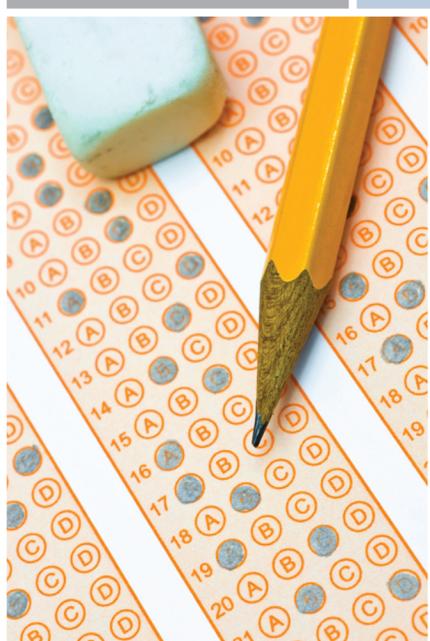


# 2007 NEW JERSEY MIDDLE SCHOOL RISK & PROTECTIVE FACTOR SURVEY

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*New Jersey Department of Human Services  
Division of Addiction Services*



# 2007 New Jersey Middle School Risk and Protective Factor Survey

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# Table of Contents

<b>Executive Summary of Findings .....</b>	<b>i</b>
<b>Introduction .....</b>	<b>1</b>
A. Background .....	1
B. Study Design and Methods .....	1
Sampling Design .....	2
Field Procedures .....	2
Participation Rates .....	3
C. Questionnaire.....	5
Background.....	5
Risk and Protective Factor Scales .....	6
D. Weighting .....	7
Overview of Weighting Procedure.....	7
E. Profile of Middle School Students .....	8
<b>Chapter 1: Alcohol, Tobacco and Other Drug Use .....</b>	<b>11</b>
A. Presentation of the Findings.....	11
B. Summary of the Alcohol, Tobacco and Other Drug Findings.....	12
Alcohol.....	15
Cigarettes .....	17
Prescription Drugs without a Prescription .....	19
Inhalants .....	20
Marijuana.....	21
Other Illicit Drugs .....	23
C. Age of Onset of Substance Use.....	30
<b>Chapter 2: Other Antisocial Behavior .....</b>	<b>31</b>
A. Getting Suspended.....	33
B. Attacking Someone with Intent to Harm.....	34
C. Belonging to a Gang .....	35
D. Being Arrested .....	36
E. Being Drunk or High at School.....	37
F. Carrying a Handgun .....	38
G. Taking a Handgun to School.....	39
H. Attempting to Steal a Vehicle.....	40
I. Selling Drugs.....	41
<b>Chapter 3: Gambling.....</b>	<b>43</b>
<b>Chapter 4: Risk and Protective Factors .....</b>	<b>49</b>
A. Statewide Risk Factors.....	51
Community Domain Risk Factor.....	52
Family Domain Risk Factor .....	56
School Domain Risk Factor .....	58
Peer-Individual Domain Risk Factor .....	60
B. Statewide Protective Factors.....	66
Peer-Individual Domain Protective Factors .....	67
School Domain Protective Factors .....	69
C. Statewide Risk and Protective Factor Averages.....	71
D. Impact of Average Risk Factor Score on Substance Use.....	72
E. Impact of Average Protective Factor Score on Substance Use.....	75
<b>APPENDIX A: Prevalence Summaries Disaggregated by County.....</b>	<b>79</b>
<b>APPENDIX B: Risk and Protective Factor Averages .....</b>	<b>83</b>



# Executive Summary of Findings

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## Background

In July 2006, the New Jersey Department of Human Services (NJ DHS), Division of Addiction Services (DAS) contracted with Bloustein School of Planning and Public Policy, Center for Survey Research (BCSR) at Rutgers University to conduct the 2007 New Jersey Middle School Risk and Protective Factor Survey (NJ MS RPFS). The survey continues efforts initiated in 1999 to systematically document risk and protective factors among New Jersey youth. The questionnaire includes risk and protective factor items that show the strongest correlations to drug use, including feelings about school and their neighborhood; self-reported and peer use of tobacco, drugs, and alcohol; and the availability of such substances. Survey results will be used to create tailored prevention programs for New Jersey's youth population and complete the Federal application for block grant funding and for disbursement of funds within the State for prevention and planning purposes.

Data from the New Jersey Middle School Risk and Protective Factor Survey is highly comparable to other concurrent survey initiatives, such as:

- the Youth Tobacco Survey, conducted by the New Jersey Department of Health and Senior Services (NJDHSS), Comprehensive Tobacco Control Program;
- the New Jersey Student Health Survey, previously known as the Youth Risk Behavior Survey, conducted by the New Jersey Department of Education (NJDOE); and,
- the Survey of Drug and Alcohol Use Among New Jersey High School Students conducted by the New Jersey Department of Law and Public Safety, Division of Criminal Justice.

## Study Methods and Participation Rates

BCSR conducted the surveys with a target sample of 104 middle schools randomly selected throughout the state. The sample of schools was stratified by county. BCSR used a multi-stage sampling design. For middle schools, a sampling ratio of 1-to-8 schools was used with a minimum of four schools when a county had 35 or fewer schools. The final *participating* sample included 90 middle schools with the forecasted school participation goals achieved in 13 of the 21 counties. More detailed information can be found in a technical report on the administration of the 2007 survey, entitled "*2007 New Jersey Middle School Risk and Protective Factor Survey Technical Report: Procedures, Challenges, and Recommendations*" provided to the NJDHS/DAS by BCSR.

It should be noted that the administration of the survey was conducted under standards established by state law *N.J.S.A. 18A:36-34* which requires active parental consent for student participation – meaning that students could only participate if they returned a signed consent form from a parent/guardian. Overall, the majority of all students (68%) returned a form that permitted participation; 9% returned a form that did not consent to participation, and 23% did not return a form at all.

With 90 of 161 schools participating (55.9% school participation rate) and 7,233 of 11,228 students returning a completed questionnaire (64.4% student participation rate), the final overall survey response rate was 36.0% (school rate x student rate), or almost three times greater than the last statewide Communities That Care Survey (12.9%).

Further, an adequate overall response rate was not reached in eight of the 21 counties. The cut-off rate for adequate performance was determined by the mean for all counties (36.0%). Any county whose performance was less than this point is presented in the list below and are marked with an asterisk(\*) throughout this report. Results for these counties should not be considered as representative of the county overall: Morris (10.8%), Bergen (17.3%), Essex (24.9%), Passaic (25.9%), Hunterdon (26.1%), Salem (32.2%), Monmouth (32.3%), and Atlantic (34.7%). Details on participation rates by county can be found in Table 1 in the Introduction.

While the overall participation rates obtained in the study are greater than similar efforts in the past, they are lower than those rates generally regarded as acceptable to considering results as representative to a broader population. For example, CDC requires a 60% overall response rate on its Youth Risk Behavior Survey as a cut-off for having data weighted to the state's student population. Therefore, since response rates were lower than these conventions, the possibility exists that a participation bias at either the school and/or student level may impact the results of the study. State, county and community representatives should consider these response rates and their potential bias on results when using the NJ MS RPFS report in any prevention planning efforts.

## Profile of Middle School Students

Overall, 7,087 of the 7,233 completed surveys (98.0%) were eligible for analysis. Reasons for ineligibility include the following:

- incomplete surveys (answering less than 60% of the survey questions),
- use of *derbisol* (a fictitious drug used in questionnaires to test the reliability of answers received by students),
- two or more inconsistent affirmative responses to drug questions (e.g., indicating use of a particular drug in the last 30 days for one question and indicating *no use* in the last 12 months),
- or unscannable forms.

Table ES-1 shows the distribution of survey respondents by demographic subgroups. Based on weighted demographic data, the students were evenly split between 7<sup>th</sup> grade (50.7%) and 8<sup>th</sup> grade (49.3%). Survey respondents were evenly split between males (51.2%) and females (48.8%). Based on weighted demographic data, 58.9% were White, 16.7% were Black or African American, 16.7% were Hispanic or Latino (including Hispanics who also identified with a race or multiple races), 5.0% were Asians or Native Hawaiian/Pacific Islanders and 2.8% were Other (including American Indian/Alaskan Natives and non-Hispanic students who identified with multiple races).

**Table ES-1: Profile of Middle-School Students in the 2007 New Jersey Middle School Risk and Protective Factor Survey**

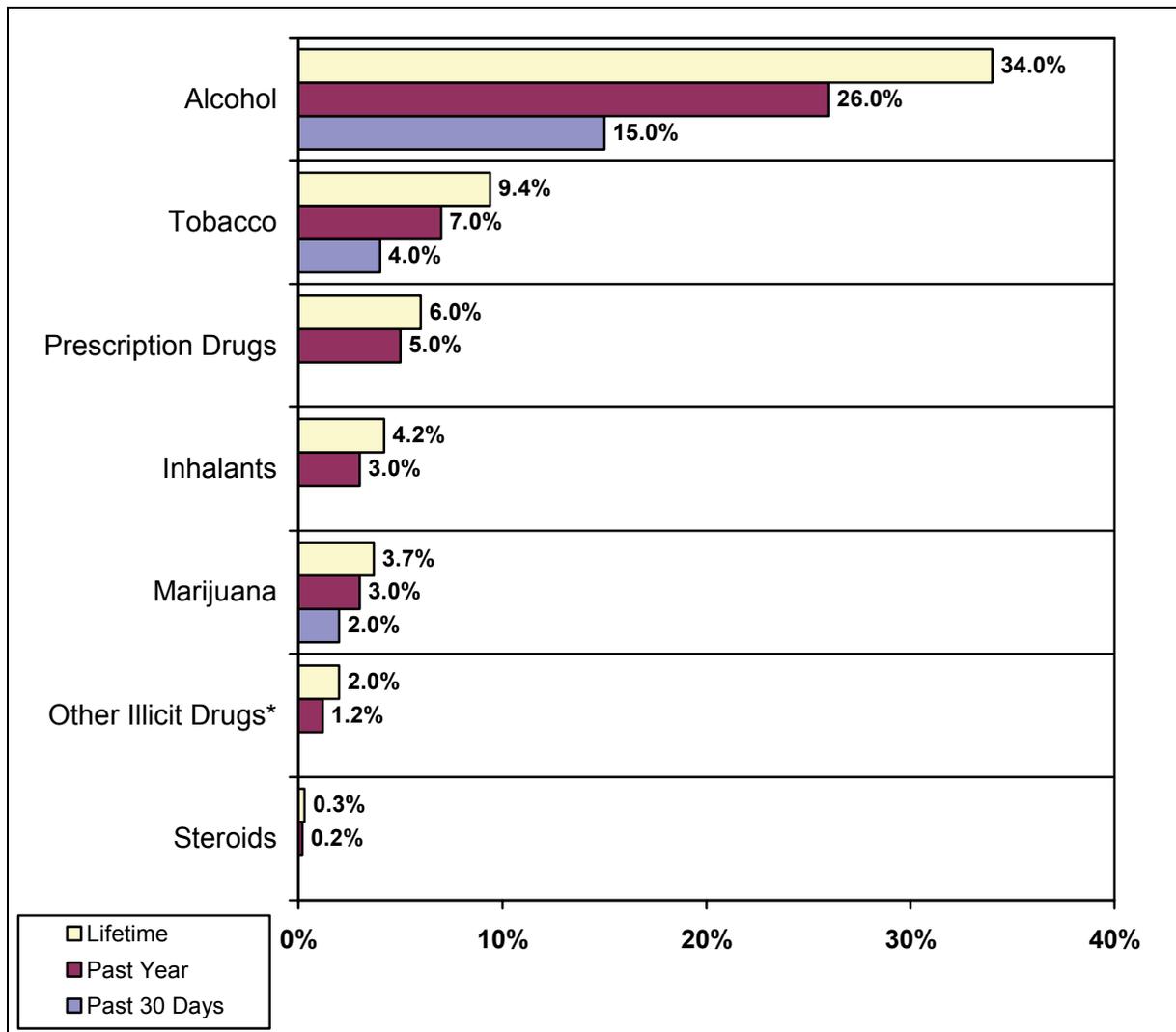
	Demographic Group	Sample (n)	Sample %	Weighted %
<b>GENDER</b>	Female	3664	53.1%	48.8%
	Male	3234	46.9%	51.2%
<b>GRADE</b>	7 <sup>th</sup>	3363	47.5%	50.7%
	8 <sup>th</sup>	3724	52.5%	49.3%
<b>RACE/ETHNICITY</b>	African -American	664	10.0%	16.7%
	Hispanic/Latino	1177	17.7%	16.7%
	White	4120	62.1%	58.9%
	Other	673	10.1%	7.8%

## Findings on Alcohol, Tobacco and Other Drug Use

This section presents findings from the 2007 New Jersey Middle School Risk and Protective Factor Survey on lifetime, annual, and recent use of alcohol, tobacco, and other drugs (Figure ES-1). Specifically, students were asked how many times in their lifetime, in the past 12 months, and in the past 30 days they had used the substance.

Notable findings on the prevalence and frequency of use of five most frequently used substances by NJ youth (alcohol, tobacco, marijuana, inhalants, and prescription drugs without a prescription) are presented in text below. These findings are disaggregated by grade, gender, race/ethnicity, county, and compared to a nationwide survey of 8<sup>th</sup> grade students. It is important to note that, while countywide comparisons are presented, caution should be taken when interpreting the results from specific counties due to the relatively small number of participants from each county.

**Figure ES-1: Summary of Lifetime, Annual and Past 30 Day Substance Use for NJ Middle School Students**



\* Other Illicit drugs include sedatives, methamphetamines, amphetamines, ecstasy, hallucinogens, cocaine, heroin, OxyContin, club drugs and steroids.

## Notable Differences by Grade

More 8<sup>th</sup> grade students than 7<sup>th</sup> grade students reported the following substance use:

- lifetime alcohol consumption (44.1% vs. 24.1%);
- recent consumption of alcohol (past 30 days) (21.4% vs. 9.4%);
- lifetime use of cigarettes (12.4% vs. 6.5%); and,
- lifetime, annual, and recent marijuana use (5.5% vs. 1.9%, 4.7% vs. 1.3%, and 3.4% vs. 0.9%, respectively).

## Notable Differences by Gender

- Substantial differences in substance use were not noted by gender.

## Notable Differences by Race/Ethnicity

- White and Hispanic students (17% and 16.7%, respectively) were more likely than African-American students (10.9%) and students of *other ethnic backgrounds* (6.5%) to have consumed alcohol in the 30 days prior to the survey.
- A greater proportion of African-American and Hispanic students reporting smoking in their lifetime (12.2% and 12.0%, respectively), as compared to White students and students of *other ethnic backgrounds* (8.3% and 3.5%, respectively).

## Notable Differences by County

- Cape May County had the highest lifetime alcohol use rate of 43.0%, followed by Gloucester County at 41.3%. The lowest lifetime rates were found in Warren County (21.4%) and Camden County (27.3%).
- Cape May County also had the highest past 30-day alcohol use rate (22.8%). This was more than two times higher than the findings for Union County, the county with the lowest past 30-day prevalence rates (10.6%).
- The findings at the county level indicate that Cape May (16.0%) and Gloucester counties (14.7%) have the highest rates for lifetime cigarette smoking while Warren (5.7%) and Sussex (6.2%) counties have the lowest rates.
- Sussex County reported the highest use of inhalants (6.5%) while Cumberland and Camden Counties reported the lowest rates of inhalant use (1.6% each).
- Cape May County had the highest rate of lifetime marijuana at 11.7%.

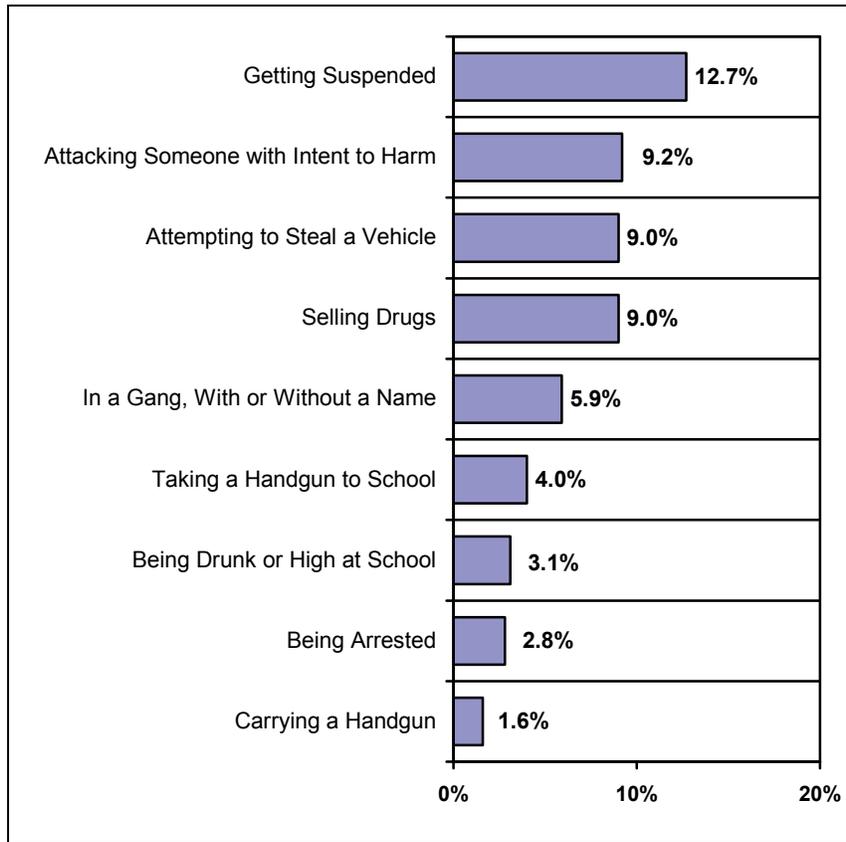
## Findings on AntiSocial Behavior

The 2007 New Jersey Middle School Risk and Protective Factor Survey measured student reports of antisocial behavior (Figure ES-2). These actions are only measured for the 12 months prior to survey. Specifically, students were asked how many times they had engaged in such behavior from the following response set: “Never”, “1 to 2 times”, “3 to 5 times,” and “6 or more times.” These nine antisocial behaviors are listed below:

- Attacking Someone with Intent to Harm
- Attempting to Steal a Vehicle
- Being Arrested
- Being Drunk or High at School
- Carrying a Handgun
- Getting Suspended
- Selling Drugs
- Taking a Handgun to School
- Belonging to a Gang

Findings are disaggregated by grade, gender, race/ethnicity, and county. It is important to note that, while countywide comparisons are presented, caution should be taken when interpreting the results from specific counties due to the relatively small number of participants from each county.

**Figure ES-2: Summary of AntiSocial Behaviors in the Past 12 Months**



## Notable Differences by Grade

- Substantial differences in antisocial behavior were not noted by grade.

## Notable Differences by Gender

Substantially more males than females reported engaging in the following antisocial activities:

- attacking someone with intent to harm (12.3% versus 5.9%);
- being arrested (4.1% versus 1.6%);
- being suspended in the past year (16.8% versus 8.3%); and,
- being in a gang (7.6% vs. 4.1%).

There was no gender difference, however, for students being drunk or high at school (3.0% for females and 3.1% for males).

## Notable Differences by Race/Ethnicity

- African-American students and Hispanic students reported the highest prevalence of attacking someone with intent to harm (12.7% and 12.6%, respectively), as compared to White students and students of *other ethnic backgrounds* (7.4% and 6.1%, respectively).
- African-American (4.7%) and Hispanic students (4.0%) reported being arrested most frequently while students of *other ethnic backgrounds* reported the least (1.2%).
- Hispanics reported the greatest proportion of students being drunk or high at school (4.5%) and students of other ethnic backgrounds reported the least (1.5%).
- African-American and Hispanic students reported being suspended much higher rates than other ethnic groups (29.4% and 17.9%, respectively) versus 7.0% of White students and 4.4% of students from *other ethnic backgrounds*.
- Notably more African-American and Hispanic students (12.2% and 9.6%, respectively) reported being in a gang than did White students (3.1%).

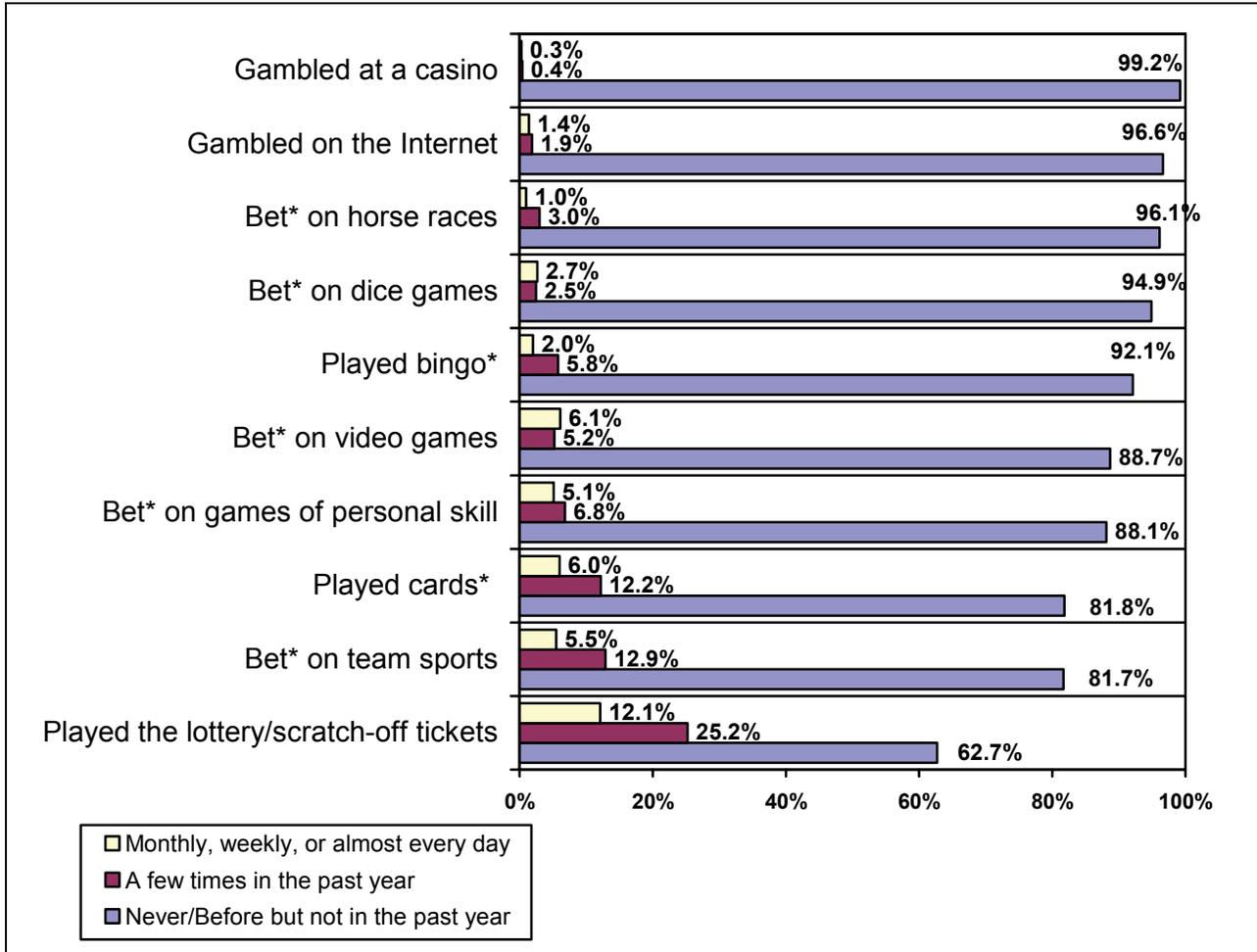
## Notable Differences by County

- Cumberland and Hudson counties had the highest proportions of students reporting attacking someone with intent to harm (13.9% and 13.3%, respectively). In contrast, the county with the lowest rate was Warren County (5.7%).
- Cape May County students had the highest prevalence of being arrested at 12.2% and Mercer and Warren Counties were the lowest at 1.2% and 1.1%, respectively.
- Cape May County had the highest proportion of students being drunk or high at school (7.1%) while Somerset County and Warren County lowest reported prevalence rate was in (both 1.7%).
- Camden and Cumberland counties had the highest reported suspension rates (22.4% and 21.4%, respectively).
- Cumberland County students reported the greatest proportion of students with gang affiliation (13.9%).

## Findings on Gambling

The 2007 New Jersey Middle School Risk and Protective Factor Survey also surveyed students about gambling behaviors (Figure ES-3). These questions asked students how often in the past 12 months they participated in various types of gambling activity. Students chose from the following response set: 'never', 'before, but not in the past year', 'a few times in the past year', 'once or twice a month', 'once or twice a week', and 'almost every day'. Findings are disaggregated by grade, gender, race/ethnicity, and county. It is important to note that, while countywide comparisons are presented, caution should be taken when interpreting the results from specific counties due to the relatively small number of participants from each county.

**Figure ES-3: Summary of Gambling Activities in the Past 12 Months**



## Notable Differences by Grade

More 8<sup>th</sup> grade students than 7<sup>th</sup> grade students reported engaging in the following gambling activities:

- playing lottery or scratch-off tickets *a few times in the past year* (27.1% vs. 23.3%);
- betting on team sports at least *a few times in the past year* (21.7% vs. 15.1%);
- betting on card games at least *a few times in the past year* (21.7% vs. 14.9%);
- betting on games of personal skill at least *a few times in the past year* (13.8% vs. 10.0%); and,
- betting on dice games at least *a few times in the past year* (6.8% vs. 3.4%).

## Notable Differences by Gender

More males than females reported engaging in the following gambling activities:

- betting on team sports at least *a few times in the past year* (26.2% vs. 10.4%);
- betting on cards at least *a few times in the past year* (24.5% vs. 11.6%);
- betting on games of personal skill at least *a few times in the past year* (17.7% vs. 6.0%);
- betting on video games at least *a few times in the past year* (18.2% vs. 4.0%); and,
- betting on dice games (7.6% vs. 2.3%).

## Notable Differences by Race/Ethnicity

- White students reported the greatest frequencies for playing the lottery or scratch-off tickets *a few times in the past year* (32.5%) and *monthly, weekly, or almost every day* (14.1%).
- White students reported the highest prevalence of gambling on card games at least *a few times in the past year* (20.2%) while African-American, Hispanic, and students of other ethnic backgrounds reported less (14.9%, 15.7%, and 12.1%).
- African-American students reported betting on video games the most frequently (17.1%) followed closely by Hispanic students (16.5%). Students of *other racial/ethnic backgrounds* reported betting on video games the least in both past year categories (5.2%).
- Hispanic students reported playing bingo for money (13.1%) more than any other racial/ethnic group in both past year categories (5.4%-7.0%).
- White students (5.4%) reported betting on horse races more frequently than their respective counterparts (1.4%-2.5%).
- African-American and Hispanic students (6.9% each) reported betting on dice games more frequently than their respective counterparts (3.3%-4.2%).

