0% means that there is a 95% chance that the true score is between 47.0% and 53.0%.

Table 1 presents confidence intervals for both grade-level and overall estimates. Note that these confidence intervals are for prevalence rates of 50%. For less prevalent behaviors, such as heroin use and bringing a weapon to school, the confidence interval narrows substantially.

Readers of this report also should review the table in Appendix D for additional assumptions made about the margins of error estimates for each grade.

**Table 1. Confidence Intervals for Sample**

Grade	Enrollment		Sample		Confidence Interval
	Number	Percentage	Number	Percentage	
6 <sup>th</sup>	140,760	24.2%	4,327	26.5%	$\pm 1.5\%$
8 <sup>th</sup>	148,957	25.6%	4,865	29.8%	$\pm 1.4\%$
10 <sup>th</sup>	156,679	26.9%	4,634	28.4%	$\pm 1.4\%$
12 <sup>th</sup>	135,778	23.3%	2,513	15.4%	$\pm 1.9\%$
<b>Totals</b>	<b>582,174</b>	<b>100.0%</b>	<b>16,339</b>	<b>100.0%</b>	<b><math>\pm 0.8\%</math></b>

Note: Rounding can produce totals that do not equal 100%. The total sample size in this table does not include respondents who did not report their grade level.

## Demographic Profile of Surveyed Youth

The survey measures a variety of demographic characteristics. Table 2 shows selected characteristics of surveyed youth: sex, ethnicity and the primary language spoken at home. The primary language spoken at home refers to the primary language the student speaks at home (rather than what the parents speak at home).

A higher percentage of surveyed Pennsylvania students were female (50.0% female versus 48.7% male). A majority of students identified themselves as White (81.5%). The largest minority group is African American (4.9%), followed by Latino (3.1%), Asian (2.2%) and American Indian (0.7%). Note that while the “Other/Multiple” category listed on all tables includes students who selected “Other” as their primary ethnicity, this category also includes those students who selected multiple ethnicities. Therefore, for example, students who reported both African American and Latino ethnicity would be classified in the “Other/Multiple” category for the purposes of this report.

Nearly all of the surveyed students (95.3%) reported English as the language they most often speak at home.

<b>Table 2. Selected Demographic Characteristics of Surveyed Youth</b>		
	<i>Number of Students</i>	<i>Percentage of Students</i>
<i>Overall Valid Surveys</i>	16,547	100.0%
<i>Sex</i>		
Male	8,060	48.7%
Female	8,272	50.0%
Did not respond	212	1.3%
<i>Ethnicity</i>		
White	13,488	81.5%
African American	811	4.9%
Latino	514	3.1%
American Indian	124	0.7%
Asian	357	2.2%
Other/Multiple	1,045	6.3%
Did not respond	205	1.2%
<i>Primary Language Spoken at Home</i>		
English	15,768	95.3%
Spanish	280	1.7%
Other Language	315	1.9%
Did not respond	181	1.1%

Note: Rounding can produce totals that do not equal 100%.



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# Section 2

## Alcohol, Tobacco and Other Drug Use

### Measurement

Alcohol, tobacco and other drug (ATOD) use is measured in the *PAYS* by a set of 36 questions. The questions are similar to those used in the *Monitoring the Future* study, a nationwide study of drug use by middle and high school students. Consequently, national data as well as data from other similar surveys can be easily compared to data from the *PAYS*.

Prevalence-of-use tables and graphs show the percentages of students who reported using ATODs. These results are presented for both lifetime and past-30-day prevalence of use periods. Lifetime prevalence of use (whether the student has ever used the drug) is a good measure of student experimentation. Past-30-day prevalence of use (whether the student has used the drug within the last month) is a good measure of current use. In addition to the standard lifetime and past-30-day prevalence rates for alcohol use, binge drinking behavior (defined as a report of five or more drinks in a row within the past two weeks) is also measured.

A multi-question indicator—“any illicit drug (other than marijuana)” —measures the use of one or more of the following drugs: inhalants, cocaine, crack cocaine, heroin, hallucinogens, methamphetamine, Ecstasy and steroids. The purpose of this drug combination rate is to provide prevention planners with an overall gauge of so-called “hard” drug use (Johnston, O’Malley, Bachman & Schulenberg, 2007).

The survey also includes 12 questions designed to measure nonmedical use of prescription drugs. The questions cover four general categories of nonmedical prescription drug use: amphetamines, sedatives, tranquilizers, and narcotics other than heroin. In addition to lifetime and past-30-day prevalence of use periods, a question about past-12-month use is included with each prescription drug category.

### Results Summary

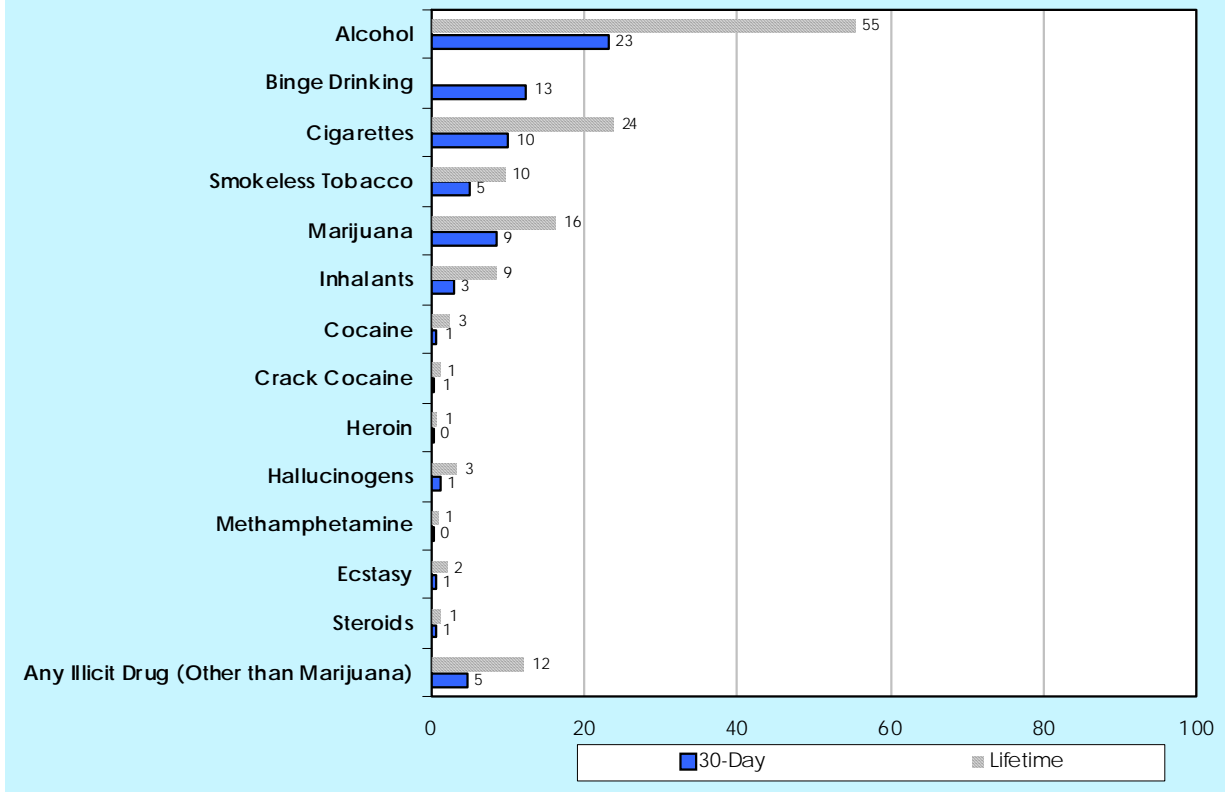
#### *Overall Results*

ATOD prevalence rates for the combined sample of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders are presented in Graph 1, and in the overall results column of Tables 3 and 4. As these results show, Pennsylvania students recorded the highest lifetime prevalence-of-use rates for alcohol (55.4%), cigarettes (23.9%) and marijuana (16.4%). Other lifetime prevalence rates ranged from 0.8% for heroin to 9.8% for smokeless tobacco. The

rate of illicit drug use excluding marijuana is summarized by the indicator “any illicit drug (other than marijuana),” with 12.3% of surveyed students reporting use of these drugs in their lifetimes.

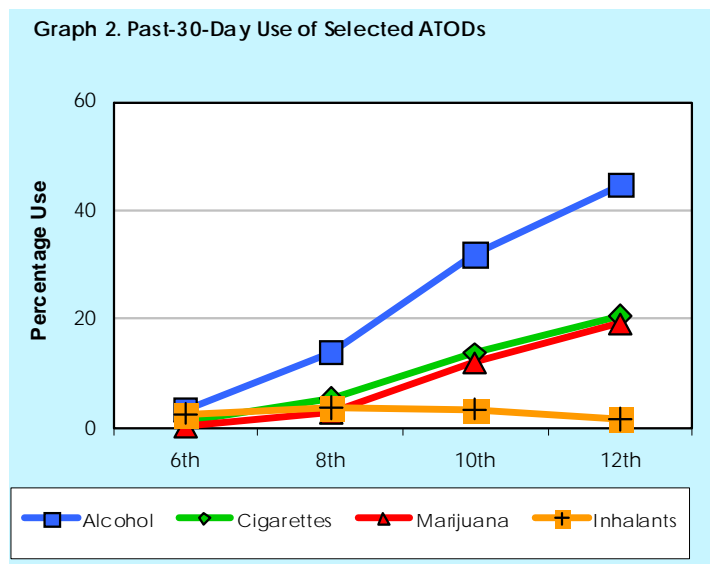
Pennsylvania students reported the highest past-30-day prevalence-of-use rates for alcohol (23.2%), cigarettes (10.2%) and marijuana (8.5%). Other past-30-day prevalence rates ranged from 0.3% for heroin to 5.0% for smokeless tobacco. Overall, 4.7% of Pennsylvania students reported the use of any illicit drug (other than marijuana) in the past 30 days.

**Graph 1. Overall Lifetime and Past-30-Day Prevalence of Alcohol, Tobacco and Other Drug Use**



## Grade-Level Results

ATOD prevalence rates for individual grade levels are presented in Graph 2 and Tables 3 and 4. Typically, prevalence rates for the use of most substances increase as students enter higher grades. In many communities, however, inhalant use provides an exception to this pattern, often peaking during the late middle school or early high school years. This may be because inhalants are relatively easy for younger students to obtain. Past-30-day alcohol use in Pennsylvania ranges from a low of 3.3% among 6<sup>th</sup> graders to a high of 44.8% among 12<sup>th</sup> graders. Past-30-day marijuana use ranges from a low of 0.2% among 6<sup>th</sup> graders to a high of 19.2% among 12<sup>th</sup> graders. Past-30-day cigarette use ranges from a low of 1.3% among 6<sup>th</sup> graders to a high of 20.6% among 12<sup>th</sup> graders. Past-30-day inhalant use ranges from a low of 1.7% among 12<sup>th</sup> graders to a high of 3.7% among 8<sup>th</sup> graders.



## Comparisons to National Results

Comparing and contrasting findings from a county- or school-district-level survey to relevant data from a national survey provides a valuable perspective on local data. In this report, national comparisons for ATOD use will be made to the 2007 *Monitoring the Future* study. The *Monitoring the Future* survey project, which provides prevalence-of-use information for ATODs from a nationally representative sample of 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders, is conducted annually by the Survey Research Center of the Institute for Social Research at the University of Michigan (see [www.monitoringthefuture.org](http://www.monitoringthefuture.org)). For a review of the methodology of this study, please see Johnston et al. (2007).

In addition to a complete report of prevalence-of-use rates for each surveyed grade, Tables 3 and 4 present national results from the *Monitoring the Future* study. Across the three comparison grades (8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup>), students in Pennsylvania reported a higher average level of lifetime alcohol use than their national counterparts and lower average levels of lifetime marijuana, inhalant, cigarette and cocaine use. The largest grade-level differences in lifetime substance use were for marijuana in the 8<sup>th</sup> grade (6.5% versus 14.2% for *Monitoring the Future*) and alcohol in the 8<sup>th</sup> and 10<sup>th</sup> grades (50.5% and 69.7% versus 38.9% and 61.7% for *Monitoring the Future*).

For past-30-day ATOD use, students in Pennsylvania reported a lower average level of binge drinking than their national counterparts. The largest grade-level differences in past-30-day substance use were for smokeless tobacco in the 12<sup>th</sup> grade (9.7% versus 6.6% for *Monitoring the Future*) and binge drinking in the 8<sup>th</sup> and 10<sup>th</sup> grades (6.5% and 16.8% versus 10.3% and 21.9% for *Monitoring the Future*).

**Table 3. Lifetime Use of Alcohol, Tobacco and Other Drugs**

	Pennsylvania					Monitoring the Future <sup>1</sup>		
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %
Alcohol	23.9	50.5	69.7	78.4	55.4	38.9	61.7	72.2
Cigarettes	5.6	16.2	32.3	42.1	23.9	22.1	34.6	46.2
Smokeless Tobacco	2.2	5.8	13.7	18.1	9.8	9.1	15.1	15.1
Marijuana	0.9	6.5	23.5	35.7	16.4	14.2	31.0	41.8
Inhalants	7.0	9.4	11.0	6.6	8.6	15.6	13.6	10.5
Cocaine	0.3	0.9	3.1	5.7	2.5	3.1	5.3	7.8
Crack Cocaine	0.4	0.8	1.8	1.6	1.2	2.1	2.3	3.2
Heroin	0.2	0.3	1.3	1.5	0.8	1.3	1.5	1.5
Hallucinogens	0.2	0.9	5.0	7.3	3.4	3.1	6.4	8.4
Methamphetamine	0.2	0.6	1.6	1.2	1.0	1.8	2.8	3.0
Ecstasy	0.1	0.7	3.5	4.1	2.2	2.3	5.2	6.5
Steroids	0.7	1.3	1.6	1.5	1.3	1.5	1.8	2.2
Any Illicit Drug (Other than Marijuana)	7.7	10.8	16.2	14.2	12.3	--	--	--

Note: *Monitoring the Future* data are only available for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders.

<sup>1</sup> Johnston et al. (2007).

**Table 4. Past-30-Day Use of Alcohol, Tobacco and Other Drugs**

	Pennsylvania					Monitoring the Future <sup>1</sup>		
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %
Alcohol	3.3	13.9	31.9	44.8	23.2	15.9	33.4	44.4
Binge Drinking	1.4	6.5	16.8	25.7	12.5	10.3	21.9	25.9
Cigarettes	1.3	5.5	13.7	20.6	10.2	7.1	14.0	21.6
Smokeless Tobacco	0.8	2.6	7.1	9.7	5.0	3.2	6.1	6.6
Marijuana	0.2	2.8	12.0	19.2	8.5	5.7	14.2	18.8
Inhalants	2.6	3.7	3.4	1.7	2.9	3.9	2.5	1.2
Cocaine	0.0	0.2	1.0	1.8	0.8	0.9	1.3	2.0
Crack Cocaine	0.2	0.2	0.9	0.5	0.5	0.6	0.5	0.9
Heroin	0.1	0.2	0.4	0.5	0.3	0.4	0.4	0.4
Hallucinogens	0.0	0.4	1.7	2.4	1.2	1.0	1.7	1.7
Methamphetamine	0.2	0.3	0.6	0.4	0.4	0.6	0.4	0.6
Ecstasy	0.0	0.4	1.1	0.9	0.6	0.6	1.2	1.6
Steroids	0.3	0.7	0.7	0.5	0.6	0.4	0.5	1.0
Any Illicit Drug (Other than Marijuana)	2.9	4.6	6.1	4.9	4.7	--	--	--

Note: *Monitoring the Future* data are only available for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders.

<sup>1</sup> Johnston et al. (2007).



## Item-Level Results

### Alcohol

Alcohol, including beer, wine and hard liquor, is the drug used most often by adolescents today. Findings from the *Monitoring the Future* study highlight the pervasiveness of alcohol in middle and high schools today. In comparison, cigarette use (the second most pervasive category of ATOD use) is only about half as prevalent as alcohol use. Given the national pattern, it is not surprising that alcohol is the most used drug among students in Pennsylvania.

#### Lifetime Use:

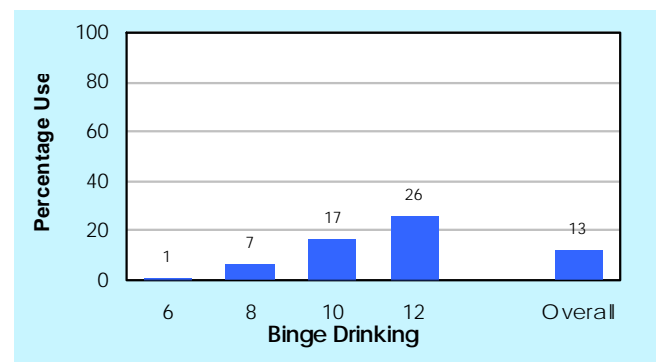
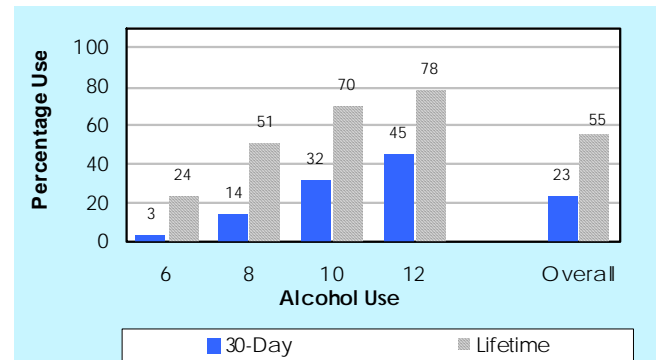
- Lifetime prevalence of alcohol use ranges from a low of 23.9% for 6<sup>th</sup> graders to a high of 78.4% for 12<sup>th</sup> graders. Overall, 55.4% of Pennsylvania students have used alcohol at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported higher rates of lifetime alcohol use.

#### Past-30-Day Use:

- Past-30-day prevalence of alcohol use ranges from a low of 3.3% for 6<sup>th</sup> graders to a high of 44.8% for 12<sup>th</sup> graders. Overall, 23.2% of Pennsylvania students have used alcohol at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup> graders reported a lower rate of past-30-day alcohol use and 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of use.

Binge drinking (defined as a report of five or more drinks in a row within the past two weeks) is extremely dangerous. Several studies have shown that binge drinking is related to higher probabilities of drinking and driving as well as injury due to intoxication. As with alcohol use in general, binge drinking tends to become more pervasive as students grow older.

- Across grades, the prevalence rate of binge drinking ranges from a low of 1.4% for 6<sup>th</sup> graders to a high of 25.7% for 12<sup>th</sup> graders. Overall, 12.5% of Pennsylvania students have reported at least one episode of binge drinking in the past two weeks.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported lower rates of binge drinking and 12<sup>th</sup> graders reported a similar rate of use.