## Notable Differences by County

- A low of 28.8% of students in Camden County reported ever playing the lottery or scratch-off tickets in the past 12 months, as compared to a high of 48.2% in Cape May County.
- Betting on video games was reported most frequently in Hudson County (18.0%) versus a low of 6.2% in Sussex County.
- Betting on team sports was reported most frequently by students in Cape May County (22.9%) versus the county-wide low (14.0%) in Warren County.
- Betting on dice games varied greatly between counties – from 2.4% in Warren County to 11.9% in Cumberland County.

## Risk and Protective Factors

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The *New Jersey Middle School Risk and Protective Factor Survey* contains six overarching domains – Community, Family, School, and Peer-Individual for the 20 risk factors and School and Peer-Individual for the five protective factors. Multiple survey items comprise each of these factors and there was a minimum number of questions that must be answered in order to be calculate a scale score for that factor. BCSR computed scale scores for each risk and protective factor, their respective domains, and summary risk and protective factor scores, which were created by combining all 20 risk factors and all 5 protective factors, respectively.

Risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior while protective factors buffer students against these risks. These two factors are important in regard to prevention planning. While one may not be able to eliminate the risk factors in a students' environment, it is possible that the number of protective factors can be increased.

These variables have been standardized to a 0 to 1 scale. It is important to note that risk and protective factors are interpreted differently. Overall, it is better to have lower risk factor scores than higher. Research has shown that the more risk factors students are exposed to, the more likely they are to use drugs or participate in antisocial behaviors. Higher scores indicate more risks in the student's environment. Conversely, it is better to have higher protective factor scores. These scores represent characteristics in the students' environment that will protect them against risk factors.

### Risk Factors

Risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior. Each question was scored so that the most negative behaviors received the highest score. For example, if a student indicated that he was 10 years old or younger when he began smoking cigarettes, then this would be scored as a 1. Conversely, a student who indicated having never smoked would receive a score of 0. Mean scores for each factor were then computed on a scale of 0 to 1, with a higher score indicating that the student is at greater risk of being influenced negatively by that factor. For example, if the mean score for *Early Initiation of Drug Use* factor was 0.60, then these students would be more likely than students with lower risk scores to use drugs at an early age.

Overall, as displayed in Table ES-2, mean scores on the risk factors show that NJ students are more likely to be at-risk for negative behaviors by factors in the school and community domains, which received the greatest mean scores. In particular, living in a community where drug use is acceptable (*Laws and Norms Favorable to Drug Use*) posed the greatest risk.

**Table ES-2: Summary of All Risk Factors by Domain**

<i>Domain</i>	<i>Risk Factors</i>	<i>n</i>	<i>Mean</i>
<i>Community</i> ( <i>mean= 0.25</i> )	Laws and Norms Favorable to Drug Use	6935	0.34
	Community Transitions and Mobility	6980	0.29
	Low Neighborhood Attachment	7052	0.28
	Perceived Availability of Drugs	6977	0.25
	Community Disorganization	6991	0.24
	Perceived Availability of Handguns	6971	0.14
<i>Family</i> ( <i>mean= 0.13</i> )	Poor Family Management	6956	0.20
	Parental Attitudes Favorable Toward Antisocial Behavior	6976	0.13
	Parental Attitudes Favorable Toward Drug Use	6983	0.05
<i>School</i> ( <i>mean= 0.33</i> )	Low Commitment to School	6899	0.33
	Academic Failure	6877	0.31
<i>Peer-Individual</i> ( <i>mean= 0.11</i> )	Perceived Risks of Drug Use	7014	0.20
	Favorable Attitudes Toward Antisocial Behavior	7064	0.18
	Peer Rewards for Antisocial Behavior	7014	0.13
	Favorable Attitudes Toward Drug Use	7071	0.09
	Early Initiation of Drug Use	7022	0.10
	Friends' Use of Drugs	7063	0.08
	Early Initiation of Antisocial Behavior	7031	0.07
	Gang Involvement	6933	0.05
	Interaction with Antisocial Peers	7071	0.05
<b>Statewide Risk Factor Averages</b>		<b>6894</b>	<b>0.18</b>

**Notable Differences by Grade**

- Eighth-grade students had somewhat higher risk factor mean score (0.30) than 7<sup>th</sup> grade students (0.20) for *Perceived Availability of Drugs*, indicating that ATOD were easier to get for 8<sup>th</sup> grade students.
- Eighth-grade students had a higher risk factor mean score (0.38) than the 7<sup>th</sup> grade students (0.30) on the *Laws and Norms Favorable to Drug Use* factor, which suggests that older students believe that their community is more favorable to drug use.

**Notable Differences by Gender**

- The mean for male students was slightly higher than the female student mean (0.16 versus 0.11), for *Perceived Availability of Handguns*, indicating that male students perceived it easier to get a handgun than female students.

- The mean for male students was greater than the mean for females (0.09 versus 0.04) on the *Early Initiation of Antisocial Behavior* factor, which suggests that males were younger when they first started engaging in anti-social behavior.

### Notable Differences by Race/Ethnicity

- African-American, Hispanic, and *other* students were at higher risk to be influenced by *Low Neighborhood Attachment* (0.37, 0.33, and 0.31, respectively) than White students (0.24).
- African-American and Hispanic students had substantially higher scores on the *Community Disorganization* factor (0.34 and 0.31, respectively) than White and *other* students (0.19 each), indicating that there are more threats to safety in their neighborhoods.
- African-American and Hispanic students had higher mean scores on the *Community Transitions and Mobility* factor (0.38 and 0.36, respectively) than White students (0.23), indicating that they had changed homes or schools more frequently.
- African-American students had the highest mean of 0.20 and those students of *other racial/ethnic backgrounds* had the lowest mean of 0.09 on the *Perceived Availability of Handguns* factor.
- African-American students had the highest mean on the *Laws and Norms Favorable to Drug Use* factor while students of *other racial/ethnic backgrounds* had the lowest (0.38 vs. 0.29), which suggests that African-American students believe that their community is more favorable to drug use.
- African-American and Hispanic students (0.12 and 0.09, respectively) had substantially higher mean scores on the *Gang Involvement* factor than White students (0.03).
- Mean scores were substantially higher for African-American and Hispanic students (0.13 and 0.09, respectively) on the *Early Initiation of Antisocial Behavior* factor than for White students and students of *other racial/ethnic backgrounds* (0.04 each).

### Notable Differences by County

- The average county level risk factor score ranged from a low of 0.14 in Warren County to a high of 0.22 in Cape May County. Cumberland, and Gloucester, Hudson counties also had risk factor scores above the mean (0.20).

### Protective Factors

Protective factors are characteristics of the students' school, and peer relationships that have been associated with buffering the risks in a students' environment and thereby reducing the likelihood of experimentation with alcohol, tobacco, and other drugs and antisocial behavior. Each question was scored so that the most positive behaviors received the highest score. For example, if a student indicated that she had done community service 40 or more times in the last year, then this would be scored as a 1. Conversely, a student who indicated having never done community service would receive a score of 0. Mean scores for each factor were then computed on a scale of 0 to 1, with a higher score indicating that the student has a greater chance of being protected by that factor. For example, if the mean score for the *Prosocial Involvement* factor was 0.60 then students would be more likely to be participating in positive activities.

Overall, mean scores on the protective factors show that NJ students are more likely to be protected from negative behaviors by factors in the school domain, which received the greatest mean scores (Table ES-3). Having increased interaction with prosocial peers also contributes to this protection.

**Table ES-3: Summary of All Protective Factors by Domain**

<b>Domain</b>	<b>Protective Factors</b>	<b>n</b>	<b>Mean</b>
<i>Peer-Individual</i> (mean= 0.46)	Interaction with Prosocial Peers	7014	0.63
	Peer Rewards for Prosocial Involvement	7000	0.48
	Prosocial Involvement	7066	0.28
<i>School</i> (mean= 0.62)	School Opportunities for Prosocial Involvement	7038	0.64
	School Rewards for Prosocial Involvement	7047	0.59
<b>Statewide Protective Factor Averages</b>		<b>7062</b>	<b>0.52</b>

### Notable Differences by Grade

- Seventh-grade students score slightly higher than 8<sup>th</sup> graders on the *Interaction with Prosocial Peers* factor (0.65 vs. 0.61) and the *Peer Rewards for Prosocial Involvement* factor (0.51 vs. 0.45).

### Notable Differences by Gender

- The mean score for female students for all protective factors was higher than the mean score for males (0.55 versus 0.50), indicating that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors.
- Females had a higher mean score on the *Interaction with Prosocial Peers* factor than males (0.68 vs. 0.58), indicating that the friends of females have participated in more positive behaviors than the friends of males.
- Females had a higher mean score than males on the *Prosocial Involvement* factor (0.32 vs. 0.25), indicating that females more frequently engaged in prosocial activities than males did.
- Females had a higher mean score than males on the *Peer Rewards for Prosocial Involvement* factor (0.51 vs. 0.45), indicating that more females believed they would be seen as cool if they participated in prosocial activities.

### Notable Differences by Race/Ethnicity

- Students of *other racial/ethnic backgrounds* had the highest mean (0.68) on the *Interaction with Prosocial Peers* factor versus the lowest mean score of 0.58 for Hispanic students.
- White students and students of *other racial/ethnic backgrounds* (0.31 each) scored higher on the *Prosocial Involvement* factor than did African-American and Hispanic students (0.24 and 0.23, respectively).
- African-American students scored highest on the *Peer Rewards for Prosocial Involvement* factor (0.52) versus the mean scores for White and Hispanic students (0.47 each), indicating that more African-American students believe they would be seen as cool if they participated in prosocial activities.

### Notable Differences by County

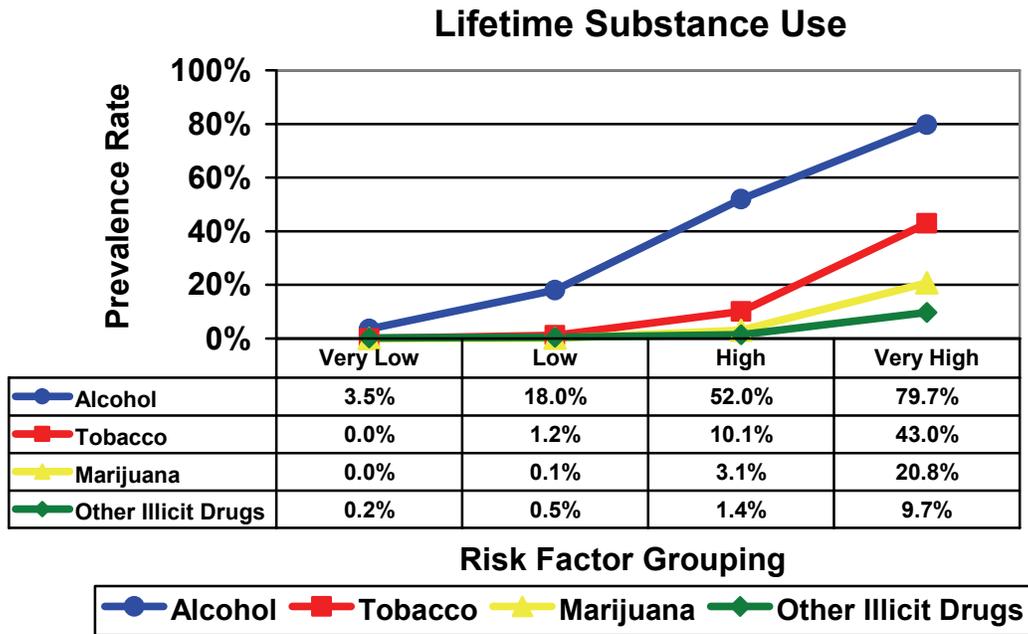
- The average county level protective factor score ranged from a low of 0.50 in Cape May and Gloucester counties and a high of 0.56 in Warren County. Union County (0.54) also had a high protective factor score.

## Impact of Average Risk Factor Score on Substance Use

In order to better interpret the risk factor mean scores, four categories were calculated – *very low*, *low*, *high*, and *very high*. These categories were based on a normal distribution of scores, such that 68% of the scores are within one standard deviation of the mean. Risk categories were determined by examining the mean and standard deviations of the average risk factor score (0.18). Each quartile division of the following graphs was created using standard deviations. The *low* division represents one standard deviation *below* the mean while the *high* division represents scores one standard deviation *above* the mean. The *very low* division represents scores more than one standard deviation *below* the mean. Similarly, the *very high* division includes scores more than one standard deviation *above* the mean.

Once risk factor categories were established, the interaction of these categories with the prevalence of tobacco, alcohol, and other drug use was analyzed. The relationships between the average risk factor score and the rate of substance use are illustrated in Figure ES-4 below.

**Figure ES-4: Prevalence of Lifetime Substance Use by Risk Factor Groupings**



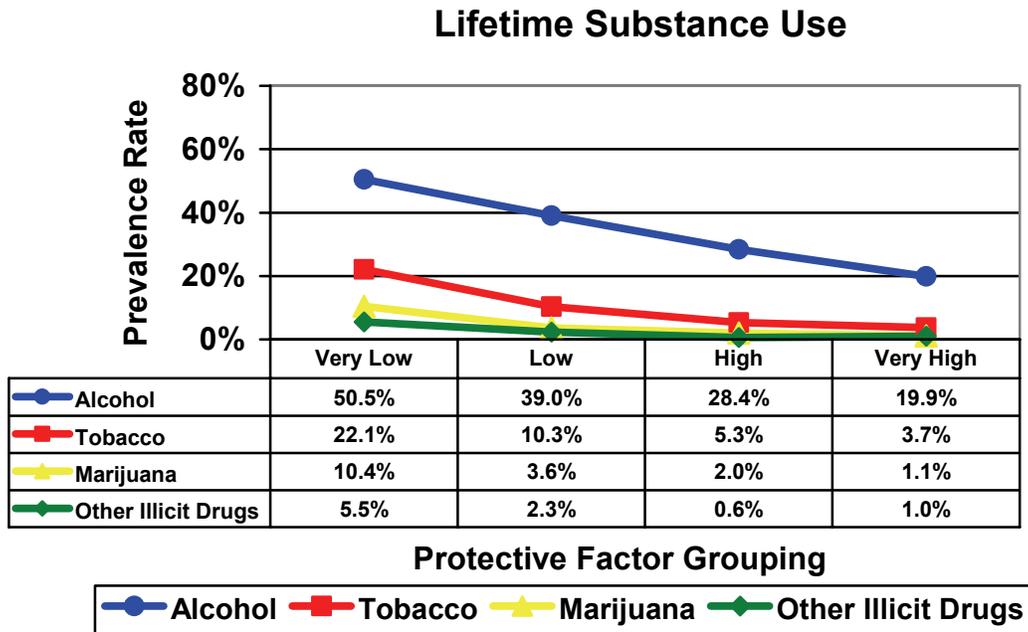
As shown, as risk scores increase, lifetime use of alcohol, tobacco, marijuana, and other illicit drugs increase. Alcohol, in particular, showed a positive linear relationship between risk factor and prevalence of use. Notably, alcohol consumption shows the strongest relationship with increased risk – a change of 75% over the four risk categories. Further, a striking increase occurs between those at *high* and *very high* risk and the use of tobacco (10.1% vs. 43.0%), marijuana (3.1% vs. 20.8%), and other illicit drugs (1.4% vs. 9.7%).

## Impact of Average Protective Factor Score on Substance Use

As described above, in order to better interpret the protective factor mean scores, four categories were calculated – *very low*, *low*, *high*, and *very high*. These categories were based on a normal distribution of scores, such that 68% of the scores are within one standard deviation of the mean. Protective categories were determined by examining the mean and standard deviations of the average protective factor score (0.52). Each quartile division of the following graphs was created using standard deviations. The *low* division represents one standard deviation *below* the mean while the *high* division represents scores one standard deviation *above* the mean. The *very low* division represents scores more than one standard deviation *below* the mean. Similarly, the *very high* division includes scores more than one standard deviation *above* the mean.

The relationship between average protective factor score and substance use is illustrated in Figure ES-5 below. It is important to note that these are inverse relationships.

**Figure ES-5: Prevalence of Lifetime Substance Use by Protective Factor Groupings**



As shown, as protective factor scores increase, the likelihood of the use of alcohol, tobacco, marijuana, and other illicit drugs in middle school decreases. Even with very high protective factor scores, two in ten students will likely have tried alcohol in their lifetime by middle school (19.9%). Further, there is a sharp decrease between those at *very low* and *low* protective groups and the use of tobacco (22.1% vs. 10.3%), marijuana (10.4% vs. 3.6%), and other illicit drugs (5.5% vs. 2.3%). This trend indicates that even with a small increase in the number of protective factors students have, ATOD use could be vastly decreased.



# Introduction

## **A. Background**

In July 2006, the New Jersey Department of Human Services (NJ DHS), Division of Addiction Services (DAS) contracted with Bloustein School of Planning and Public Policy, Center for Survey Research (BCSR) at Rutgers University to conduct the 2007 New Jersey Middle School Risk and Protective Factor Survey (NJ MS RPFS). The survey continues efforts initiated in 1999 to systematically document risk and protective factors among New Jersey youth. Until 2003, the NJ DHS/DAS used the Communities That Care survey provided by the Channing Bete Company, Inc. Results of the 1999 and 2003 surveys can be found on the NJ DHS/DAS website at [http://www.state.nj.us/humanservices/das/das\\_reports.html](http://www.state.nj.us/humanservices/das/das_reports.html). County and state-level drug and alcohol coordinators will use information from the survey to plan tailored prevention programs for New Jersey's youth population. In addition, the NJ DHS/DAS intends to use the data to complete the Federal application for block grant funding and for disbursement of funds within the State for prevention and planning purposes.

Data from the New Jersey Middle School Risk and Protective Factor Survey is highly comparable to that collected during the fall 2006 Youth Tobacco Survey conducted by the New Jersey Department of Health and Senior Services (NJDHSS), Comprehensive Tobacco Control Program. Summary reports are available on the NJDHSS web site at [www.state.nj.us/health/as/ctcp/research.htm](http://www.state.nj.us/health/as/ctcp/research.htm). In addition, the New Jersey Department of Education (NJDOE) has collected biennial data concerning student health in the ninth through twelfth grades since 1993. The New Jersey Student Health Survey, previously known as the Youth Risk Behavior Survey, features core questions promulgated nationally by the Centers for Disease Control and Prevention (CDC) concerning student self reports on their attitudes and behaviors in areas that are highly related to preventable illness and premature death. While the questions are asked differently from those on the New Jersey Middle School Risk and Protective Factor Survey, the responses do provide a means to examine changes in student use with increasing age and grade. Results of the biennial NJ Student Health Survey can be found at [www.nj.gov/njded/students/safety/health/reporting.shtml](http://www.nj.gov/njded/students/safety/health/reporting.shtml). Finally, from 1980 to 1998, the New Jersey Department of Law and Public Safety, Division of Criminal Justice conducted the triennial Survey of Drug and Alcohol Use Among New Jersey High School Students. Findings of the spring 1998 survey can be found at [www.state.nj.us/lps/dcj/dahs1230.htm](http://www.state.nj.us/lps/dcj/dahs1230.htm).

## **B. Study Design and Methods**

The following information outlines the major aspects of the study design, methods, field procedures, and participation rates. More detailed information can be found in a technical report on the administration of the 2007 survey, entitled "2007 New Jersey Middle School Risk and Protective Factor Survey Technical Report: Procedures, Challenges, and Recommendations" provided to the NJDHS/DAS by BCSR.

## Sampling Design

BCSR aimed to conduct the survey with a targeted sample of 104 middle schools randomly selected throughout the state. The sample of schools was stratified by county. BCSR used a multi-stage sampling design. For middle schools, a sampling ratio of 1-to-8 schools was used with a minimum of four schools when a county had 35 or fewer schools.

Using this sampling approach, the target number of middle schools selected was 104 with county samples ranging from 4 to 9 schools. Schools were selected systematically with probability proportional to enrollment in grades 7 and 8 using a random start. At the school level, sampling with replacement was used so that if a school refused to participate, the next school in the list of schools was selected to participate. A total of 161 middle schools were recruited for survey participation.

The goal was to obtain weighted percentage data within each county that represented the total student population in the county with a margin of error at approximately +/- 5.0 percentage points at a 95% confidence interval. Within schools, a targeted 60% student response rate was assumed in calculating the total number of students to participate per county.

This method assumed that all schools were recruited prior to any survey administration. Since this was not possible, estimates for sample sizes were made based on school enrollment and weighted adjustments were made to the final dataset. The total number of middle-school students intended to be sampled was 12,424. Assuming a 60% response rate, 7,455 students were expected to complete the survey.

The final *participating* sample included 90 middle schools with the forecasted goals of school participation achieved in 13 of the 21 counties. Overall, 7,233 students submitted surveys in those 90 participating schools. Student participation rates met or exceeded the 60% response rate goal in 15 of the 21 counties.

## Field Procedures

BCSR staff members began contacting school superintendents and principals in September 2006 to obtain permission to conduct the survey at the school. Once a school agreed to participate, a list of all classes was provided to BCSR. Classes were then randomly selected in a manner that assured that all students were eligible for selection into the sample.<sup>1</sup> BCSR staff administered the survey in each randomly-selected classroom at sampled schools between October and June 2007.

It should be noted that the administration of the survey was conducted under standards established by state law *N.J.S.A. 18A:36-34* which requires active parental consent for student participation – meaning that students could only participate if they returned a signed consent form from a parent/guardian. The parental consent requirement may act as a screening process whereby students not participating in the survey are the students who fail to bring home or return permission forms necessary for participation. At the same time, there is another group of students who are excluded because their parents have chosen not to consent to participation

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<sup>1</sup> All classes in a required subject *or*, depending on the school's choice, all classes meeting during a particular period of the day were included in the sampling frame. Systematic equal probability sampling with a random start was used to select classes from each school that participated in the survey.

in this survey. While there is no empirical evidence to support the notion that these groups of students differ in any way from students who do return their consent form allowing survey participation, the active parental consent process creates an obvious screening criteria for inclusion in this study. Both of these non-participating groups are small. Overall, the majority of all students (68%) returned a form that permitted participation; 9% returned a form that did not consent to participation, and 23% did not return a form at all.

Participating schools were provided with parent consent letters and survey fact sheets to send home with students. In all cases, documented parental consent was required for a student to participate, consistent with New Jersey statute. Any student who did not want to participate on the day of administration was also excused.

The questionnaires were completely anonymous and confidential and, once completed, procedures were followed to protect the confidentiality of subjects and their data. All procedures are reviewed and approved on an annual basis by Rutgers University's Institutional Review Board (IRB) for compliance with federal guidelines for the treatment of human subjects. Participation is voluntary. Questionnaires are self-administered and formatted for optical scanning.

## **Participation Rates**

For the 90-school sample, 8,650 of the 11,228 students sampled (77.0%) returned their parent consent forms. Among students who did return the parent consent form, most parents (88.5%, N=7,653) agreed to participate. A total of 997 parents refused permission (11.5%). There did not seem to be any common characteristics of schools with higher percentages of refusals.

Actual participation in the 2007 NJ MS RPFS totaled 7,233 students.<sup>2</sup> This represents 64.4% of the students included in the sampled classes. Of the students who returned a consent form that was marked 'Yes', 3.7% of those students were absent on the day of administration. In prior years, response rates on the NJ DHS DAS administration of the 'Communities that Care' survey, response rates have been a concern. In 2003, the school participation rate of 32.2% and student response rate of 40.2% led to an overall participation rate of 12.9%.

With 90 of 161 schools participating (55.9% school participation rate) and 7,233 of 11,228 students returning a completed questionnaire (64.4% student participation rate), the final overall survey response rate was 36.0% (school rate x student rate), or almost 3 times greater than the last statewide Communities That Care Survey (12.9%). Table 1 presents a summary of the school and student response rates by county, and the overall response rates by county. While these overall participation rates are greater than similar efforts in the past, they are lower than those rates generally regarded as acceptable to considering results as representative to a broader population. For example, CDC requires a 60% overall response rate on its Youth Risk Behavior Survey as a cut-off for having data weighted to the state's student population. Therefore, since response rates were lower than these conventions, the possibility exists that a participation bias at either the school and/or student level may impact the results of the study. State, county and community representatives should consider these response rates and their potential bias on results when using the NJ MS RPFS report in any prevention planning efforts.

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<sup>2</sup> Two students turned in surveys that were completely blank and are not included in this number.

**Table 1: Disposition by County: Summary of School and Student Response Rates**

COUNTY	# Schools Selected	Target	# Agreed	# Schools Completed	School Rate	# Students Completed	Student Rate	Overall Rate
Atlantic*	7	4	4	4	57.1%	347	60.8%	34.7%
Bergen*	18	9	5	5	27.8%	312	62.2%	17.3%
Burlington	5	4	4	4	80.0%	387	63.3%	50.7%
Camden	7	5	5	5	71.4%	388	63.1%	45.1%
Cape May	6	4	3	3	50.0%	286	77.3%	38.7%
Cumberland	4	4	3	3	75.0%	217	57.7%	43.3%
Essex*	12	9	6	6	50.0%	244	49.8%	24.9%
Gloucester	6	4	4	4	66.7%	336	57.5%	38.4%
Hudson	11	8	9	9	81.8%	470	71.3%	58.4%
Hunterdon*	8	4	3	3	37.5%	340	69.7%	26.1%
Mercer	6	4	4	4	66.7%	430	74.1%	49.4%
Middlesex	7	5	5	5	71.4%	456	68.0%	48.5%
Monmouth*	10	6	5	5	50.0%	404	64.5%	32.3%
Morris*	11	4	2	2	18.2%	166	59.3%	10.8%
Ocean	5	4	4	4	80.0%	451	70.0%	56.0%
Passaic*	8	5	3	3	37.5%	257	69.1%	25.9%
Salem*	8	4	4	4	50.0%	256	64.3%	32.2%
Somerset	5	4	4	4	80.0%	355	52.8%	47.0%
Sussex	4	4	4	4	100%	437	73.0%	73.0%
Union	7	5	5	5	71.4%	336	53.2%	38.0%
Warren	6	4	4	4	66.7%	360	64.8%	43.2%
TOTAL	161	104	90	90	55.9%	7233	64.4%	36.0%

As shown in Table 1, overall survey response rates ranged from a low of 10.8% in Morris\* County to a high of 73.0% in Sussex County. While it is not possible to ascertain differences between survey responders and non-responders, BCSR would urge readers to exercise caution in interpreting data from counties with low response rates. Considering survey response rates are an important element in determining the quality of data collected, these rates must be considered when looking at survey analysis on the data compiled in the study.

The cut-off rate for adequate performance was determined by the mean for all counties (36.0%).<sup>3</sup> An adequate overall response rate was not reached in eight of the 21 counties. All counties whose response rates were less than the State mean are listed below and are marked with an asterisk (\*) throughout this report. Results for these counties should not be considered as representative of the county overall:

- Morris\* (10.8%)
- Bergen\* (17.3%)
- Essex\* (24.9%)
- Passaic\* (25.9%)
- Hunterdon\* (26.1%)
- Salem\* (32.2%)
- Monmouth\* (32.3%)
- Atlantic\* (34.7%)

<sup>3</sup> After reviewing the overall response rates, counties fell into two distinct groups. The eight lower performing counties (noted by \* throughout the report) had an overall response rate of 24.3%, while the 13 higher performing counties had an overall response rate of 48.0%.

## C. Questionnaire

### Background

From 1999 to 2003, the New Jersey Division of Addiction Services administered the Communities That Care Youth Survey (CTCYS) in a sample of middle schools on three occasions (1999, 2001, and 2003). The CTCYS instrument was developed out of a multi-state study funded by the Center for Substance Abuse Prevention (CSAP) in order to assess a wide range of risk and protective factors. Prior research had shown that a number of constructs exist to adequately predict the initiation of substance use and anti-social behaviors (Coie et al., 1993; Durlak, 1998; Hawkins, Arthur, and Catalano, 1995; Hawkins, Catalano, and Miller, 1992; Kellam, Koretz, and Moscicki, 1999; Mrazek and Haggerty, 1994).<sup>4</sup> During the CSAP project it was determined that no existing instrument measured the necessary array of risk and protective factors needed to focus prevention programs across geographic areas and subpopulations (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002).<sup>5</sup> The instrument includes risk and protective factors that show the strongest correlations to drug use, including feelings about school and their neighborhood; self-reported and peer use of tobacco, drugs, and alcohol; and the availability of such substances. The original CTCYS includes 333 items measuring 32 constructs, or risk and protective factors depending on whether behavior is influenced negatively or positively.

Since the development of the Communities That Care Youth Survey in 1992, the instrument has been revised and condensed into the Pride Risk and Protective Factors Survey (RPF). Dr. Jack Pollard, one of the original developers of the CTCYS, led the charge to shorten the original 12-page survey into a more manageable four pages (the Pride RPF). To do this, Pollard considered the practicality of administration (four pages can be completed in one class

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<sup>4</sup> Coie, J.D., Watt, N.F., West, S.G., Hawkins, J.D., Asarnow, J.R., Markman, H.J., Ramey, S.L., Shure, M.B., & Long, B. (1993). The science of prevention. A conceptual framework and some directions for a national research program. *American Psychologist* 48 (10): 1013-22.

Durlak, J. A. (1998). Common risk and protective factors in successful prevention programs. *American Journal of Orthopsychiatry* 68 (4): 512-20.

Hawkins, J.D., Arthur, M.W., & Catalano, R.F. (1995). Preventing substance abuse. In *Crime and justice: Vol. 19. Building a safer society: Strategic approaches to crime prevention*, edited by M. Tonry and D. Farrington, 343-427. Chicago: University of Chicago Press.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin* 112 (1): 64-105.

Kellam, S. G., D. Koretz, & E. K. Moscicki. 1999. Core elements of developmental epidemiologically based prevention research. *American Journal of Community Psychology* 27 (4): 463-82.

Mrazek, P.J., Haggerty, R.J. eds., & Committee on Prevention of Mental Disorders, Institute of Medicine. (1994). *Reducing risks for mental disorders: Frontiers for prevention intervention research*. Washington, DC: National Academy Press.

<sup>5</sup> Arthur, M.W., Hawkins, J.D., Pollard, J.A., Catalano, R.F., & Baglioni, A.J. (2002). Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors: The Communities That Care Youth Survey. *Evaluation Review*, 26, 575-601. Retrieved April 7, 2008, from [http://www.pridesurveys.com/supportfiles/CTC\\_reliability.pdf](http://www.pridesurveys.com/supportfiles/CTC_reliability.pdf).

period), political and communities issues around measuring sensitive topics (e.g., family conflict), whether intervention is possible (e.g., *Sensation Seeking* is interpreted as more of a personality trait rather than a risk factor), and the degree of importance to the domain (e.g., *Opportunities for Positive Involvement* in the community is less important factor than the community's *Laws and Norms Favorable to Drug Use*). Finally, the instrument was tested to determine that the items reliably and efficiently measured the constructs intended (Arthur et. al., 2002). In all, the final four-page RPF survey included 121 items measuring 29 risk and protective factor constructs.

Per Pride Surveys, more than 8,000 individual schools and school systems have used its surveys since 1982.<sup>6</sup> Moreover, in 1999, Pride Surveys were selected by Congress “as an official measure of adolescent drug use in the nation.” The CTCYS and four-page RPF survey is appropriate for adolescents aged 11-18 years old and allows for the analysis of risk and protective factors at different ages (Arthur et. al., 2002). As a result, federal, state, and local agencies have found these factors to be useful for prevention needs assessments and the planning of prevention programs.

In 2006, the Division of Addiction Services switched from the CTCYS to the Pride RPF. The current 73-item questionnaire, published by Pride Surveys, is a revised version of the final RPF survey and has been customized with recommendations from DAS. This instrument includes 20 risk and five protective factors. Chapters 1-3 present the prevalence summaries of New Jersey middle-school students' use of drugs, participation in antisocial behaviors, and gambling activities, respectively. Chapter 4 presents analysis of the instrument's risk and protective factor items, as well as graphical representations of the impact of risk and protective factor scores on substance use.

## **Risk and Protective Factor Scales**

The *New Jersey Middle School Risk and Protective Factor Survey* contains six overarching domains – Community, Family, School, and Peer-Individual for the 20 risk factors and School and Peer-Individual for the five protective factors. Multiple survey items comprise each of these factors and there was a minimum number of questions that must be answered in order to be calculate a scales score for that factor. BCSR computed scale scores for each risk and protective factor, their respective domains, and summary risk and protective factor scores, which were created by combining all 20 risk factors and all 5 protective factors, respectively.

Risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior. These variables have been standardized to a 0 to 1 scale. Each question was scored so that the most negative behaviors received the highest score. It is important to note that risk and protective factors are interpreted differently. *The higher the score on a risk factor, the more likely the student is 'at-risk' for using drugs or participating in delinquent behaviors.*

Protective factors are characteristics of the students' school, and peer relationships that have been associated with reducing the likelihood of experimentation with alcohol, tobacco, and other drugs and antisocial behavior. Each question was scored so that the most positive

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<sup>6</sup> *Why use Pride Surveys?* by Pride Surveys. Retrieved April 7, 2008, from <http://www.pridesurveys.com/>.

behaviors received the highest score. For example, if a student indicated that she had done community service 40 or more times in the last year, then this would be scored as a 1. *The higher the score on a protective factor, the more likely the student is to be 'protected' from negative behaviors, such as using drugs and participating in antisocial activities.*

## **D. Weighting**

The following outlines the steps used to generate the school/student weights used for the study to make the raw data more representative of the New Jersey middle school student population at the county and statewide level:

### **Overview of Weighting Procedure**

The sampling and weighting strategies for this survey were designed and implemented to produce survey estimates that would be representative of the population of 7<sup>th</sup> and 8<sup>th</sup> grade students enrolled in public (non-charter) schools with 40 or more students in the state. The analysis of the survey data examines individual county level and state level data so the data were weighted to be representative of the 7<sup>th</sup> and 8<sup>th</sup> grade public school population at each level. The sample for the survey was designed to produce county and state level estimates and required that the data be weighted to compensate for the designed sample disproportionality at the county level.

The sample was a school-based sample selected at the county level. Schools within counties were selected with probabilities proportionate to enrollment size and, to the extent possible given school enrollment size, students were sampled equally across the selected schools within each county. Classes of students were selected randomly from among all 7<sup>th</sup> and 8<sup>th</sup> grade period two classes at each sampled school and attempts were made to collect completed surveys from all students within each sampled class.

There are two components to the weighting procedure: (a) one adjustment is associated with school/student probability of selection, and (b) the other adjustment is to insure demographic comparability. A weight is associated with each questionnaire to reflect the likelihood of sampling each student. The sample is weighted by the probability of selection at the school and classroom level and to reflect the county and state student population parameters. The weight used for estimation is given by:

$$W = W1 * W2 * f1$$

- W1 = the inverse of the probability of selecting the school;
- W2 = the inverse of the probability of selecting the classroom within the school;
- f1 = a post-stratification adjustment factor calculated by gender within grade and by race/ethnicity.

The weighted percentages used in this report are a more accurate reflection of the total New Jersey middle school population than if the results were to be used in their non-weighted form. Although the response rate only reached 36%, weighting the data in this manner allows the weighted results to more closely match the attitudes and behaviors of all regular public

school students in grades 7 and 8 in New Jersey to improve inferences concerning the substance use prevalence.

The sampling strategy is an equal probability of selection method in design involving three stages of adjustments. The county level sample is first weighted by the probability of selection at the school and student level. Additionally, weighting on student demographic characteristics was necessary at the county level to mitigate the effects of student and school selection on the survey estimates. Finally, state level weighting was necessary to ensure that the weighted sample estimates would accurately represent the entire student population in the state. The calculation of sample and demographic weights was accomplished in multiple stages and different weights are calculated for analysis at the county level and the state level. More information on the specific steps used to calculate weight coefficients are presented in “2007 New Jersey Middle School Risk and Protective Factor Survey: Weighting Procedures and Statistical Tabulations.”

## **E. Profile of Middle School Students**

As discussed, the survey results are representative of all New Jersey middle school students in grades 7-8. Overall, 7,087 of the 7,233 completed surveys (98.0%) were eligible for analysis. Reasons for ineligibility include the following:

- incomplete surveys (answering less than 60% of the survey questions);
- use of *derbisol* (a fictitious drug used in questionnaires to test the reliability of answers received by students);
- two or more inconsistent affirmative responses to drug questions (e.g., indicating use of a particular drug in the last 30 days for one question and indicating *no use* in the last 12 months);
- or, unscannable forms.

The weighted and unweighted demographic characteristics of the sample are included in Table 2 below.

**Age:** The students ranged in age from 11 years old to 16 years old. Overall, 26.5% of the students were 12 or younger, 48.6% were 13 years old, 23.6% were 14 years old, and 1.3% were 15 or older.

**Grade:** Based on weighted demographic data, the students were evenly split between 7<sup>th</sup> grade (50.7%) and 8<sup>th</sup> grade (49.3%).

**Sex:** Overall, an equivalent number of males (51.2%) and females (48.8%) responded to the survey.

**Race/Ethnicity:** Based on weighted demographic data, 58.9% were White, 16.7% were Black or African American, 16.7% were Hispanic or Latino (including Hispanics who also identified with a race or multiple races), 5.0% were Asians or Native Hawaiian/Pacific Islanders and 2.8% were Other (including American Indian/Alaskan Natives and non-Hispanic students who identified with multiple races).

**Table 2: Profile of Middle-school students in the 2007 New Jersey Middle School Risk and Protective Factor Survey**

	Demographic Group	Sample (n)	Sample %	Weighted %
<b>GENDER</b>	<i>Female</i>	3664	53.1%	48.8%
	<i>Male</i>	3234	46.9%	51.2%
<b>AGE</b>	<i>12 Years Old or Younger</i>	1790	25.3%	26.9%
	<i>13 Years Old</i>	3461	49.0%	48.6%
	<i>14 Years Old</i>	1706	24.1%	23.6%
	<i>15 Years Old or Older</i>	113	1.6%	1.3%
<b>GRADE</b>	<i>7<sup>th</sup></i>	3363	47.5%	50.7%
	<i>8<sup>th</sup></i>	3724	52.5%	49.3%
<b>RACE/ETHNICITY</b>	<i>Black</i>	664	10.0%	16.7%
	<i>Hispanic/Latino</i>	1177	17.7%	16.7%
	<i>White</i>	4120	62.1%	58.9%
	<i>Other</i>	673	10.1%	7.8%



# Chapter 1: Alcohol, Tobacco and Other Drug Use

## A. Presentation of the Findings

The following section presents the findings on the alcohol, tobacco, and other drug use collected by the *2007 New Jersey Middle School Risk and Protective Factor Survey*. The survey focuses on New Jersey middle school students, specifically 7<sup>th</sup> and 8<sup>th</sup> graders. The drug information collected includes the prevalence and frequency of use of alcohol, tobacco, marijuana, inhalants, prescription drugs without a prescription, cocaine, methamphetamines, amphetamines and tranquilizers/sedatives,<sup>7</sup> hallucinogens, heroin, steroids, ecstasy, OxyContin, and club drugs.

Many of the items on the *2007 New Jersey Middle School Risk and Protective Factor Survey* were comparable to the *Monitoring the Future* survey, a national study of drug use by middle and high school students conducted each year by the University of Michigan's Institute for Social Research's Survey Research Center. The survey provides data on the national prevalence of use for alcohol, tobacco, and other illicit drugs (ATOD) using a representative sample of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students. For many years, the *Monitoring the Future* survey served as the primary reference for determining the ATOD use among adolescents in the United States.

The use of ATODs by middle-school students in New Jersey is shown in Tables 3 to 24. Students' ATOD use is shown in two distinct ways – by prevalence tables and by frequency tables.

1. **Prevalence tables** display the percentage of students who reported use of a drug at least once in the specified time period. These results are presented for three prevalence periods: **lifetime** (whether the student has ever used the substance); **annual** (whether the student has used the substance within 12 months prior to the survey date); and, **past 30 days** (whether the student has used the substance within 30 days prior to the survey date). ATOD prevalence table results are presented by grade, sex and race/ethnicity. *Caution should be taken when interpreting the results of some of these groups, especially when comparing differences, because of small subsample sizes.*

2. **Frequency tables** illustrate the number of occasions that students reported using a particular drug in a specified time period. It is important to note that, due to rounding errors, the frequency of use for a substance (divided amongst multiple categories) does not precisely match the prevalence of use.

County-level results are discussed throughout the report and are included in the appendices. Please be advised that caution should be taken when interpreting the results from specific counties due to the low participation rates obtained in some counties. One should not assume that the findings reported for counties having low response rates are representative of that county. Tables in the appendices include sample sizes for each county.

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<sup>7</sup> Amphetamines asked as “Uppers” and tranquilizers and sedatives asked as “Downers” in the survey.

## B. Summary of the Alcohol, Tobacco and Other Drug Findings

Tables 3 and 4 display the results from the 2007 NJ MS RPF survey while national comparative results from the 2006 *Monitoring the Future* survey are presented in Table 5. As shown in Table 5, New Jersey 8<sup>th</sup> grade students reported lower levels of use for many substances than those reported in the 2006 *Monitoring the Future* study. It is important to note that the *Monitoring the Future* data are based on 8<sup>th</sup> grade students only; therefore, the only direct comparison possible is with New Jersey's 8<sup>th</sup> grade data. Particularly noteworthy differences were found for the lifetime use of cigarettes, marijuana, and inhalants, all of which were quite lower than the national rates (12.4% vs. 24.6%, 5.5% vs. 15.7%, and 4.6% vs. 16.1%, respectively). However, NJ 8<sup>th</sup> grade students showed higher levels of use for alcohol (lifetime, annual and past 30-days) in comparison to *Monitoring the Future* 8<sup>th</sup> graders.

Each of the substances displayed in Table 3 are discussed in greater detail in the following sections. Tables 8-13 show the lifetime, annual, and recent (past 30 days) use of alcohol, tobacco and other drugs. Use in the 30 days prior to the survey date was only asked for alcohol, cigarettes, marijuana, cocaine, and methamphetamines.

**Table 3: Summary of the Prevalence of Use of Primary Substances for the 2007 New Jersey Middle School Risk and Protective Factor Survey**

		7th		8th		Overall	
		n	%	n	%	n	%
<b>Alcohol</b>	<b>Lifetime</b>	3211	24.1	3568	44.1	6779	34.0
	<b>Annual</b>	3205	17.3	3532	34.5	6737	25.8
	<b>Past 30 Days</b>	3226	9.4	3595	21.4	6821	15.3
<b>Cigarettes</b>	<b>Lifetime</b>	3316	6.5	3683	12.4	6999	9.4
	<b>Annual</b>	3341	4.5	3692	9.6	7033	7.0
	<b>Past 30 Days</b>	3314	2.3	3674	5.5	6988	3.8
<b>Marijuana</b>	<b>Lifetime</b>	3329	1.9	3680	5.5	7009	3.7
	<b>Annual</b>	3339	1.3	3690	4.7	7029	3.0
	<b>Past 30 Days</b>	3309	0.9	3673	3.4	6982	2.1
<b>Inhalants</b>	<b>Lifetime</b>	3317	3.8	3691	4.6	7008	4.2
	<b>Annual</b>	3339	2.5	3709	2.7	7048	2.6
<b>Prescription Drugs w/o Prescription</b>	<b>Lifetime</b>	3298	5.1	3663	6.9	6961	6.0
	<b>Annual</b>	3324	4.0	3682	4.9	7006	4.5

Note: "n" represents the number of responses for a given survey item, and '%' represents the percentage of students reporting use.

**Table 4: Summary of the Prevalence of the Use of Other Illicit Drugs for the 2007 New Jersey Middle School Risk and Protective Factor Survey**

		7th		8th		Overall	
		n	%	n	%	n	%
<b>Cocaine</b>	<b>Lifetime</b>	3330	0.1	3698	0.6	7028	0.3
	<b>Annual</b>	3348	0.1	3705	0.4	7053	0.2
	<b>Past 30 Days</b>	3317	0.1	3674	0.3	6991	0.2
<b>Methamphetamines</b>	<b>Lifetime</b>	3269	0.5	3669	0.5	6938	0.5
	<b>Annual</b>	3337	0.3	3685	0.4	7022	0.3
	<b>Past 30 Days</b>	3309	0.3	3676	0.2	6985	0.3
<b>Amphetamines</b>	<b>Lifetime</b>	3331	0.3	3697	0.6	7028	0.4
	<b>Annual</b>	3356	0.1	3712	0.4	7068	0.3
<b>Sedatives</b>	<b>Lifetime</b>	3330	0.4	3688	0.8	7018	0.6
	<b>Annual</b>	3354	0.2	3709	0.5	7063	0.4
<b>Hallucinogens</b>	<b>Lifetime</b>	3334	0.2	3693	0.4	7027	0.3
	<b>Annual</b>	3356	0.1	3715	0.3	7071	0.2
<b>Heroin</b>	<b>Lifetime</b>	3334	0.1	3699	0.3	7033	0.2
	<b>Annual</b>	3353	0.0	3711	0.3	7064	0.2
<b>Steroids</b>	<b>Lifetime</b>	3330	0.3	3692	0.4	7022	0.3
	<b>Annual</b>	3348	0.1	3709	0.3	7057	0.2
<b>Ecstasy</b>	<b>Lifetime</b>	3328	0.1	3690	0.8	7018	0.4
	<b>Annual</b>	3345	0.1	3707	0.6	7052	0.3
<b>OxyContin</b>	<b>Lifetime</b>	3322	0.1	3686	0.4	7008	0.3
	<b>Annual</b>	3343	0.1	3705	0.3	7048	0.2
<b>Club Drugs</b>	<b>Lifetime</b>	3339	0.1	3699	0.4	7038	0.3
	<b>Annual</b>	3351	0.0	3709	0.2	7060	0.1
<b>Total of Other Illicit Drugs</b>	<b>Lifetime</b>	3363	1.4	3724	2.6	7087	2.0
	<b>Annual</b>	3363	0.7	3724	1.8	7087	1.2

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use. 'Total of Other Illicit Drugs' is the combined prevalence of all the drugs listed in this table.

**Table 5: Lifetime, Annual and Recent Use of Alcohol, Tobacco and Other Drugs from the 2007 NJ MS RPF Survey Compared to the 2006 "Monitoring the Future" Study**

	2007 NJ MS RPF Survey (8 <sup>th</sup> Grade)	2006 Monitoring the Future (8 <sup>th</sup> Grade)
	%	%
<b>Lifetime Use</b>		
Alcohol	44.1	40.5
Cigarettes	12.4	24.6
Marijuana	5.5	15.7
Inhalants	4.6	16.1
Ecstasy	0.8	2.5
Cocaine or Crack	0.6	3.4
Heroin	0.3	1.4
<b>Annual Use</b>		
Alcohol	34.5	33.6
Cigarettes	9.6	*
Marijuana	4.7	11.6
Inhalants	2.7	9.1
Ecstasy	0.6	1.4
Cocaine or Crack	0.4	2.0
Heroin	0.3	0.8
<b>Recent Use (Past 30 days)</b>		
Alcohol	21.4	17.2
Cigarettes	5.5	8.7
Marijuana	3.4	6.5
Cocaine or Crack	0.3	1.0

Note: *Monitoring the Future*<sup>8</sup> does not provide prevalence rates for the annual use of cigarettes.

<sup>8</sup> Exact *Monitoring the Future* survey questions could not be obtained. Please keep this in mind when comparing the 2006-2007 New Jersey Risk and Protective Factor Middle School Survey with *Monitoring the Future* data.

## Alcohol

Alcohol, which includes beer, wine and hard liquor, is the drug used most often by adolescents. Findings for alcohol use by New Jersey middle-school students surveyed in 2007 are presented in Tables 6 and 7.

Among New Jersey middle school students, 34.0% of 7<sup>th</sup> and 8<sup>th</sup> graders reported having used alcohol at some time in their lives. The lifetime rate for 8<sup>th</sup> graders was higher than for 7<sup>th</sup> graders (44.1% and 24.1%, respectively). The *Monitoring the Future* study found a lifetime alcohol prevalence of 40.5% for 8<sup>th</sup> graders nationwide in 2006. When compared to the findings from the *2007 New Jersey Middle School Risk and Protective Factor Survey*, more 8<sup>th</sup> grade students in New Jersey had consumed alcohol than 8<sup>th</sup> grade students nationwide (44.1% vs. 40.5%, respectively). As shown in Table 8, 15.3% of all the surveyed 7<sup>th</sup> and 8<sup>th</sup> grade students in New Jersey had used alcohol in the 30 days prior to the survey; with 21.4% of 8<sup>th</sup> graders and 9.4% of 7<sup>th</sup> graders reporting such use. The past 30-day prevalence rate for NJ 8<sup>th</sup> graders (21.4%) exceeded the *Monitoring the Future* study rate of 17.2%.

There was a minimal difference in reported lifetime alcohol use between New Jersey male and female middle-school students (0.4%), with females having reported greater alcohol use. There was not a great difference between males and females in the recent use (14.2% and 16.1%, respectively).

Differences among race/ethnicity groups regarding the lifetime use of alcohol were also fairly small (33.5%-36.7%, respectively). Though, the proportion of students of *other race/ethnic backgrounds* was noticeably lower (20.9%). Unlike the relatively similar lifetime results, White and Hispanic students (17% and 16.7%, respectively) were more likely than African-American students (10.9%) and students of other race/ethnic backgrounds (6.5%) to have consumed alcohol in the 30 days prior to the survey.

Some counties showed almost twice the lifetime alcohol use rates than other counties (Table A1). For example, Cape May County had the highest lifetime prevalence rate of 43.0%, followed by Gloucester County at 41.3%. The lowest lifetime rates were found in Warren County (21.4%) and Camden County (27.3%). Cape May County also had the highest past 30-day rate (22.8%). This was more than two times higher than the findings for Union County, the county with the lowest past 30-day prevalence rates (10.6%). However, because of low response rates in some counties caution must be used when interpreting county-level findings.

Table 7 presents the past 30-day frequency of alcohol. The number of occasions of use has been broken down into four categories: *Never*, *1 to 2 occasions*, *3 to 5 occasions*, and *6 or more occasions*. In this study, 15.3% of 8<sup>th</sup> graders indicated that they had used alcohol 1 to 2 times in the past month. Further, only small proportions of 8<sup>th</sup> graders reported drinking alcohol on 3 or more occasions (3.6% in the *3 to 5 occasions* category and 2.5% in the *6 or more occasions* category).

**Table 6: Lifetime, Annual, and Recent Use of Alcohol by Demographic Subgroups**

	Lifetime		Annual		Past 30-Days	
	n	%	n	%	n	%
<b>NJ Middle School Students</b>	6779	34.0	6737	25.8	6821	15.3
<b>Grade</b>						
7th	3211	24.1	3205	17.3	3226	9.4
8th	3568	44.1	3532	34.5	3595	21.4
<b>Sex</b>						
Male	3066	33.7	3050	25.5	3080	14.2
Female	3531	34.1	3505	25.8	3562	16.1
<b>Race/Ethnicity</b>						
White	3828	35.4	3814	29.2	3879	17.0
African-American	604	33.5	602	18.6	606	10.9
Hispanic	1119	36.7	1099	27.4	1108	16.7
Other	624	20.9	621	12.8	622	6.5

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 7: Frequency of Alcohol Use during the Past 30 Days by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never	Any Occasion	1-2	3-5	6+
		%	%	%	%	%
<b>NJ Middle School Students</b>	6821	84.7	15.3	11.3	2.3	1.7
<b>Grade</b>						
7th	3226	90.6	9.4	7.3	1.1	0.9
8th	3595	78.6	21.4	15.3	3.6	2.5
<b>Sex</b>						
Male	3080	85.8	14.2	10.5	1.9	1.7
Female	3562	83.9	16.1	11.6	2.7	1.8
<b>Race/Ethnicity</b>						
White	3879	83.0	17.0	12.6	2.6	1.9
African-American	606	89.1	10.9	9.0	1.4	0.6
Hispanic	1108	83.3	16.7	11.8	2.6	2.3
Other	622	93.5	6.5	4.7	1.2	0.6

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## Cigarettes

After alcohol, tobacco was the most commonly used substance among surveyed New Jersey middle-school students in 2007. New Jersey students, however, reported substantially lower rates of lifetime cigarette smoking in comparison to the national prevalence of cigarette smoking reported in 2006 (12.4% vs. 24.6%).