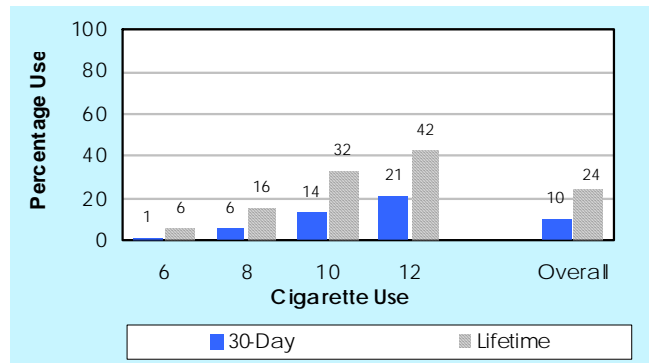


## Tobacco

After alcohol, tobacco (including cigarettes and smokeless tobacco) is the most commonly used drug among adolescents. Nationally, tobacco use (including both cigarettes and smokeless tobacco) has declined substantially since the late 1990s (Johnston et al., 2007).

### Lifetime Cigarette Use:

- Lifetime prevalence of cigarette use ranges from a low of 5.6% for 6<sup>th</sup> graders to a high of 42.1% for 12<sup>th</sup> graders. Overall, 23.9% of Pennsylvania students have used cigarettes at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime cigarette use.

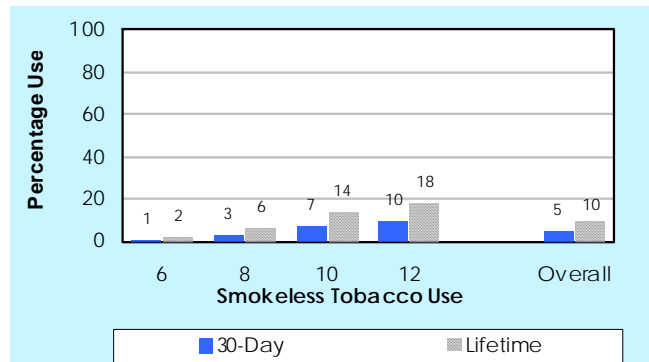


### Past-30-Day Cigarette Use:

- Past-30-day prevalence of cigarette use ranges from a low of 1.3% for 6<sup>th</sup> graders to a high of 20.6% for 12<sup>th</sup> graders. Overall, 10.2% of Pennsylvania students have used cigarettes at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day cigarette use.

### Lifetime Smokeless Tobacco Use:

- Lifetime prevalence of smokeless tobacco use ranges from a low of 2.2% for 6<sup>th</sup> graders to a high of 18.1% for 12<sup>th</sup> graders. Overall, 9.8% of Pennsylvania students have used smokeless tobacco at least once in their lifetimes.

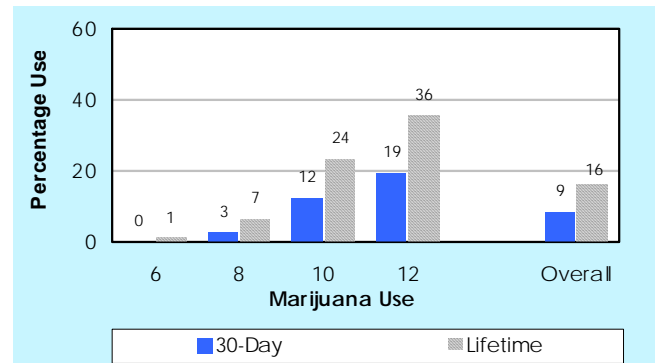


### Past-30-Day Smokeless Tobacco Use:

- Past-30-day prevalence of smokeless tobacco use ranges from a low of 0.8% for 6<sup>th</sup> graders to a high of 9.7% for 12<sup>th</sup> graders. Overall, 5.0% of Pennsylvania students have used smokeless tobacco at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported similar rates of past-30-day smokeless tobacco use and 12<sup>th</sup> graders reported a higher rate of use.

## Marijuana

During the 1990s, there were notable changes in trends of marijuana use throughout the United States. Results from the *Monitoring the Future* study show increases in both lifetime and past-30-day prevalence rates through the early and mid 1990s (Johnston et al., 2007). For 8<sup>th</sup> and 10<sup>th</sup> graders, the past-30-day rates more than doubled during this period. Since 1996 and 1997, when past-30-day marijuana use peaked, rates have declined.



### Lifetime Use:

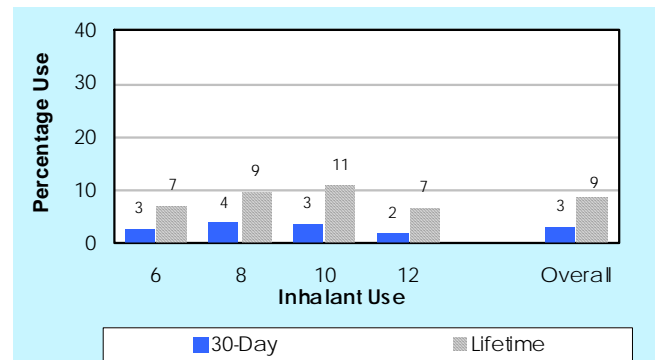
- Lifetime prevalence of marijuana use ranges from a low of 0.9% for 6<sup>th</sup> graders to a high of 35.7% for 12<sup>th</sup> graders. Overall, 16.4% of Pennsylvania students have used marijuana at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime marijuana use.

### Past-30-Day Use:

- Past-30-day prevalence of marijuana use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 19.2% for 12<sup>th</sup> graders. Overall, 8.5% of Pennsylvania students have used marijuana at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported lower rates of past-30-day marijuana use and 12<sup>th</sup> graders reported a similar rate of use.

## Inhalants

Inhalant use is more prevalent with younger students, perhaps because inhalants are often the easiest drugs for them to obtain. The health consequences of inhalant use can be substantial, including brain damage and heart failure. Inhalant use was measured by the survey question “On how many occasions (if any) have you used inhalants (whippets, butane, paint thinner, or glue to sniff, etc.)?” Comparisons with the *Monitoring the Future* study (national results) should be made carefully because there are differences in survey questions for this class of drugs.



### Lifetime Use:

- Lifetime prevalence of inhalant use ranges from a low of 6.6% for 12<sup>th</sup> graders to a high of 11.0% for 10<sup>th</sup> graders. Overall, 8.6% of Pennsylvania students have used inhalants at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime inhalant use.

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Past-30-Day Use:

- Past-30-day prevalence of inhalant use ranges from a low of 1.7% for 12<sup>th</sup> graders to a high of 3.7% for 8<sup>th</sup> graders. Overall, 2.9% of Pennsylvania students have used inhalants at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day inhalant use.

### Other Illicit Drugs

The PAYS also measures the prevalence of use for a variety of other drugs. This includes student use of the following: cocaine, crack cocaine, heroin, hallucinogens, methamphetamine, Ecstasy and steroids. The rates for prevalence of use of these other drugs are generally lower than the rates for alcohol, tobacco, marijuana and inhalants. Additionally, use of these other drugs tends to be concentrated in the upper grade levels.

### Cocaine

Cocaine is a powerfully addictive stimulant that directly affects the brain. Users may develop tolerance and need more and more of the drug to feel the same effects. Cocaine use can cause a variety of physical problems, including chest pain, strokes, seizures and abnormal heart rhythm.

Lifetime Use:

- Lifetime prevalence of cocaine use ranges from a low of 0.3% for 6<sup>th</sup> graders to a high of 5.7% for 12<sup>th</sup> graders. Overall, 2.5% of Pennsylvania students have used cocaine at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime cocaine use.

Past-30-Day Use:

- Past-30-day prevalence of cocaine use ranges from a low of 0.0% for 6<sup>th</sup> graders to a high of 1.8% for 12<sup>th</sup> graders. Overall, 0.8% of Pennsylvania students have used cocaine at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day cocaine use.

### Crack Cocaine

“Crack” is the street name given to the freebase form of cocaine, which has been processed into a less expensive, smokeable drug. Because crack is smoked, the user experiences a very quick, intense, but short-term high. Smoking large quantities of crack can cause acute problems, including cough, shortness of breath, and severe chest pains.

Lifetime Use:

- Lifetime prevalence of crack cocaine use ranges from a low of 0.4% for 6<sup>th</sup> graders to a high of 1.8% for 10<sup>th</sup> graders. Overall, 1.2% of Pennsylvania students have used crack cocaine at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of lifetime crack cocaine use.

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Past-30-Day Use:

- Past-30-day prevalence of crack cocaine use ranges from a low of 0.2% for 6<sup>th</sup> and 8<sup>th</sup> graders to a high of 0.9% for 10<sup>th</sup> graders. Overall, 0.5% of Pennsylvania students have used crack cocaine at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day crack cocaine use.

Heroin

Heroin is a highly addictive drug with rapid effects. Processed from morphine, heroin is usually injected, snorted or smoked. Physical dependence on the drug often develops among users. Long-term health problems caused by heroin use include collapsed veins, kidney or liver disease and bacterial infections.

Lifetime Use:

- Lifetime prevalence of heroin use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 1.5% for 12<sup>th</sup> graders. Overall, 0.8% of Pennsylvania students have used heroin at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported similar rates of lifetime heroin use and 12<sup>th</sup> graders reported the same rate of use.

Past-30-Day Use:

- Past-30-day prevalence of heroin use ranges from a low of 0.1% for 6<sup>th</sup> graders to a high of 0.5% for 12<sup>th</sup> graders. Overall, 0.3% of Pennsylvania students have used heroin at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day heroin use and 10<sup>th</sup> graders reported the same rate of use.

Hallucinogens

Hallucinogenic drugs can have short- and long-term effects on perception and mood. For instance, users of LSD, the most potent mood- and perception-altering drug, may have unpredictable experiences (known as “trips”) ranging from pleasant hallucinations to terrifying thoughts and feelings. LSD can also cause physical complications, including increased blood pressure and heart rate, dizziness, loss of appetite, nausea and numbness. For the purposes of the PAYS, hallucinogens were defined as “hallucinogens (acid, LSD, and ‘shrooms).”

Lifetime Use:

- Lifetime prevalence of hallucinogen use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 7.3% for 12<sup>th</sup> graders. Overall, 3.4% of Pennsylvania students have used hallucinogens at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup> graders reported a lower rate of lifetime hallucinogen use and 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of use.

Past-30-Day Use:

- Past-30-day prevalence of hallucinogen use ranges from a low of 0.0% for 6<sup>th</sup> graders to a high of 2.4% for 12<sup>th</sup> graders. Overall, 1.2% of Pennsylvania students have used hallucinogens at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day hallucinogen use and 10<sup>th</sup> graders reported the same rate of use.

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## Methamphetamine

Methamphetamine is a highly addictive stimulant with effects similar to cocaine. Use of methamphetamine can cause physical and psychological problems, such as rapid or irregular heart rate, increased blood pressure, anxiety and insomnia.

### Lifetime Use:

- Lifetime prevalence of methamphetamine use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 1.6% for 10<sup>th</sup> graders. Overall, 1.0% of Pennsylvania students have used methamphetamine at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of lifetime methamphetamine use.

### Past-30-Day Use:

- Past-30-day prevalence of methamphetamine use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 0.6% for 10<sup>th</sup> graders. Overall, 0.4% of Pennsylvania students have used methamphetamine at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day methamphetamine use.

## Ecstasy

Ecstasy (also known as MDMA) has both stimulant and hallucinogenic effects. After showing an increase in use nationwide from 1998 to 2001, use of Ecstasy appears to have declined in recent years, while the proportion of young people perceiving it as dangerous has increased (Johnston et al., 2007).

### Lifetime Use:

- Lifetime prevalence of Ecstasy use ranges from a low of 0.1% for 6<sup>th</sup> graders to a high of 4.1% for 12<sup>th</sup> graders. Overall, 2.2% of Pennsylvania students have used Ecstasy at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported similar rates of lifetime Ecstasy use and 12<sup>th</sup> graders reported a lower rate of use.

### Past-30-Day Use:

- Past-30-day prevalence of Ecstasy use ranges from a low of 0.0% for 6<sup>th</sup> graders to a high of 1.1% for 10<sup>th</sup> graders. Overall, 0.6% of Pennsylvania students have used Ecstasy at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day Ecstasy use.

## Steroids

The primary use for steroids in humans is to raise inadequate levels of testosterone. However, some athletes misuse the drug to “improve” their appearance or athletic performance. Improper use of steroids can prematurely stop the lengthening of bones as well as cause infertility and liver tumors.

### Lifetime Use:

- Lifetime prevalence of steroid use ranges from a low of 0.7% for 6<sup>th</sup> graders to a high of 1.6% for 10<sup>th</sup> graders. Overall, 1.3% of Pennsylvania students have used steroids at least once in their lifetimes.

- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of lifetime steroid use.

Past-30-Day Use:

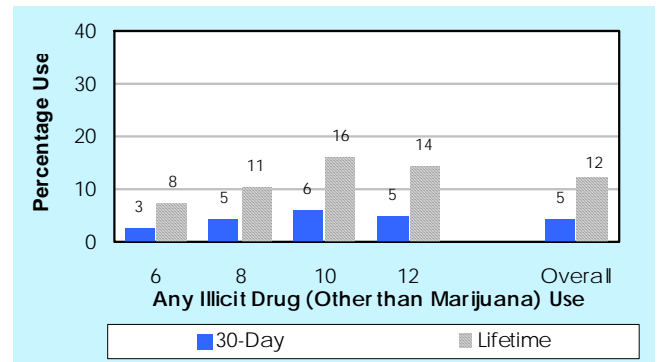
- Past-30-day prevalence of steroid use ranges from a low of 0.3% for 6<sup>th</sup> graders to a high of 0.7% for 8<sup>th</sup> and 10<sup>th</sup> graders. Overall, 0.6% of Pennsylvania students have used steroids at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day steroid use.

**Any Illicit Drug (Other than Marijuana)**

The final ATOD indicator reports on the use of any illicit drug other than marijuana. This drug combination rate—which includes use of one or more of the following drugs: inhalants, cocaine, crack cocaine, heroin, hallucinogens, methamphetamine, Ecstasy and steroids—provides prevention planners with an overall indicator of so-called “hard” drug use.

Marijuana use is excluded from this index because the higher prevalence of marijuana use tends to obscure the presence or absence of the other drugs. In other words, an indicator of

“Any Illicit Drug Use (*Including* Marijuana)” primarily measures marijuana use. Direct comparisons to *Monitoring the Future* results are not available for this measure.



Lifetime Use:

- Lifetime prevalence of any illicit drug (other than marijuana) use ranges from a low of 7.7% for 6<sup>th</sup> graders to a high of 16.2% for 10<sup>th</sup> graders. Overall, 12.3% of Pennsylvania students have used any illicit drug (other than marijuana) at least once in their lifetimes.

Past-30-Day Use:

- Past-30-day prevalence of any illicit drug (other than marijuana) use ranges from a low of 2.9% for 6<sup>th</sup> graders to a high of 6.1% for 10<sup>th</sup> graders. Overall, 4.7% of Pennsylvania students have used any illicit drug (other than marijuana) at least once in the last 30 days.

## Prescription Drugs

In recent years the nonmedical use of prescription drugs has emerged as a major public health issue. Both the *National Survey on Drug Use and Health* (Substance Abuse and Mental Health Services Administration, 2003) and the *Monitoring the Future* study (Johnston et al., 2007), two major sources of youth drug abuse prevalence data, have reported increases in the unauthorized use of prescription drugs. This trend is particularly troubling given the adverse health consequences related to prescription drug abuse, which include addiction, physical dependence and the possibility of overdose.

Despite these concerns, the research community is still in the early stages of developing survey methods that can accurately measure the prevalence of prescription drug abuse. If anonymity is ensured, most students will honestly and accurately report their use of alcohol, tobacco, marijuana and other easily recognized categories of illicit drugs. The measurement of prescription drug use, however, is more complex. There are many prescription medicines that are subject to abuse, making it impossible to present

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an exhaustive list. Also, respondents may have difficulty identifying the names of prescription drugs they have used, and they may have difficulty distinguishing between prescription and over-the-counter medications.

With these challenges in mind, the *PAYS* includes 12 questions designed to measure prevalence-of-use rates across four prescription drug categories: amphetamines, sedatives, tranquilizers, and narcotics other than heroin (see results for Pennsylvania in Tables 5, 6 and 7).

## Amphetamines

Lifetime, past-12-month, and past-30-day prevalence of amphetamine use was measured using this survey question:

Amphetamines have been prescribed by doctors to help people lose weight or to give people more energy. They are sometimes called uppers, ups, speed, bennies, dexies, pep pills, and diet pills. Drugstores are not supposed to sell them without a prescription from a doctor. Amphetamines do NOT include any non-prescription drugs, such as over-the-counter diet pills (like Dexatrim<sup>®</sup>) or stay-awake pills (like No-Doz<sup>®</sup>), or any mail-order drugs. On how many occasions (if any) have you taken amphetamines on your own—that is, without a doctor telling you to take them?

### Lifetime Use:

- Lifetime prevalence of amphetamine use ranges from a low of 1.7% for 6<sup>th</sup> graders to a high of 7.8% for 12<sup>th</sup> graders. Overall, 4.9% of Pennsylvania students have used amphetamines at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime amphetamine use.

### Past-12-Month Use:

- Past-12-month prevalence of amphetamine use ranges from a low of 1.0% for 6<sup>th</sup> graders to a high of 5.7% for 12<sup>th</sup> graders. Overall, 3.5% of Pennsylvania students have used amphetamines at least once in the last 12 months.
- Compared to national findings, 8<sup>th</sup> and 10<sup>th</sup> graders reported lower rates of past-12-month amphetamine use and 12<sup>th</sup> graders reported a similar rate of use.

### Past-30-Day Use:

- Past-30-day prevalence of amphetamine use ranges from a low of 0.5% for 6<sup>th</sup> graders to a high of 2.7% for 12<sup>th</sup> graders. Overall, 1.6% of Pennsylvania students have used amphetamines at least once in the last 30 days.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day amphetamine use.

## Sedatives

Lifetime, past-12-month, and past-30-day prevalence of sedative use was measured using this survey question:

Sedatives, including barbiturates, are sometimes prescribed by doctors to help people relax or get to sleep. They are sometimes called downs or downers, and include phenobarbital, Tuinal, Nembutal, and Seconal. On how many occasions (if any) have you taken sedatives on your own—that is, without a doctor telling you to take them?



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Lifetime Use:

- Lifetime prevalence of sedative use ranges from a low of 2.0% for 6<sup>th</sup> graders to a high of 7.5% for 12<sup>th</sup> graders. Overall, 5.2% of Pennsylvania students have used sedatives at least once in their lifetimes.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of lifetime sedative use.

Past-12-Month Use:

- Past-12-month prevalence of sedative use ranges from a low of 0.8% for 6<sup>th</sup> graders to a high of 5.4% for 12<sup>th</sup> graders. Overall, 3.4% of Pennsylvania students have used sedatives at least once in the last 12 months.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of past-12-month sedative use.

Past-30-Day Use:

- Past-30-day prevalence of sedative use ranges from a low of 0.3% for 6<sup>th</sup> graders to a high of 2.6% for 12<sup>th</sup> graders. Overall, 1.6% of Pennsylvania students have used sedatives at least once in the last 30 days.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of past-30-day sedative use.

## Tranquilizers

Lifetime, past-12-month, and past-30-day prevalence of tranquilizer use was measured using this survey question:

Tranquilizers are sometimes prescribed by doctors to calm people down, quiet their nerves, or relax their muscles. Librium, Valium, and Xanax are all tranquilizers. On how many occasions (if any) have you taken tranquilizers on your own—that is, without a doctor telling you to take them?