Table 8 presents the lifetime, annual and recent prevalence rates for cigarette smoking. As shown, overall 9.4% of NJ middle-school students had smoked cigarettes in their lifetimes. In addition, 7.0% reported use in the past year and 3.8% reported smoking cigarettes in the past 30 days. Eighth-grade students were twice as likely as 7<sup>th</sup> graders to report having smoked cigarettes in their lifetime (12.4% vs. 6.5%). The 8<sup>th</sup> and 7<sup>th</sup> grade figures for the past 30-day use of cigarettes were 5.5% and 2.3%, respectively.

Males were slightly more likely than females to have smoked cigarettes in their lifetime (10.0% and 8.8%, respectively). Substantial differences occurred across racial/ethnic groups, with a greater proportion of African-American and Hispanic students (12.2% and 12.0%, respectively) than White students (8.3%) reporting smoking in their lifetime. Notably, only 3.5% of students of *other racial/ethnic backgrounds* reported lifetime cigarette smoking.

Table 9 presents the frequency of cigarette use in the past 30 days in terms of the number of occasions on which the students smoked. A small proportion of students (3.8%) reported smoking on at least one occasion during the past 30 days prior to the survey, with only 1.1% had smoked on more than 6 occasions in the last month.

Of the students who indicated that they had smoked cigarettes in the past 30 days, a small percentage (2.3%) indicated that they had smoked less than one cigarette per day. About 1% of students (0.9%) indicated smoking more than one cigarette per day.

The findings at the county level indicate that Cape May (16.0%) and Gloucester counties (14.7%) have the highest rates for lifetime cigarette smoking while Warren (5.7%) and Sussex (6.2%) counties have the lowest rates.

**Table 8: Lifetime, Annual and Recent Prevalence of Cigarette Smoking by Demographic Subgroups**

	Lifetime		Annual		Past 30-Days	
	n	%	n	%	n	%
<b>NJ Middle School Students</b>	6999	9.4	7033	7.0	6988	3.8
<b>Grade</b>						
<b>7th</b>	3316	6.5	3341	4.5	3314	2.3
<b>8th</b>	3683	12.4	3692	9.6	3674	5.5
<b>Sex</b>						
<b>Male</b>	3185	10.0	3206	7.5	3172	4.1
<b>Female</b>	3628	8.8	3641	6.5	3634	3.5
<b>Race/Ethnicity</b>						
<b>White</b>	3962	8.3	3984	6.8	3964	3.5
<b>African-American</b>	620	12.2	623	7.4	620	3.6
<b>Hispanic</b>	1156	12.0	1164	8.8	1149	5.4
<b>Other</b>	640	3.5	642	2.7	637	1.3

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 9: Frequency of Cigarette Smoking During the Past 30 Days by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	6988	96.2	3.8	2.2	0.5	1.1
<b>Grade</b>						
<b>7th</b>	3314	97.7	2.3	1.3	0.4	0.4
<b>8th</b>	3674	94.5	5.5	3.1	0.7	1.7
<b>Sex</b>						
<b>Male</b>	3172	95.9	4.1	2.4	0.6	1.1
<b>Female</b>	3634	96.5	3.5	1.9	0.4	1.1
<b>Race/Ethnicity</b>						
<b>White</b>	3964	96.5	3.5	2.0	0.4	1.1
<b>African-American</b>	620	96.4	3.6	2.5	0.9	0.2
<b>Hispanic</b>	1149	94.6	5.4	3.2	0.3	1.9
<b>Other</b>	637	98.7	1.3	0.3	0.1	0.9

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## Prescription Drugs without a Prescription

Prescription drug use without a prescription was the third most frequently used substances among NJ middle school students. Presented in Table 10, 6.0% of students reported lifetime prescription drug use without a prescription (4.5% in the past year). When comparing this data to Table 3, non-medical prescription use ranks higher than the overall use reported for both marijuana and inhalants (3.7% and 4.2%, respectively).

Little variation was shown by grade level. Nearly twice as many females (7.6%) compared to males (4.6%) reported using illicit prescription drugs in their lifetime. This was also true for prescription drug use in the past year (5.8% of females vs. 3.3% of males). Little variation was shown between race/ethnicity categories (5.3%-7.4%), though Hispanic students reported non-medical prescription use most frequently (7.4%).

County-level findings on prescription drugs without a prescription showed that Cape May (15.7%) and Gloucester counties (9.5%) have the highest rates for lifetime use while Warren (2.9%) and Union (4.1%) counties have the lowest rates.

**Table 10: Lifetime and Annual Prevalence of Prescription Drug Use by Demographic Subgroups**

	Lifetime		Annual	
	n	%	n	%
<b>NJ Middle School Students</b>	6961	6.0	7006	4.5
<b>Grade</b>				
7th	3298	5.1	3324	4.0
8th	3663	6.9	3682	4.9
<b>Sex</b>				
Male	3171	4.6	3200	3.3
Female	3603	7.6	3622	5.8
<b>Race/Ethnicity</b>				
White	3944	5.3	3967	3.9
African-American	614	6.7	620	5.2
Hispanic	1152	7.4	1161	5.7
Other	635	5.3	639	2.8

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

## Inhalants

New Jersey students reported substantially lower rates of inhalant use in 2007 than the *Monitoring the Future* 8<sup>th</sup> graders surveyed in 2006 (4.6% vs. 16.1%). Annual use of inhalants was 2.7% among 2007 New Jersey 8<sup>th</sup> graders compared to 9.1% among 2006 *Monitoring the Future* 8<sup>th</sup> graders.

After alcohol, cigarettes and prescription drugs without prescriptions, inhalants were the fourth most commonly used drug among surveyed New Jersey middle-school students (see Table 11). Overall, 4.2% of students reported using inhalants sometime in their lifetime and 2.6% reported using them some time in the past year. Little variation was shown by grade or gender. Hispanic students reported the greatest rate of use (5.8%) while White students had the least (3.6%).

County-level findings on inhalant use are presented in Table A1. There were notable variations among the counties for lifetime inhalant use. Sussex County reported the highest use of inhalants (6.5%) while Cumberland and Camden Counties reported the lowest rates of inhalant use (1.6% each).

**Table 11: Lifetime and Annual Prevalence of Inhalant Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7008	4.2	7048	2.6
<b>Grade</b>				
7th	3317	3.8	3339	2.5
8th	3691	4.6	3709	2.7
<b>Sex</b>				
Male	3191	4.0	3216	2.4
Female	3630	4.5	3647	2.9
<b>Race/Ethnicity</b>				
White	3970	3.6	3993	2.6
African-American	621	5.5	625	2.0
Hispanic	1158	5.8	1166	3.8
Other	639	2.5	640	0.9

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

## Marijuana

New Jersey students reported substantially lower rates of marijuana use in 2007 than the *Monitoring the Future* 8<sup>th</sup> graders surveyed in 2006 (5.5% vs. 15.7%). Past 30-day use was 3.4% among 2007 New Jersey 8<sup>th</sup> graders compared to 6.5% among 2006 *Monitoring the Future* 8<sup>th</sup> graders.

The lifetime, annual and past 30-day marijuana use by demographic subgroups is presented in Table 12. Only 3.7% of the students surveyed reported using marijuana in their lifetime. A similar proportion (3.0%) reported using marijuana in the past year though fewer (2.1%) reporting using it in the past 30 days. Fewer 7<sup>th</sup> graders (1.9%, 1.3%, and 0.9%, respectively) than 8<sup>th</sup> graders (5.5%, 4.7%, and 3.4%, respectively) reported lifetime, annual and recent marijuana use.

More males than females reported lifetime marijuana use (4.9% and 2.5%, respectively). This difference was comparable for annual use (3.9% and 2.0%, respectively) and past 30-day rates (3.0% and 1.3%). Across racial/ethnic categories, African-American students reported the greatest proportion of lifetime use with 5.4%, only slightly more than White and Hispanic students (3.4% and 3.5%, respectively).

At the county level, lifetime marijuana use was about 5.0% or less except for one notable exception, Cape May County, at 11.7%. (See Table A1).

Table 13 summarizes the frequency of marijuana use during the past 30 days, in terms of whether or not a student used during this period of time. Overall 2.1% of students reported any marijuana use during the past 30 days. Disaggregated by grade, 3.4% of 8<sup>th</sup> graders compared to 0.9% of 7<sup>th</sup> graders reported past 30-day use. By gender, 3.0% of males and 1.3% of females reported using marijuana in the past 30 days.

**Table 12: Lifetime, Annual and Recent Prevalence of Marijuana Use by Demographic Subgroups**

	Lifetime		Annual		Past 30-Days	
	n	%	n	%	n	%
<b>NJ Middle School Students</b>	7009	3.7	7029	3.0	6982	2.1
<b>Grade</b>						
7th	3329	1.9	3339	1.3	3309	0.9
8th	3680	5.5	3690	4.7	3673	3.4
<b>Sex</b>						
Male	3187	4.9	3207	3.9	3169	3.0
Female	3633	2.5	3635	2.0	3630	1.3
<b>Race/Ethnicity</b>						
White	3970	3.4	3984	3.0	3959	2.0
African-American	617	5.4	615	3.1	620	2.0
Hispanic	1164	3.5	1166	2.9	1149	2.6
Other	640	0.5	642	0.5	635	0.3

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 13: Frequency of Marijuana Use during the Past 30 Days by Demographic Subgroups**

	n	Prevalence	
		Never %	Any Occasion %
<b>NJ Middle School Students</b>	6982	97.9	2.1
<b>Grade</b>			
7th	3309	99.1	0.9
8th	3673	96.6	3.4
<b>Sex</b>			
Male	3169	97.0	3.0
Female	3630	98.7	1.3
<b>Race/Ethnicity</b>			
White	3959	98.0	2.0
African-American	620	98.0	2.0
Hispanic	1149	97.4	2.6
Other	635	99.7	0.3

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## Other Illicit Drugs

The *Other illicit drugs* category includes cocaine or crack, Ecstasy, methamphetamines, other club drugs, OxyContin, hallucinogens, heroin, amphetamines, sedatives/tranquilizers, and steroids. Tables 14 through 24 present the results for these drugs. Overall, the use of these other illicit drugs was much lower than the rates for alcohol, tobacco, marijuana, and inhalants.

### Cocaine or Crack

New Jersey 8<sup>th</sup> grade students reported using less cocaine across lifetime, annual, and past 30-day categories than the nationally reported use rates in the *Monitoring the Future* survey (0.6% vs. 3.4%, 0.4% vs. 2.0%, and 0.3% vs. 1.0%, respectively). As shown in Table 14, overall only 0.3% of New Jersey middle-school students reported using cocaine or crack in their lifetimes, with 0.2% reporting use in the past year and 0.2% in the past 30 days.

### Methamphetamine

Table 15 reports the lifetime, annual and past 30-day prevalence rates for methamphetamine use. The percentage of students who reported using methamphetamines in their lifetime was 0.5%, with 0.3% and 0.3% using in the past year or 30 days, respectively.

### Hallucinogens

Lifetime and past year hallucinogen use was quite low among surveyed New Jersey middle-school students (Table 16). Only 0.3% reported use at least once in their lifetime and 0.2% reported use in the past year. With low overall prevalence rates, differences between subgroups are not meaningful.

### Ecstasy

The reported lifetime Ecstasy use was 0.4% with 0.3% reporting use in the past year (Table 17). Lifetime and past year Ecstasy use by 8<sup>th</sup> graders in New Jersey was less than half of the national *Monitoring the Future* rate (0.8% vs. 2.5% and 0.6% vs. 1.4%, respectively).

### OxyContin

Table 18 reports the lifetime and annual prevalence rates of OxyContin use by 7<sup>th</sup> and 8<sup>th</sup> grade students. Only 0.3% of students reported having used OxyContin in their lifetime and 0.2% reported having used it in the past year.

### Heroin

New Jersey students reported lower rates of heroin use In 2007 than the *Monitoring the Future* 8<sup>th</sup> graders surveyed in 2006 (0.1% vs. 1.4%). Past year use was 0.3% among 2007 New Jersey 8<sup>th</sup> graders compared to 0.8% among 2006 *Monitoring the Future* 8<sup>th</sup> graders.

The prevalence of use of heroin is summarized on Table 19. Overall, only 0.2% of surveyed New Jersey middle-school students reported heroin use in their lifetimes, and 0.2% of

students reported use in the past year. With low overall prevalence rates, differences between subgroups are not meaningful.

### **Steroids**

The lifetime and annual prevalence of steroid use is presented in Table 20. In summary, only 0.3% of students reported lifetime use of steroids and only 0.2% reported use in the past year. Like the other illicit drugs with low prevalence rates, there was little variation between demographic subgroups.

### **Club Drugs**

Club drug use is summarized in Table 21 with 0.3% of students reporting use in their lifetime and 0.1% of students reporting use in the past year.

### **Amphetamines**

Table 22 reports the findings for prevalence of amphetamine use of New Jersey middle school students. Only 0.4% of 7<sup>th</sup> and 8<sup>th</sup> graders reported using amphetamines in their lifetime. Past year use paralleled this with 0.3% of students using amphetamines in the past year. With low overall prevalence rates, differences between subgroups are not meaningful.

### **Sedatives/Tranquilizers**

Table 23 reports the findings for prevalence of sedatives/tranquilizers use of New Jersey middle school students. Only 0.6% reported using sedatives/tranquilizers in their lifetime while a comparable proportion (0.4%) used them in the past year. With low overall prevalence rates, differences between subgroups are not meaningful.

### **Total of Other Illicit Drugs**

Table 24 presents information on the total other illicit drug use. This is a combined category, and includes New Jersey middle-school students who reported use of any of the following: hallucinogens, Ecstasy, methamphetamines, club drugs, OxyContin, heroin, steroids, cocaine or crack, amphetamines, and sedatives/tranquilizers. The combined results show that 2.0% of 7<sup>th</sup> and 8<sup>th</sup> graders reported using at least one of these drugs in their lifetime. The past year prevalence rate was 1.2% for these drugs. There was very little variation among demographic subgroups for this category.

**Table 14: Lifetime, Annual, and Recent Prevalence of Cocaine or Crack Use by Demographic Subgroups**

	Lifetime		Past Year		Past 30-Days	
	n	%	n	%	n	%
<b>NJ Middle School Students</b>	7028	0.3	7053	0.2	6991	0.2
<b>Grade</b>						
7th	3330	0.1	3348	0.1	3317	0.1
8th	3698	0.6	3705	0.4	3674	0.3
<b>Sex</b>						
Male	3195	0.5	3212	0.3	3172	0.2
Female	3645	0.2	3654	0.2	3636	0.2
<b>Race/Ethnicity</b>						
White	3976	0.3	3995	0.2	3960	0.2
African-American	622	0.2	624	0.2	619	0.2
Hispanic	1165	0.8	1168	0.5	1156	0.3
Other	641	0.0	641	0.0	637	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 15: Lifetime, Annual, and Recent Prevalence of Methamphetamine Use by Demographic Subgroups**

	Lifetime		Past Year		Past 30-Days	
	n	%	n	%	n	%
<b>NJ Middle School Students</b>	6965	0.5	7022	0.3	6985	0.3
<b>Grade</b>						
7th	3296	0.5	3337	0.3	3309	0.3
8th	3669	0.5	3685	0.4	3676	0.2
<b>Sex</b>						
Male	3167	0.5	3202	0.4	3167	0.2
Female	3610	0.5	3633	0.3	3635	0.3
<b>Race/Ethnicity</b>						
White	3947	0.2	3982	0.2	3962	0.1
African-American	613	0.3	618	0.0	618	0.0
Hispanic	1154	1.3	1162	0.9	1152	0.8
Other	637	0.8	639	0.6	636	0.5

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 16: Lifetime and Annual Prevalence of Hallucinogen Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7027	0.3	7071	0.2
<b>Grade</b>				
7th	3334	0.2	3356	0.2
8th	3693	0.4	3715	0.1
<b>Sex</b>				
Male	3196	0.4	3226	0.1
Female	3643	0.2	3657	0.3
<b>Race/Ethnicity</b>				
White	3978	0.3	4002	0.3
African-American	620	0.3	626	0.0
Hispanic	1164	0.4	1172	0.2
Other	641	0.1	643	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 17: Lifetime and Annual Prevalence of Ecstasy Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7018	0.4	7052	0.3
<b>Grade</b>				
7th	3328	0.1	3345	0.1
8th	3690	0.8	3707	0.6
<b>Sex</b>				
Male	3191	0.3	3212	0.2
Female	3639	0.6	3652	0.5
<b>Race/Ethnicity</b>				
White	3969	0.4	3988	0.3
African-American	619	0.6	623	0.4
Hispanic	1166	0.3	1171	0.2
Other	640	0.2	643	0.1

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 18: Lifetime and Annual Prevalence of OxyContin Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7008	0.3	7048	0.2
<b>Grade</b>				
7th	3322	0.1	3343	0.1
8th	3686	0.4	3705	0.3
<b>Sex</b>				
Male	3181	0.3	3213	0.2
Female	3639	0.2	3647	0.2
<b>Race/Ethnicity</b>				
White	3972	0.2	3992	0.2
African-American	618	0.6	622	0.3
Hispanic	1159	0.0	1167	0.0
Other	636	0.1	642	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 19: Lifetime and Annual Prevalence of Heroin Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7033	0.2	7064	0.2
<b>Grade</b>				
7th	3334	0.1	3353	0.0
8th	3699	0.3	3711	0.3
<b>Sex</b>				
Male	3198	0.3	3220	0.2
Female	3646	0.1	3656	0.1
<b>Race/Ethnicity</b>				
White	3980	0.2	3998	0.2
African-American	623	0.1	626	0.0
Hispanic	1165	0.4	1171	0.2
Other	641	0.0	642	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 20: Lifetime and Annual Prevalence of Steroid Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7022	0.3	7057	0.2
<b>Grade</b>				
7th	3330	0.3	3348	0.1
8th	3692	0.4	3709	0.3
<b>Sex</b>				
Male	3191	0.5	3217	0.3
Female	3642	0.2	3653	0.1
<b>Race/Ethnicity</b>				
White	3973	0.4	3993	0.3
African-American	622	0.1	625	0.0
Hispanic	1164	0.6	1170	0.3
Other	640	0.1	643	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 21: Lifetime and Annual Prevalence of Club Drug Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7038	0.3	7060	0.1
<b>Grade</b>				
7th	3339	0.1	3351	0.0
8th	3699	0.4	3709	0.2
<b>Sex</b>				
Male	3202	0.3	3219	0.2
Female	3647	0.2	3654	0.1
<b>Race/Ethnicity</b>				
White	3984	0.3	3996	0.2
African-American	622	0.0	624	0.0
Hispanic	1169	0.6	1170	0.0
Other	638	0.0	642	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 22: Lifetime and Annual Prevalence of Amphetamine Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7028	0.4	7068	0.3
<b>Grade</b>				
7th	3331	0.3	3356	0.1
8th	3697	0.6	3712	0.4
<b>Sex</b>				
Male	3199	0.5	3226	0.4
Female	3641	0.4	3654	0.1
<b>Race/Ethnicity</b>				
White	3976	0.4	3999	0.4
African-American	623	0.3	627	0.1
Hispanic	1165	0.7	1173	0.1
Other	641	0.0	642	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 23: Lifetime and Annual Prevalence of Sedative Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7018	0.6	7063	0.4
<b>Grade</b>				
7th	3330	0.4	3354	0.2
8th	3688	0.8	3709	0.5
<b>Sex</b>				
Male	3190	0.5	3221	0.4
Female	3639	0.8	3654	0.4
<b>Race/Ethnicity</b>				
White	3968	0.6	3998	0.4
African-American	623	0.4	625	0.2
Hispanic	1163	1.1	1170	0.6
Other	641	0.2	642	0.0

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

**Table 24: Lifetime and Annual Prevalence of Total of Other Illicit Drug Use by Demographic Subgroups**

	Lifetime		Past Year	
	n	%	n	%
<b>NJ Middle School Students</b>	7032	2.0	7068	1.2
<b>Grade</b>				
7th	3335	1.4	3355	0.7
8th	3697	2.6	3713	1.8
<b>Sex</b>				
Male	3199	2.0	3224	1.2
Female	3645	2.1	3656	1.3
<b>Race/Ethnicity</b>				
White	3981	1.8	4002	1.3
African-American	621	2.4	625	0.9
Hispanic	1166	2.9	1172	1.6
Other	640	1.0	643	0.7

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

### C. Age of Onset of Substance Use

Students self-reported the age at which they began using alcohol, tobacco, and other drugs. Students could choose from nine categories – ‘10 or younger’, ‘11’, ‘12’, ‘13’, ‘14’, ‘15’, ‘16’, ‘17 or older’, or ‘Never Have’. In order to best show ATOD use at early ages, the age groups were combined into a dichotomous response set – onset of use at 11 or younger and onset of use at 12 or older. As shown in Table 25, students were more likely to try ATOD when they were 12 or older. For all substances, with the exception of alcohol, differences between age groups were two percentage points or less. It is important to note that more than one in ten students (14.9%) had consumed alcohol at age 11 or younger.

**Table 25: Summary of the Age of Onset of Primary Substances for the 2007 New Jersey Middle School Risk and Protective Factor Survey**

	Lifetime Use	Onset at Age 11 or Younger	Onset at Age 12 or Older	Total
	%	%	%	n
<b>Alcohol</b>	34.0	14.9	19.1	6779
<b>Cigarettes</b>	9.4	3.5	5.9	6999
<b>Prescription Drugs w/o Prescription</b>	6.0	2.5	3.5	6961
<b>Inhalants</b>	4.2	1.8	2.4	7008
<b>Marijuana</b>	3.7	0.8	2.9	7009
<b>Other Illicit Drugs</b>	2.0	0.7	1.3	7032

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use. Rounding can produce totals that do not equal 100%.

## Chapter 2: Other Antisocial Behavior

The *2007 New Jersey Middle School Risk and Protective Factor Survey* measured conduct that goes against established cultural norms, rules, or laws by a series of nine other problem or antisocial behaviors. These nine antisocial behaviors are only measured for a prevalence period of the last 12 months and are listed below:

- Attacking Someone with Intent to Harm
- Attempting to Steal a Vehicle
- Being Arrested
- Being Drunk or High at School
- Carrying a Handgun
- Getting Suspended
- Selling Drugs
- Taking a Handgun to School
- Belonging to a Gang

Each behavior is described in detail in the subsections that follow. Note that for most behaviors, the possible responses included 'Never', '1 to 2 times', '3 to 5 times,' and '6 or more times.' 'Belonging to a Gang,' however, has its own unique set of responses. These include 'Never in a gang', 'In a gang, without a name,' and 'In a gang, has a name.' See the section on Belonging to a Gang' for additional details.

Table 26 is a summary table giving the reported 7<sup>th</sup> grade, 8<sup>th</sup> grade and combined prevalence rates of the given behavior. Tables 27 through 35 give specific information for each of the nine antisocial behaviors by grade, sex and ethnicity, as well as information on frequency. County data is presented in Table A2. Please note that given the small proportion of students that reported engaging in any antisocial behaviors, differences by grade, sex, and race/ethnicity should be interpreted with caution. However, consistent differences between genders were found such that boys reported all antisocial behaviors more often than girls, with the exception of reports of being drunk or high at school.

**Table 26: Summary of the Prevalence of Delinquent Behaviors for New Jersey Middle School Students**

	7th		8th		Overall	
	n	%	n	%	n	%
<b>Getting Suspended</b>	3357	11.8	3718	13.6	7075	12.7
<b>Attacking Someone with Intent to Harm</b>	3354	8.9	3719	9.4	7073	9.2
<b>In a Gang, With or Without a Name</b>	3248	6.2	3601	5.5	6849	5.9
<b>Being Arrested</b>	3323	2.4	3673	3.2	6996	2.8
<b>Being Drunk or High at School</b>	3348	2.2	3712	4.0	7060	3.1
<b>Carrying a Handgun</b>	3356	1.1	3716	2.2	7072	1.6
<b>Attempting to Steal a Vehicle</b>	3356	0.6	3719	1.2	7075	0.9
<b>Selling Drugs</b>	3336	0.4	3685	1.4	7021	0.9
<b>Taking a Handgun to School</b>	3299	0.3	3652	0.6	6951	0.4

Note: "n" represents the number of responses for a given survey item, and "%" represents the percentage of students reporting use.

## A. Getting Suspended

Getting suspended had the highest prevalence rate of any of the nine antisocial behaviors measured. *(It is important to note that ‘suspension’ is captured by the question “How many times in the past year have you been suspended from school?” The question does not define ‘suspension.’ Rather, it is left to the individual student to make that definition. It should also be noted that school suspension rates are difficult to interpret because policies vary substantially from district to district. Therefore, these rates should be interpreted with caution.)*

As presented in Table 27, 12.7% of middle-school students reported having been suspended at least once in the past year, with very few reporting more than two suspensions in the past year (2.7%). This majority, in the 1-2 suspension range, was consistent across all demographic subgroups.

Findings appeared fairly consistent across the two grade levels but more than twice as many males (16.8%) than females (8.3%) reported being suspended in the past year. There were wide disparities among racial/ethnic groups. African-American and Hispanic students reported being suspended much higher rates than other ethnic groups (29.4% and 17.9%, respectively).

County-wide suspension prevalence also varied considerably. The two counties with the highest reported suspension rates were Camden County and Cumberland County (22.4% and 21.4%, respectively).

**Table 27: Getting Suspended During the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7075	87.3	12.7	10.0	1.9	.8
<b>Grade</b>						
<b>7th</b>	3357	88.2	11.8	8.7	2.1	1.0
<b>8th</b>	3718	86.4	13.6	11.3	1.7	0.5
<b>Sex</b>						
<b>Male</b>	3225	83.2	16.8	13.0	2.5	1.3
<b>Female</b>	3662	91.7	8.3	6.8	1.2	0.3
<b>Ethnicity</b>						
<b>White</b>	4003	93.0	7.0	5.9	0.8	0.3
<b>African-American</b>	628	70.6	29.4	21.8	5.1	2.5
<b>Hispanic</b>	1174	82.1	17.9	14.0	2.8	1.1
<b>Other</b>	642	95.6	4.4	3.6	0.5	0.2

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category.

## B. Attacking Someone with Intent to Harm

Overall, 9.2% of surveyed students reported having attacked someone with intent to harm in the past year (see Table 28). A similar proportion of 8<sup>th</sup> graders than 7<sup>th</sup> graders (9.4% and 8.9%, respectively) had reported this behavior. In addition, more than twice as many males (12.3%) engaged in this type of behavior than females (5.9%). African-American students and Hispanic students reported the highest prevalence of this behavior (12.7% and 12.6%, respectively).

County-wide results are presented for this behavior in Table A2. The two highest counties for this kind of behavior were Cumberland County and Hudson County (13.9% and 13.3%, respectively). In contrast, the county with the lowest rate was Warren County (5.7%). Only the category 'Getting Suspended' had higher prevalence rates than 'Attacking Someone with Intent to Harm.'

Of the surveyed 9.2% reporting attacks, 6.5% reported attacking someone with the idea of seriously hurting them only *1 to 2 times* in the past year. Overall, very few students reported this behavior occurred on more than two occasions. This pattern was seen also in all the demographic subgroups. However, the response rates are so low in some of the frequency categories that caution should be taken when interpreting the results.

**Table 28: Attacking Someone with Intent to Harm During the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7073	90.8	9.2	6.5	1.4	1.3
<b>Grade</b>						
<b>7th</b>	3354	91.1	8.9	6.2	1.5	1.1
<b>8th</b>	3719	90.6	9.4	6.8	1.4	1.2
<b>Sex</b>						
<b>Male</b>	3224	87.7	12.3	8.7	1.7	1.9
<b>Female</b>	3660	94.1	5.9	4.2	1.1	0.6
<b>Ethnicity</b>						
<b>White</b>	4005	92.6	7.4	5.8	0.8	0.8
<b>African-American</b>	628	87.3	12.7	7.9	2.5	2.3
<b>Hispanic</b>	1170	87.4	12.6	7.9	3.0	1.8
<b>Other</b>	642	93.9	6.1	4.7	0.9	0.6

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

### C. Belonging to a Gang

Students' involvement with gangs was captured by the cross-product of the two questions, "Have you ever belonged to a gang?" and "If you have you ever belonged to a gang, did the gang have a name?" The results are shown in Table 29. Discordant responses were considered a non-response and consequently removed from the response list.<sup>9</sup>

Overall, 5.9% of students reported being in a gang, with 5.1% reporting that their gang had a name. Since only 0.8% percent of New Jersey middle-school students reported being in a gang without a name, the following percentages incorporate their data. Analyzing membership in gangs with and without names separately would be unreliable since the percentages were so small.

Interestingly, there was little variation by grade though 7<sup>th</sup> grade students reported a greater rate than 8<sup>th</sup> graders did (6.2% vs. 5.5%). Almost twice as many males than females (7.6% vs. 4.1%) reported being a gang. There was a wide range of differences when broken down by racial/ethnic categories. Notably more African-American and Hispanic students (12.3% and 9.6%, respectively) reported being in a gang than did White students (3.1%).

County-wide data showed a wide variation in gang affiliation. Cumberland County students reported the greatest proportion of students with gang affiliation (13.9%).

**Table 29: Belonging to a Gang during the Past Year, by Demographic Subgroups**

	n	Never in a gang %	In a gang, without a name %	In a gang, gang has a name %	Total in a gang %
<b>NJ Middle School Students</b>	6849	94.2	0.8	5.1	5.9
<b>Grade</b>					
<b>7th</b>	3248	93.8	0.7	5.5	6.2
<b>8th</b>	3601	94.5	0.8	4.7	5.5
<b>Sex</b>					
<b>Male</b>	3085	92.4	1.0	6.6	7.6
<b>Female</b>	3587	95.8	0.5	3.6	4.1
<b>Ethnicity</b>					
<b>White</b>	3900	96.9	0.6	2.5	3.1
<b>African-American</b>	601	87.9	0.8	11.5	12.3
<b>Hispanic</b>	1122	90.4	1.2	8.4	9.6
<b>Other</b>	626	96.6	0.6	2.8	3.4

Note: The three prevalence categories generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%.

<sup>9</sup> For example, if an individual said they were never in a gang in the first question, but then respond on the second question that they had been in a gang and it did not have a name, the response was considered discordant and thus removed.

## D. Being Arrested

As shown in Table 30, in the year prior to the survey, 2.8% of New Jersey middle-school students surveyed reported having been arrested. Though 2.8% reported ever having been arrested in the past year, 2.3% indicated that it had only been 1 to 2 times. Only 0.5% reported being arrested three or more times in the past year. The majority of the demographic subgroups with this behavior followed this pattern. For this particular behavior, almost three times more males than females reported being arrested (4.1% compared to 1.6%). Like the previous two behaviors, rates increased as the students' grade level increased with 7<sup>th</sup> graders reporting 2.4% prevalence as compared to 3.2% of 8<sup>th</sup> graders. African-American (4.7%) and Hispanic students (4.0%) reported being arrested most frequently while students of other racial/ethnic backgrounds reported the least (1.2%).

County data for this behavior varied greatly. Cape May County had the highest prevalence rate at 12.2% and Mercer and Warren Counties were the lowest at 1.2% and 1.1%, respectively.

**Table 30: Being Arrested During the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	6996	97.2	2.8	2.3	0.3	0.2
<b>Grade</b>						
<b>7th</b>	3323	97.6	2.4	2.1	0.2	0.0
<b>8th</b>	3673	96.8	3.2	2.5	0.4	0.3
<b>Sex</b>						
<b>Male</b>	3192	95.9	4.1	3.2	0.6	0.3
<b>Female</b>	3619	98.4	1.6	1.3	0.1	0.2
<b>Ethnicity</b>						
<b>White</b>	3959	97.9	2.1	1.7	0.2	0.1
<b>African-American</b>	618	95.3	4.7	3.7	0.9	0.0
<b>Hispanic</b>	1163	96.0	4.0	3.2	0.2	0.6
<b>Other</b>	635	98.8	1.2	1.0	0.1	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## E. Being Drunk or High at School

As shown in Table 31, 3.1% of New Jersey middle-school students reported having been drunk or high at school in the year prior to the survey. Like all the other behaviors discussed so far, more 8<sup>th</sup> graders (4.0%) than 7<sup>th</sup> graders (2.2%) reported having been drunk or high at school in the past year. There was no notable difference between males (3.1%) and females (3.0%). Hispanics reported the greatest proportion of students being drunk or high at school (4.5%) and students of other racial/ethnic backgrounds reported the least (1.5%). County data revealed that the highest reported prevalence rate was in Cape May County at 7.1% and the lowest reported prevalence rate was in Somerset County and Warren County (both 1.7%).

**Table 31: Being Drunk or High at School During the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7060	96.9	3.1	2.0	0.4	0.6
<b>Grade</b>						
7th	3348	97.8	2.2	1.3	0.4	0.5
8th	3712	96.0	4.0	2.8	0.5	0.6
<b>Sex</b>						
Male	3218	96.9	3.1	1.8	0.6	0.7
Female	3653	97.0	3.0	2.2	0.3	0.5
<b>Ethnicity</b>						
White	3994	97.3	2.7	1.9	0.3	0.6
African-American	626	97.0	3.0	1.7	0.8	0.5
Hispanic	1173	95.5	4.5	3.3	0.7	0.6
Other	641	98.5	1.5	1.4	0.0	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## F. Carrying a Handgun

Overall, only 1.6% of surveyed New Jersey middle-school students reported carrying a handgun in the past year (Table 32). There were no notable differences by grade. Further, more than three times as many males (2.5%) than females (0.7%) were likely to carry a handgun. Hispanic and African-American students reported the highest frequency of this behavior (2.6% and 2.4%, respectively). Frequency data for this table is low and should be interpreted with caution. Of the 1.6% of students who reported carrying a handgun in the past year, 1.0% reported carrying it 1 to 2 times.

**Table 32: Carrying a Handgun during the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7072	98.4	1.6	1.0	0.2	0.4
<b>Grade</b>						
<b>7th</b>	3356	98.9	1.1	0.6	0.2	0.3
<b>8th</b>	3716	97.8	2.2	1.5	0.2	0.5
<b>Sex</b>						
<b>Male</b>	3223	97.5	2.5	1.6	0.4	0.5
<b>Female</b>	3660	99.3	0.7	0.5	0.1	0.2
<b>Ethnicity</b>						
<b>White</b>	4003	98.7	1.3	0.8	0.1	0.3
<b>African-American</b>	628	97.6	2.4	1.5	0.5	0.5
<b>Hispanic</b>	1171	97.4	2.6	1.8	0.4	0.3
<b>Other</b>	642	99.2	0.8	0.6	0.0	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## G. Taking a Handgun to School

As presented in Table 33, only 0.4% of New Jersey middle-school students reported having taken a handgun to school in the past year. Rates were very low across all demographic subgroups and should be interpreted with extra caution. The county-level data reflect the same low rates and should be reviewed in the same fashion.

**Table 33: Taking a Handgun to School during the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	6951	99.6	0.4	0.3	0.0	0.1
<b>Grade</b>						
<b>7th</b>	3299	99.7	0.3	0.2	0.0	0.1
<b>8th</b>	3652	99.4	0.6	0.4	0.1	0.1
<b>Sex</b>						
<b>Male</b>	3177	99.4	0.6	0.4	0.0	0.1
<b>Female</b>	3588	99.7	0.3	0.2	0.1	0.1
<b>Ethnicity</b>						
<b>White</b>	3942	99.7	0.3	0.2	0.0	0.1
<b>African-American</b>	615	99.4	0.6	0.6	0.0	0.0
<b>Hispanic</b>	1146	99.4	0.6	0.5	0.0	0.1
<b>Other</b>	633	99.8	0.2	0.1	0.0	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## H. Attempting to Steal a Vehicle

Among New Jersey middle school students, 0.9% reported having stolen, or attempted to steal, a motor vehicle in the past year (Table 34). This behavior was about as prevalent among 8<sup>th</sup> graders as 7<sup>th</sup> graders (1.2% vs. 0.6%) and among males opposed to females (1.1% vs. 0.6%). This prevalence data along with the frequency and demographic subgroup information for 'Attempting to Steal a Vehicle' should be interpreted with caution considering the overall low prevalence rate of the behavior.

**Table 34: Stealing/Attempting to Steal a Vehicle During the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7075	99.1	0.9	0.7	0.1	0.1
<b>Grade</b>						
<b>7th</b>	3356	99.4	0.6	0.4	0.0	0.2
<b>8th</b>	3719	98.8	1.2	1.0	0.1	0.1
<b>Sex</b>						
<b>Male</b>	3225	98.9	1.1	0.8	0.1	0.2
<b>Female</b>	3662	99.4	0.6	0.5	0.0	0.1
<b>Ethnicity</b>						
<b>White</b>	4005	99.3	0.7	0.5	0.0	0.2
<b>African-American</b>	627	98.1	1.9	1.6	0.3	0.1
<b>Hispanic</b>	1173	98.8	1.2	1.0	0.1	0.1
<b>Other</b>	642	99.6	0.4	0.2	0.0	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

## I. Selling Drugs

Only 0.9% of surveyed middle-school students reported having sold illegal drugs in the past year. It is important to mention that, 'selling drugs' is captured by the question, "How many times in the past year have you sold illegal drugs?" Note that the question asks about, but does not define, 'illegal drugs.'

As shown in Table 35, 0.4% of 7<sup>th</sup> grade students and 1.4% of 8<sup>th</sup> grade students reported selling drugs. This is the same trend that has been seen with all the behaviors – with 8<sup>th</sup> grade students demonstrating more delinquent behavior than 7<sup>th</sup> grade students. However, it should be noted that with such a low overall prevalence, individual variations in the demographic subgroups should be interpreted with caution.

When disaggregated by county, every county (with the exception of Cape May County, which was at 4.2%) had a prevalence rate for selling drugs less than 2.0%

**Table 35: Selling Drugs during the Past Year, by Demographic Subgroups**

	n	Prevalence		Number of Occasions		
		Never %	Any Occasion %	1-2 %	3-5 %	6+ %
<b>NJ Middle School Students</b>	7021	99.1	0.9	0.4	0.2	0.4
<b>Grade</b>						
<b>7th</b>	3336	99.6	0.4	0.1	0.1	0.1
<b>8th</b>	3685	98.6	1.4	0.7	0.2	0.4
<b>Sex</b>						
<b>Male</b>	3204	98.7	1.3	0.6	0.3	0.4
<b>Female</b>	3629	99.6	0.4	0.2	0.0	0.1
<b>Ethnicity</b>						
<b>White</b>	3972	99.4	0.6	0.2	0.1	0.2
<b>African-American</b>	626	98.1	1.9	1.0	0.4	0.6
<b>Hispanic</b>	1164	98.6	1.4	0.9	0.1	0.4
<b>Other</b>	637	99.4	0.6	0.3	0.2	0.1

Note: The two prevalence categories ('Never' and 'Any Occasion') and generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.



## Chapter 3: Gambling

Tables 36-37 summarize the questions asked by the *2007 New Jersey Middle School Risk and Protective Factor Survey* that investigate gambling behavior among New Jersey middle school students. Specifically, they ask how often in the past 12 months a student participated in various types of gambling activity. Students chose from the following response set: 'never', 'before, but not in the past year', 'a few times in the past year', 'once or twice a month', 'once or twice a week', and 'almost every day'. A summary table is initially provided ranking the gambling behaviors in order of prevalence and providing summary statistics (Table 36). For the purpose of analysis, 'never' and 'before, but not in the past year' were combined and past year use was divided between those who only participated in a gambling activity 'a few times in the past year' and those who participated more frequently – 'monthly, weekly, or almost daily'. Further, a final summary table (Table 38) is provided giving the percentage of students who participated in one, two, three to five, or six or more types of gambling in the past 12 months. Overall, county-wide trends in gambling type followed the same overall order as shown in Table 36 below. Please see Table A3 for details.

**Table 36: Summary of Gambling Activities in the Past 12 Months**

In the past 12 months, how often have you...	n	Past Year		
		Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %
Played the lottery or scratch-off tickets?	7002	62.7	25.2	12.1
Bet on team sports for money or possessions?	6978	81.7	12.9	5.5
Played cards for money or possessions?	6993	81.8	12.2	6.0
Bet money or possessions on games of personal skill such as pool, darts or bowling?	7016	88.1	6.8	5.1
Bet money or possessions on video games?	7024	88.7	5.2	6.1
Played bingo for money or possessions?	7015	92.1	5.8	2.0
Bet money or possessions on dice games such as craps?	7012	94.9	2.5	2.7
Bet money or possessions on horse races?	7002	96.1	3.0	1.0
Gambled on the internet?	6994	96.6	1.9	1.4
Gambled at a casino?	7015	99.2	0.4	0.3

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

The gambling activities listed below are presented in order by prevalence – from the most frequently reported activity to the least frequent.

### **Playing the Lottery or Scratch-off Tickets**

The gambling behavior most frequently reported by students was playing the lottery or scratch-off tickets. In the past year, 25.2% of students reported engaging in this behavior *a few times in the past year* and 12.1% reported playing *monthly, weekly, or almost every day*. The majority of students (62.7%) reported playing the lottery or scratch-off tickets *never or before, but not in this year*.

Overall, more 8<sup>th</sup> grade students than 7<sup>th</sup> grade students reported playing lottery or scratch-off tickets *a few times in the past year* (27.1% vs. 23.3%). Slightly more male students than female students reported this type of gambling in the past year across both past year categories. White students reported playing the lottery or scratch-off tickets *a few times in the past year* more often than students of other ethnicities (32.5%). In addition, they reported playing the most in the '*monthly, weekly, or almost every day*' category (14.1%).

### **Betting on Team Sports for Money or Possessions**

In the past 12 months, 12.9% of students reported having bet on sports *a few times in the past year* while 5.5% bet *monthly, weekly, or almost every day*. In general, more 8<sup>th</sup> grade students than 7<sup>th</sup> grade students (21.7% vs. 15.1%) and more male students than female students (26.2% vs. 10.4%) reported betting on cards in both past year categories. Gambling prevalence among all race/ethnic categories varied, though students of other racial/ethnic backgrounds reported the lowest prevalence of gambling for both past year groupings (9.0% and 2.0%, respectively).

### **Playing Cards for Money or Possessions**

Approximately 12% students reported engaging in this behavior *a few times in the past year* while 6.0% did so *monthly, weekly, or almost every day*. In general, more 8<sup>th</sup> grade students than 7<sup>th</sup> grade students (21.7% vs. 14.9%) and more male students than female students (24.5% vs. 11.6%) reported betting on cards in both past year categories. White students reported the highest prevalence of gambling on card games at least *a few times in the past year* (20.2%) while African-American, Hispanic, and students of *other racial/ethnic backgrounds* (14.9%, 15.7%, and 12.1%) reported less.

### **Betting on Games of Personal Skill such as Pool, Darts, or Bowling**

A small proportion of middle-school students (6.8%) reported betting on personal skill games *a few times in the past year*. Slightly fewer (5.1%) reported betting *monthly, weekly, or almost every day*. Like some of the previously mentioned gambling types, more 8<sup>th</sup> grade students than 7<sup>th</sup> grade students (13.8% vs. 10.0%) and more male students than female students (17.7% vs. 6.0%) reported betting on games of personal skill in both past year categories. Students of *other racial/ethnic backgrounds* had the lowest reported prevalence of betting on pool, darts, or bowling across both past year categories (7.5%). Responses were comparable across the other racial groups (11.8%-12.2%).

## **Betting Money or Possessions on Video Games**

One in twenty students (5.2%) reported betting on video games a few times in the past year and slightly more (6.1%) did so *monthly, weekly, or almost every day* in the past 12 months. In general, gambling was influenced by age and gender, with more 8<sup>th</sup> grade students than 7<sup>th</sup> grade students (12.6% vs. 10.0) and more male students than female students (18.2% vs. 4.0%) reporting betting on video games in both past year categories. African-American students reported betting on video games the most frequently (17.1%) followed closely by Hispanic students (16.5%). Students of *other racial/ethnic backgrounds* reported betting on video games the least in both past year categories (5.2%).

## **Playing Bingo for Money or Possessions**

Overall, few students (5.8%) reported playing bingo in the *a few times in the past year* and only 2.0% of students reported playing *monthly, weekly, or almost every day*. Bingo playing did not differ for 8<sup>th</sup> and 7<sup>th</sup> graders (8.1% vs. 7.5%). For male and female students, the prevalence rates for playing bingo *a few times in the past year* were equal (5.7% each) though slightly more males played bingo *monthly, weekly, or almost every day*. Hispanic students reported playing bingo for money (13.1%) more than any other racial/ethnic group in both past year categories (5.4%-7.0%).

## **Betting Money or Possessions on Dice Games such as Craps**

Very few students reported betting on dice games at least *a few times in the past year* (5.2%). With overall prevalence being so small, differences between groups should be reviewed with caution. Notably, 8<sup>th</sup> grade students (6.8%), males (7.6%), and African-American and Hispanic students (6.9% each) reported betting on dice games more frequently than their respective counterparts.

## **Betting Money or Possessions on Horse Races**

Only 4.0% of students reported betting on horse racing at least *a few times in the past year*. With overall prevalence being so small, differences between groups should be reviewed with caution. Notably, White students (5.4%) reported betting on horse races more frequently than their respective counterparts (1.4%-2.5%). There were no substantial differences by gender or grade.

## **Gambling on the Internet**

A small proportion of students (1.9%) reported gambling on the Internet *a few times in the past year* and 1.4% reported playing *monthly, weekly, or almost every day*. With overall prevalence being so small, differences between groups should be reviewed with caution.

## **Gambling at a Casino**

The least most reported gambling type was gambling at a casino. About one in 200 students (0.4%) reported gambling at a casino *a few times in the past year* and 0.3% reported doing so *monthly, weekly, or almost every day*. Prevalence rates for this category are too small to be compared between groups.

**Table 37: Gambling activities in the past 12 months by Demographic Subgroups**

	n range	Playing the Lottery or Scratch-off Tickets			Bet on Team Sports*			Playing Cards*			Bet on Games of Personal Skill*			Bet on Video Games*		
		Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %
<b>NJ Middle School Students</b>	6978-7024	62.7	25.2	12.1	81.7	12.9	5.5	81.8	12.2	6.0	88.1	6.8	5.1	88.7	5.2	6.1
<b>Grade</b>																
7 <sup>th</sup>	3305-3328	64.3	23.3	12.3	85.0	10.6	4.5	85.1	9.7	5.2	89.9	5.6	4.4	90.0	4.0	6.0
8 <sup>th</sup>	3673-3697	61.1	27.1	11.9	78.3	15.3	6.4	78.2	14.8	6.9	86.2	8.0	5.8	87.4	6.5	6.1
<b>Sex</b>																
Male	3172-3195	60.0	25.8	14.2	73.8	17.8	8.4	75.5	15.5	9.0	82.3	9.6	8.1	81.8	8.3	9.9
Female	3621-3642	65.4	24.6	10.0	89.7	8.1	2.3	88.4	8.7	2.9	94.0	4.0	2.0	96.0	2.0	2.0
<b>Race/Ethnicity</b>																
White	3936-3976	53.5	32.5	14.1	80.6	14.6	4.9	79.8	14.2	6.0	87.8	7.5	4.7	91.2	4.4	4.4
African-American	616-623	79.4	11.8	8.8	82.2	10.2	7.6	85.1	8.5	6.4	88.3	5.0	6.7	83.0	6.6	10.5
Hispanic	1157-1166	70.5	18.2	11.2	82.4	10.7	7.0	84.3	9.2	6.5	88.3	5.9	5.9	83.4	7.7	8.8
Other	634-639	77.7	16.6	5.7	89.0	9.0	2.0	87.9	9.3	2.8	92.4	5.0	2.5	94.7	2.2	3.0

	n range	Playing Bingo*			Bet on Dice Games			Bet on Horse Races			Gambling on the Internet			Gambling at a Casino		
		Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %	Never/Before, but not in the past year %	A few times in the past year %	Monthly, weekly, or almost every day %
<b>NJ Middle School Students</b>	6994-7015	92.1	5.8	2.0	94.9	2.5	2.7	96.1	3.0	1.0	96.6	1.9	1.4	99.2	0.4	0.3
<b>Grade</b>																
7 <sup>th</sup>	3315-3327	92.5	5.5	2.0	96.6	1.2	2.2	96.6	2.5	0.9	96.9	1.8	1.2	99.6	0.2	0.2
8 <sup>th</sup>	3679-3697	91.9	6.0	2.1	93.2	3.7	3.1	95.4	3.6	0.9	96.3	2.0	1.7	98.8	0.7	0.4
<b>Sex</b>																
Male	3182-3192	92.0	5.7	2.3	92.5	3.5	4.1	95.8	3.1	1.1	95.6	2.3	2.1	99.2	0.4	0.4
Female	3624-3640	92.5	5.7	1.9	97.7	1.3	1.0	96.4	2.8	0.7	97.6	1.5	0.9	99.3	0.5	0.2
<b>Race/Ethnicity</b>																
White	3936-3971	92.9	5.7	1.3	95.8	2.3	1.9	94.7	4.4	1.0	96.9	1.8	1.3	99.4	0.4	0.2
African-American	616-623	93.2	4.7	2.1	93.1	2.0	4.9	98.0	1.7	0.3	95.8	2.8	1.5	98.8	0.4	0.9
Hispanic	1159-1166	86.9	7.8	5.3	93.1	3.2	3.7	97.5	1.5	1.0	95.7	1.9	2.4	98.9	0.8	0.3
Other	635-639	94.6	3.7	1.7	96.7	1.4	1.9	98.6	0.3	1.1	98.2	0.8	1.0	98.7	0.8	0.6

\* - for money or possessions

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

**Table 38: Summary of Gambling Activities in the Past 12 Months**

	n	Never/ Before, but not in the past year %	Has Gambled in the Last 12 Months			
			1 Type %	2 Types %	3-5 Types %	6 or More Types %
<b>NJ Middle School Students</b>	6795	48.0	25.4	11.7	12.1	2.8
<b>Grade</b>						
7 <sup>th</sup>	3234	52.5	24.6	9.6	10.9	2.5
8 <sup>th</sup>	3561	43.3	26.2	13.9	13.3	3.2
<b>Sex</b>						
<b>Male</b>	3047	40.9	24.8	13.0	16.6	2.8
<b>Female</b>	3569	56.6	25.6	10.4	7.4	1.1
<b>Ethnicity</b>						
<b>White</b>	3852	41.6	30.0	12.4	12.9	3.0
<b>African-American</b>	597	58.7	16.6	10.7	11.2	2.8
<b>Hispanic</b>	1120	52.7	20.4	13.0	11.1	2.8
<b>Other</b>	629	62.7	22.7	6.5	6.7	1.4

Note: The two prevalence categories ('Never' and 'Any Occasion') generally sum to 100% and represent the total number of valid cases ("n") for the survey question. However, rounding can produce totals that do not equal 100%. The three 'Number of Occasions' categories generally sum to the 'Any Occasion' category. However, again, rounding can produce slightly different sums.

In summary, approximately half of NJ middle-school students (48.0%) reported either *never having gambled in the past 12 months* or *having gambled before, but not in the past year* (Table 37). More than one in ten students (12.1%) engaged in three to five types of gambling in the past year though only 2.8% had engaged in six or more types of gambling.

By grade, more 8<sup>th</sup> grade students than 7<sup>th</sup> graders had gambled in the past year (56.7% v. 47.5%) and had participated in three or more types of gambling (16.5% v. 13.4%). Males gambled more often than females (59.1% v. 43.4%) and also participated in three or more types of gambling (19.4% vs. 8.5%). White students were most likely to have gambled in the past year (58.4%) followed by Hispanic students (47.3%).

By county, Mercer and Camden counties had the highest frequency of students indicating that they had never gambled or had not gambled in the past year (56.9% and 55.0%, respectively). Conversely, students in Cape May and Monmouth counties had the highest frequencies of gambling in the past year (60.4% and 57.1%, respectively) and those who participated in three or more types of gambling (19.9% and 19.6%, respectively).



## Chapter 4: Risk and Protective Factors

The following chapter presents the risk and protective factors from the *2007 New Jersey Middle School Risk and Protective Factor Survey*. The survey contains six overarching domains – Community, Family, School, and Peer-Individual for the 20 risk factors and School and Peer-Individual for the five protective factors. Multiple survey items comprise each of these factors and a minimum number of questions must be answered in order to calculate a score for each factor. Scores on these factors have been standardized to a 0 to 1 scale. Standardization is commonly achieved by subtracting the lowest outcome value from all values in an array, which forces the low value to equal 0. Then, all values in the array are divided by the upper end of the adjusted array range. This second step forces the high value to equal 1.

Risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior while protective factors buffer students against these risks. These two factors are important in regard to prevention planning. While one may not be able to eliminate the risk factors in a students' environment, it is possible that the number of protective factors can be increased.

It is important to note that risk and protective factors are interpreted differently. Overall, it is better to have lower risk factor scores than higher. Research has shown that the more risk factors students are exposed to, the more likely they are to use drugs or participate in antisocial behaviors. Higher scores indicate more risks in the student's environment. Conversely, it is better to have higher protective factor scores. These scores represent characteristics in the students' environment that will protect them against risk factors. For example, a student who lives in a community where drug use is acceptable may be less likely to use drugs if they have friends who have made commitments to stay drug-free or are rewarded for positive behavior at school.