Lifetime Use:

- Lifetime prevalence of tranquilizer use ranges from a low of 0.6% for 6<sup>th</sup> graders to a high of 7.4% for 12<sup>th</sup> graders. Overall, 3.9% of Pennsylvania students have used tranquilizers at least once in their lifetimes.
- Compared to national findings, 8<sup>th</sup> and 12<sup>th</sup> graders reported lower rates of lifetime tranquilizer use and 10<sup>th</sup> graders reported a similar rate of use.

Past-12-Month Use:

- Past-12-month prevalence of tranquilizer use ranges from a low of 0.4% for 6<sup>th</sup> graders to a high of 5.8% for 12<sup>th</sup> graders. Overall, 2.9% of Pennsylvania students have used tranquilizers at least once in the last 12 months.
- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-12-month tranquilizer use.

Past-30-Day Use:

- Past-30-day prevalence of tranquilizer use ranges from a low of 0.2% for 6<sup>th</sup> graders to a high of 2.4% for 12<sup>th</sup> graders. Overall, 1.4% of Pennsylvania students have used tranquilizers at least once in the last 30 days.

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- Compared to national findings, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported similar rates of past-30-day tranquilizer use.

### Narcotics Other Than Heroin

Lifetime, past-12-month, and past-30-day prevalence of use of narcotics other than heroin was measured using this survey question:

There are a number of narcotics other than heroin, such as methadone, opium, morphine, codeine, Demerol, Vicodin, OxyContin, and Percocet. These are sometimes prescribed by doctors. On how many occasions (if any) have you taken narcotics other than heroin on your own—that is, without a doctor telling you to take them?

#### Lifetime Use:

- Lifetime prevalence of other narcotic use ranges from a low of 0.7% for 6<sup>th</sup> graders to a high of 12.1% for 12<sup>th</sup> graders. Overall, 5.7% of Pennsylvania students have used other narcotics at least once in their lifetimes.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of lifetime other narcotic use.

#### Past-12-Month Use:

- Past-12-month prevalence of other narcotic use ranges from a low of 0.3% for 6<sup>th</sup> graders to a high of 8.7% for 12<sup>th</sup> graders. Overall, 4.1% of Pennsylvania students have used other narcotics at least once in the last 12 months.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of past-12-month other narcotic use.

#### Past-30-Day Use:

- Past-30-day prevalence of other narcotic use ranges from a low of 0.0% for 6<sup>th</sup> graders to a high of 4.5% for 12<sup>th</sup> graders. Overall, 2.0% of Pennsylvania students have used other narcotics at least once in the last 30 days.
- Compared to national findings, 12<sup>th</sup> graders reported a similar rate of past-30-day other narcotic use.

**Table 5. Lifetime Nonmedical Prescription Drug Use**

	Pennsylvania					Monitoring the Future <sup>1</sup>		
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %
Amphetamines	1.7	3.3	6.6	7.8	4.9	6.5	11.1	11.4
Sedatives	2.0	4.4	6.7	7.5	5.2	Not asked	Not asked	9.3
Tranquilizers	0.6	1.8	5.6	7.4	3.9	3.9	7.4	9.5
Other Narcotics	0.7	1.8	8.3	12.1	5.7	Not asked	Not asked	13.1

Note: *Monitoring the Future* data is only available for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders.

<sup>1</sup> Johnston et al., (2007).

**Table 6. Past-12-Month Nonmedical Prescription Drug Use**

	Pennsylvania					Monitoring the Future <sup>1</sup>		
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %
Amphetamines	1.0	2.0	5.0	5.7	3.5	4.2	8.0	7.5
Sedatives	0.8	2.5	4.9	5.4	3.4	Not asked	Not asked	6.2
Tranquilizers	0.4	1.1	4.1	5.8	2.9	2.4	5.3	6.2
Other Narcotics	0.3	1.3	--	6.1	8.7	Not asked	Not asked	9.2

Note: *Monitoring the Future* data are only available for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders.

<sup>1</sup> Johnston et al. (2007).

**Table 7. Past-30-Day Nonmedical Prescription Drug Use**

	Pennsylvania					Monitoring the Future <sup>1</sup>		
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %
Amphetamines	0.5	0.7	2.5	2.7	1.6	2.0	4.0	3.7
Sedatives	0.3	1.2	2.5	2.6	1.6	Not asked	Not asked	2.7
Tranquilizers	0.2	0.6	2.2	2.4	1.4	1.1	2.6	2.6
Other Narcotics	0.0	0.4	2.9	4.5	2.0	Not asked	Not asked	3.8

Note: *Monitoring the Future* data are only available for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders.

<sup>1</sup> Johnston et al. (2007).



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# Section 3

## Other Antisocial Behaviors

### Introduction

The *PAYS* also measures a series of seven other problem, or antisocial, behaviors—that is, behaviors that run counter to established norms of good behavior.

- Attacking Someone with Intent to Harm
- Attempting to Steal a Vehicle
- Being Arrested
- Being Drunk or High at School
- Getting Suspended
- Selling Drugs
- Bringing a Weapon (Such as a Gun, Knife or Club) to School

### Measurement

As with alcohol, tobacco and other drug use, prevalence tables and graphs are employed to illustrate the percentages of students who reported other antisocial behaviors. For the first six other antisocial behaviors, prevalence rates are presented for the incidence of behavior over the past 12 months. For *Bringing a Weapon (Such as a Gun, Knife or Club) to School*, prevalence rates are reported for the past 30 days. In addition, frequency data for *Bringing a Weapon (Such as a Gun, Knife or Club) to School*, illustrating the number of occasions that students reported bringing a weapon to school within the past 30 days, are presented in Appendix A.

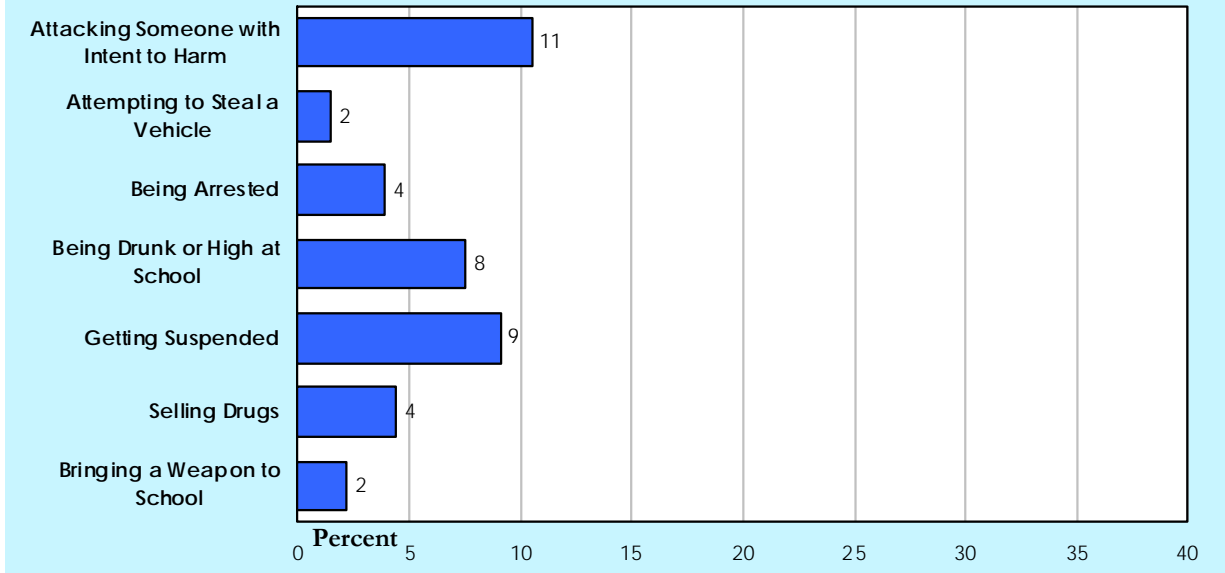
### Results Summary

#### Overall Results

Other antisocial behavior prevalence rates for the combined sample of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders are presented in Graph 3, and in the overall results column of Table 8. Across all grades, 10.5% of students reported *Attacking Someone with Intent to Harm* in the past year, making it the most prevalent of the seven antisocial behaviors in Pennsylvania. *Getting Suspended* is the second most prevalent antisocial behavior, with 9.1% of Pennsylvania students reporting having been suspended in the past year. Students in

Pennsylvania reported very low levels of participation in the following antisocial behaviors: *Being Arrested*, *Bringing a Weapon to School* and *Attempting to Steal a Vehicle*.

**Graph 3. Overall Prevalence of Other Antisocial Behaviors**

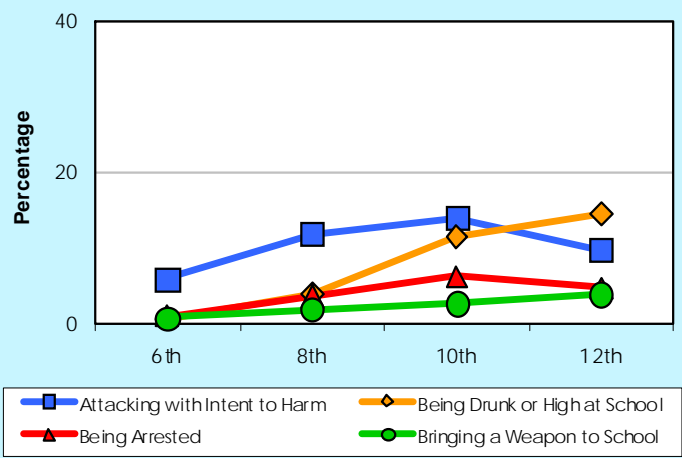


### Grade-Level Results

Other antisocial behavior prevalence rates within individual grades are presented in Graph 4 and Table 8. In many communities, these behaviors reveal a complex pattern of changes across grades. Typically, reports of *Being Drunk or High at School* and *Selling Drugs* follow the ATOD model, with prevalence rates increasing through the upper grade levels. In contrast, reports of *Attacking Someone with Intent to Harm*, *Getting Suspended* and *Being Arrested* often peak in the late middle school or early high school years. Prevalence rates for *Attempting to Steal a Vehicle* and *Bringing a Weapon (Such as a Gun, Knife or Club) to School* are generally too low to allow meaningful comparisons across grade levels.

Prevention planners in Pennsylvania should review the other antisocial behavior profiles within individual grades, with special attention toward behaviors that show a marked deviation from these patterns.

**Graph 4. Prevalence of Selected Other Antisocial Behaviors, by Grade**



**Table 8. Prevalence of Other Antisocial Behaviors, Pennsylvania**

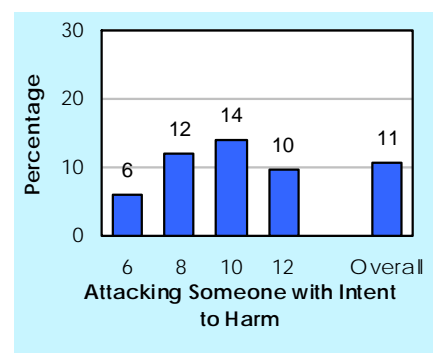
	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Attacking Someone with Intent to Harm	5.9	11.9	14.0	9.7	10.5
Attempting to Steal a Vehicle	0.5	1.2	2.7	1.5	1.5
Being Arrested	0.9	3.5	6.2	4.7	3.9
Being Drunk or High at School	0.6	3.8	11.4	14.5	7.5
Getting Suspended	4.1	11.1	11.0	9.4	9.1
Selling Drugs	0.2	1.9	6.7	8.8	4.4
Bringing a Weapon to School	0.7	1.8	2.6	3.8	2.2
Average	1.8	5.0	7.8	7.5	5.6

## Item-Level Results

### *Attacking Someone with Intent to Harm*

Attacking someone with intent to harm is measured by the question “How many times in the past year (12 months) have you attacked someone with the idea of seriously hurting them?” The question does not ask specifically about the use of a weapon; therefore, occurrences of physical fighting without weapons will be captured with this question.

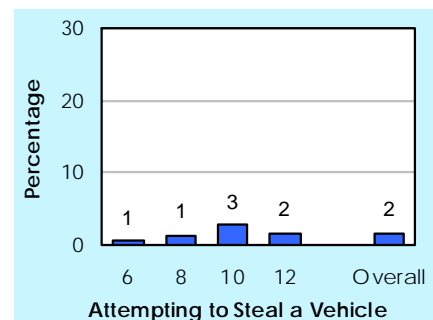
- Prevalence rates for *Attacking Someone with Intent to Harm* range from a low of 5.9% among 6<sup>th</sup> graders to a high of 14.0% among 10<sup>th</sup> graders.
- Overall, 10.5% of Pennsylvania students reported having attacked someone with intent to harm in the past year.



### *Attempting to Steal a Vehicle*

Vehicle theft is measured by the question “How many times in the past year (12 months) have you stolen or tried to steal a motor vehicle such as a car or motorcycle?”

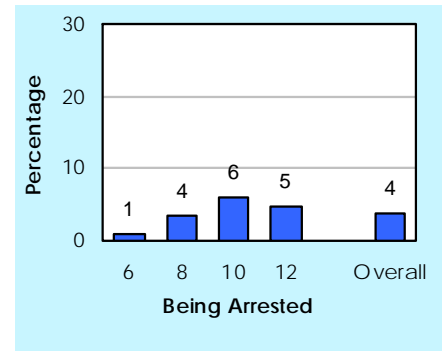
- Prevalence rates for *Attempting to Steal a Vehicle* range from a low of 0.5% among 6<sup>th</sup> graders to a high of 2.7% among 10<sup>th</sup> graders.
- Overall, 1.5% of Pennsylvania students reported having attempted to steal a vehicle in the past year.



## Being Arrested

Any student experience with being arrested is measured by the question “How many times in the past year (12 months) have you been arrested?” Note that the question does not define “arrested.” Rather, it is left to the individual respondent to define. Some youths may define any contact with police as an arrest, while others may consider that only an official arrest justifies a positive answer to this question.

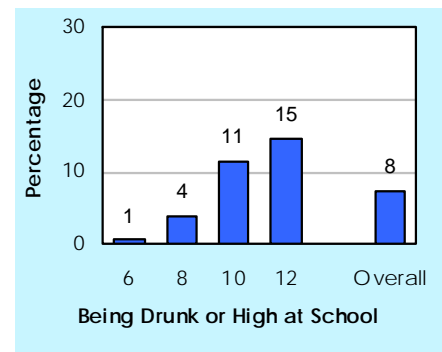
- Prevalence rates for *Being Arrested* range from a low of 0.9% among 6<sup>th</sup> graders to a high of 6.2% among 10<sup>th</sup> graders.
- Overall, 3.9% of Pennsylvania students reported having been arrested in the past year.



## Being Drunk or High at School

Having been drunk or high at school is measured by the question “How many times in the past year (12 months) have you been drunk or high at school?”

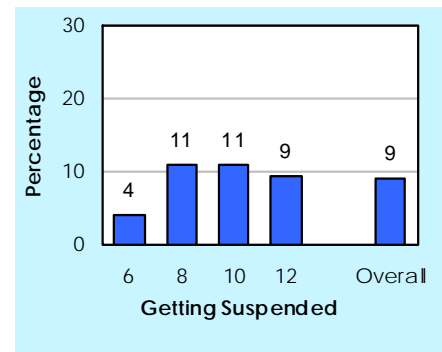
- Prevalence rates for *Being Drunk or High at School* range from a low of 0.6% among 6<sup>th</sup> graders to a high of 14.5% among 12<sup>th</sup> graders.
- Overall, 7.5% of Pennsylvania students reported having been drunk or high at school in the past year.



## Getting Suspended

Suspension is measured by the question “How many times in the past year (12 months) have you been suspended from school?” Note that the question does not define “suspension.” Rather, it is left to the individual respondent to make that definition. School suspension rates vary substantially from district to district. Therefore, these rates should be interpreted by someone knowledgeable about local school suspension policy.

- Prevalence rates for *Getting Suspended* range from a low of 4.1% among 6<sup>th</sup> graders to a high of 11.1% among 8<sup>th</sup> graders.
- Overall, 9.1% of Pennsylvania students reported having been suspended in the past year.

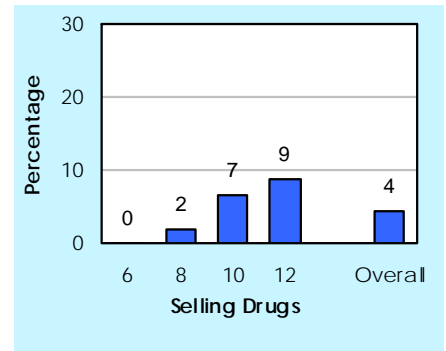




## Selling Drugs

Selling drugs is measured by the question “How many times in the past year (12 months) have you sold illegal drugs?” Note that the question asks about, but does not define or specify, “illegal drugs.”

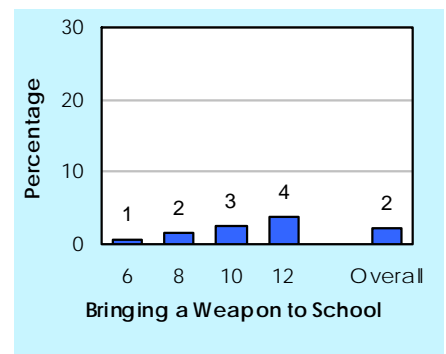
- Prevalence rates for *Selling Drugs* range from a low of 0.2% among 6<sup>th</sup> graders to a high of 8.8% among 12<sup>th</sup> graders.
- Overall, 4.4% of Pennsylvania students reported having sold drugs in the past year.



## Bringing a Weapon (Such as a Gun, Knife or Club) to School

Bringing a weapon (such as a gun, knife or club) to school is measured by the question “How many times in the past 30 days have you brought a weapon (such as a gun, knife or club) to school?”

- Prevalence rates for *Bringing a Weapon to School* range from a low of 0.7% among 6<sup>th</sup> graders to a high of 3.8% among 12<sup>th</sup> graders.
- Overall, 2.2% of Pennsylvania students reported having brought a weapon to school in the past 30 days.





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# Section 4

## Special Topics

### Introduction

The *PAYS* included questions on the following special topics: age of onset of ATOD use and other antisocial behavior, driving under the influence of alcohol or marijuana, willingness to try or use ATODs, gambling, symptoms of depression, and the frequency of having been threatened or attacked at school.

### Age of Onset of ATOD Use and Other Antisocial Behavior

Using age-of-initiation data to coordinate the timing of prevention efforts can be an important tool for maximizing program effectiveness. For example, programs delivered after the majority of potential drug users have already initiated the behavior may have limited impact. Alternatively, very early intervention might prove less effective because it is not close enough to the critical initiation period.

Pennsylvania students were asked 10 questions about the age at which they first used ATODs and participated in other antisocial behaviors. The topics covered include: trying alcohol (“more than a sip or two”), drinking alcohol regularly (“at least once or twice a month”), smoking cigarettes, smoking marijuana, being suspended from school, being arrested, carrying a handgun, attacking someone with intent to harm, belonging to a gang, and gambling. Results for Pennsylvania students are presented in Table 9.

While the average age of onset is typically lower in the earlier grades than it is in the later ones, this should not be interpreted as indicating that the younger cohorts are initiating substance use at an earlier age than the older cohorts did. Rather, the average age for each cohort increases as its members progress through school and more of them initiate experimentation with ATODs and engage in other antisocial behaviors. For this reason, the question “When do students first start using alcohol?” is best answered by examining the responses of students in the highest grade level surveyed because they can best reflect on their high school and/or middle school experiences and accurately report the age they first started using drugs or engaging in other antisocial behaviors.