The first two sections describe the 20 risk factors and five protective factors, their specific survey items, and their respective mean scores. The third section provides the average risk and protective factor scores for the State. The fourth and fifth sections show graphs of the relationships between the average risk and protective scores and cigarette, alcohol, marijuana, any other illicit drug use.<sup>10</sup> All of the survey items that define the factors are presented with the mean score for the factor.

Table 39 presents the mean scores for all 20 risk factors and all 5 protective factors, by domain. In addition, each domain mean score is shown. For data disaggregated by demographic subgroups for each of the risk and protective factor domains, please see Table B5 in Appendix B.

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<sup>10</sup> Any other illicit drug is a combined category, and includes New Jersey middle school students who reported use of any of the following: hallucinogens, Ecstasy, methamphetamines, club drugs, OxyContin, heroin, steroids, cocaine or crack, amphetamines, barbiturates, and tranquilizers.

**Table 39: Summary of All Risk and Protective Factors by Domain**

<b>Domain</b>	<b>Risk Factors</b>	<b>n</b>	<b>Mean</b>
<i>Community</i> (mean= 0.25)	Laws and Norms Favorable to Drug Use	6935	0.34
	Community Transitions and Mobility	6980	0.29
	Low Neighborhood Attachment	7052	0.28
	Perceived Availability of Drugs	6977	0.25
	Community Disorganization	6991	0.24
	Perceived Availability of Handguns	6971	0.14
<i>Family</i> (mean= 0.13)	Poor Family Management	6956	0.20
	Parental Attitudes Favorable Toward Antisocial Behavior	6976	0.13
	Parental Attitudes Favorable Toward Drug Use	6983	0.05
<i>School</i> (mean= 0.33)	Low Commitment to School	6899	0.33
	Academic Failure	6877	0.31
<i>Peer-Individual</i> (mean= 0.11)	Perceived Risks of Drug Use	7014	0.20
	Favorable Attitudes Toward Antisocial Behavior	7064	0.18
	Peer Rewards for Antisocial Behavior	7014	0.13
	Favorable Attitudes Toward Drug Use	7071	0.09
	Early Initiation of Drug Use	7022	0.10
	Friends' Use of Drugs	7063	0.08
	Early Initiation of Antisocial Behavior	7031	0.07
	Gang Involvement	6933	0.05
	Interaction with Antisocial Peers	7071	0.05
<b>Statewide Risk Factor Averages</b>		<b>6894</b>	<b>0.18</b>
<b>Domain</b>	<b>Protective Factors</b>	<b>n</b>	<b>Mean</b>
<i>Peer-Individual</i> (mean= 0.46)	Interaction with Prosocial Peers	7014	0.63
	Peer Rewards for Prosocial Involvement	7000	0.48
	Prosocial Involvement	7066	0.28
<i>School</i> (mean= 0.62)	School Opportunities for Prosocial Involvement	7038	0.64
	School Rewards for Prosocial Involvement	7047	0.59
<b>Statewide Protective Factor Averages</b>		<b>7062</b>	<b>0.52</b>

## **A. Statewide Risk Factors**

This section presents each of the risk domains and their respective risk factors, including individual questions from the survey. As mentioned previously, risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior. Each question was scored so that the most negative behaviors received the highest score. For example, if a student indicated that he was 10 years old or younger when he began smoking cigarettes, then this would be scored as a 1. Conversely, a student who indicated having never smoked would receive a score of 0. Mean scores for each factor were then computed on a scale of 0 to 1, with a higher score indicating that the student is at greater risk of being influenced negatively by that factor. For example, if the mean score for *Early Initiation of Drug Use* factor was 0.60 then it would be more likely than students' with lower risk scores to use drugs at an early age.

## Community Domain Risk Factor

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The *Community Domain Risk Factor* refers to neighborhoods where residents feel little attachment to the community; where there is a high population density, physical deteriorations, and high crime rates; where children experience frequent residential moves; and where drugs and weapons are perceived to be readily available. The *Community Domain Risk Factor* scores by demographic subgroup are presented in Tables 40 and 41.

### Low Neighborhood Attachment

- I'd like to get out of my neighborhood.
- If I had to move, I would miss the neighborhood I now live in.
- I like my neighborhood.

Higher mean scores on the *Low Neighborhood Attachment* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of feelings of low neighborhood attachment. The overall mean was 0.28. Eighth-grade students reported more negative feelings about their neighborhood (0.31) than 7<sup>th</sup> grade students (0.26). There was no notable difference between the mean factor scores for male vs. female students. When broken down by race/ethnicity, African-American and Hispanic students were at higher risk to be influenced by *Low Neighborhood Attachment* (0.37 and .033, respectively) than White students (0.24).

### Community Disorganization

- I feel safe in my neighborhood.
- How much do the following statements describe your neighborhood: crime and/or drug selling?
- How much do the following statements describe your neighborhood: fights?
- How much do the following statements describe your neighborhood: lots of empty or abandoned buildings?
- How much do the following statements describe your neighborhood: lots of graffiti?

Higher mean scores on the *Community Disorganization* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of issues related to community disorganization. The overall mean was 0.24. Eighth-grade students had a mean of 0.25 while the mean for 7<sup>th</sup> grade students was slightly lower (0.22). There was no notable difference between male student and female student means. By race/ethnicity, African-American and Hispanic students had substantially higher scores on the *Community Disorganization* factor (0.34 and 0.31, respectively) than White students (0.19).

## Community Transitions and Mobility

- Have you changed homes in the past year?
- How many times have you changed homes since kindergarten?
- Have you changed schools (...) in the past year?
- How many times have you changed schools (...) since kindergarten?

Higher mean scores on the *Community Transitions and Mobility* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of issues related to community transitions and mobility. The overall mean was 0.29. Seventh grade students had a higher mean (0.30) than 8<sup>th</sup> grade students (0.27), though likely because they had recently changed schools in to middle school and 8<sup>th</sup> graders had not. There was no notable difference between male and female student mean scores. For race/ethnicity in this category, African-American and Hispanic students had higher mean scores (0.38 and 0.36, respectively) than White students (0.23).

**Table 40: Community Domain Risk Factor Demographics – Low Neighborhood Attachment, Community Disorganization, and Community Transitions and Mobility**

		<i>Low Neighborhood Attachment</i>		<i>Community Disorganization</i>		<i>Community Transitions and Mobility</i>	
		n	Mean	n	Mean	n	Mean
<b>NJ Middle School Students</b>		7052	0.29	6991	0.24	6980	0.29
<b>Grade</b>							
	7 <sup>th</sup>	3346	0.26	3317	0.22	3302	0.30
	8 <sup>th</sup>	3706	0.31	3674	0.25	3678	0.27
<b>Sex</b>							
	Male	3216	0.28	3188	0.24	3179	0.28
	Female	3648	0.29	3616	0.23	3614	0.29
<b>Ethnicity</b>							
	White	3997	0.24	3968	0.19	3970	0.23
	African-American	626	0.37	617	0.34	614	0.38
	Hispanic	1164	0.33	1152	0.31	1149	0.36
	Other	641	0.31	637	0.19	631	0.29

Note: Higher scores indicate higher risk

## Perceived Availability of Drugs

- If you wanted to, how easy would it be for you to get: some beer, wine or hard liquor (...)?
- If you wanted to, how easy would it be for you to get: some cigarettes?
- If you wanted to, how easy would it be for you to get: some marijuana?

- If you wanted to, how easy would it be for you to get: a drug like cocaine, LSD, or amphetamines?

Higher mean scores on the *Perceived Availability of Drugs* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of the ease of obtaining ATOD. The overall mean was 0.25. Eighth-grade students had a substantially higher risk factor mean score (0.30) than 7<sup>th</sup> grade students (0.20), indicating that ATOD were easier to get for 8<sup>th</sup> grade students. Male students had a mean of 0.26 and female students had a mean of 0.24. The means for race/ethnicity categories were varied with African-American students having the highest mean of 0.27 and those students of *other racial/ethnic backgrounds* having the lowest mean of 0.19.

### **Perceived Availability of Handguns**

- If you wanted to, how easy would it be for you to get: a handgun?

Higher mean scores on the *Perceived Availability of Handguns* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of the ease of obtaining handguns. The overall mean was 0.14. Only a small difference occurred between 7<sup>th</sup> and 8<sup>th</sup> grades (0.12 and 0.15, respectively). The mean for male students (0.16) was slightly higher than the female student mean of 0.11, indicating that male students perceived it easier to get a handgun than female students. By race/ethnicity, African-American students had the highest mean of 0.20 and those students of *other racial/ethnic backgrounds* had the lowest mean of 0.09.

### **Laws and Norms Favorable to Drug Use**

- If a kid smoked marijuana in your neighborhood would he or she be caught by the police?
- If a kid drank some beer, wine or hard liquor (...) in your neighborhood would he or she be caught by the police?
- If a kid carried a handgun in your neighborhood would he or she be caught by the police?
- If a kid smoked a cigarette in your neighborhood would he or she be caught by the police?
- How wrong would most adults (...) in your neighborhood think it is for kids your age: to use marijuana.
- How wrong would most adults (...) in your neighborhood think it is for kids your age: to drink alcohol.
- How wrong would most adults (...) in your neighborhood think it is for kids your age: to smoke cigarettes.

Higher mean scores on the *Laws and Norms Favorable to Drug Use* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because the laws and norms of their community are favorable to drug use. The overall mean was 0.34. The 8<sup>th</sup> grade students had a higher mean score (0.38) than the 7<sup>th</sup> grade students (0.30), which suggests that older students believe that their community is more favorable to drug use. There was no notable difference between male and female student mean scores. By race/ethnicity, African-American students had the highest mean and those students of *other racial/ethnic backgrounds* had the lowest (0.38 and 0.29, respectively).

**Table 41: Community Domain Risk Factor Demographics – Perceived Availability of Drugs, Perceived Availability of Handguns, and Laws and Norms Favorable to Drug Use**

	<i>Perceived Availability of Drugs</i>		<i>Perceived Availability of Handguns</i>		<i>Laws And Norms Favorable to Drug Use</i>	
	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
<b>NJ Middle School Students</b>	6977	0.25	6971	0.14	6935	0.34
<b>Grade</b>						
<b>7th</b>	3300	0.20	3296	0.12	3275	0.30
<b>8th</b>	3677	0.30	3675	0.15	3660	0.38
<b>Sex</b>						
<b>Male</b>	3176	0.26	3176	0.16	3164	0.34
<b>Female</b>	3615	0.24	3610	0.11	3587	0.34
<b>Ethnicity</b>						
<b>White</b>	3966	0.25	3964	0.12	3955	0.33
<b>African-American</b>	611	0.27	609	0.20	611	0.38
<b>Hispanic</b>	1152	0.25	1153	0.15	1137	0.35
<b>Other</b>	632	0.19	630	0.09	622	0.29

## Family Domain Risk Factor

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The *Family Domain Risk Factor* refers to dysfunctional family dynamics defined by the following characteristics: little parental supervision, unclear behavioral expectations, and inconsistent rewards/punishments for behavior; parents are tolerant of children's antisocial behaviors or drug/alcohol use; and parents engage in criminal behavior or drug/alcohol abuse. The *School Domain Risk Factor* scores by demographic subgroup are presented in Table 42.

### Poor Family Management

- My parents ask if I've gotten my homework done.
- Would your parents know if you did not come on time?
- When I am not at home, one of my parents knows where I am and who I am with.
- The rules in my family are clear.
- My family has clear rules about alcohol and drug use.
- If you drank some beer or wine or liquor (...) without your parent's permission, would you be caught by your parents?
- If you carried a handgun without your parents' permission, would you be caught by your parents?
- If you skipped school would you be caught by your parents?

Higher mean scores on the *Poor Family Management* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because their family is poorly managed. The overall mean was 0.20. The 8<sup>th</sup> grade mean was 0.23 and the 7<sup>th</sup> grade mean was lower at 0.18. The difference between male and female students was small (0.22 and 0.19, respectively). There were also small differences among racial/ethnic groups. African-American students had the highest mean of 0.22 and those students of *other racial/ethnic backgrounds* had the lowest mean of 0.18.

### Parental Attitudes Favorable Toward Drug Use

- How wrong do your parents feel it would be for you to: drink beer, wine or hard liquor (...) regularly (...)?
- How wrong do your parents feel it would be for you to: smoke cigarettes?
- How wrong do your parents feel it would be for you to: smoke marijuana?

Higher mean scores on the *Parental Attitudes Favorable Toward Drug Use* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because their parents' attitudes are favorable to drug use. The overall mean was 0.05. The mean of 8th grade students was only slightly higher than the one for 7<sup>th</sup> grade students (0.07 and 0.03, respectively). There was no notable difference between male student and female student means or among racial/ethnic groups.

### Parental Attitudes Favorable Toward Antisocial Behavior

- How wrong do your parents feel it would be for you to: steal something worth more than \$5?
- How wrong do your parents feel it would be for you to: draw graffiti, or write things or draw pictures on building or other property (...)?

- How wrong do your parents feel it would be for you to: pick a fight with someone?

Higher mean scores on the *Parental Attitudes Favorable Toward Antisocial Behavior* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because their parents' attitudes are favorable to antisocial behavior. The overall mean was 0.13. The 8<sup>th</sup> grade mean of 0.15 for students was slightly higher than the mean of 0.11 for 7<sup>th</sup> grade students. The mean of 0.15 for male students was also higher than the mean of 0.10 for female students, indicating that the parents of boys would perceive these behaviors as less wrong. Racial/ethnic differences were slight. White students scored a high of 0.14 while those students of *other racial/ethnic backgrounds* scored a low of 0.09.

**Table 42: Family Domain Risk Factor Demographics – Poor Family Management, Parental Attitudes Favorable Toward Drug Use, and Parental Attitudes Favorable Toward Antisocial Behavior**

	<i>Poor Family Management</i>		<i>Parental Attitudes Favorable Toward Drug Use</i>		<i>Parental Attitudes Favorable Toward Antisocial Behavior</i>	
	n	Mean	n	Mean	n	Mean
<b>NJ Middle School Students</b>	6956	0.20	6983	0.05	6976	0.13
<b>Grade</b>						
7th	3289	0.18	3302	0.03	3302	0.11
8th	3667	0.23	3681	0.07	3674	0.15
<b>Sex</b>						
Male	3171	0.22	3180	0.05	3173	0.15
Female	3600	0.19	3617	0.05	3616	0.10
<b>Ethnicity</b>						
White	3960	0.20	3968	0.05	3969	0.14
African-American	611	0.22	617	0.05	616	0.13
Hispanic	1145	0.21	1151	0.05	1149	0.12
Other	628	0.18	631	0.03	629	0.09

## School Domain Risk Factor

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The *School Domain Risk Factor* refers to students achieving failing grades and having little commitment to school, as demonstrated by not liking school, seeing schoolwork as irrelevant, and skipping or cutting class. The *School Domain Risk Factor* scores by demographic subgroup are presented in Table 43.

### Academic Failure

- Putting them all together what were your grades like last year?
- Are your school grades better than the grades of most students in your class?

Higher mean scores on the *Academic Failure* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they achieve poor or failing grades in school. The overall mean was 0.31. There was no difference between 7<sup>th</sup> grade and 8<sup>th</sup> grade student means. The male student mean was 0.33, higher than the female student mean of 0.29, indicating that males had lower grades than females. For race/ethnicity in this domain, Hispanic students had the highest mean of 0.36 and those students of *other racial/ethnic backgrounds* had the lowest mean of 0.22.

### Low Commitment to School

- During the LAST FOUR WEEKS how many whole days have you missed: because you skipped or “cut”?
- How interesting are most of your courses to you?
- Now, thinking back over the past year in school, how often did you: enjoy being in school?
- Now, thinking back over the past year in school, how often did you: hate being in school?
- Now, thinking back over the past year in school, how often did you: try to do your best work in school?
- How often do you feel that the schoolwork you are assigned is meaningful and important?
- How important do you think the things you are learning in school are going to be for your later life?

Higher mean scores on the *Low Commitment to School* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they have a low commitment to school. The overall mean was 0.35. No difference was shown between grade levels. Male students had a mean of 0.37 and female students had a mean of 0.33, indicating that males were less committed to school than females. White students were at greatest risk to be impacted by their low commitment to school (0.36) versus those students of *other racial/ethnic backgrounds* who had the lowest mean (0.31).

**Table 43: School Domain Risk Factor Demographics – Academic Failure and Low Commitment to School**

	<i>Academic Failure</i>		<i>Low Commitment to School</i>	
	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
<b>NJ Middle School Students</b>	6877	0.31	6899	0.35
<b>Grade</b>				
<b>7th</b>	3249	0.31	3255	0.35
<b>8th</b>	3628	0.31	3644	0.36
<b>Sex</b>				
<b>Male</b>	3129	0.33	3124	0.37
<b>Female</b>	3563	0.29	3596	0.33
<b>Ethnicity</b>				
<b>White</b>	3920	0.29	3926	0.36
<b>African-American</b>	600	0.35	601	0.33
<b>Hispanic</b>	1138	0.36	1139	0.34
<b>Other</b>	626	0.22	633	0.31

## Peer-Individual Domain Risk Factor

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The *Peer-Individual Domain Risk Factor* refers to youths' attitudes about drug use and antisocial behavior, the age which they began using drugs and engaging in antisocial behavior, whether or not their friends use drugs or are delinquents, and if there are peer rewards for delinquent behavior. The *Community Domain Risk Factor* scores by demographic subgroup are presented in Tables 44-47.

### Gang Involvement

- Think of your four best friends (...). In the past year (...) how many of your best friends have: been members of a gang?
- Have you ever belonged to a gang?
- If you have ever belonged to a gang, did the gang have a name?
- How old were you when you first: belonged to a gang?

Higher mean scores on the *Gang Involvement* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because of their involvement with gangs. The overall mean was 0.05. There was little variation between grade levels. Male students had a mean of 0.07 and female students had a mean of 0.04, indicating that males were more likely than females to be negatively influenced by gangs. For race/ethnicity in this category, African-American and Hispanic students (0.12 and 0.09, respectively) had substantially higher mean scores than White students had the lowest mean (0.03).

### Perceived Risks of Drug Use

- How much do you think people risk harming themselves (...) if they: smoke one or more packs of cigarettes per day.
- How much do you think people risk harming themselves (...) if they: try marijuana once or twice.
- How much do you think people risk harming themselves (...) if they: smoke marijuana regularly.
- How much do you think people risk harming themselves (...) if they: have one or two drinks of an alcoholic beverage (...) nearly every day.

Higher mean scores on the *Perceived Risks of Drug Use* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they believe that using ATOD is of little risk to their health. The overall mean was 0.20. Slight differences were shown by grade and gender. The 8<sup>th</sup> grade mean score was 0.22 versus the 7<sup>th</sup> grade mean of 0.19. The male mean score was higher than the female student mean (0.23 vs. 0.18). For race/ethnicity in this group, African-American students (0.24) perceived less risk of harm from drugs and alcohol, as compared to students of *other racial/ethnic backgrounds* (0.14).

**Table 44: Peer-Individual Domain Risk Factor Demographics – Gang Involvement and Perceived Risks of Drug Use**

		<i>Gang Involvement</i>		<i>Perceived Risks of Drug Use</i>	
		<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
<b>NJ Middle School Students</b>		6933	0.05	7014	0.20
<b>Grade</b>					
	7th	3283	0.06	3330	0.19
	8th	3650	0.05	3684	0.22
<b>Sex</b>					
	Male	3139	0.07	3193	0.23
	Female	3612	0.04	3633	0.18
<b>Ethnicity</b>					
	White	3936	0.03	3978	0.19
	African-American	608	0.12	619	0.24
	Hispanic	1146	0.09	1160	0.23
	Other	632	0.03	638	0.14

### Early Initiation of Drug Use

- How old were you when you first: smoked cigarettes?
- How old were you when you first: drank alcoholic beverages?
- How old were you when you first: smoked marijuana?
- How old were you when you first: began drinking alcoholic beverages regularly, that is, at least once or twice a month?

Higher mean scores on the *Early Initiation of Drug Use* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they began using ATOD at an early age. The overall mean was 0.10. The 8<sup>th</sup> grade student mean was 0.13 while the mean score for 7<sup>th</sup> grade students was 0.08, indicating that 8<sup>th</sup> graders first used ATOD at earlier ages. There was no difference between the male and female student means. The highest mean by racial/ethnic groups was for African-American and Hispanic students (0.12 each), which was twice as high as those students of *other racial/ethnic backgrounds* (0.06).

### Early Initiation of Antisocial Behavior

- How old were you when you first: got suspended from school?
- How old were you when you first: got arrested?
- How old were you when you first: carried a handgun?
- How old were you when you first: attacked someone with the idea of seriously hurting them?

Higher mean scores on the *Early Initiation of Antisocial Behavior* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they

began engaging in antisocial behaviors at an early age. The overall mean was 0.07. There was little difference by grade level (0.06 vs. 0.07). The mean for male students (0.09) was much greater than the mean for females (0.04), which suggests that males were younger when they first started engaging in anti-social behavior. Broken down by race/ethnicity in this domain, mean scores were substantially higher for African-American and Hispanic students (0.13 and 0.09, respectively) than for White students and students of *other racial/ethnic backgrounds* (0.04 each).

**Table 45: Peer-Individual Domain Risk Factor Demographics – Early Initiation of Drug Use and Early Initiation of Antisocial Behavior**

	<i>Early Initiation of Drug Use</i>		<i>Early Initiation of Antisocial Behavior</i>	
	n	Mean	n	Mean
<b>NJ Middle School Students</b>	7022	0.10	7031	0.07
<b>Grade</b>				
7th	3331	0.08	3332	0.06
8th	3691	0.13	3699	0.07
<b>Sex</b>				
Male	3194	0.10	3196	0.09
Female	3640	0.10	3648	0.04
<b>Ethnicity</b>				
White	3974	0.10	3979	0.04
African-American	621	0.12	620	0.13
Hispanic	1165	0.12	1168	0.09
Other	639	0.06	640	0.04

### Favorable Attitudes Toward Drug Use

- How wrong do you think it is for someone your age to: drink beer, wine or hard liquor (...) regularly (...)?
- How wrong do you think it is for someone your age to: smoke cigarettes?
- How wrong do you think it is for someone your age to: smoke marijuana?
- How wrong do you think it is for someone your age to: use LSD, cocaine, amphetamines or another illicit drug?

Higher mean scores on the *Favorable Attitudes Toward Drug Use* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they perceive drug use as less wrong. The overall mean was 0.09. The 8<sup>th</sup> grade student mean was 0.12 and the 7<sup>th</sup> grade student mean was 0.06, which suggests that 8<sup>th</sup> graders believed it was less wrong for someone their age to use ATOD. Only small differences were shown by gender and by racial/ethnic group.

## **Favorable Attitudes Toward Antisocial Behavior**

- How wrong do you think it is for someone your age to: take a handgun to school?
- How wrong do you think it is for someone your age to: steal something worth more than \$5?
- How wrong do you think it is for someone your age to: pick a fight with someone?
- How wrong do you think it is for someone your age to: attack someone with the idea of seriously hurting them?
- 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?

Higher mean scores on the *Favorable Attitudes Toward Antisocial Behavior* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they perceive antisocial behavior as less wrong. The overall mean was 0.18. The mean for 8<sup>th</sup> grade students was 0.20 and the mean for 7<sup>th</sup> grade students was 0.16. The mean for male students (0.20) was higher than that for female students (0.15), indicating that males believed it was less wrong for someone their age to engage in antisocial behavior. By racial/ethnic groups, African-American and Hispanic students had the highest mean of 0.19 each.

## **Rewards for Antisocial Behavior**

- What are the chances you would be seen as cool if you: smoked cigarettes.
- 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.
- What are the chances you would be seen as cool if you: smoked marijuana.
- What are the chances you would be seen as cool if you: carried a handgun.

Higher mean scores on the *Rewards for Antisocial Behavior* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because they perceive more rewards for drug use and antisocial behavior. The overall mean was 0.13. The 8<sup>th</sup> grade student mean (0.16) was higher than the 7<sup>th</sup> grade student mean (0.11), which indicates that 8<sup>th</sup> graders felt that there were more rewards for antisocial behavior. There was only a slight difference by gender. For this group, the racial/ethnic category with the highest mean was for African-American students at 0.17 and the lowest mean was for students of *other racial/ethnic backgrounds* at 0.10.

**Table 46: Peer-Individual Domain Risk Factor Demographics – Favorable Attitudes Toward Drug Use, Favorable Attitudes Toward Antisocial Behavior, and Rewards for Antisocial Behavior**

	<i>Favorable Attitudes Toward Drug Use</i>		<i>Favorable Attitudes Toward Antisocial Behavior</i>		<i>Rewards for Antisocial Behavior</i>	
	n	Mean	n	Mean	n	Mean
<b>NJ Middle School Students</b>	7071	0.09	7064	0.18	7014	0.13
<b>Grade</b>						
<b>7th</b>	3354	0.06	3351	0.16	3334	0.11
<b>8th</b>	3717	0.12	3713	0.20	3680	0.16
<b>Sex</b>						
<b>Male</b>	3224	0.10	3220	0.20	3195	0.13
<b>Female</b>	3658	0.08	3657	0.15	3630	0.14
<b>Ethnicity</b>						
<b>White</b>	4003	0.09	3998	0.17	3982	0.12
<b>African-American</b>	629	0.09	628	0.19	618	0.17
<b>Hispanic</b>	1173	0.10	1171	0.19	1157	0.14
<b>Other</b>	642	0.05	642	0.15	637	0.10

### Friends' Use of Drugs

- Think of your four best friends (...). In the past year (...) how many of your best friends have: smoke cigarettes.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: tried beer, wine or hard liquor (...) when their parents didn't know about it.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: used marijuana.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: used LSD, cocaine, amphetamines or other illegal drugs.

Higher mean scores on the *Friends' Use of Drugs* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because more of their friends have used ATOD. The overall mean was 0.08. The 8<sup>th</sup> grade student mean was 0.11, more than twice the 7<sup>th</sup> grade mean of 0.05. There was little difference between males and females (0.09 and 0.08, respectively). For race/ethnicity in this category, Hispanic students had the highest mean of 0.10 while students of *other racial/ethnic background* had the lowest (0.04).

## Interaction with Antisocial Peers

- Think of your four best friends (...). In the past year (...) how many of your best friends have: been suspended from school.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: carried a handgun.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: sold illegal drugs.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: stolen or tried to steal a motor vehicle such as a car or motorcycle.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: been arrested.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: dropped out of school.