**Table 9. Average Age of Onset of ATOD Use and Other Antisocial Behaviors, Pennsylvania**

	6 <sup>th</sup>	8 <sup>th</sup>	10 <sup>th</sup>	12 <sup>th</sup>	Overall
Trying Alcohol	10.5	11.7	12.9	14.1	12.8
Drinking Alcohol Regularly	10.9	12.4	14.1	15.4	14.5
Smoking Cigarettes	10.4	11.5	12.7	13.6	12.7
Smoking Marijuana	11.0	12.3	13.6	14.7	14.0
Being Suspended from School	10.5	11.6	12.7	13.4	12.4
Being Arrested	10.7	12.4	13.9	14.7	13.7
Carrying a Handgun	10.7	12.0	12.5	13.3	12.4
Attacking Someone with Intent to Harm	10.7	11.8	12.6	13.3	12.3
Belonging to a Gang	10.9	12.2	13.0	13.8	12.6
Gambling (betting money or something of value)	10.5	11.2	12.1	13.2	11.9

## Driving After Alcohol or Marijuana Use

Driving a car requires clear thinking and good hand-eye coordination. Operating a vehicle after using alcohol or marijuana may impair driving skills, making the driver a hazard on any roadway. The impact of ATOD usage on automobile safety is assessed with two items: (1) “How often have you driven a car while or shortly after drinking?” and (2) “How often have you driven a car while or shortly after smoking pot?” Results for Pennsylvania students are presented in Table 10.

**Table 10. Percentage of Youth Reporting Any Occasion of Driving Under the Influence, Pennsylvania**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Driving after Alcohol Use	0.3	1.2	3.7	17.8	5.6
Driving after Marijuana Use	0.2	0.8	3.7	16.4	5.1

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## Willingness to Try or Use ATODs

Along with perceptions of risk and level of disapproval (Bachman et al., 1988), willingness to try or use ATODs may be viewed as one of the attitudinal constructs that facilitates drug use. Pennsylvania students were questioned regarding their willingness to try or use alcohol, marijuana, cocaine, hallucinogens and inhalants. Results for Pennsylvania students are presented in Table 11.

**Table 11. Percentage of Youth Reporting Willingness to Try Selected ATODs, Pennsylvania**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Alcohol	12.2	34.2	56.3	64.5	42.0
Marijuana	1.2	8.4	24.2	28.6	15.7
Cocaine	1.1	2.6	5.1	5.7	3.7
Hallucinogens	0.7	2.7	7.8	9.1	5.2
Inhalants	1.3	3.3	4.8	3.2	3.2

Note: The percentages reported in this table represent the percentage of students who indicated "would use it any chance I got," "would like to try it or use it" or "not sure whether or not I would use it." Students who indicated "probably wouldn't use it" or "would never use it" were considered to be unwilling to try the substance.

## Gambling

Starting in 2005, the *PAYS* asked students a series of five questions about their experiences with gambling. These include past-12-month prevalence measures for: gambling for “money or anything of value,” “thinking about gambling or planning to gamble,” spending “more than you meant to on gambling,” and gambling leading to “lies to your family.” A question about gambling for “money or anything of value” in the last 30 days was also added in that year. For the 2007 survey, 10 additional gambling questions were added to the *PAYS* questionnaire. These include past-12-month and past-30-day prevalence measures for slot machines, the lottery, bingo, sports betting, and table gaming. Results for Pennsylvania students are presented in Table 12.

**Table 12. Percentage of Youth Reporting Gambling or Gambling-Related Problems, Pennsylvania**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Gambled for money in past year	19.3	31.0	32.0	32.8	28.8
Gambled for money in last 30 days	8.3	13.7	16.4	18.6	14.3
Played a slot machine in past year	12.6	10.8	8.6	6.1	9.3
Played a slot machine in last 30 days	4.4	3.4	3.4	2.6	3.4
Bought lottery tickets in past year	22.2	22.8	19.0	28.5	23.3
Bought lottery tickets in last 30 days	10.5	10.9	9.0	16.4	11.7
Played Bingo for prizes and money in past year	54.4	49.0	35.4	27.1	41.0
Played Bingo for prizes and money in last 30 days	20.9	17.4	12.1	7.7	14.1
Bet on sporting events in past year	24.5	31.9	30.7	26.7	28.6
Bet on sporting events in last 30 days	13.9	18.9	19.3	15.8	17.1
Bet on table games in past year	22.3	29.0	27.0	25.3	26.1
Bet on table games in last 30 days	10.2	12.9	12.9	12.1	12.1
Often thought about gambling in past year	11.0	15.3	16.1	15.9	14.6
Spent more than meant on gambling in past year	3.3	5.5	6.4	7.5	5.7
Gambling led to lies to your family in past year	1.9	2.8	3.6	4.1	3.1

## Symptoms of Depression

A number of scientific studies have identified a link between mental health problems, such as depression, and the use of alcohol, tobacco and other drugs during adolescence. The *PAYS* includes four questions that asks students about feelings—sadness, hopelessness and worthlessness—that can be symptoms of depression. Results for Pennsylvania students are presented in Table 13.

**Table 13. Percentage of Youth Reporting Symptoms of Depression, Pennsylvania**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
In the past year, felt depressed or sad most days	31.2	33.0	33.0	32.2	32.5
Sometimes I think that life is not worth it	14.3	20.4	23.3	20.0	19.6
At times I think I am no good at all	26.4	27.9	29.9	28.7	28.3
All in all, I am inclined to think that I am a failure	12.2	12.9	14.5	13.1	13.2

Note: The numbers reported in this table represent the percentage of students who answered either "yes" or "Yes!" to each question.

## Violence and Drugs on School Property

Pennsylvania students were also surveyed regarding the frequency with which they have been threatened or attacked on school property within the past year, and whether they were offered, given, or sold illegal drugs on school property within the past year. Results for Pennsylvania students are presented in Table 14.

**Table 14. Percentage of Youth Reporting Violence or Drugs on School Property in the Past Year, Pennsylvania**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Threatened to be hit or beaten up	19.6	25.5	21.7	15.0	20.7
Attacked or beaten up	9.7	10.5	7.7	4.0	8.1
Threatened with a weapon	3.4	4.5	4.7	3.2	4.0
Attacked with a weapon	1.0	1.8	2.5	1.8	1.8
Been offered, given, or sold an illegal drug	2.0	7.0	18.4	17.4	11.3





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# Section 5

## Risk and Protective Factors

### Introduction

Just as eating a high-fat diet is a risk factor for heart disease and getting regular exercise is a protective factor for heart disease and other health problems, there are factors that can help protect youth from, or put them at risk for, drug use and other problem behaviors.

**Protective factors**, also known as “assets,” are conditions that buffer children and youth from exposure to risk by either reducing the impact of the risks or changing the way that young people respond to risks. Protective factors identified through research include strong bonding to family, school, community and peers. These groups support the development of healthy behaviors for children by setting and communicating healthy beliefs and clear standards for children’s behavior. Young people are more likely to follow the standards for behavior set by these groups if the bonds are strong. Strong bonds are encouraged by providing young people with opportunities to make meaningful contributions, by teaching them the skills they need to be successful in these new opportunities, and by recognizing their contributions.

**Risk factors** are conditions that increase the likelihood of a young person becoming involved in drug use, delinquency, school dropout and/or violence. For example, children living in families with poor parental monitoring are more likely to become involved in these problems.

Research during the past 30 years supports the view that delinquency; alcohol, tobacco and other drug use; school achievement; and other important outcomes in adolescence are associated with specific characteristics in the student’s community, school and family environments, as well as with characteristics of the individual (Hawkins, Catalano & Miller, 1992). In fact, these characteristics have been shown to be more important in understanding these behaviors than ethnicity, income or family structure (Blum et al., 2000).

There is a substantial amount of research showing that adolescents’ exposure to a greater number of risk factors is associated with more drug use and delinquency. There is also evidence that exposure to a number of protective factors is associated with lower prevalence of these problem behaviors (Bry, McKeon & Pandina, 1982; Newcomb, Maddahian & Skager, 1987; Newcomb & Felix-Ortiz, 1992; Newcomb, 1995; Pollard et al., 1999).

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The analysis of risk and protective factors is the most powerful tool available for understanding what promotes both positive and negative adolescent behavior and for helping design successful prevention programs for young people. To promote positive development and prevent problem behavior, it is necessary to address the factors that predict these outcomes. By measuring these risk and protective factors, specific factors that are elevated should be prioritized in the community. This process also helps in selecting targeted tested-effective prevention programming shown to address those elevated factors and consequently provide the greatest likelihood for success.

This system of risk and protective factors is organized into a strategy that families can use to help children develop healthy behaviors—the Social Development Strategy (Hawkins, Catalano & Associates, 1992). The Social Development Strategy is a theoretical framework that organizes risk and protective factors for adolescent problem behavior prevention.

## Measurement

The *Communities That Care Youth Survey*, the survey upon which the *PAYS* was based, provides the most comprehensive measurement of risk and protective factors currently available for 6<sup>th</sup> to 12<sup>th</sup> graders. Risk and protective factors are measured by sets of survey items called scales. All together, the *PAYS* assesses 23 risk factor and nine protective factor scales across four domains: Community Domain, Family Domain, School Domain, and Peer and Individual Domain.

Risk and protective factor scales are scored against the *Communities That Care* normative database. Like the scoring systems used by many national testing programs—such as the SAT<sup>®</sup> and ACT<sup>™</sup>—this method generates percentile scores ranging from 0 to 100. A score of 50, which matches the normative median, indicates that 50% of the respondents in the normative sample reported a score that is lower than the average for Pennsylvania and 50% reported a score that is higher. Similarly, a score of 75 indicates that 75% of the normative sample reported a lower score and 25% reported a higher score. Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better behavioral outcomes, it is better to have higher protective factor scale scores, not lower.

Please note that the protective factor *Social Skills* was removed in 2005 because the questions used to measure it were deemed too difficult for younger students. Also note that some school districts elected to administer a secondary version of the *PAYS* that excluded questions measuring risk and protective factors within the family. In these cases, scale scores for the Family Domain risk and protective factors are not available.

## Changes to the Risk and Protective Factor Measurement and Scoring Model

For 2007 the *PAYS* is adopting a new risk and protective factor measurement and scoring model. While this new model uses the same survey data as the previous model, it introduces a number of enhancements to the percentile scoring process. These enhancements create a more complete risk and protective factor profile for communities, allowing planners to more accurately identify problem areas in need of prevention intervention.

Please note that this enhanced risk and protective factor model was first introduced in the statewide 2005 *PAYS* report. Use that report to compare differences between the old and new scoring models. This is important because scores generated with the new model are not directly comparable to scores generated with the previous model.

The enhancements incorporated into the new risk and protective factor measurement and scoring model fall into three categories: (1) updates to several risk and protective factor scales, (2) the introduction of a new normative database, and (3) changes to grade-level scoring.

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### New Risk and Protective Factor Scales

1. The risk factor scale *Perceived Availability of Drugs and Handguns* has been divided into two independent scales: *Perceived Availability of Drugs* and *Perceived Availability of Handguns*. This change improves the utility of prevention data by creating separate measures for two distinct risk factors.
2. The risk factor scale *Laws and Norms Favorable to Drug Use and Handguns* has also been divided into two independent scales: *Laws and Norms Favorable to Drug Use* and *Laws and Norms Favorable to Handguns*. This change improves the utility of prevention data by creating separate measures for two distinct risk factors.
3. The other antisocial behavior components of the risk factor scale *Early Initiation (of Drug Use and Antisocial Behavior)* have been removed, and the scale has been renamed *Early Initiation of Drug Use*. This change improves both the reliability of the measure and its utility for prevention planning.
4. The risk factor scales *Poor Family Supervision* and *Poor Family Discipline* have been combined into a single scale called *Poor Family Management*. Analysis of *Communities That Care Youth Survey* data showed that the items that constitute the two scales are highly correlated across scales. This indicates that the items are more effective at representing a single dimension of family life.
5. The risk factor scale *Personal Transitions and Mobility* has been renamed *Transitions and Mobility*. The survey items constituting this scale remain unchanged.
6. The risk factor scale *Family Conflict* has been added.
7. The protective factor scale *Community Opportunities for Prosocial Involvement* has been added.

### New Normative Data

Percentile scores for each risk and protective factor scale are calculated by comparing survey responses to data in the *Communities That Care* normative database. The new scoring model utilizes the updated the *Communities That Care* normative database. This enhanced normative archive, which contains survey responses from over 280,000 students in grades 6 through 12, was compiled by combining the results of selected *Communities That Care Youth Survey* efforts conducted in 2000, 2001 and 2002. To enhance representativeness, statistical weights were applied to adjust the sample to exactly match the population of U.S. public school students on four key demographic variables: ethnicity, sex, socioeconomic status and urbanicity. Information on the U.S. public school student population was obtained from the Common Core of Data program at the U.S. Department of Education's National Center for Education Statistics.

### Grade-Level Scoring

In previous *PAYS* efforts, risk and protective factor scale scores were calculated by comparing all respondents against a combined normative sample of students in grades 6, 8, 10, and 12. Because it contains a large number of respondents within each grade level, the new *Communities That Care* normative database allows the comparisons to be done on a grade-by-grade basis. This means that 6<sup>th</sup> graders who take the *PAYS* will only be compared with 6<sup>th</sup> grade responses in the normative database, 8<sup>th</sup> graders will only be compared with 8<sup>th</sup> grade responses, and so on. Grade-level comparisons improve the accuracy of norm-referenced scores.

Overall percentile scores for risk and protective factor scales are created by weighting the *Communities That Care* normative database to match the grade-level distribution of each survey sample.

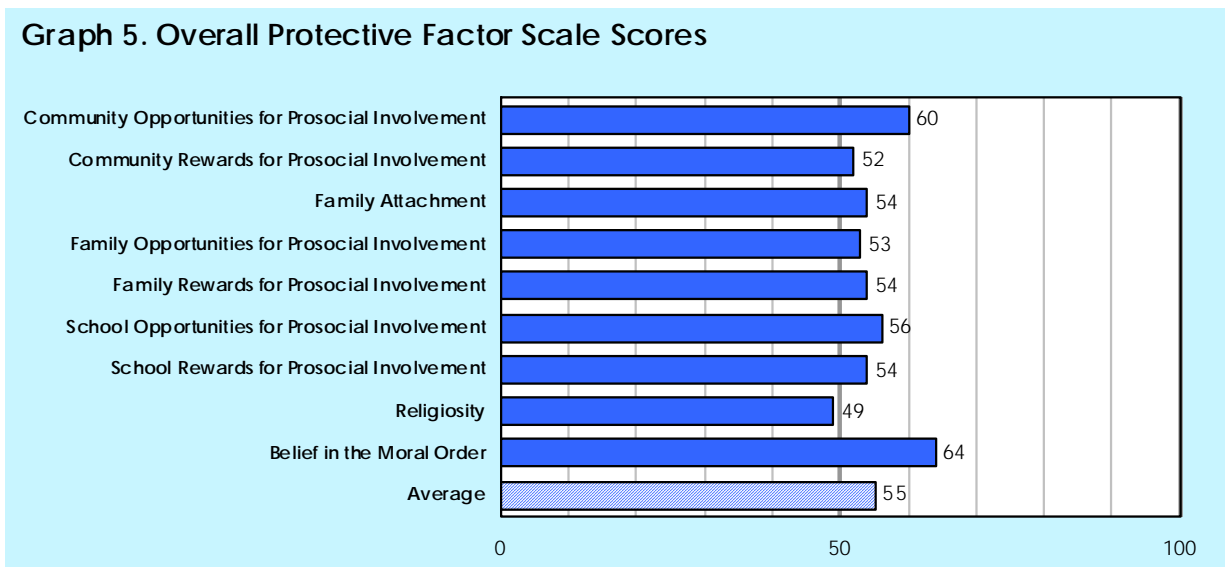
# Results Summary

## Overall Results

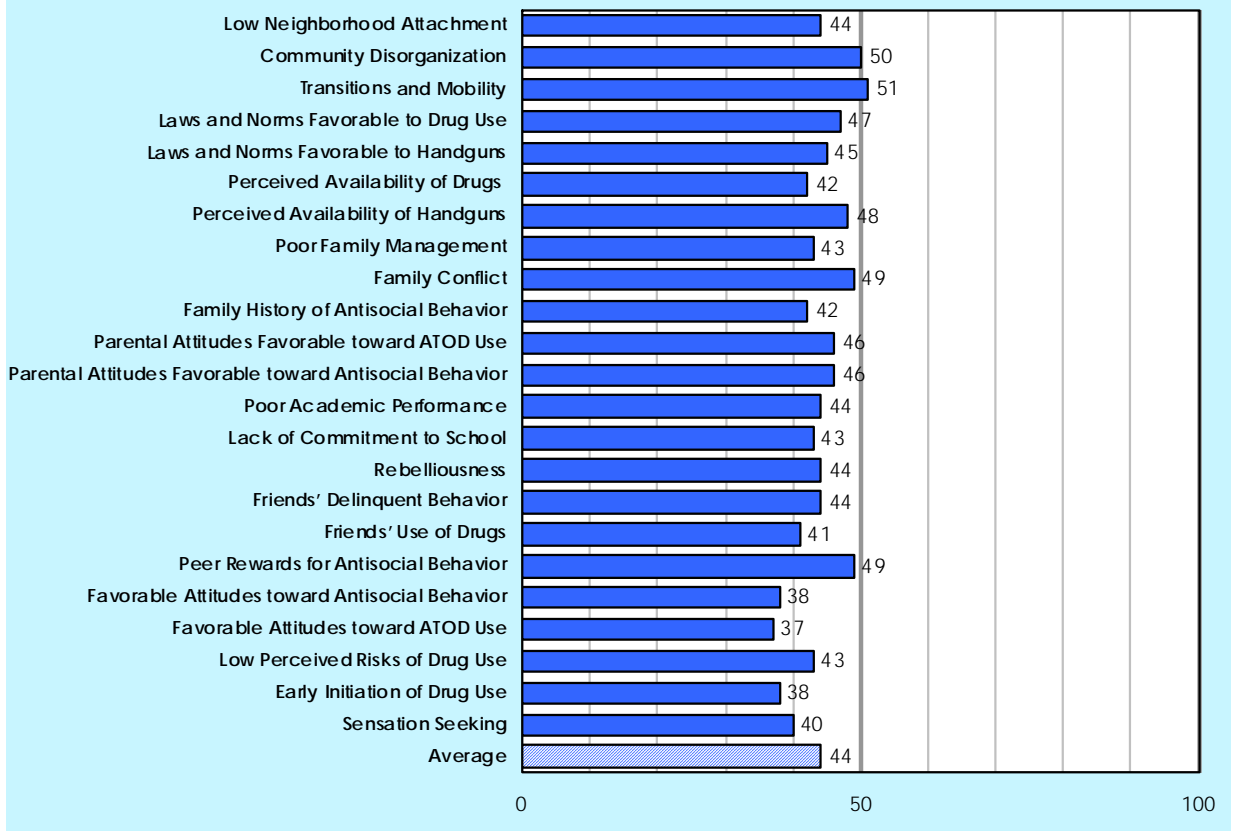
Overall risk and protective factor scale scores are presented in Graphs 5 and 6. These results provide a general description of the prevention needs of Pennsylvania 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders as a whole.