Higher mean scores on the *Interaction with Antisocial Peers* factor indicate that the group is at greater risk for using drugs and participating in antisocial behaviors because more of their friends have engaged in antisocial behavior. The overall mean was 0.05. Eighth grade students reported a slightly higher mean (0.06) than 7<sup>th</sup> grade students (0.05). The mean by gender was higher for male students (0.06) than it was for female students (0.04). African-American students had the highest mean of 0.10. Students of other racial/ethnic backgrounds reported the lowest mean of 0.03.

**Table 47: Peer-Individual Domain Risk Factor Demographics – Friends’ Use of Drugs and Interaction with Antisocial Peers**

	<i>Friends’ Use of Drugs</i>		<i>Interaction with Antisocial Peers</i>	
	n	Mean	n	Mean
<b>NJ Middle School Students</b>	7063	0.08	7071	0.05
<b>Grade</b>				
<b>7th</b>	3352	0.05	3355	0.05
<b>8th</b>	3711	0.11	3716	0.06
<b>Sex</b>				
<b>Male</b>	3219	0.09	3223	0.06
<b>Female</b>	3657	0.08	3659	0.04
<b>Ethnicity</b>				
<b>White</b>	4002	0.08	4003	0.03
<b>African-American</b>	625	0.09	627	0.10
<b>Hispanic</b>	1172	0.10	1175	0.08
<b>Other</b>	639	0.04	639	0.03

## ***B. Statewide Protective Factors***

This section presents each of the protective domains and their respective risk factors, including individual questions from the survey. As mentioned previously, protective factors are characteristics of the students' school, and peer relationships that have been associated with reducing the likelihood of experimentation with alcohol, tobacco, and other drugs and antisocial behavior by buffering the effects of risks in their environment. Each question was scored so that the most positive behaviors received the highest score. For example, if a student indicated that she had done community service 40 or more times in the last year, then this would be scored as a 1. Conversely, a student who indicated having never done community service would receive a score of 0. Mean scores for each factor were then computed on a scale of 0 to 1, with a higher score indicating that the student has a greater chance of being protected by that factor. For example, if the mean score for the *Prosocial Involvement* factor was 0.60 then students would be more likely than average than students with lower protective scores to be participating in positive activities.

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## Peer-Individual Domain Protective Factors

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The *Peer-Individual Domain Protective Factor* refers to youths' attitudes about school, their participation in extra-curricular activities, whether or not their friends engage in prosocial behaviors, and if there are peer rewards for prosocial behavior. The *Peer-Individual Domain Protective Factor* scores by demographic subgroup are presented in Table 48.

### Interaction with Prosocial Peers

- Think of your four best friends (...). In the past year (...) how many of your best friends have: participated in clubs, organizations or activities at school.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: made a commitment to stay drug-free.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: liked school.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: regularly attended religious services.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: tried to do well in school.

Higher mean scores on the *Interaction with Prosocial Peers* factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because more of their friends have engaged in prosocial behavior. The overall mean was 0.63. The mean for 8<sup>th</sup> grade students was lower than the mean for 7<sup>th</sup> grade students (0.61 and 0.65, respectively), indicating that the friends of 7<sup>th</sup> grade students have participated in more positive behaviors than the friends of 8<sup>th</sup> grade students. Great distinctions were shown by gender and race/ethnicity. Females had a mean score of 0.68 while male students averaged 0.58. By racial/ethnic group, students of *other racial/ethnic backgrounds* had the highest mean (0.68) versus the lowest mean score of 0.58 for Hispanic students.

### Prosocial Involvement

- How many times in the past year (...) have you: participated in clubs, organizations or activities at school.
- How many times in the past year (...) have you: done extra work on your own for school.
- How many times in the past year (...) have you: volunteered to do community service.

Higher mean scores on the *Prosocial Involvement* factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because of more frequent involvement with prosocial activities. The overall mean was 0.28. Little variation was shown by grade (0.28 vs. 0.29). By gender, the female student mean was (0.32) greater than the male student mean (0.25), indicating that females more frequently engaged in prosocial activities than males did. White students and students of *other racial/ethnic backgrounds* (0.31 each) reported more prosocial involvement than did African-American and Hispanic students (0.24 and 0.23, respectively).

## Peer Rewards for Prosocial Involvement

- What are the chances you would be seen as cool if you: worked hard at school?
- What are the chances you would be seen as cool if you: defended someone who was being verbally abused at school?
- What are the chances you would be seen as cool if you: regularly volunteered to do community service?
- What are the chances you would be seen as cool if you: made a commitment to stay drug-free?

Higher mean scores on the *Peer Rewards for Prosocial Involvement* factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because they perceive peer rewards for participation in prosocial activities. The overall mean was 0.48. The 7<sup>th</sup> grade mean was 0.51, higher than 8<sup>th</sup> grade mean of 0.45. The female student mean was 0.51 while males averaged 0.45. The racial/ethnic group with the highest mean was African-American students (0.52) and the lowest were White and Hispanic students (0.47 each), indicating that more African-American students believe they would be seen as cool if they participated in prosocial activities.

**Table 48: Peer-Individual Domain Protective Factor Demographics – Interaction with Prosocial Peers, Prosocial Involvement, and Rewards for Prosocial Involvement**

	<i>Interaction with Prosocial Peers</i>		<i>Prosocial Involvement</i>		<i>Peer Rewards for Prosocial Involvement</i>	
	n	Mean	n	Mean	n	Mean
<b>NJ Middle School Students</b>	7014	0.63	7066	0.28	7000	0.48
<b>Grade</b>						
7th	3332	0.65	3351	0.28	3325	0.51
8th	3682	0.61	3715	0.29	3675	0.45
<b>Sex</b>						
Male	3188	0.58	3220	0.25	3186	0.45
Female	3637	0.68	3657	0.32	3625	0.51
<b>Ethnicity</b>						
White	3976	0.64	3997	0.31	3971	0.47
African-American	618	0.61	626	0.24	617	0.52
Hispanic	1166	0.58	1174	0.23	1158	0.47
Other	636	0.68	642	0.31	636	0.50

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## School Domain Protective Factors

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The School Domain Protective Factor is defined by students who have positive relationships with teachers; have opportunities to make decisions in class; and/or receive rewards, recognition, or praise for such success both in and out of school. The *Peer-Individual Domain Protective Factor* scores by demographic subgroup are presented in Table 49.

### School Opportunities for Prosocial Involvement

- In my school, students have lots of chances to help decide things like class activities and rules.
- Teachers ask me to work on special classroom projects.
- There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.
- There are lots of chances for students in my school to talk with a teacher one-on-one.
- There are lots of chances to be part of class discussions or activities.

Higher mean scores on the *School Opportunities for Prosocial Involvement* factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because are school opportunities for prosocial involvement. The overall mean was 0.64. Only slight differences in the means were noted by grade (0.65 versus 0.63). There were no differences by gender. By race/ethnicity, there was also little variation. White students had the highest mean of 0.65 while African-American students had the lowest mean of 0.62.

### School Rewards for Prosocial Involvement

- My teacher notices when I am doing a good job and lets me know about it.
- I feel safe at my school.
- The school lets my parents know when I have done something well.
- My teachers praise me when I work hard in school.

Higher mean scores on the *School Rewards for Prosocial Involvement* factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because there are school rewards for prosocial involvement. The overall mean was 0.59. The mean for 7<sup>th</sup> grade students was minimally higher than for 8<sup>th</sup> grade students (0.60 versus 0.58, respectively). Similarly, there was only a slight difference between the male student and female student means (0.59 and 0.60, respectively). There were no considerable differences among means for racial/ethnic groups.

**Table 49: School Domain Protective Factor Demographics – School Opportunities for Prosocial Involvement and School Rewards for Prosocial Involvement**

	<i>School Opportunities for Prosocial Involvement</i>		<i>School Rewards for Prosocial Involvement</i>	
	n	Mean	n	Mean
<b>NJ Middle School Students</b>	7038	0.64	7047	0.59
<b>Grade</b>				
<b>7th</b>	3328	0.65	3341	0.60
<b>8th</b>	3710	0.63	3706	0.58
<b>Sex</b>				
<b>Male</b>	3215	0.64	3213	0.59
<b>Female</b>	3636	0.64	3647	0.60
<b>Ethnicity</b>				
<b>White</b>	3986	0.65	3990	0.59
<b>African-American</b>	620	0.62	627	0.59
<b>Hispanic</b>	1169	0.63	1163	0.60
<b>Other</b>	637	0.63	642	0.60

### C. Statewide Risk and Protective Factor Averages

Table 50 presents the average score for all 20 risk factors and all five protective factors. Overall, little variation is observed between demographic subgroups.

*Average of the Risk Factors:* Higher mean scores indicate that the group is at greater risk for using drugs and participating in antisocial behaviors. The overall mean was 0.18. Overall, there were only minor differences between demographic subgroups. The 8<sup>th</sup> grade student mean was 0.19, which was only slightly higher than the 7<sup>th</sup> grade mean of 0.16. The mean score for males was slightly higher than the average for females (0.19 versus 0.16). By race/ethnicity, the highest mean was for African-American students (0.21) and the lowest mean was for students of *other racial/ethnic backgrounds* (0.14). Table A4 indicates that the average county level risk factor score ranged from a low of 0.14 in Warren County to a high of 0.22 in Cape May County. Cumberland, and Gloucester, Hudson counties also had risk factor scores above the mean (0.20).

*Average of the Protective Factors:* Higher mean scores indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors. The overall mean was 0.52. The mean for 7<sup>th</sup> grade students was slightly higher than the mean score for 8<sup>th</sup> grade students (0.54 versus 0.51), indicating that 7<sup>th</sup> graders were more likely to be protected from using drugs and antisocial behaviors than 8<sup>th</sup> graders were. The mean score for female students was higher than the mean score for males (0.55 versus 0.50). By race/ethnicity, students of *other racial/ethnic backgrounds* had the highest mean (0.55) and the Hispanic students had lowest mean (0.50). The average county level protective factor score (see Table A4) ranged from a low of 0.50 in Cape May and Gloucester counties and a high of 0.56 in Warren County. Union County (0.54) also had a high protective factor score.

**Table 50: Average of the Risk and Protective Factors by Demographic Subgroups**

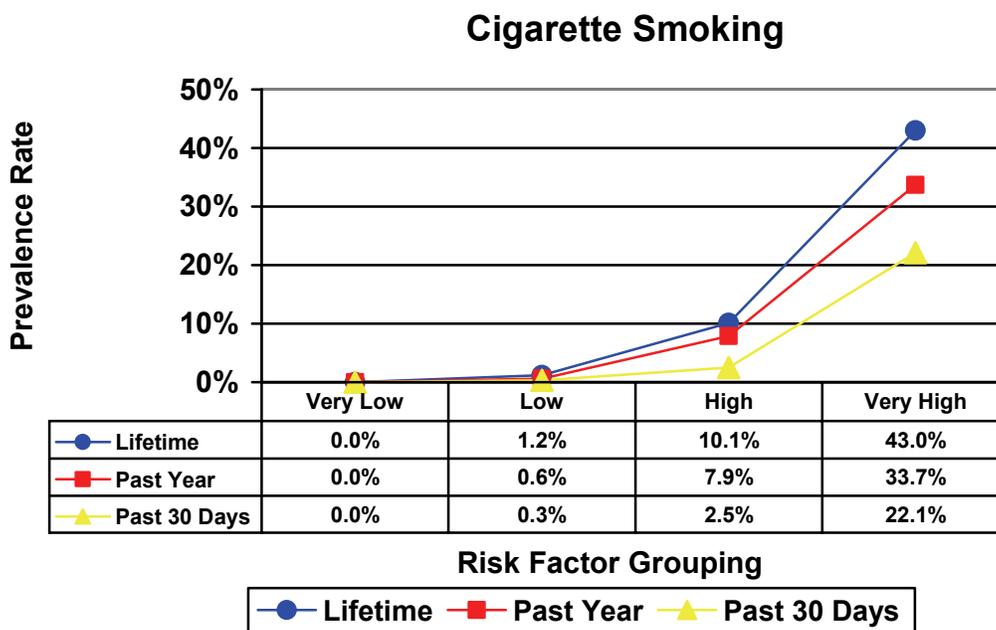
	<i>Risk Factors</i>		<i>Protective Factors</i>	
	n	Mean	n	Mean
<b>NJ Middle School Students</b>	6894	0.18	7062	0.52
<b>Grade</b>				
7th	3259	0.16	3351	0.54
8th	3635	0.19	3711	0.51
<b>Sex</b>				
Male	3129	0.19	3220	0.50
Female	3581	0.16	3653	0.55
<b>Ethnicity</b>				
White	3926	0.16	3995	0.53
African-American	610	0.21	626	0.52
Hispanic	1132	0.20	1171	0.50
Other	623	0.14	643	0.55

## D. Impact of Average Risk Factor Score on Substance Use

In order to better interpret the risk factor mean scores, four categories were calculated – *very low*, *low*, *high*, and *very high*. These categories were based on a normal distribution of scores, such that 68% of the scores are within one standard deviation of the mean. Risk categories were determined by examining the mean and standard deviations of the average risk factor score (0.18). Each quartile division of the following graphs was created using standard deviations. The **low** division represents one standard deviation *below* the mean while the **high** division represents scores one standard deviation *above* the mean. The **very low** division represents scores more than one standard deviation *below* the mean. Similarly, the **very high** division includes scores more than one standard deviation *above* the mean.

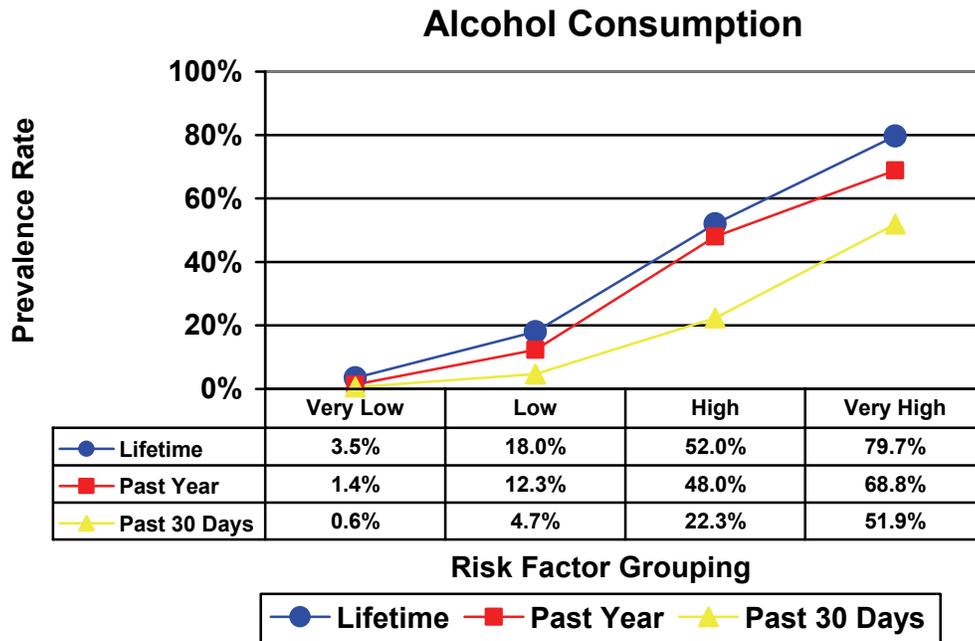
Once risk factor categories were established, the interaction of these categories with the prevalence of tobacco, alcohol, and other drug use was analyzed. The relationships between the average risk factor score and the rate of substance use are illustrated in Figures 1-4 below. As shown, as risk scores increase, lifetime, past year, and past 30-day ATOD use increases.

**Figure 1: Prevalence of Cigarette Smoking by Risk Factor Groupings**



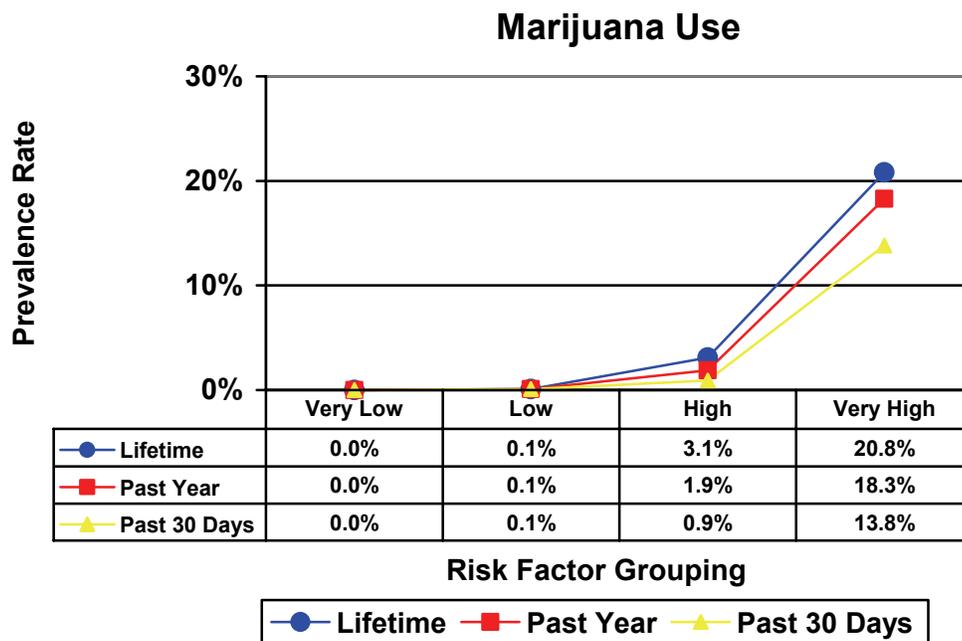
As shown, as risk scores increase, use of tobacco increases. It is important to note that only one in 100 students (1.2%) of *low* risk is likely to have experimented with tobacco in their lifetime, as compared to one in ten students of *high* risk (10.1%). Further, a striking increase in cigarette smoking occurs between those at *high* and *very high* risk (10.1% vs. 43.0%).

**Figure 2: Prevalence of Alcohol Consumption by Risk Factor Groupings**



As shown, as risk scores increase, alcohol consumption increases. There is a dramatic difference between those of low risk and those of high risk – percentages of use quadruple between these two risk categories. The majority of students (79.7%) in the *very high* risk category had consumed alcohol in their lifetime.

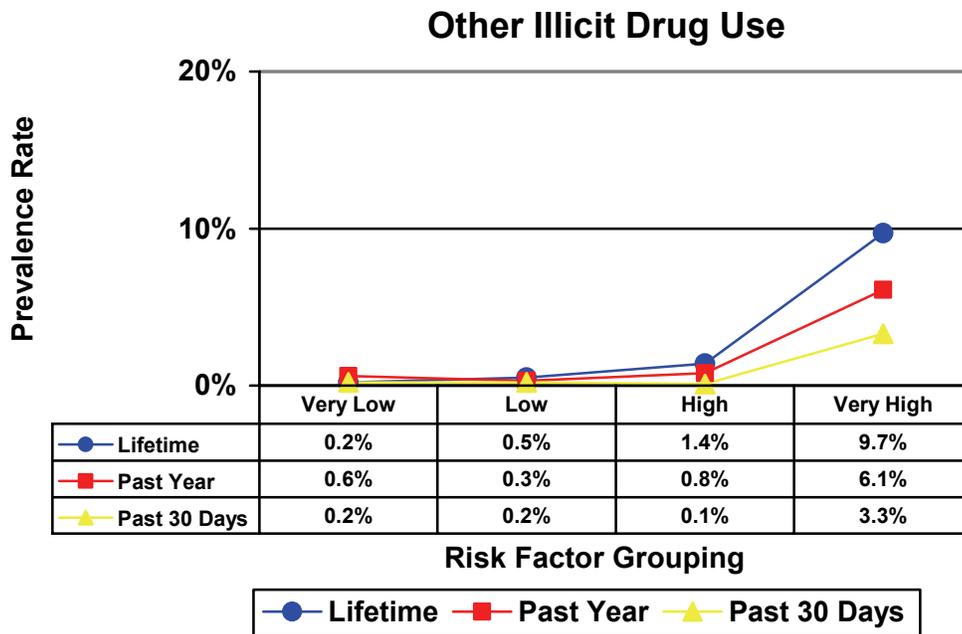
**Figure 3: Prevalence of Marijuana Use by Risk Factor Groupings**



As shown, as risk scores increase, use of marijuana increases. Only one in 1,000 students (0.1%) of *low* risk has used marijuana in their lifetime, as compared to three in 100

students of *high* risk (3.1%) and two of 10 students of *very high* risk (20.8%). Between *high* and *very high* risk, marijuana use triples.

**Figure 4: Prevalence of Other Illicit Drug Use by Risk Factor Groupings**



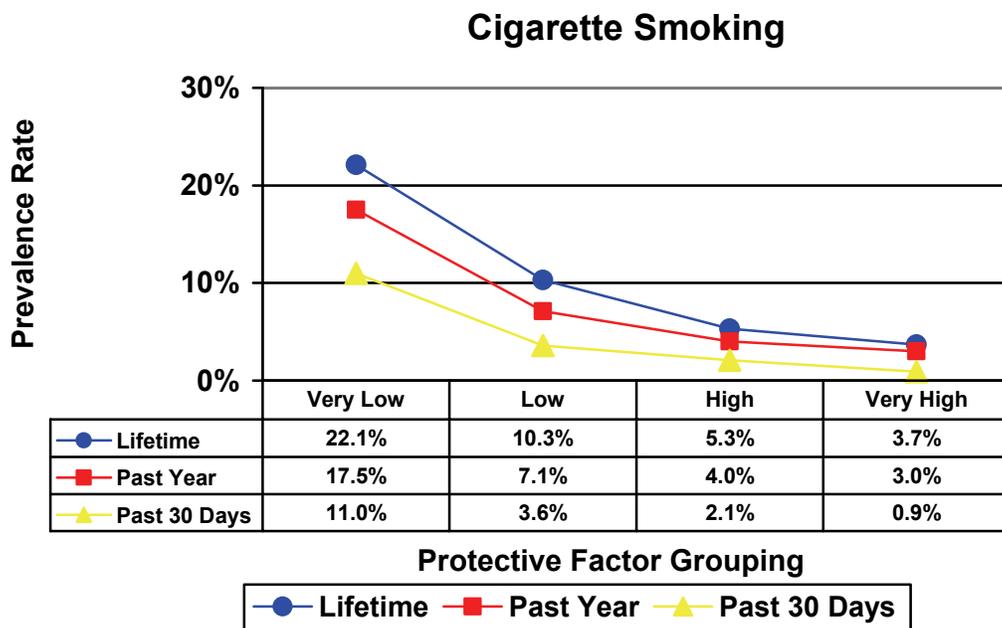
As shown, as risk scores increase, use of other illicit drugs increases. Less than 1% of students of *low* or *very low* risk had ever used other illicit drugs. It is important to note that only one in 100 students (1.4%) of *high* risk has used other illicit drugs in their lifetime, as compared to one in 10 students of *very high* risk (9.7%).

## E. Impact of Average Protective Factor Score on Substance Use

In order to better interpret the protective factor mean scores, four categories were calculated – *very low*, *low*, *high*, and *very high*. These categories were based on a normal distribution of scores, such that 68% of the scores are within one standard deviation of the mean. Protective categories were determined by examining the mean and standard deviations of the average protective factor scores (0.52), as shown in Table 58. Each quartile division of the following graphs was created using standard deviations. The *low* division represents one standard deviation *below* the mean while the *high* division represents scores one standard deviation *above* the mean. The *very low* division represents scores more than one standard deviation *below* the mean. Similarly, the *very high* division includes scores more than one standard deviation *above* the mean.

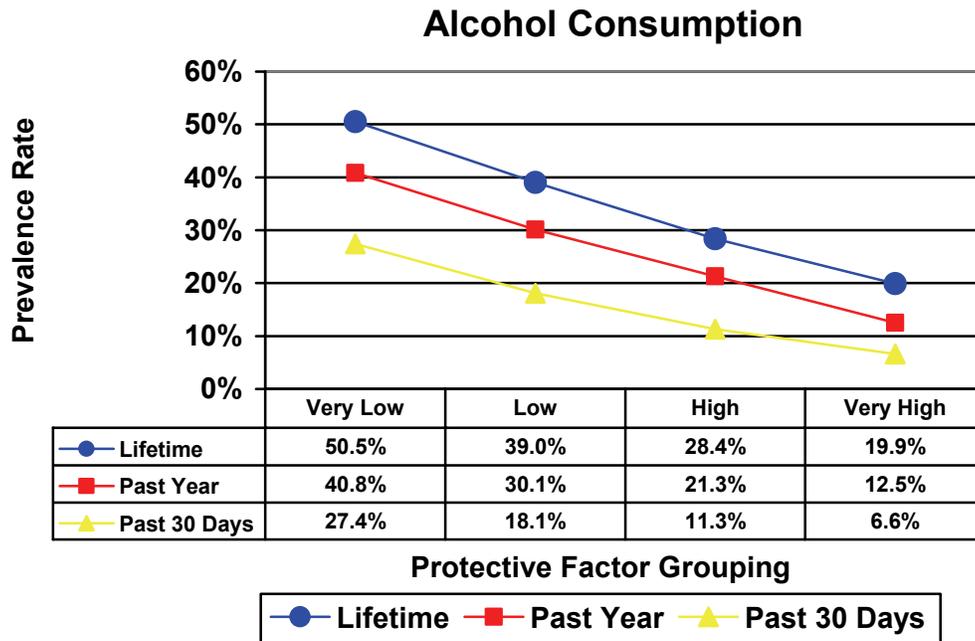
The relationship between average protective factor score and substance use is illustrated in Figures 5-8 below. It is important to note that these are inverse relationships. In summary, as the protective factor scores increase, lifetime, past year, and past 30 day ATOD use decrease.