As Graph 5 shows, overall percentile scores across the nine protective factor scales range from a low of 49 to a high of 64, with an average score of 55, which is five points higher than the normative average of 50. The three lowest overall scores were for the following protective factor scales: *Religiosity* (49), *Community Rewards for Prosocial Involvement* (52) and *Family Opportunities for Prosocial Involvement* (53). While policies that target any protective factor could potentially be an important resource for students in Pennsylvania, focusing prevention planning in these areas could be especially beneficial. Pennsylvania students reported the three highest overall scores for the following protective factor scales: *Belief in the Moral Order* (64), *Community Opportunities for Prosocial Involvement* (60) and *School Opportunities for Prosocial Involvement* (56). The higher scores reported by students in these areas represent strengths that Pennsylvania can build on.

As Graph 6 shows, overall scores across the 23 risk factor scales range from a low of 37 to a high of 51, with an average score of 44, which is six points lower than the normative average of 50. The four highest risk factor scales are *Transitions and Mobility* (51), *Community Disorganization* (50), *Family Conflict* (49) and *Peer Rewards for Antisocial Behavior* (49). Once again, while policies that target any risk factor could potentially be an important resource for students in Pennsylvania, directing prevention programming in these areas is likely to be especially beneficial. The three lowest risk factor scales are *Favorable Attitudes toward ATOD Use* (37), *Early Initiation of Drug Use* (38) and *Favorable Attitudes toward Antisocial Behavior* (38). The lower scores reported by students in these areas represent strengths that Pennsylvania can build on.



**Graph 6. Overall Risk Factor Scale Scores**



### Grade-Level Results

While overall scores provide a general picture of the risk and protective factor profile for Pennsylvania, they can mask problems within individual grades. Tables 15 and 16 present individual-grade data for risk and protective factor scale scores. This detailed information provides prevention planners with a snapshot revealing which risk and protective factor scales are of greatest concern by grade. It allows those prevention planners to focus on the most appropriate points in youth development for preventive intervention action—and to target their prevention efforts as precisely as possible.

For example, younger students tend to report different factors than older students as being the most elevated or suppressed. Pennsylvania 6<sup>th</sup> graders reported their five highest levels of risk for *Transitions and Mobility* (56), *Perceived Availability of Handguns* (50), *Family Conflict* (47), *Community Disorganization* (45) and *Parental Attitudes Favorable toward ATOD Use* (45). Pennsylvania 12<sup>th</sup> graders reported their four highest levels of risk for *Peer Rewards for Antisocial Behavior* (54), *Community Disorganization* (53), *Transitions and Mobility* (51) and *Parental Attitudes Favorable toward Antisocial Behavior* (49).

		6 <sup>th</sup>	8 <sup>th</sup>	10 <sup>th</sup>	12 <sup>th</sup>	Overall
Community Domain	Community Opportunities for Prosocial Involvement	61	60	59	61	60
	Community Rewards for Prosocial Involvement	56	53	52	48	52
Family Domain	Family Attachment	56	55	53	52	54
	Family Opportunities for Prosocial Involvement	53	54	53	52	53
	Family Rewards for Prosocial Involvement	55	56	54	51	54
School Domain	School Opportunities for Prosocial Involvement	57	57	56	53	56
	School Rewards for Prosocial Involvement	58	53	54	51	54
Peer and Individual Domain	Religiosity	51	47	48	48	49
	Belief in the Moral Order	64	65	62	64	64
Average		57	56	55	53	55

		6 <sup>th</sup>	8 <sup>th</sup>	10 <sup>th</sup>	12 <sup>th</sup>	Overall
Community Domain	Low Neighborhood Attachment	40	44	45	47	44
	Community Disorganization	45	48	53	53	50
	Transitions and Mobility	56	49	47	51	51
	Laws and Norms Favorable to Drug Use	44	45	49	47	47
	Laws and Norms Favorable to Handguns	42	45	47	48	45
	Perceived Availability of Drugs	44	41	41	40	42
	Perceived Availability of Handguns	50	48	48	47	48
Family Domain	Poor Family Management	43	40	44	45	43
	Family Conflict	47	50	52	48	49
	Family History of Antisocial Behavior	43	43	42	41	42
	Parental Attitudes Favorable toward ATOD Use	45	45	44	47	46
	Parental Attitudes Favorable toward Antisocial Behavior	42	45	46	49	46
School Domain	Poor Academic Performance	44	43	43	44	44
	Lack of Commitment to School	44	43	44	41	43
Peer and Individual Domain	Rebelliousness	38	43	48	44	44
	Friends' Delinquent Behavior	41	42	45	47	44
	Friends' Use of Drugs	42	38	41	41	41
	Peer Rewards for Antisocial Behavior	43	44	53	54	49
	Favorable Attitudes toward Antisocial Behavior	35	37	40	38	38
	Favorable Attitudes toward ATOD Use	39	37	38	35	37
	Low Perceived Risks of Drug Use	43	41	45	45	43
	Early Initiation of Drug Use	39	37	39	38	38
Sensation Seeking	39	39	43	37	40	
Average		43	43	45	45	44

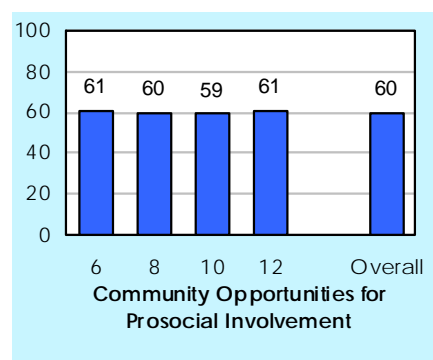
## Protective Factors

Protective factors are characteristics that are known to decrease the likelihood that a student will engage in problem behaviors. For example, bonding to parents reduces the risk of an adolescent engaging in problem behaviors.

The Social Development Strategy organizes the research on protective factors. Protective factors can buffer young people from risks and promote positive youth development. To develop these healthy positive behaviors, young people must be immersed in environments that consistently communicate healthy beliefs and clear standards for behavior; that foster the development of strong bonds to members of their family, school and community; and that recognize the individual characteristics of each young person.

### *Community Opportunities for Prosocial Involvement*

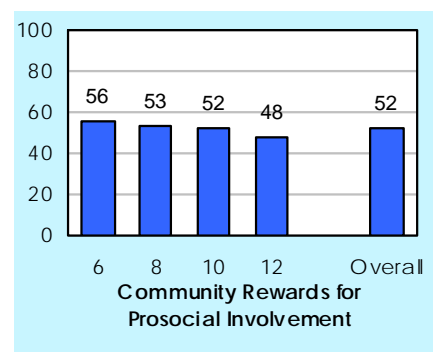
When young people become involved in their communities by participating in activities and organizations that foster healthy development, they are more likely to form connections with prosocial peers. Community involvement also provides the opportunity to bond with adult role models—such as neighbors, police, clergy and other community leaders—who can give moral guidance and emotional support. This protective factor is measured by survey items such as “Which of the following activities for people your age are available in your community: Sports teams?”



- Overall, Pennsylvania students received a percentile score of 60 on the *Community Opportunities for Prosocial Involvement* scale, 10 points higher than the normative average of 50.
- Across grade levels, percentile scores for *Community Opportunities for Prosocial Involvement* range from a low of 59 among 10<sup>th</sup> graders to a high of 61 among 6<sup>th</sup> and 12<sup>th</sup> graders.

### *Community Rewards for Prosocial Involvement*

Young people experience bonding as feeling valued and being seen as an asset. Students who feel recognized and rewarded by their community are less likely to engage in negative behaviors, because that recognition helps increase a student’s self-esteem and the feeling of bondedness to that community. *Community Rewards for Prosocial Involvement* is measured by such items as “There are people in my neighborhood who are proud of me when I do something well.”

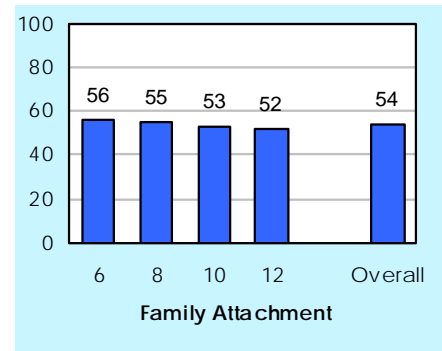


- Overall, Pennsylvania students received a percentile score of 52 on the *Community Rewards for Prosocial Involvement* scale, two points higher than the normative average of 50.
- Across grade levels, percentile scores for *Community Rewards for Prosocial Involvement* range from a low of 48 among 12<sup>th</sup> graders to a high of 56 among 6<sup>th</sup> graders.

## Family Attachment

One of the most effective ways to buffer children against risk factors is to strengthen their bonds with family members who embody healthy beliefs and clear standards. If children are attached to their parents and want to please them, they will be less likely to threaten that connection by doing things that their parents strongly disapprove of. This protective factor is measured by such items on the survey as “Do you share your thoughts and feelings with your mother?”

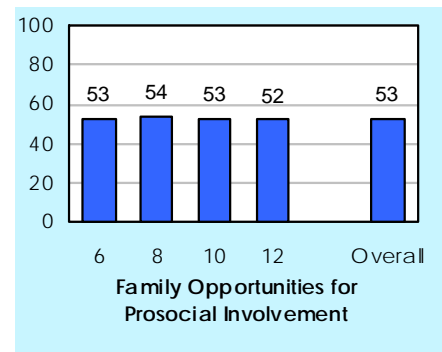
- Overall, Pennsylvania students received a percentile score of 54 on the *Family Attachment* scale, four points higher than the normative average of 50.
- Across grade levels, percentile scores for *Family Attachment* range from a low of 52 among 12<sup>th</sup> graders to a high of 56 among 6<sup>th</sup> graders.



## Family Opportunities for Prosocial Involvement

When students have the opportunity to make meaningful contributions to their families, they feel closer to their family members and are less likely to get involved in risky behaviors. These opportunities for involvement reinforce family bonds and cause students to more easily adopt the norms projected by their families. For instance, children whose parents have high expectations for their school success and achievement are less likely to drop out of school. This protective factor is surveyed by such items as “My parents ask me what I think before most family decisions affecting me are made.”

- Overall, Pennsylvania students received a percentile score of 53 on the *Family Opportunities for Prosocial Involvement* scale, three points higher than the normative average of 50.
- Across grade levels, percentile scores for *Family Opportunities for Prosocial Involvement* range from a low of 52 among 12<sup>th</sup> graders to a high of 54 among 8<sup>th</sup> graders.

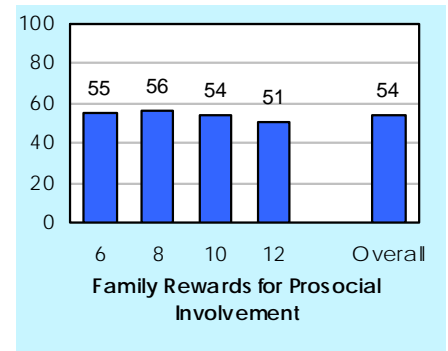




## Family Rewards for Prosocial Involvement

When family members reward their children for positive participation in activities, it further strengthens the bonds the children feel to their families, and helps promote clear standards for behavior. This protective factor is measured by such survey items as “How often do your parents tell you they’re proud of you for something you’ve done?”

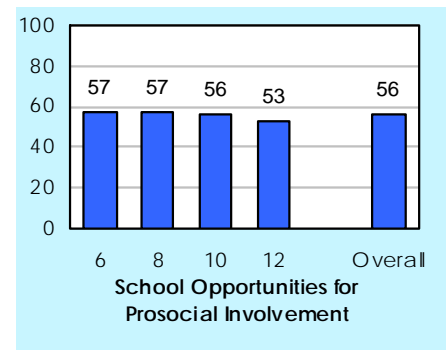
- Overall, Pennsylvania students received a percentile score of 54 on the *Family Rewards for Prosocial Involvement* scale, four points higher than the normative average of 50.
- Across grade levels, percentile scores for *Family Rewards for Prosocial Involvement* range from a low of 51 among 12<sup>th</sup> graders to a high of 56 among 8<sup>th</sup> graders.



## School Opportunities for Prosocial Involvement

Giving students opportunities to participate in important activities at school helps to create a feeling of personal investment in their school. This results in greater bonding and adoption of the school’s standards of behavior, reducing the likelihood that they will become involved in problem behaviors. This protective factor is measured by survey items such as “In my school, students have lots of chances to help decide things like class activities and rules.”

- Overall, Pennsylvania students received a percentile score of 56 on the *School Opportunities for Prosocial Involvement* scale, six points higher than the normative average of 50.
- Across grade levels, percentile scores for *School Opportunities for Prosocial Involvement* range from a low of 53 among 12<sup>th</sup> graders to a high of 57 among 6<sup>th</sup> and 8<sup>th</sup> graders.

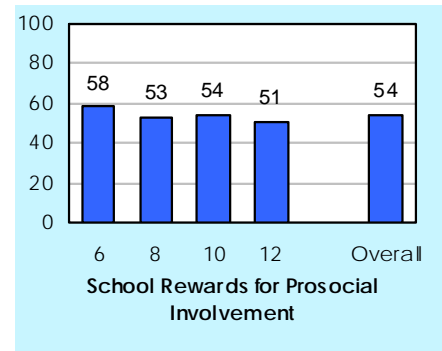


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## School Rewards for Prosocial Involvement

Making students feel appreciated and rewarded for their involvement at school further strengthens school bonding, and helps to reduce the likelihood of their involvement in drug use and other problem behaviors. This protective factor is measured by such statements as “The school lets my parents know when I have done something well.”

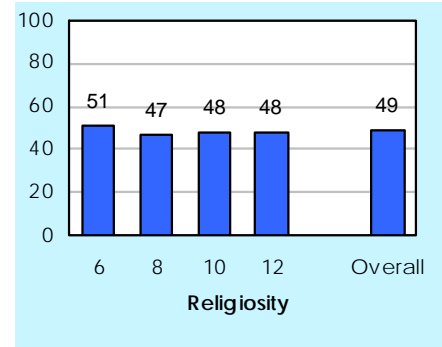
- Overall, Pennsylvania students received a percentile score of 54 on the *School Rewards for Prosocial Involvement* scale, four points higher than the normative average of 50.
- Across grade levels, percentile scores for *School Rewards for Prosocial Involvement* range from a low of 51 among 12<sup>th</sup> graders to a high of 58 among 6<sup>th</sup> graders.



## Religiosity

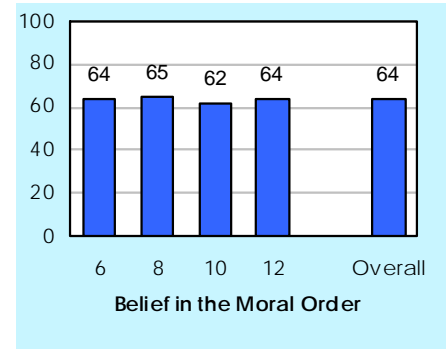
Religious institutions can help students develop firm prosocial beliefs. Students who have preconceived ideas about certain activities are less vulnerable to becoming involved with antisocial behaviors because they have already adopted a social norm against those activities. *Religiosity* is measured by the question “How often do you attend religious services or activities?”

- Overall, Pennsylvania students received a percentile score of 49 on the *Religiosity* scale, one point lower than the normative average of 50.
- Across grade levels, percentile scores for *Religiosity* range from a low of 47 among 8<sup>th</sup> graders to a high of 51 among 6<sup>th</sup> graders.



## Belief in the Moral Order

When people feel bonded to society, they are more motivated to follow society’s standards and expectations. Therefore, it is important for families, schools and communities to have clearly stated policies on ATOD use. Young people who have developed a positive belief system, and a clear sense of right and wrong, are less likely to become involved in problem behaviors. For example, young people who believe that drug use is wrong might be protected against peer influences to use drugs. *Belief in the Moral Order* is measured by items on the survey such as “It is all right to beat up people if they start the fight.”



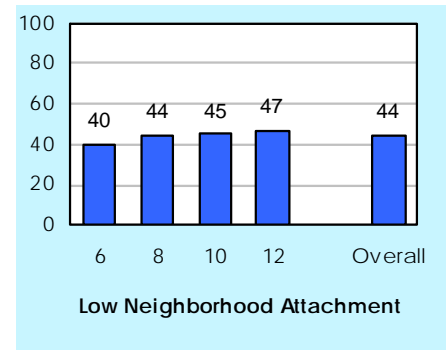
- Overall, Pennsylvania students received a percentile score of 64 on the *Belief in the Moral Order* scale, 14 points higher than the normative average of 50.
- Across grade levels, percentile scores for *Belief in the Moral Order* range from a low of 62 among 10<sup>th</sup> graders to a high of 65 among 8<sup>th</sup> graders.

## Risk Factors

Risk factors are characteristics in the community, family, school and individual’s environments that are known to increase the likelihood that a student will engage in one or more problem behaviors. For example, a risk factor in the community environment is the existence of laws and norms favorable to drug use, which can affect the likelihood that a young person will try alcohol, tobacco or other drugs. In those communities where there is acceptance or tolerance of drug use, students are more likely to engage in alcohol, tobacco and other drug use.

## Low Neighborhood Attachment

Higher rates of drug problems, delinquency and violence occur in communities or neighborhoods where people feel little attachment to the community. Perhaps the most significant issue affecting community attachment is whether residents feel they can make a difference in their own lives. If the key players in the neighborhood—such as merchants, teachers, clergy, police and social services personnel—live outside the neighborhood, residents’ sense of commitment will be lower. This low sense of commitment may be reflected in lower rates of voter participation and parental involvement in schools.



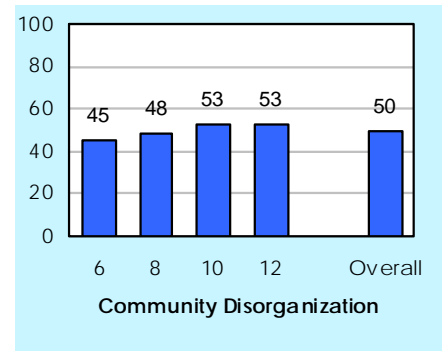
The *Low Neighborhood Attachment* scale on the survey uses three items to measure the level of attachment that students feel to their neighborhoods. This risk factor is measured by items such as “I’d like to get out of my neighborhood” and “If I had to move, I would miss the neighborhood I now live in.”

- Overall, Pennsylvania students received a percentile score of 44 on the *Low Neighborhood Attachment* scale, six points lower than the normative average of 50.
- Across grade levels, percentile scores for *Low Neighborhood Attachment* range from a low of 40 among 6<sup>th</sup> graders to a high of 47 among 12<sup>th</sup> graders.

## Community Disorganization

The *Community Disorganization* scale pertains to students' feelings and perceptions regarding their communities and other external attributes. It is based on students' responses to five items, four of which indicate a neighborhood in disarray (e.g., the existence of graffiti, abandoned buildings, fighting and drug selling). The fifth item is "I feel safe in my neighborhood."

- Overall, Pennsylvania students received a percentile score of 50 on the *Community Disorganization* scale, equaling the normative average of 50.
- Across grade levels, percentile scores for *Community Disorganization* range from a low of 45 among 6<sup>th</sup> graders to a high of 53 among 10<sup>th</sup> and 12<sup>th</sup> graders.