**Figure 5: Prevalence of Cigarette Smoking by Protective Factor Groupings**



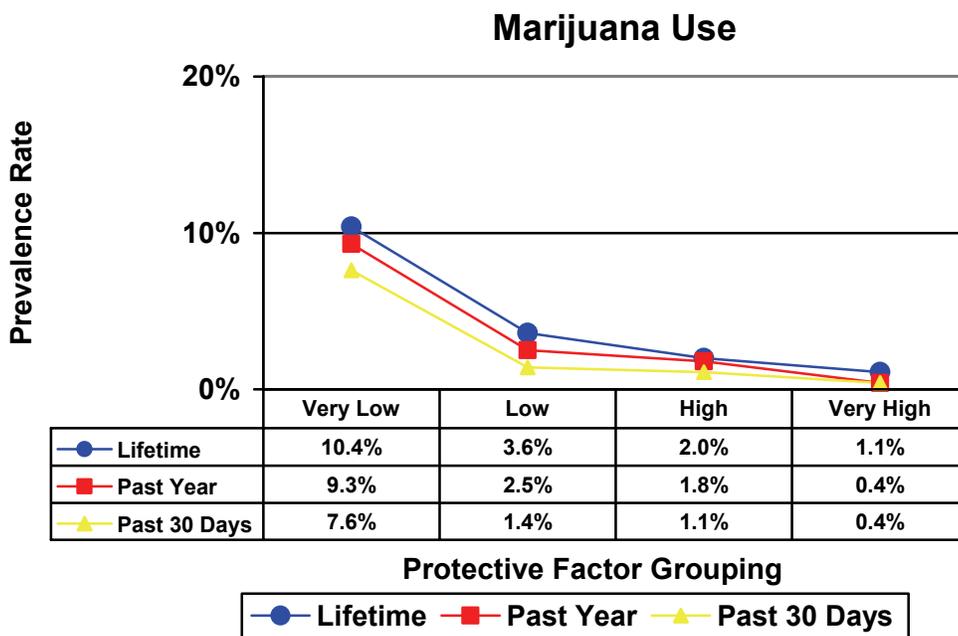
As shown, as protective scores increase, use of tobacco decreases. It is important to note that by only increasing protective scores by one standard deviation (*very low* to *low*) the percentage of those who have experimented with tobacco in their lifetime decreases by half (22.1% to 10.3%).

**Figure 6: Prevalence of Alcohol Consumption by Protective Factor Groupings**



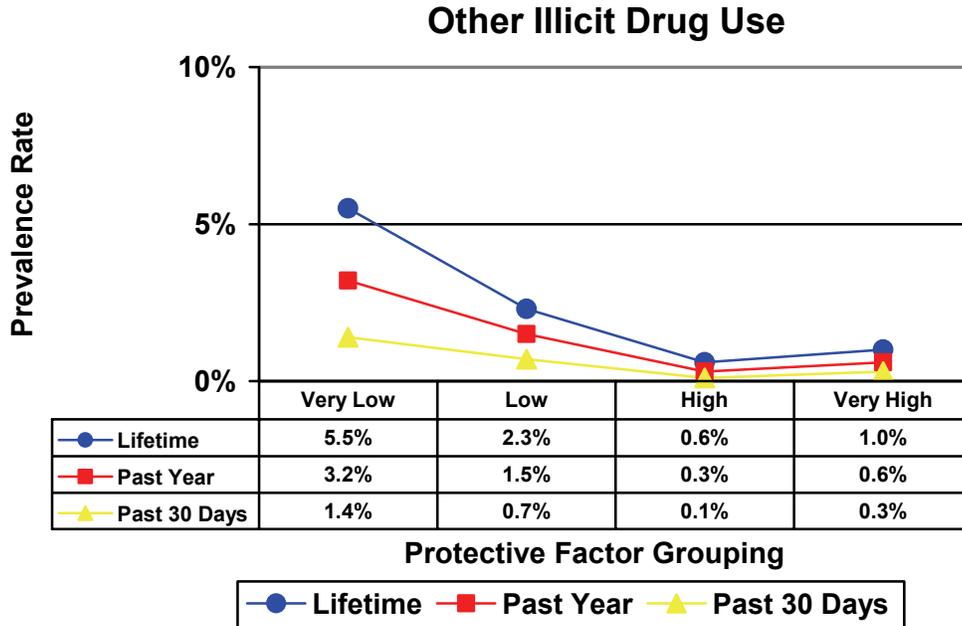
As shown, as protective scores increase, alcohol consumption decreases. Despite *very high* protective scores, two in 10 students still consumed alcohol in their lifetime (19.9%). This may indicate that adolescents are likely to experiment with alcohol even with an arsenal of protective factors. However this represents more than half of students with *very low* protective scores that have consumed alcohol in their lifetime (50.5%).

**Figure 7: Prevalence of Marijuana Use by Protective Factor Groupings**



As shown, as protective scores increase, use of marijuana decreases. Notably, only one in 100 students (1.1%) with *very high* protective scores has used marijuana in their lifetime, as compared one of 10 students with *very low* protective scores (10.4%). The greatest change occurs between students with *very low* and *low* protective scores where reported lifetime marijuana use decreases by one-third (10.4% vs. 3.6%).

**Figure 8: Prevalence of Other Illicit Drug Use by Protective Factor Groupings**



Overall, differences between protective factors are marginal though it is clear to see that as protective scores increase, use of other illicit drugs decreases. The greatest change occurs between students with *very low* and *low* protective scores where reported lifetime other illicit drugs use decreases by half (5.5% vs. 2.3%).



**APPENDIX A: Prevalence Summaries Disaggregated by County**



**Table A2: Prevalence Summaries of Selected Delinquent Behaviors by New Jersey Middle School Students, by County**

2007	Atlantic*		Bergen*		Burlington		Camden		Cape May		Cumberland		Essex*		Gloucester		Hudson		Hunterdon*		Mercer		Middlesex		Monmouth*		Morris*		Ocean		Passaic*		Salem*		Somerset		Sussex		Union		Warren		Statewide	
	%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%		%			
Attacking Someone with Intent to Harm	11.8		8.0		7.5		8.4		8.5		13.9		11.8		11.2		13.3		7.2		7.1		11.6		7.6		2.6		8.4		11.0		8.4		11.1		7.7		7.8		5.7		9.2	
Attempting to Steal a Vehicle	1.1		0.5		1.8		1.0		0.9		1.8		1.2		0.5		1.0		0.5		0.6		1.4		1.2		0.7		0.9		0.4		1.3		0.8		0.9		1.6		0.0		0.9	
Being Arrested	3.7		3.5		4.6		3.5		12.2		5.2		2.4		2.3		3.3		1.5		1.2		1.3		2.0		1.2		2.4		1.5		4.2		5.4		1.8		4.1		1.1		2.8	
Being Drunk or High at School	5.5		4.8		3.3		2.1		7.1		5.7		2.7		3.4		3.0		2.2		2.6		2.8		2.3		3.7		2.7		3.1		3.8		1.7		2.2		2.0		1.7		3.1	
Carrying a Handgun	2.0		1.0		2.2		2.4		0.5		4.8		2.6		0.7		3.1		1.2		0.6		0.7		2.4		0.6		2.0		1.0		0.8		0.9		1.1		1.5		0.9		1.6	
Getting Suspended	14.5		11.1		12.1		22.4		15.6		21.4		20.6		14.1		16.4		3.3		5.7		9.3		11.8		1.8		13.2		14.7		21.2		11.2		4.9		12.0		4.1		12.7	
Selling Drugs	1.9		1.7		0.3		0.4		4.2		1.8		0.3		1.8		1.6		0.0		1.5		0.6		0.3		0.7		0.6		0.7		1.2		0.8		0.5		0.4		0.3		0.9	
Taking a Handgun to School	0.5		0.5		0.8		0.7		0.2		0.0		0.6		0.8		0.3		0.5		0.2		0.0		0.6		0.0		1.1		0.7		0.0		0.0		0.5		0.2		0.0		0.4	
In a Gang, With or Without a name	8.6		3.6		6.2		5.3		9.5		13.9		7.8		7.3		8.4		2.9		3.8		6.6		2.8		4.5		4.7		7.5		6.5		3.2		4.6		7.3		4.1		5.9	
Range of Valid Student Responses to Question Item	328		296		373		374		269		207		234		328		442		327		417		439		387		159		428		240		246		348		423		322		350		356	
	339		303		381		380		278		212		239		333		450		336		420		448		396		160		438		248		251		353		328		353		328		356	

\* County response rate is below the state mean

**Table A3: Prevalence Summaries in the Past Year of Gambling Behaviors by New Jersey Middle School Students, by County**

	2007										Statewide											
	Atlantic*	Bergen*	Burlington	Camden	Cape May	Cumberland	Essex*	Gloucester	Hudson	Hunterdon*		Mercer	Middlesex	Monmouth*	Morris*	Ocean	Passaic*	Salem*	Somerset	Sussex	Union	Warren
Played the lottery or scratch-off tickets?	Never/Before, not past year	74.5	59.4	65.3	71.2	51.8	60.6	66.2	60.9	68.0	61.6	70.6	62.6	58.7	57.9	62.7	72.8	58.6	55.7	61.0	65.0	62.7
	Past Year – A few times	14.9	24.6	24.4	21.2	29.9	27.2	22.4	27.0	20.0	29.8	19.3	26.0	27.2	31.3	31.7	26.2	18.1	28.4	32.5	25.7	24.4
	Past Year – Monthly/Greater	10.6	16.0	10.3	7.6	18.2	12.2	11.4	12.1	11.9	8.6	10.1	11.4	11.4	10.8	15.2	11.1	9.1	13.0	11.8	13.2	10.6
Bet on team sports for money or possessions?	Never/Before, not past year	79.6	85.6	78.6	83.6	77.1	76.1	77.5	83.3	79.5	79.7	81.7	84.8	80.1	82.1	83.7	86.7	78.0	80.1	81.7	78.6	86.0
	Past Year – A few times	13.9	10.4	15.9	9.9	18.1	14.0	19.3	13.4	12.3	15.5	11.8	8.6	13.6	13.2	10.9	7.6	9.6	15.9	14.9	16.2	10.2
	Past Year – Monthly/Greater	6.5	4.0	5.6	6.5	4.8	9.9	3.3	3.3	8.1	4.8	6.5	6.6	6.3	4.7	5.4	5.7	12.5	4.0	3.4	5.1	3.8
Played cards for money or possessions?	Never/Before, not past year	80.1	83.7	83.8	79.9	77.7	80.2	77.2	77.3	81.3	79.6	84.0	84.8	80.2	78.6	82.7	86.1	82.3	84.1	82.6	83.6	85.0
	Past Year – A few times	11.7	9.9	9.9	11.7	15.0	12.1	15.8	13.9	10.7	15.4	10.8	10.2	13.3	15.9	13.5	9.1	8.4	11.7	14.0	13.1	12.4
	Past Year – Monthly/Greater	8.2	6.4	6.2	8.4	7.3	7.6	7.0	8.8	8.0	5.0	5.2	5.0	6.5	5.5	3.8	4.8	9.2	4.2	3.4	3.4	2.6
Bet on pool, darts or bowling?	Never/Before, not past year	84.4	89.1	86.5	90.1	79.7	84.0	86.3	87.9	87.5	88.4	90.4	87.9	87.5	93.8	88.0	87.8	84.3	86.3	90.1	89.5	87.5
	Past Year – A few times	8.7	7.0	7.1	6.4	8.0	7.8	4.0	7.5	7.4	9.2	6.1	5.8	8.0	4.7	8.3	5.7	9.3	8.9	6.5	7.7	9.5
	Past Year – Monthly/Greater	6.9	4.0	6.3	3.6	12.2	8.2	9.7	4.6	5.1	2.4	3.5	6.3	4.5	1.5	3.7	6.5	6.3	4.8	3.5	2.7	3.0
Bet money or possessions on video games?	Never/Before, not past year	86.7	94.1	89.0	88.9	92.2	83.2	80.1	90.3	82.0	92.2	89.8	87.8	92.2	92.3	89.5	88.1	87.4	87.9	93.8	90.5	90.9
	Past Year – A few times	7.5	2.7	5.5	4.5	2.2	5.4	8.4	3.3	8.2	5.7	5.2	4.7	4.1	4.3	7.3	5.4	6.4	4.6	3.9	4.0	4.5
	Past Year – Monthly/Greater	5.8	3.1	5.6	6.7	5.6	11.4	11.5	6.4	9.8	2.1	5.0	7.5	3.7	3.4	3.3	6.4	6.2	7.5	2.3	5.5	4.6
Played bingo for money or possessions?	Never/Before, not past year	92.4	92.7	93.8	95.1	92.0	89.5	92.1	92.1	89.1	91.8	90.9	90.1	94.4	97.4	92.0	87.8	92.1	93.0	93.9	88.8	93.7
	Past Year – A few times	4.9	5.7	5.0	3.5	3.1	7.9	5.9	6.8	5.3	6.4	6.5	8.0	4.4	1.9	5.2	8.2	5.2	5.7	4.8	9.6	5.4
	Past Year – Monthly/Greater	2.7	1.6	1.1	1.4	4.9	2.6	2.1	1.1	5.7	1.8	2.6	1.9	1.2	0.7	2.8	3.9	2.7	1.3	1.3	1.6	0.9
Bet on dice games such as craps?	Never/Before, not past year	92.6	97.2	96.6	94.4	90.0	88.1	95.6	93.9	92.7	98.3	93.9	93.5	94.8	96.6	94.6	94.5	94.3	95.9	96.6	95.0	97.6
	Past Year – A few times	3.1	1.6	2.4	2.2	5.9	5.6	2.0	2.6	3.0	1.4	2.1	2.9	3.0	2.6	3.4	1.5	3.9	1.3	2.4	2.6	1.3
	Past Year – Monthly/Greater	4.3	1.2	1.0	3.4	4.1	6.3	2.4	3.5	4.4	0.3	4.0	3.6	2.2	0.8	2.0	4.0	1.8	2.8	1.0	2.5	1.1
Bet on horse races?	Never/Before, not past year	96.4	98.7	96.5	98.0	92.9	97.9	99.0	98.0	97.7	94.9	94.5	96.3	87.0	97.2	93.8	96.7	96.1	93.4	97.8	96.1	96.2
	Past Year – A few times	2.2	0.6	2.7	0.9	6.3	0.8	0.8	0.7	1.2	4.0	3.9	2.6	12.5	2.1	5.2	1.7	2.5	5.2	1.5	3.0	3.1
	Past Year – Monthly/Greater	1.5	0.6	0.8	1.0	0.8	1.2	0.2	1.3	1.0	1.1	1.5	1.1	0.6	0.7	1.0	1.6	1.4	1.4	0.7	0.8	0.7
Gambled on the internet?	Never/Before, not past year	97.3	96.7	96.2	98.0	95.6	97.3	93.0	97.6	96.3	97.8	97.3	95.8	97.9	98.8	96.0	95.8	98.5	96.9	98.2	96.5	98.2
	Past Year – A few times	0.7	1.9	2.7	0.9	0.5	0.5	6.3	1.0	1.3	0.4	0.8	1.8	1.7	0.0	1.6	1.5	0.8	1.5	1.0	3.2	1.0
	Past Year – Monthly/Greater	2.0	1.4	1.1	1.1	3.9	2.2	0.6	1.4	2.4	1.8	1.9	2.4	0.4	1.2	2.4	2.7	0.6	1.7	0.8	0.4	0.8
Gambled at a casino?	Never/Before, not past year	99.5	99.1	98.7	99.8	98.3	98.0	99.7	99.4	99.5	99.0	98.2	98.8	98.9	99.3	99.9	99.5	99.7	99.7	98.9	99.0	99.2
	Past Year – A few times	0.0	0.9	0.7	0.2	0.8	0.6	0.3	0.0	0.2	0.6	0.7	0.2	0.2	0.7	0.1	0.0	0.3	0.3	1.0	1.0	0.4
	Past Year – Monthly/Greater	0.5	0.0	0.6	0.0	0.9	1.4	0.0	0.6	0.3	0.3	1.1	0.9	1.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.4
Range of Valid Student Responses to Question Item		333	301	372	376	274	207	235	328	444	332	411	442	385	158	431	240	246	346	424	324	349
		339	302	376	379	278	210	238	332	449	336	413	445	390	160	435	243	249	351	429	328	354

\* County response rate is below the state mean

**APPENDIX B: Risk and Protective Factor Averages**

**Table B1: County-wide Risk and Protective Factor Averages by Domain**

2007		Atlantic*	Bergen*	Burlington	Camden	Cape May	Cumberland	Essex*	Gloucester	Hudson	Hunterdon*	Mercer	Middlesex	Monmouth*	Morris*	Ocean	Passaic*	Salem*	Somerset	Sussex	Union	Warren	Statewide
Risk Factors	Community Domain	0.27	0.25	0.26	0.26	0.27	0.30	0.30	0.28	0.32	0.20	0.23	0.23	0.22	0.22	0.25	0.26	0.27	0.23	0.25	0.24	0.21	0.25
	Family Domain	0.15	0.13	0.12	0.12	0.20	0.13	0.14	0.14	0.12	0.13	0.13	0.11	0.12	0.12	0.13	0.11	0.14	0.13	0.13	0.14	0.11	0.13
	School Domain	0.34	0.34	0.33	0.34	0.38	0.33	0.30	0.35	0.32	0.33	0.31	0.32	0.30	0.34	0.36	0.35	0.33	0.32	0.35	0.33	0.31	0.33
	Peer-Individual Domain	0.12	0.11	0.10	0.11	0.15	0.13	0.12	0.13	0.12	0.08	0.10	0.09	0.10	0.09	0.10	0.11	0.12	0.09	0.10	0.10	0.07	0.11
Average Risk Factor Score	0.19	0.18	0.17	0.18	0.22	0.20	0.20	0.20	0.20	0.20	0.15	0.16	0.16	0.16	0.16	0.17	0.18	0.19	0.16	0.17	0.17	0.14	0.18
Protective Factors	School Domain	0.62	0.61	0.61	0.63	0.57	0.60	0.62	0.60	0.63	0.61	0.60	0.60	0.64	0.61	0.59	0.60	0.59	0.63	0.61	0.64	0.63	0.62
	Peer-Individual Domain	0.45	0.46	0.44	0.47	0.45	0.47	0.47	0.43	0.44	0.49	0.47	0.47	0.49	0.47	0.45	0.46	0.47	0.46	0.47	0.47	0.52	0.46
	Average Protective Factor Score	0.52	0.52	0.51	0.53	0.50	0.52	0.53	0.50	0.52	0.54	0.52	0.52	0.55	0.53	0.51	0.52	0.52	0.53	0.53	0.54	0.56	0.52

\* County response rate is below the state mean

**Table B2: Risk and Protective Factor Averages by Domain**

	<b>RISK FACTORS</b>						<b>PROTECTIVE FACTORS</b>					
	<b>Community Domain</b>		<b>Family Domain</b>		<b>School Domain</b>		<b>Peer-Individual Domain</b>		<b>School Domain</b>		<b>Peer-Individual Domain</b>	
	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>
<b>NJ Middle School Students</b>	6799	0.25	6936	0.13	6707	0.33	6771	0.11	7009	0.62	6914	0.46
<b>Grade</b>												
7 <sup>th</sup>	3204	0.23	3276	0.11	3154	0.32	3205	0.09	3313	0.62	3286	0.48
8 <sup>th</sup>	3595	0.28	3660	0.15	3553	0.33	3566	0.12	3696	0.61	3628	0.45
<b>Sex</b>												
Male	3097	0.26	3157	0.14	3029	0.35	3045	0.12	3197	0.15	3134	0.43
Female	3526	0.25	3595	0.11	3501	0.31	3550	0.09	3627	0.62	3591	0.50
<b>Ethnicity</b>												
White	3891	0.23	3951	0.13	3841	0.33	3868	0.09	3973	0.62	3930	0.47
African-American	588	0.32	610	0.14	572	0.34	587	0.14	620	0.61	604	0.46
Hispanic	1110	0.29	1142	0.13	1104	0.35	1111	0.13	1158	0.62	1145	0.42
Other	612	0.23	626	0.10	617	0.27	619	0.69	636	0.61	628	0.50

**Table B3: Individual Risk Factor Averages by County**

2007	Community																						
	Atlantic*	Bergen*	Burlington	Camden	Cape May	Cumberland	Essex*	Gloucester	Hudson	Hunterdon*	Mercer	Middlesex	Monmouth*	Morris*	Ocean	Passaic*	Salem*	Somerset	Sussex	Union	Warren	Statewide	
Laws and Norms Favorable to Drug Use	0.36	0.33	0.32	0.35	0.40	0.38	0.36	0.37	0.38	0.33	0.33	0.33	0.32	0.31	0.35	0.34	0.36	0.33	0.36	0.33	0.33	0.33	0.25
Community Transitions and Mobility	0.35	0.27	0.37	0.29	0.30	0.36	0.30	0.32	0.34	0.18	0.28	0.27	0.24	0.21	0.28	0.29	0.24	0.27	0.25	0.29	0.25	0.25	0.29
Low Neighborhood Attachment	0.29	0.29	0.30	0.28	0.29	0.37	0.31	0.31	0.33	0.22	0.27	0.28	0.26	0.24	0.29	0.32	0.30	0.27	0.27	0.24	0.22	0.24	0.28
Perceived Availability of Drugs	0.28	0.27	0.24	0.25	0.29	0.24	0.27	0.27	0.29	0.23	0.25	0.21	0.21	0.27	0.23	0.25	0.27	0.22	0.28	0.23	0.21	0.21	0.25
Community Disorganization	0.21	0.24	0.19	0.27	0.22	0.26	0.35	0.26	0.39	0.09	0.16	0.20	0.20	0.19	0.21	0.25	0.21	0.19	0.17	0.24	0.13	0.24	0.24
Perceived Availability of Handguns	0.14	0.12	0.13	0.15	0.17	0.19	0.21	0.19	0.17	0.14	0.10	0.11	0.08	0.11	0.14	0.11	0.22	0.12	0.18	0.12	0.13	0.13	0.14
Poor Family Management	0.23	0.22	0.19	0.20	0.26	0.20	0.24	0.21	0.20	0.20	0.20	0.18	0.19	0.20	0.21	0.19	0.22	0.22	0.21	0.19	0.17	0.17	0.20
Parental Attitudes Favorable Toward Antisocial Behavior	0.16	0.12	0.12	0.13	0.23	0.13	0.14	0.15	0.13	0.14	0.13	0.11	0.13	0.12	0.14	0.11	0.14	0.12	0.12	0.16	0.11	0.11	0.13
Parental Attitudes Favorable Toward Drug Use	0.06	0.05	0.04	0.04	0.11	0.06	0.04	0.06	0.04	0.05	0.05	0.05	0.04	0.04	0.06	0.04	0.06	0.05	0.05	0.07	0.04	0.04	0.05
Low Commitment to School	0.37	0.37	0.37	0.34	0.41	0.32	0.32	0.36	0.31	0.38	0.34	0.35	0.33	0.36	0.40	0.35	0.36	0.36	0.38	0.36	0.35	0.35	0.33
Academic Failure	0.30	0.32	0.30	0.33	0.35	0.35	0.29	0.35	0.33	0.28	0.28	0.30	0.27	0.31	0.32	0.34	0.30	0.29	0.33	0.31	0.28	0.28	0.31
Perceived Risks of Drug Use	0.22	0.20	0.17	0.24	0.27	0.23	0.24	0.23	0.22	0.18	0.23	0.18	0.20	0.18	0.21	0.21	0.25	0.17	0.19	0.20	0.16	0.20	0.20
Favorable Attitudes Toward Antisocial Behavior	0.19	0.19	0.18	0.18	0.26	0.17	0.17	0.18	0.18	0.17	0.18	0.17	0.16	0.18	0.18	0.18	0.16	0.19	0.17	0.19	0.15	0.15	0.18
Peer Rewards for Antisocial Behavior	0.14	0.13	0.12	0.14	0.12	0.16	0.18	0.17	0.17	0.11	0.13	0.12	0.12	0.09	0.12	0.12	0.13	0.10	0.12	0.14	0.09	0.13	0.13
Favorable Attitudes Toward Drug Use	0.09	0.11	0.08	0.08	0.14	0.09	0.08	0.11	0.11	0.06	0.07	0.06	0.07	0.06	0.07	0.10	0.09	0.07	0.09	0.05	0.04	0.09	0.09
Early Initiation of Drug Use	0.12	0.12	0.11	0.08	0.16	0.12	0.13	0.14	0.12	0.09	0.09	0.09	0.09	0.09	0.10	0.11	0.12	0.09	0.09	0.10	0.06	0.10	0.10
Friends' Use of Drugs	0.09	0.11	0.08	0.08	0.14	0.09	0.08	0.11	0.11	0.06	0.07	0.06	0.07	0.06	0.07	0.10	0.09	0.07	0.09	0.05	0.04	0.08	0.08
Early Initiation of Antisocial Behavior	0.09	0.06	0.06	0.09	0.09	0.11	0.10	0.08	0.09	0.03	0.04	0.06	0.05	0.01	0.06	0.07	0.09	0.06	0.04	0.06	0.03	0.07	0.07
Gang Involvement	0.04	0.04	0.05	0.05	0.09	0.13	0.08	0.06	0.09	0.03	0.04	0.06	0.03	0.05	0.04	0.07	0.07	0.04	0.04	0.06	0.03	0.05	0.05
Interaction with Antisocial Peers	0.05	0.05	0.04	0.06	0.08	0.09	0.07	0.06	0.07	0.02	0.04	0.04	0.05	0.02	0.05	0.05	0.07	0.05	0.03	0.05	0.02	0.05	0.05

\* County response rate is below the state mean

**Table B4: Individual Protective Factor Averages by County**

2007		Atlantic*	Bergen*	Burlington	Camden	Cape May	Cumberland	Essex*	Gloucester	Hudson	Hunterdon*	Mercer	Middlesex	Monmouth*	Morris*	Ocean	Passaic*	Salem*	Somerset	Sussex	Union	Warren	Statewide
School	School Opportunities for Prosocial Involvement	0.63	0.64	0.63	0.64	0.62	0.61	0.64	0.63	0.64	0.63	0.62	0.64	0.65	0.64	0.63	0.63	0.62	0.65	0.64	0.66	0.65	0.64
	School Rewards for Prosocial Involvement	0.60	0.58	0.58	0.62	0.53	0.59	0.61	0.56	0.62	0.58	0.59	0.57	0.63	0.58	0.55	0.57	0.57	0.60	0.59	0.63	0.61	0.59
	Interaction with Prosocial Peers	0.61	0.63	0.61	0.63	0.56	0.65	0.64	0.59	0.61	0.66	0.64	0.64	0.64	0.65	0.61	0.63	0.63	0.62	0.62	0.63	0.69	0.63
	Peer Rewards for Prosocial Involvement	0.48	0.45	0.45	0.51	0.47	0.51	0.47	0.45	0.49	0.48	0.49	0.47	0.47	0.48	0.46	0.49	0.51	0.48	0.50	0.48	0.54	0.48
Peer-Individual	Prosocial Involvement	0.27	0.30	0.26	0.26	0.32	0.26	0.29	0.25	0.25	0.32	0.27	0.30	0.32	0.28	0.28	0.26	0.28	0.29	0.29	0.28	0.32	0.28

\* County response rate is below the state mean



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