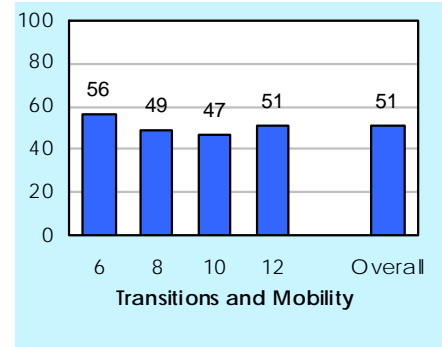


## Transitions and Mobility

Even normal school transitions are associated with an increase in problem behaviors. When children move from elementary school to middle school or from middle school to high school, significant increases in the rates of drug use, school dropout and antisocial behavior may occur. This is thought to occur because by making a transition to a new environment, students no longer have the bonds they had in their old environment. Consequently, students may be less likely to become attached to their schools and neighborhoods, and do not develop the bonds that protect them from involvement in problem behaviors.

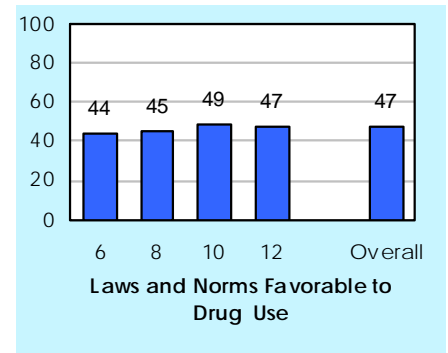
The *Transitions and Mobility* scale on the survey measures how often the student has changed homes or schools in the past year and since kindergarten. This risk factor is measured with items such as "How many times have you changed schools (including changing from elementary to middle and middle to high school) since kindergarten?" and "How many times have you changed homes since kindergarten?"

- Overall, Pennsylvania students received a percentile score of 51 on the *Transitions and Mobility* scale, one point higher than the normative average of 50.
- Across grade levels, percentile scores for *Transitions and Mobility* range from a low of 47 among 10<sup>th</sup> graders to a high of 56 among 6<sup>th</sup> graders.



## Laws and Norms Favorable to Drug Use

Students' perceptions of the rules and regulations concerning alcohol, tobacco and other drug use that exist in their neighborhoods are also associated with problem behaviors in adolescence. Community norms—the attitudes and policies a community holds in relation to drug use and other antisocial behaviors—are communicated in a variety of ways: through laws and written policies, through informal social practices and through the expectations parents and other members of the community have of young people. When laws and community standards are favorable toward drug use, violence and/or other crime, or even when they are just unclear, young people are more likely to engage in negative behaviors (Bracht and Kingsbury, 1990).



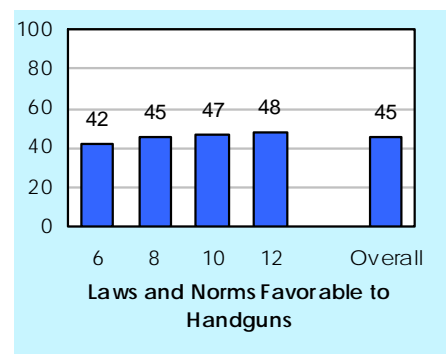
An example of conflicting messages about drug use can be found in the acceptance of alcohol use as a social activity within the community. The beer gardens popular at street fairs and community festivals are in contrast to the “Just Say No” messages that schools and parents may be promoting. These conflicting and ambiguous messages are problematic in that they do not have the positive impact on preventing alcohol and other drug use that a clear, consistent, community-level, anti-drug message can have.

This risk factor is measured by six items on the survey, such as “How wrong would most adults in your neighborhood think it was for kids your age to drink alcohol?” and “If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?”

- Overall, Pennsylvania students received a percentile score of 47 on the *Laws and Norms Favorable to Drug Use* scale, three points lower than the normative average of 50.
- Across grade levels, percentile scores for *Laws and Norms Favorable to Drug Use* range from a low of 44 among 6<sup>th</sup> graders to a high of 49 among 10<sup>th</sup> graders.

## Laws and Norms Favorable to Handguns

As with drug use, students' perceptions of the rules and regulations associated with the ownership and use of firearms have an impact on behavior. That is, when students perceive laws to be strict and consistently enforced, they may be less likely to carry guns and to engage in gun violence. *Laws and Norms Favorable to Handguns* is measured by the question “If a kid carried a handgun in your neighborhood, would he or she be caught by the police?”



- Overall, Pennsylvania students received a percentile score of 45 on the *Laws and Norms Favorable to Handguns* scale, five points lower than the normative average of 50.
- Across grade levels, percentile scores for *Laws and Norms Favorable to Handguns* range from a low of 42 among 6<sup>th</sup> graders to a high of 48 among 12<sup>th</sup> graders.

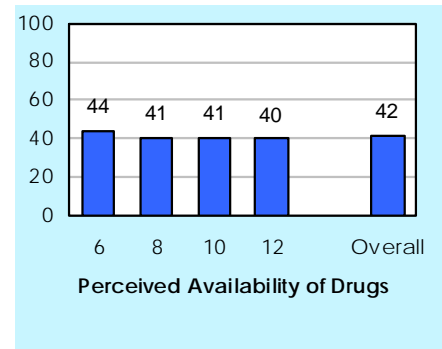
## Perceived Availability of Drugs

The perceived availability of drugs, alcohol and handguns in a community is directly related to the prevalence of delinquent behaviors. In schools where children believe that drugs are more available, a higher rate of drug use occurs.

The *Perceived Availability of Drugs* scale on the survey is designed to assess students' feelings about how easily they can get alcohol, tobacco and other drugs. Elevation of this risk factor scale may indicate the need to make alcohol, tobacco and other drugs more difficult for students to acquire. For instance, a number of policy changes have been shown to reduce the availability of alcohol and cigarettes. Minimum-age requirements, taxation and responsible beverage service have all been shown to affect the perception of availability of alcohol.

This risk factor is measured by four items on the survey, such as "If you wanted to get some marijuana, how easy would it be for you to get some?"

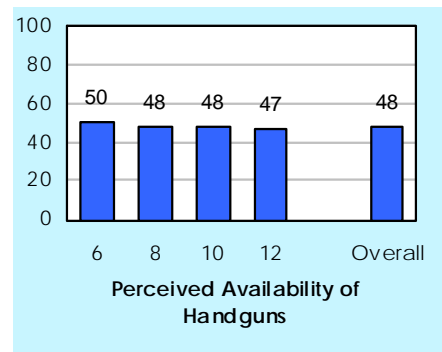
- Overall, Pennsylvania students received a percentile score of 42 on the *Perceived Availability of Drugs* scale, eight points lower than the normative average of 50.
- Across grade levels, percentile scores for *Perceived Availability of Drugs* range from a low of 40 among 12<sup>th</sup> graders to a high of 44 among 6<sup>th</sup> graders.



## Perceived Availability of Handguns

If students believe that it would be difficult to get a handgun, they are less likely to become involved with the unauthorized and unsupervised use of firearms. *Perceived Availability of Handguns* is measured by the question "If you wanted to get a handgun, how easy would it be for you to get one?"

- Overall, Pennsylvania students received a percentile score of 48 on the *Perceived Availability of Handguns* scale, two points lower than the normative average of 50.
- Across grade levels, percentile scores for *Perceived Availability of Handguns* range from a low of 47 among 12<sup>th</sup> graders to a high of 50 among 6<sup>th</sup> graders.

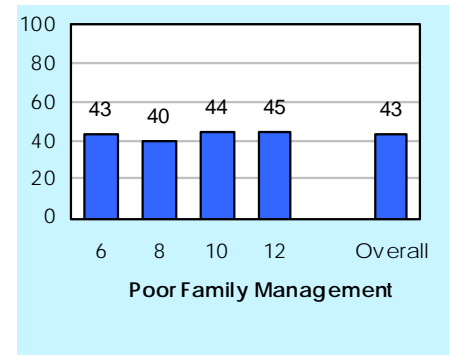


## Poor Family Management

The risk factor scale *Poor Family Management* measures two components of family life: “poor family supervision,” which is defined as parents failing to supervise and monitor their children, and “poor family discipline,” which is defined as parents failing to communicate clear expectations for behavior and giving excessively severe, harsh or inconsistent punishment. Children who experience poor family supervision and poor family discipline are at higher risk of developing problems with drug use, delinquency, violence and school dropout.

Sample items used to survey *Poor Family Management* include “Would your parents know if you did not come home on time?” and “My family has clear rules about alcohol and drug use.”

- Overall, Pennsylvania students received a percentile score of 43 on the *Poor Family Management* scale, seven points lower than the normative average of 50.
- Across grade levels, percentile scores for *Poor Family Management* range from a low of 40 among 8<sup>th</sup> graders to a high of 45 among 12<sup>th</sup> graders.

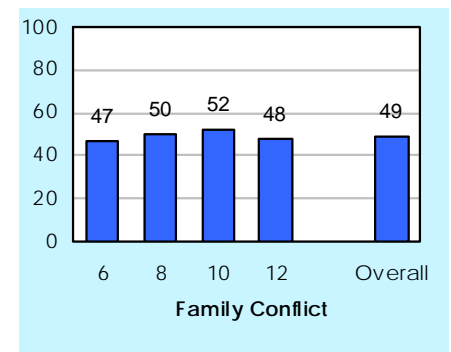


## Family Conflict

Bonding between family members, especially between children and their parents or guardians, is a key component in the development of positive social norms. High levels of family conflict interfere with the development of these bonds, and increase the likelihood that young people will engage in illegal drug use and other forms of delinquent behavior.

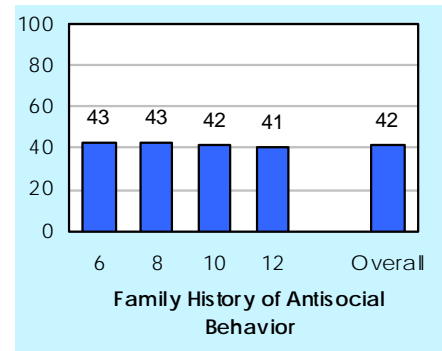
Family Conflict is measured by four items on the survey, such as “People in my family often insult or yell at each other.”

- Overall, Pennsylvania students received a percentile score of 49 on the *Family Conflict* scale, one point lower than the normative average of 50.
- Across grade levels, percentile scores for *Family Conflict* range from a low of 47 among 6<sup>th</sup> graders to a high of 52 among 10<sup>th</sup> graders.



## Family History of Antisocial Behavior

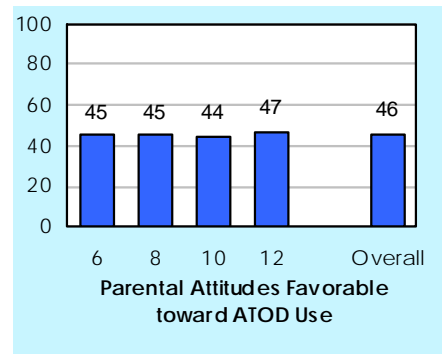
If children are raised in a family where a history of addiction to alcohol or other drugs exists, the risk of their having alcohol or other drug problems themselves increases. If children are born or raised in a family where criminal activity or behavior is normal, their risk for delinquency increases. Similarly, children who are born to a teenage mother are more likely to become teen parents, and children of dropouts are more likely to drop out of school themselves. Children whose parents engage in violent behavior inside or outside the home are at greater risk for exhibiting violent behavior themselves. Students' perceptions of their families' behavior and standards regarding drug use and other antisocial behaviors are measured by the survey. *Family History of Antisocial Behavior* is assessed by items such as "Has anyone in your family ever had a severe alcohol or drug problem?"



- Overall, Pennsylvania students received a percentile score of 42 on the *Family History of Antisocial Behavior* scale, eight points lower than the normative average of 50.
- Across grade levels, percentile scores for *Family History of Antisocial Behavior* range from a low of 41 among 12<sup>th</sup> graders to a high of 43 among 6<sup>th</sup> and 8<sup>th</sup> graders.

## Parental Attitudes Favorable toward ATOD Use

Students' perceptions of their parents' opinions about alcohol, tobacco and other drug use are an important risk factor. In families where parents use illegal drugs, are heavy users of alcohol or are tolerant of use by their children, children are more likely to become drug users in adolescence. *Parental Attitudes Favorable toward ATOD Use* is measured by survey items such as "How wrong do your parents feel it would be for you to smoke marijuana?"



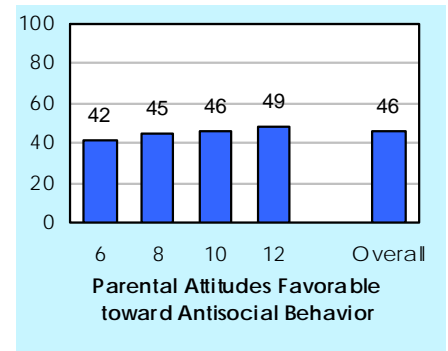
- Overall, Pennsylvania students received a percentile score of 46 on the *Parental Attitudes Favorable toward ATOD Use* scale, four points lower than the normative average of 50.
- Across grade levels, percentile scores for *Parental Attitudes Favorable toward ATOD Use* range from a low of 44 among 10<sup>th</sup> graders to a high of 47 among 12<sup>th</sup> graders.



## Parental Attitudes Favorable toward Antisocial Behavior

Students' perceptions of their parents' opinions about antisocial behavior are also an important risk factor. Parental attitudes and behavior regarding crime and violence influence the attitudes and behavior of children. If parents approve of or excuse their children for breaking the law, then the children are more likely to develop problems with juvenile delinquency. *Parental Attitudes Favorable toward Antisocial Behavior* is measured by survey items such as "How wrong do your parents feel it would be for you to pick a fight with someone?"

- Overall, Pennsylvania students received a percentile score of 46 on the *Parental Attitudes Favorable toward Antisocial Behavior* scale, four points lower than the normative average of 50.
- Across grade levels, percentile scores for *Parental Attitudes Favorable toward Antisocial Behavior* range from a low of 42 among 6<sup>th</sup> graders to a high of 49 among 12<sup>th</sup> graders.

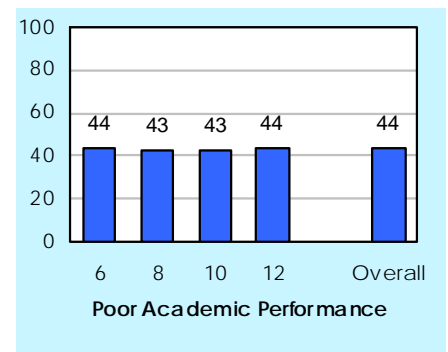


## Poor Academic Performance

Beginning in the late elementary grades, poor academic performance increases the risk of drug use, delinquency, violence and school dropout. Children fail for many reasons, but it appears that the experience of failure increases the risk of these problem behaviors.

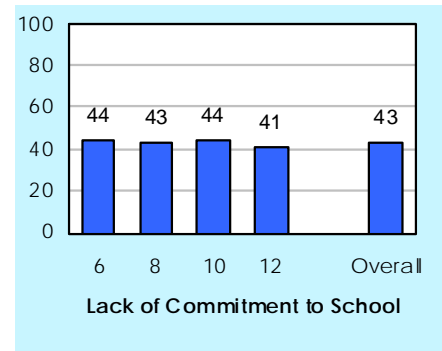
*Poor Academic Performance*—students' feelings about their performance at school—is measured with two questions on the survey: "Putting them all together, what were your grades like last year?" and "Are your school grades better than the grades of most students in your class?" Elevated findings for this risk factor scale suggest that students believe that they have lower grades than would be expected, and they perceive they have below-average grades, compared to their peers.

- Overall, Pennsylvania students received a percentile score of 44 on the *Poor Academic Performance* scale, six points lower than the normative average of 50.
- Across grade levels, percentile scores for *Poor Academic Performance* range from a low of 43 among 8<sup>th</sup> and 10<sup>th</sup> graders to a high of 44 among 6<sup>th</sup> and 12<sup>th</sup> graders.



## Lack of Commitment to School

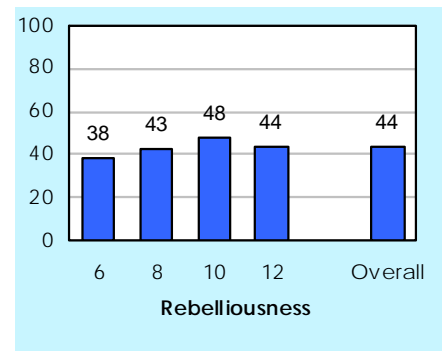
Nine items on the survey assess *Lack of Commitment to School*—a student’s general feelings about his or her schooling. Survey items include “How important do you think the things you are learning in school are going to be for your later life?” and “Now, thinking back over the past year in school, how often did you enjoy being in school?” Elevated findings for this risk factor scale suggest that students feel less attached to, or connected with, their classes and school environments. Lack of commitment to school means the child has ceased to see the role of student as a positive one. Young people who have lost this commitment to school are at higher risk for a variety of problem behaviors.



- Overall, Pennsylvania students received a percentile score of 43 on the *Lack of Commitment to School* scale, seven points lower than the normative average of 50.
- Across grade levels, percentile scores for *Lack of Commitment to School* range from a low of 41 among 12<sup>th</sup> graders to a high of 44 among 6<sup>th</sup> and 10<sup>th</sup> graders.

## Rebelliousness

The survey also assesses the number of young people who feel they are not part of society, who feel they are not bound by rules, and who don’t believe in trying to be successful or responsible. These students are at higher risk of drug use, delinquency and school dropout. *Rebelliousness* is measured by three items, such as “I ignore the rules that get in my way.”



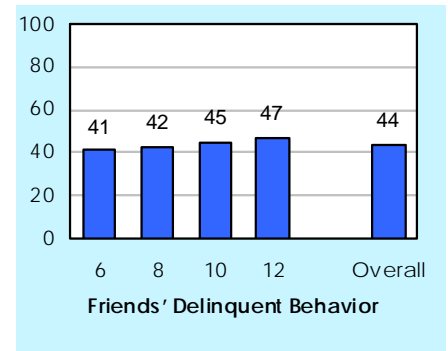
- Overall, Pennsylvania students received a percentile score of 44 on the *Rebelliousness* scale, six points lower than the normative average of 50.
- Across grade levels, percentile scores for *Rebelliousness* range from a low of 38 among 6<sup>th</sup> graders to a high of 48 among 10<sup>th</sup> graders.

## Friends' Delinquent Behavior

Young people who associate with peers who engage in delinquent behavior are much more likely to engage in delinquent behavior themselves. This is one of the most consistent predictors identified by research. Even when young people come from well-managed families and do not experience other risk factors, spending time with peers who engage in delinquent behavior greatly increases the risk of their becoming involved in delinquent behavior.

*Friends' Delinquent Behavior* is measured by survey items such as “In the past year, how many of your four best friends have been suspended from school?”

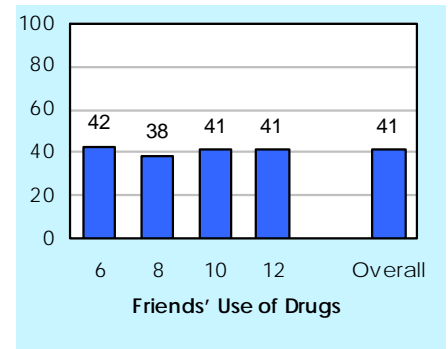
- Overall, Pennsylvania students received a percentile score of 44 on the *Friends' Delinquent Behavior* scale, six points lower than the normative average of 50.
- Across grade levels, percentile scores for *Friends' Delinquent Behavior* range from a low of 41 among 6<sup>th</sup> graders to a high of 47 among 12<sup>th</sup> graders.



## Friends' Use of Drugs

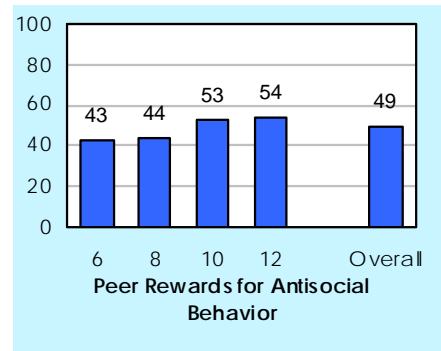
Young people who associate with peers who engage in substance use are much more likely to engage in it themselves. This is one of the most consistent predictors identified by research. Even when young people come from well-managed families and do not experience other risk factors, spending time with peers who use drugs greatly increases a youth's risk of becoming involved in such behavior. *Friends' Use of Drugs* is measured by survey items such as “In the past year, how many of your best friends have used marijuana?”

- Overall, Pennsylvania students received a percentile score of 41 on the *Friends' Use of Drugs* scale, nine points lower than the normative average of 50.
- Across grade levels, percentile scores for *Friends' Use of Drugs* range from a low of 38 among 8<sup>th</sup> graders to a high of 42 among 6<sup>th</sup> graders.



### Peer Rewards for Antisocial Behavior

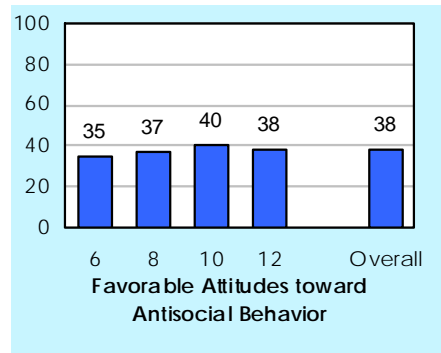
Students' perceptions of their peer groups' social norms are also an important predictor of involvement in problem behavior. Any indication that students feel that they get positive feedback from their peers if they use alcohol, tobacco or other drugs, or if they get involved in delinquent behaviors, is important to note and understand. When young people believe that their peer groups are involved in antisocial behaviors, they are more likely to become involved in antisocial behaviors themselves. This risk factor is measured by items such as "What are the chances you would be seen as cool if you smoked marijuana?"



- Overall, Pennsylvania students received a percentile score of 49 on the *Peer Rewards for Antisocial Behavior* scale, one point lower than the normative average of 50.
- Across grade levels, percentile scores for *Peer Rewards for Antisocial Behavior* range from a low of 43 among 6<sup>th</sup> graders to a high of 54 among 12<sup>th</sup> graders.

### Favorable Attitudes toward Antisocial Behavior

During the elementary school years, children usually express anticrime and prosocial attitudes and have difficulty imagining why people commit crimes or drop out of school. However, in middle school, as others they know participate in such activities, their attitudes often shift toward greater acceptance of these behaviors. This acceptance places them at higher risk for these antisocial behaviors.

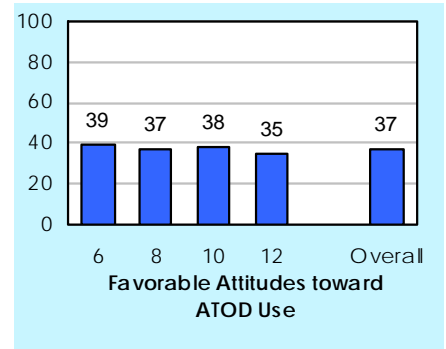


These attitudes are measured on the survey by items like "How wrong do you think it is for someone your age to pick a fight with someone?"

- Overall, Pennsylvania students received a percentile score of 38 on the *Favorable Attitudes toward Antisocial Behavior* scale, 12 points lower than the normative average of 50.
- Across grade levels, percentile scores for *Favorable Attitudes toward Antisocial Behavior* range from a low of 35 among 6<sup>th</sup> graders to a high of 40 among 10<sup>th</sup> graders.

### Favorable Attitudes toward ATOD Use

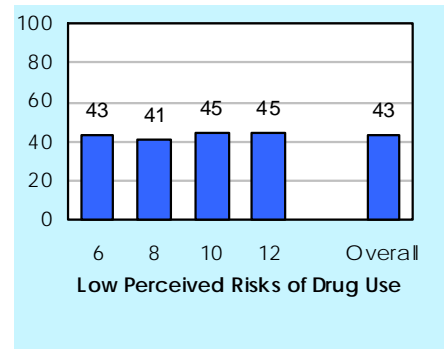
During the elementary school years, children usually express anti-drug attitudes and have difficulty imagining why people use drugs. However, in middle school, as others they know participate in such activities, their attitudes often shift toward greater acceptance of these behaviors. This acceptance places them at higher risk. This risk factor scale, *Favorable Attitudes toward ATOD Use*, assesses risk by asking young people how wrong they think it is for someone their age to use drugs. Survey items used to measure this risk factor include “How wrong do you think it is for someone your age to drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly?” An elevated score for this risk factor scale can indicate that students see little wrong with using drugs.



- Overall, Pennsylvania students received a percentile score of 37 on the *Favorable Attitudes toward ATOD Use* scale, 13 points lower than the normative average of 50.
- Across grade levels, percentile scores for *Favorable Attitudes toward ATOD Use* range from a low of 35 among 12<sup>th</sup> graders to a high of 39 among 6<sup>th</sup> graders.

### Low Perceived Risks of Drug Use

The perception of harm from drug use is related to both experimentation and regular use. The less harm that an adolescent perceives as the result of drug use, the more likely it is that he or she will use drugs. *Low Perceived Risks of Drug Use* is measured with four survey items, such as “How much do you think people risk harming themselves if they try marijuana once or twice?” An elevated score can indicate that students are not aware of, or do not comprehend, the possible harm resulting from drug use.

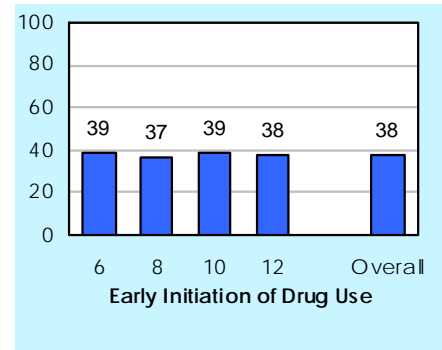


- Overall, Pennsylvania students received a percentile score of 43 on the *Low Perceived Risks of Drug Use* scale, seven points lower than the normative average of 50.
- Across grade levels, percentile scores for *Low Perceived Risks of Drug Use* range from a low of 41 among 8<sup>th</sup> graders to a high of 45 among 10<sup>th</sup> and 12<sup>th</sup> graders.

## Early Initiation of Drug Use

The initiation of alcohol, tobacco or other drug use at an early age is linked to a number of negative outcomes. The earlier that experimentation with drugs begins, the more likely it is that experimentation will become consistent, regular use. Early initiation may lead to the use of a greater range of drugs, as well as other problem behaviors. This scale is measured by survey items that ask when drug use began.

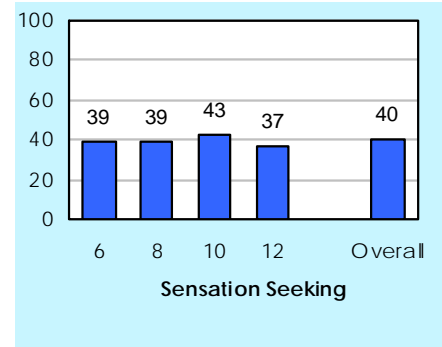
- Overall, Pennsylvania students received a percentile score of 38 on the *Early Initiation of Drug Use* scale, 12 points lower than the normative average of 50.
- Across grade levels, percentile scores for *Early Initiation of Drug Use* range from a low of 37 among 8<sup>th</sup> graders to a high of 39 among 6<sup>th</sup> and 10<sup>th</sup> graders.



## Sensation Seeking

Constitutional factors are individual characteristics that may have a biological or physiological basis. Constitutional factors that increase risk are often seen as sensation seeking, low harm avoidance and lack of impulse control. They appear to increase the risk of young people using drugs, engaging in delinquent behavior and/or committing violent acts. *Sensation Seeking* is measured by survey items such as “How many times have you done crazy things even if they are a little dangerous?”

- Overall, Pennsylvania students received a percentile score of 40 on the *Sensation Seeking* scale, 10 points lower than the normative average of 50.
- Across grade levels, percentile scores for *Sensation Seeking* range from a low of 37 among 12<sup>th</sup> graders to a high of 43 among 10<sup>th</sup> graders.



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# Appendix A

## 2007 Pennsylvania Youth Survey

### Sample Description and Weighting Procedures

#### Sample Description

**School Level** - All regular public schools containing grades 6, 8, 10, or 12 were included in the sampling frame. Schools were sorted by region, then within region by grade before sampling. Within each of the 24 resulting strata, school/grade combinations were selected systematically with probability proportional to enrollment in the grade of interest using a random start. 232 school/grade combinations were sampled. 6 schools were ineligible.

**Class Level** - All students were included in the sample.

#### Response Rates

**Schools** - 51% 115 of the 226 sampled school/grade combinations participated.

**Students** - 67% 17,392 of the 24,537 sampled students submitted questionnaires.  
16,547 questionnaires were usable after data editing.

**Overall response rate** -  $51\% * 67\% = 34\%$

#### Weighting

A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of nonresponse. The weight used for estimation is given by:

$$W = W1 * f1 * f2 * f3$$

**W1** = the inverse of the probability of selecting the school/grade combination;

**f1** = a school-level nonresponse adjustment factor calculated by school size category (small, medium, large). The factor was calculated in terms of school enrollment instead of number of schools.

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f2 = a student-level nonresponse adjustment factor calculated by school.

f3 = a poststratification adjustment factor calculated by gender within grade.

**Use of the Weighted Results**

The weighted results can be used to make important inferences concerning the priority health-risk behaviors of all regular public school students in grades 6, 8, 10, and 12.



# Appendix B

## Overall Response Rates

### OVERALL RESPONSE RATES

state	34.3%		%		%		%		%
region 1	44.0%	Northwest_6	45.2	Northwest_8	45.3	Northwest_10	51.7	Northwest_12	30.8
region 2	35.2%	North_Central_6	26.5	North_Central_8	41.3	North_Central_10	50.6	North_Central_12	19.9
region 3	21.1%	Northeast_6	24.5	Northeast_8	40.4	Northeast_10	20.6	Northeast_12	11.2
region 4	22.0%	Southwest_6	39.4	Southwest_8	19.5	Southwest_10	11.2	Southwest_12	8.3
region 5	45.2%	South_Central_6	39.7	South_Central_8	44.7	South_Central_10	56.5	South_Central_12	43.3



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# Appendix C

## Communities That Care Youth Survey

### Risk and Protective Factor *Scale Construction Summary*

# Community Domain Scales

## RISK FACTORS

COMMUNITY DOMAIN	<b>Low Neighborhood Attachment</b>		<b>CR3</b>
	<b>Q109</b>	I'd like to get out of my neighborhood.	
	<b>Q102</b>	I like my neighborhood.	
	<b>Q100</b>	If I had to move, I would miss the neighborhood I now live in.	
	<b>Community Disorganization</b>		<b>CR4</b>
	<b>Q103a</b>	How much do each of the following statements describe your neighborhood: crime and/or drug selling.	
	<b>Q103b</b>	How much do each of the following statements describe your neighborhood: fights.	
	<b>Q103c</b>	How much do each of the following statements describe your neighborhood: lots of empty or abandoned buildings.	
	<b>Q103d</b>	How much do each of the following statements describe your neighborhood: lots of graffiti.	
	<b>Q107</b>	I feel safe in my neighborhood.	
	<b>Transitions and Mobility</b>		<b>CR5</b>
	<b>Q110</b>	Have you changed homes in the past year?	
	<b>Q104</b>	How many times have you changed homes since kindergarten?	
	<b>Q106</b>	Have you changed schools (including changing from elementary to middle and middle to high school) in the past year?	
<b>Q108</b>	How many times have you changed schools since kindergarten?		

**RISK FACTORS, CONTINUED**

<b>COMMUNITY DOMAIN</b>	<b>Laws and Norms Favorable to Drug Use</b>		<b>CR9</b>
	<b>Q33a</b>	How wrong would most adults (over 21) in your neighborhood think it was for kids your age: to use marijuana.	
	<b>Q33b</b>	How wrong would most adults (over 21) in your neighborhood think it was for kids your age: to drink alcohol.	
	<b>Q33c</b>	How wrong would most adults (over 21) in your neighborhood think it was for kids your age: to smoke cigarettes.	
	<b>Q29</b>	If a kid drank some beer, wine or hard liquor (for example, vodka, whiskey, or gin) in your neighborhood, would he or she be caught by the police?	
	<b>Q27</b>	If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?	
	<b>Laws and Norms Favorable to Firearms</b>		<b>CR10</b>
	<b>Q31</b>	If a kid carried a handgun in your neighborhood, would he or she be caught by the police?	
	<b>Perceived Availability of Drugs</b>		<b>CR11</b>
	<b>Q25</b>	If you wanted to get some beer, wine or hard liquor (for example, vodka, whiskey, or gin), how easy would it be for you to get some?	
	<b>Q26</b>	If you wanted to get some cigarettes, how easy would it be for you to get some?	
	<b>Q32</b>	If you wanted to get some marijuana, how easy would it be for you to get some?	
	<b>Q28</b>	If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?	
	<b>Perceived Availability of Firearms</b>		<b>CR12</b>
	<b>Q30</b>	If you wanted to get a handgun, how easy would it be for you to get one?	

*PROTECTIVE FACTORS*

<b>COMMUNITY DOMAIN</b>	<b>Community Rewards for Prosocial Involvement</b>		<b>CP2</b>
	<b>Q101</b>	My neighbors notice when I am doing a good job and let me know.	
	<b>Q111</b>	There are people in my neighborhood who encourage me to do my best.	
	<b>Q105</b>	There are people in my neighborhood who are proud of me when I do something well.	
	<b>Community Opportunities for Prosocial Involvement</b>		<b>CP1</b>
	<b>Q2912</b>	Which of the following activities for people your age are available in your community: sports teams	
	<b>Q2913</b>	Which of the following activities for people your age are available in your community: scouting	
	<b>Q2914</b>	Which of the following activities for people your age are available in your community: boys and girls clubs	
	<b>Q2915</b>	Which of the following activities for people your age are available in your community: 4-H clubs	
	<b>Q2916</b>	Which of the following activities for people your age are available in your community: service clubs	
<b>Q555</b>	There are lots of adults in my neighborhood I could talk to about something important.		

# Family Domain Scales

## RISK FACTORS

FAMILY DOMAIN	<b>Poor Family Management</b>		<b>FR10</b>
	<b>Q78</b>	My parents ask if I've gotten my homework done.	
	<b>Q80</b>	Would your parents know if you did not come home on time?	
	<b>Q79</b>	When I am not at home, one of my parents knows where I am and whom I am with.	
	<b>Q76</b>	The rules in my family are clear.	
	<b>Q83</b>	My family has clear rules about alcohol and drug use.	
	<b>Q82</b>	If you drank some beer or wine or liquor (for example, vodka, whiskey, or gin) without your parents' permission, would you be caught by your parents?	
	<b>Q85</b>	If you skipped school, would you be caught by your parents?	
	<b>Q84</b>	If you carried a handgun without your parents' permission, would you be caught by your parents?	
	<b>Family Conflict</b>		<b>FR6</b>
	<b>Q2909</b>	People in my family often insult or yell at each other.	
	<b>Q2911</b>	People in my family have serious arguments.	
	<b>Q2910</b>	We argue about the same things in my family over and over.	
	<b>Parental Attitudes Favorable toward Antisocial Behavior</b>		<b>FR9</b>
	<b>Q74d</b>	How wrong do your parents feel it would be for you to: steal anything worth more than \$5?	
	<b>Q74e</b>	How wrong do your parents feel it would be for you to: draw graffiti, or write things or draw pictures on buildings or other property (without the owner's permission)?	
	<b>Q74f</b>	How wrong do your parents feel it would be for you to: pick a fight with someone?	

**RISK FACTORS, CONTINUED**

<b>FAMILY DOMAIN</b>	<b>Parental Attitudes Favorable toward ATOD Use</b>		<b>FR8</b>
	<b>Q74a</b>	How wrong do your parents feel it would be for you to: drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly?	
	<b>Q74b</b>	How wrong do your parents feel it would be for you to: smoke cigarettes?	
	<b>Q74c</b>	How wrong do your parents feel it would be for you to: smoke marijuana?	
	<b>Family History of Antisocial Behavior</b>		<b>FR7</b>
	<b>Q77</b>	Has anyone in your family ever had a severe alcohol or drug problem?	
	<b>Q75a</b>	Have any of your brothers or sisters ever: drunk beer, wine or hard liquor (for example, vodka, whiskey or gin)?	
	<b>Q75b</b>	Have any of your brothers or sisters ever: smoked marijuana?	
	<b>Q75c</b>	Have any of your brothers or sisters ever: smoked cigarettes?	
	<b>Q75d</b>	Have any of your brothers or sisters ever: taken a handgun to school?	
	<b>Q75e</b>	Have any of your brothers or sisters ever: been suspended or expelled from school?	
	<b>Q34a</b>	About how many adults (over 21) have you known personally who in the past year have: used marijuana, crack, cocaine, or other drugs?	
	<b>Q34b</b>	About how many adults (over 21) have you known personally who in the past year have: sold or dealt drugs?	
	<b>Q34c</b>	About how many adults (over 21) have you known personally who in the past year have: done other things that could get them in trouble with the police, like stealing, selling stolen goods, mugging or assaulting others, etc?	
<b>Q34d</b>	About how many adults (over 21) have you known personally who in the past year have: gotten drunk or high?		



*PROTECTIVE FACTORS*

<b>FAMILY DOMAIN</b>	<b>Family Attachment</b>		<b>FP1</b>
	<b>Q87</b>	Do you feel very close to your mother?	
	<b>Q88</b>	Do you share your thoughts and feelings with your mother?	
	<b>Q97</b>	Do you feel very close to your father?	
	<b>Q92</b>	Do you share your thoughts and feelings with your father?	
	<b>Family Opportunities for Prosocial Involvement</b>		<b>FP2</b>
	<b>Q99</b>	My parents give me lots of chances to do fun things with them.	
	<b>Q89</b>	My parents ask me what I think before most family decisions affecting me are made.	
	<b>Q96</b>	If I had a personal problem, I could ask my mom or dad for help.	
	<b>Family Rewards for Prosocial Involvement</b>		<b>FP3</b>
	<b>Q86</b>	My parents notice when I am doing a good job and let me know about it.	
	<b>Q91</b>	How often do your parents tell you they're proud of you for something you've done?	
	<b>Q93</b>	Do you enjoy spending time with your mother?	
<b>Q94</b>	Do you enjoy spending time with your father?		

# School Domain Scales

## RISK FACTORS

SCHOOL DOMAIN	<b>Poor Academic Performance</b>		<b>SR3</b>
	<b>Q13</b>	Putting them all together, what were your grades like last year?	
	<b>Q23</b>	Are your school grades better than the grades of most students in your class?	
	<b>Low School Commitment</b>		<b>SR4</b>
	<b>Q3681</b>	How often do you feel that the schoolwork you are assigned is meaningful and important?	
	<b>Q3682</b>	How interesting are most of your courses to you?	
	<b>Q3683</b>	How important do you think the things you are learning in school are going to be for your later life?	
	<b>Q3684</b>	Now, thinking back over the past year in school, how often did you: Enjoy being in school?	
	<b>Q3685</b>	Now, thinking back over the past year in school, how often did you: Hate being in school?	
	<b>Q3686</b>	Now, thinking back over the past year in school, how often did you: Try to do your best work in school?	
<b>Q738</b>	During the LAST FOUR WEEKS, how many whole days have you missed because you skipped or “cut”?		

*PROTECTIVE FACTORS*

<b>SCHOOL DOMAIN</b>	<b>School Opportunities for Prosocial Involvement</b>		<b>SP1</b>
	<b>Q14</b>	In my school, students have lots of chances to help decide things like class activities and rules.	
	<b>Q17</b>	There are lots of chances for students in my school to talk with a teacher one-on-one.	
	<b>Q2891</b>	Teachers ask me to work on special classroom projects.	
	<b>Q2057</b>	There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.	
	<b>Q3668</b>	I have lots of chances to be part of class discussions or activities.	
	<b>School Rewards for Prosocial Involvement</b>		<b>SP2</b>
	<b>Q15</b>	My teacher(s) notices when I am doing a good job and lets me know about it.	
	<b>Q21</b>	The school lets my parents know when I have done something well.	
	<b>Q18</b>	I feel safe at my school.	
<b>Q731</b>	My teachers praise me when I work hard in school.		

## Peer and Individual Domain Scales

### RISK FACTORS

PEER AND INDIVIDUAL DOMAIN	<b>Low Perceived Risks of Drug Use</b>		<b>IP10</b>
	<b>Q3687</b>	How much do you think people risk harming themselves (physically or in other ways) if they: smoke one or more packs of cigarettes per day?	
	<b>Q3679</b>	How much do you think people risk harming themselves (physically or in other ways) if they: try marijuana once or twice?	
	<b>Q3688</b>	How much do you think people risk harming themselves (physically or in other ways) if they: smoke marijuana regularly?	
	<b>Q3680</b>	How much do you think people risk harming themselves (physically or in other ways) if they: take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day?	
	<b>Early Initiation of Drug Use</b>		<b>IP15</b>
	<b>Q60a</b>	How old were you when you first: smoked marijuana?	
	<b>Q60b</b>	How old were you when you first: smoked a cigarette, even just a puff?	
	<b>Q60c</b>	How old were you when you first: had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey, or gin)?	
	<b>Q60d</b>	How old were you when you first: began drinking alcoholic beverages regularly, that is, at least once or twice a month?	
	<b>Sensation Seeking</b>		<b>IP13</b>
	<b>Q57a</b>	How many times have you done the following things? Done what feels good no matter what.	
	<b>Q57b</b>	How many times have you done the following things? Done something dangerous because someone dared you to do it.	
<b>Q57c</b>	How many times have you done the following things? Done crazy things even if they are a little dangerous.		

*RISK FACTORS, CONTINUED*

PEER AND INDIVIDUAL DOMAIN	<b>Rebelliousness</b>		<b>IP4</b>
	<b>Q55</b>	I do the opposite of what people tell me, just to get them mad.	
	<b>Q62</b>	I ignore rules that get in my way.	
	<b>Q73</b>	I like to see how much I can get away with.	
	<b>Friends' Delinquent Behavior</b>		<b>IP5</b>
	<b>Q65a</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have been suspended from school?	
	<b>Q65b</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have carried a handgun?	
	<b>Q65c</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have sold illegal drugs?	
	<b>Q65d</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have stolen or tried to steal a motor vehicle such as a car or motorcycle?	
	<b>Q65e</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have been arrested?	
<b>Q65f</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have dropped out of school?		

*RISK FACTORS, CONTINUED*

<b>PEER AND INDIVIDUAL DOMAIN</b>	<b>Friends' Use of Drugs</b>		<b>IP6</b>
	<b>Q58a</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have smoked cigarettes?	
	<b>Q58b</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have tried beer, wine or hard liquor (for example, vodka, whiskey or gin) when their parents didn't know about it?	
	<b>Q58c</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have used marijuana?	
	<b>Q58d</b>	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have used LSD, cocaine, amphetamines, or other illegal drugs?	
	<b>Peer Rewards for Antisocial Behavior</b>		<b>IP7</b>
	<b>Q59a</b>	What are the chances you would be seen as cool if you smoked cigarettes?	
	<b>Q59b</b>	What are the chances you would be seen as cool if you began drinking alcoholic beverages regularly, that is, at least once or twice a month?	
	<b>Q59c</b>	What are the chances you would be seen as cool if you smoked marijuana?	
	<b>Q59d</b>	What are the chances you would be seen as cool if you carried a handgun?	

*RISK FACTORS, CONTINUED*

PEER AND INDIVIDUAL DOMAIN	<b>Favorable Attitudes toward Antisocial Behavior</b>		<b>IP8</b>
	<b>Q61a</b>	How wrong do you think it is for someone your age to take a handgun to school?	
	<b>Q61b</b>	How wrong do you think it is for someone your age to steal anything worth more than \$5?	
	<b>Q61c</b>	How wrong do you think it is for someone your age to pick a fight with someone?	
	<b>Q61d</b>	How wrong do you think it is for someone your age to attack someone with the idea of seriously hurting him or her?	
	<b>Q61e</b>	How wrong do you think it is for someone your age to stay away from school all day when their parents think they are at school?	
	<b>Favorable Attitudes toward ATOD Use</b>		<b>IP9</b>
	<b>Q67a</b>	How wrong do you think it is for someone your age to drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly?	
	<b>Q67b</b>	How wrong do you think it is for someone your age to smoke cigarettes?	
	<b>Q67c</b>	How wrong do you think it is for someone your age to smoke marijuana?	
<b>Q67d</b>	How wrong do you think it is for someone your age to use LSD, cocaine, amphetamines or another illegal drug?		

**PROTECTIVE FACTORS**

<b>PEER AND INDIVIDUAL DOMAIN</b>	<b>Religiosity</b>	<b>IP1</b>
	<b>Q54</b>	How often do you attend religious services or activities?
	<b>Social Skills</b>	<b>IP2</b>
	<b>Q68</b>	You're looking at CDs in a music store with a friend. You look up and see her slip a CD under her coat. She smiles and says, "Which one do you want? Go ahead, take it while nobody's around." There is nobody in sight, no employees and no other customers. What would you do now?
	<b>Q69</b>	It's 8:00 on a weeknight and you are about to go over to a friend's home when your mother asks you where you are going. You say, "Oh, just going to go hang out with some friends." She says, "No, you'll just get into trouble if you go out. Stay home tonight." What would you do now?
	<b>Q70</b>	You are visiting another part of town, and you don't know any of the people your age there. You are walking down the street, and some teenager you don't know is walking toward you. He is about your size, and as he is about to pass you, he deliberately bumps into you and you almost lose your balance. What would you say or do?
	<b>Q71</b>	You are at a party at someone's house, and one of your friends offers you a drink containing alcohol. What would you say or do?
	<b>Belief in the Moral Order</b>	<b>IP3</b>
	<b>Q56</b>	I think it is okay to take something without asking, if you can get away with it.
	<b>Q72</b>	I think sometimes it's okay to cheat at school.
<b>Q63</b>	It is all right to beat up people if they start the fight.	
<b>Q64</b>	It is important to be honest with your parents, even if they become upset or you get punished.	



*PROTECTIVE FACTORS, CONTINUED*

PEER AND INDIVIDUAL DOMAIN	Interaction with Prosocial Peers	N/A	
	Q4000	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have participated in clubs, organizations or activities at school?	
	Q4001	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have made a commitment to stay drug-free?	
	Q4002	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have liked school?	
	Q4003	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have regularly attended religious services?	
	Q4004	Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have tried to do well in school?	



# Appendix D

## 2007 PAYS Statewide Margin of Error

Grade	Population size	Number of usable questionnaires	Assumed design effect = 4					Assumed design effect = 2				
			Estimated proportion					Estimated proportion				
			0.1 or 0.9	0.2 or 0.8	0.3 or 0.7	0.4 or 0.6	0.5	0.1 or 0.9	0.2 or 0.8	0.3 or 0.7	0.4 or 0.6	0.5
6	141377	4351	1.76%	2.34%	2.68%	2.87%	2.93%	1.24%	1.65%	1.90%	2.03%	2.07%
8	148763	4974	1.64%	2.19%	2.50%	2.68%	2.73%	1.16%	1.55%	1.77%	1.89%	1.93%
10	150699	4807	1.67%	2.23%	2.55%	2.73%	2.78%	1.18%	1.57%	1.80%	1.93%	1.97%
12	129689	2415	2.37%	3.16%	3.62%	3.87%	3.95%	1.68%	2.24%	2.56%	2.74%	2.79%
total	570528	16547	0.90%	1.20%	1.38%	1.47%	1.50%	0.64%	0.85%	0.97%	1.04%	1.06%



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# Appendix E

## Additional Prevention Planning Data

### Introduction

The following section presents detailed response data for survey items that may be of particular interest to prevention planners. Some of this information has already been presented earlier in this report in the form of several of the risk factor scale scores (see Section 5). These detailed response data have been provided to help communities form a more complete picture of the attitudes and behaviors held by the youth who were surveyed. It is important, however, to view this information within the context of the risk and protective factor framework covered earlier in this report.

### Risk of Harm

Perception of risk is an important determinant in the decision-making process young people go through when deciding whether or not to use alcohol, tobacco or other drugs (Bachman, Johnston, O’Malley & Humphrey, 1988). Data analysis across a range of *Communities That Care Youth Survey* communities shows a consistent negative correlation between perception of risk and the level of reported ATOD use. That is, generally when the perceived risk of harm is high, reported frequency of use is low. Evidence also suggests that perceptions of the risks and benefits associated with drug use sometimes serve as a leading indicator of future drug use patterns in a community (Bachman, Johnston, O’Malley & Humphrey, 1986). Table 17 presents prevalence rates for surveyed youth assigning “great risk” of harm to four drug use behaviors: regular use of alcohol (one or two drinks nearly every day), regular use of cigarettes (a pack or more daily), trying marijuana once or twice, and regular use of marijuana. These four survey items form the risk factor scale *Low Perceived Risks of Drug Use*.

**Table 17. Percentage of Youth Who Reported Perception of “Great Risk” of Harm**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Drinking Alcohol Regularly	53.6	49.7	43.4	46.1	48.1
Smoking Cigarettes Regularly	73.4	75.2	71.4	71.3	72.8
Trying Marijuana Once or Twice	47.8	40.0	26.8	21.0	34.0
Smoking Marijuana Regularly	83.1	80.4	60.9	52.2	69.3

## Disapproval of Drug Use

Personal approval or disapproval is another key attitudinal construct that influences drug use behavior (Bachman et al., 1988). Like risk of harm, disapproval is negatively correlated with the level of reported ATOD use across a range of *Communities That Care Youth Survey* communities. Personal disapproval was measured by asking surveyed youth how wrong it would be for someone their age to drink alcohol regularly, smoke cigarettes, smoke marijuana, or use other illicit drugs (“LSD, cocaine, amphetamines or another illegal drug”). The rates presented in Table 18 represent the percentages of surveyed youth who thought it would be “wrong” or “very wrong” to use each drug. These four survey items form the risk factor scale *Favorable Attitudes toward ATOD Use*.

**Table 18. Percentage of Youth Who Indicated Personal Disapproval of Drug Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Drinking Alcohol Regularly	97.5	85.7	68.5	62.6	78.7
Smoking Cigarettes	98.1	91.0	77.3	67.7	83.8
Smoking Marijuana	99.1	94.0	79.8	73.1	86.7
Using Other Illicit Drugs	99.4	97.6	94.5	93.5	96.2

## Social Norms

In addition to students’ own attitudes, social norms—the written and unwritten rules and expectations about what constitutes desirable behavior—shape drug use choices. Since drug-related attitudes and behaviors are often acquired through peer group interactions, expectations of how one’s peer group might react have an especially strong impact on whether or not young people choose to use drugs. The data presented in Table 19 show the percentage of surveyed youth who said that there is a “pretty good” or “very good” chance that they would be seen as cool if they smoked cigarettes, drank alcohol regularly (once or twice a month) or smoked marijuana. These three survey items form part of the risk factor scale *Peer Rewards for Antisocial Behavior*.

**Table 19. Percentage of Youth Who Indicated Peer Approval of Drug Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Drinking Alcohol Regularly	1.7	7.1	20.9	24.2	13.3
Smoking Cigarettes	2.3	4.3	6.3	5.8	4.8
Smoking Marijuana	1.4	5.4	13.9	13.8	8.6

In addition to peer attitudes, social norms toward drug use were measured by asking how most neighborhood adults would view student alcohol, cigarette and marijuana use. Table 20 presents the percentage of surveyed youth who thought other adults would feel it was “wrong” or “very wrong” to use each drug. These three survey items form part of the risk factor scale *Laws and Norms Favorable to Drug Use*.

**Table 20. Percentage of Youth Who Indicated “Other Adults” Disapprove of Drug Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Drinking Alcohol	94.8	85.9	74.5	69.7	81.3
Smoking Cigarettes	94.8	88.0	77.4	66.7	81.9
Smoking Marijuana	98.0	94.9	87.5	86.6	91.8

## Frequency of Drug Use

While the prevalence rates presented in Section 2 are useful for determining how many kids are currently using or have experimented with a drug, they give no indication of the frequency or intensity of use. A respondent who reports 1 or 2 occasions of use in the past 30 days is counted the same as one who reports 40 or more occasions of use, even though the level of use is drastically different. Tables 21-24 present the past-30-day frequency of use reported by surveyed youth for the following drugs: alcohol, cigarettes, marijuana or hashish, and inhalants.

**Table 21. Past-30-Day Frequency of Alcohol Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
0 occasions	96.7	86.1	68.1	55.2	76.8
1 or 2 occasions	2.7	9.4	18.9	22.6	13.3
3 to 5 occasions	0.3	2.5	6.4	11.0	4.9
6 to 9 occasions	0.1	0.9	3.6	5.4	2.5
10 to 19 occasions	0.0	0.6	1.8	3.4	1.4
20 to 39 occasions	0.0	0.2	0.4	1.1	0.4
40 or more occasions	0.1	0.2	0.8	1.3	0.6

Note: Rounding on the above table can produce totals that do not equal 100%.

**Table 22. Past-30-Day Frequency of Cigarette Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Not at all	98.7	94.5	86.3	79.4	89.8
Less than one cigarette per day	0.8	3.0	5.6	8.6	4.5
One to five cigarettes per day	0.4	1.4	4.4	5.7	3.0
About one-half pack per day	0.1	0.4	1.7	3.5	1.4
About one pack per day	0.0	0.3	1.3	2.1	1.0
About one and one-half packs per day	0.0	0.1	0.4	0.6	0.3
Two packs or more per day	0.1	0.2	0.3	0.1	0.2

Note: Rounding on the above table can produce totals that do not equal 100%.

**Table 23. Past-30-Day Frequency of Marijuana or Hashish Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
0 occasions	99.8	97.2	88.0	80.8	91.5
1 or 2 occasions	0.1	1.4	4.4	7.1	3.2
3 to 5 occasions	0.0	0.4	2.7	2.6	1.4
6 to 9 occasions	0.0	0.2	1.3	2.6	1.0
10 to 19 occasions	0.0	0.4	1.5	2.1	1.0
20 to 39 occasions	0.0	0.2	0.8	1.7	0.7
40 or more occasions	0.0	0.3	1.3	3.1	1.2

Note: Rounding on the above table can produce totals that do not equal 100%.

**Table 24. Past-30-Day Frequency of Inhalant Use**

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
0 occasions	97.4	96.3	96.6	98.3	97.1
1 or 2 occasions	2.0	2.2	2.2	0.8	1.8
3 to 5 occasions	0.3	0.8	0.5	0.3	0.4
6 to 9 occasions	0.2	0.2	0.2	0.2	0.2
10 to 19 occasions	0.0	0.2	0.2	0.1	0.1
20 to 39 occasions	0.0	0.2	0.1	0.0	0.1
40 or more occasions	0.1	0.1	0.3	0.3	0.2

Note: Rounding on the above table can produce totals that do not equal 100%.



## Frequency of Bringing a Weapon (Such as a Gun, Knife or Club) to School

Table 25 presents the past-30-day frequency of bringing a weapon (such as a gun, knife or club) to school, reported by surveyed youth.

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Never	99.3	98.2	97.4	96.2	97.8
1 or 2 times	0.6	1.0	1.8	1.5	1.2
3 to 5 times	0.0	0.3	0.3	0.4	0.3
6 to 9 times	0.0	0.0	0.0	0.2	0.1
10 to 19 times	0.0	0.1	0.0	0.3	0.1
20 to 29 times	0.0	0.0	0.1	0.2	0.1
30 to 39 times	0.0	0.0	0.1	0.3	0.1
40+ times	0.1	0.3	0.3	0.9	0.4

Note: Rounding on the above table can produce totals that do not equal 100%.

## Gang Involvement

Gangs have long been associated with crime, violence and other antisocial behaviors. Evidence suggests that gangs contribute to antisocial behavior beyond simple association with delinquent peers. Table 26 presents the percentage of surveyed youth indicating gang involvement.

	6 <sup>th</sup> %	8 <sup>th</sup> %	10 <sup>th</sup> %	12 <sup>th</sup> %	Overall %
Ever Belonged to a Gang	4.1	6.3	7.1	5.5	5.8
Belonged to a Gang with a Name	2.6	5.5	6.1	5.4	4.9



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# Appendix F

## Other Resources

### Web Sites

Office of National Drug Control Policy [www.whitehousedrugpolicy.gov](http://www.whitehousedrugpolicy.gov)

National Clearinghouse for Alcohol and Drug Information [www.health.org/index.htm](http://www.health.org/index.htm)

Substance Abuse and Mental Health Services Administration (SAMHSA) [www.samhsa.gov](http://www.samhsa.gov)

Monitoring the Future [www.monitoringthefuture.org](http://www.monitoringthefuture.org)

National Institute on Drug Abuse (NIDA) [www.nida.nih.gov](http://www.nida.nih.gov) and [www.drugabuse.gov](http://www.drugabuse.gov)

National Institute on Alcohol Abuse and Alcoholism (NIAAA) [www.niaaa.nih.gov](http://www.niaaa.nih.gov)

Social Development Research Group <http://depts.washington.edu/sdrg>

### Prevention Program Guides

Center for Substance Abuse Prevention, Western Center for the Application of Prevention Technologies. (2004). *Building a successful prevention program: list of all practices*. [Data file]. Available at the University of Nevada Reno's Web site, <http://casat.unr.edu/bestpractices/alpha-list.php>.

Center for the Study and Prevention of Violence, Institute of Behavioral Science. (2004). *Blueprints for Violence Prevention*. [Data file]. Available from the University of Colorado Boulder's Web site, [www.colorado.edu/cspv/blueprints](http://www.colorado.edu/cspv/blueprints).

Hawkins, J. D., & Catalano, R. F. (2004). *Communities That Care Prevention Strategies Guide*. [Data file]. Available from the SAMHSA Web site, <http://preventionplatform.samhsa.gov/>.

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### Prevention Planning

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