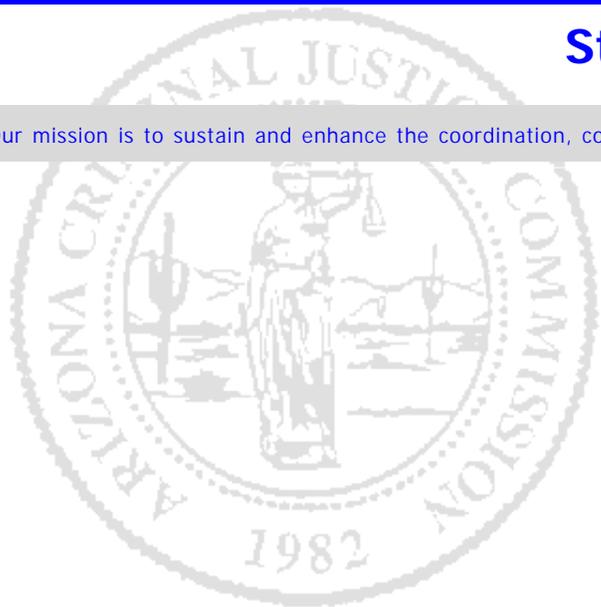


Arizona Criminal Justice Commission

Statistical Analysis Center Publication

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Gun Carrying Among Youth in Arizona

2004

April

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Executive Summary

While the problem of gun violence among youth is complex, studies have shown that in order to address the problems associated with youth carrying guns, several factors must be assessed including: a cycle of fear; lack of opportunity (or a future); culture of machismo and violence; a lack of faith in law enforcement; and developmental issues. If the underlying issues associated with these problems are not addressed, problems associated with youth carrying guns cannot be seriously handled. This report seeks to look at risk and protective factors in relation to youth carrying guns to analyze which risk factors are affecting youth in Arizona. In particular, this report focused on four major issues: (1) Perceptions, fears, and experiences related to guns; (2) Correlates of gun carrying; (3) Relationships between gun carrying, crime, and drugs; and (4) Impacts of gun carrying on school performance, school behavior, and school climate. These issues were examined using data from the *2002 Arizona Youth Survey*.

Data show that between 1984 and 1995, violent crime rates among 13- to 17-year-olds more than doubled. As youth gun violence has become more prevalent, the role of guns has become the center of the discussion on youth violence. Gun injuries are the eighth leading cause of deaths among juveniles. This has led to research concerning the relationship between gun possession among youth and violence and the prevalence of gun possession among youth. Early research suggests that two primary types of juveniles own and possess guns. Some youths own guns legally that are usually purchased by a family member and used for such activities as hunting and target practice. The other group is comprised of youths who obtained their guns illegally and carry them on the street. The latter individuals carry guns for reasons of protection, to carry out crimes, and for status.

This report was done as part of a larger study, the *2002 Arizona Youth Survey*, to advance our understanding of the scope and nature of gun carrying among youth in Arizona and its relationship with violence, drug use and other delinquent behaviors. This survey, conducted every two years with students across Arizona, is an anonymous self-administered survey given to 8th, 10th, and 12th graders in Arizona schools selected for the study. This report examined two outcome measures related to gun carrying among Arizona youth. One measure examined whether the respondent had carried a handgun in the past 12 months, and the other asked whether the respondent had taken a handgun to school in the past 12 months. The survey was randomly administered to 8th, 10th, and 12th grade students in 63 schools across the state resulting in 12,203 valid surveys.

The survey was based on a Communities That Care model that looks at risk and protective factors in four domains: community, family, school, and individual-peer. Each of the domains were developed as part of the social development model (Catalano and Hawkins, 1996), which focuses on how risk and protective factors work in concert with one another to influence pro-social and delinquent behavior. In sum, their model posits that socialization processes are similar for those who in engage in pro-social or delinquent behavior. Specifically, that behavior is influenced by (1) an individual's

involvement with pro-social or delinquent peers (differential association theory); (2) that it is learned when costs and rewards are attached to behavior (social learning); and (3) the degree to which a youth becomes bonded to pro-social or delinquent individuals (social control) (Battin-Pearson, et al., 1998:2).

The family and social structure of students who self-admitted to carrying a gun were markedly different in several aspects from non-gun carriers. Gun carriers were less likely to come from intact families, and had families that were often poorly managed with significant family conflict. These students were substantially more likely to be rebellious, involved with a gang, and have had earlier experiences with antisocial activity and drug use. They viewed antisocial behavior and drugs more favorably than non-gun carriers, and perceived the risks of drug use to be lower. These students, particularly the females, were more likely to feel unsafe in the neighborhoods they lived in and to have friends who carry guns.

About 28 percent of respondents said that it would be easy to obtain a gun, with the remaining respondents considering guns hard to obtain. Of particular interest is that just under 42 percent of the students thought that the police would catch them if they had a gun, however, almost 70 percent thought that their parents would catch them. Gun carriers were more likely to believe that it was easy to get a gun.

Gun carriers were significantly more likely than their non-gun carrying peers to report having used alcohol, marijuana, cocaine, or any other drug, or to have sold drugs. Gun carriers were significantly more likely to have been arrested, have stolen a vehicle, and attacked someone in the past 12 months. For example, about 36 percent of male and female gun carriers had been arrested in the past 12 months, compared to approximately 10 percent of male non-gun carriers and 6 percent of female non-gun carriers. Gun carriers were found to be more violent than non-gun carriers with almost half having attacked someone in the past 12 months with the intent to harm them.

Weapons-related activity was found to be more frequent than gun carrying in relation to taking weapons to school. While only 1.5 percent of students reported having brought a gun to school in the past 12 months, 7 percent of students reported having brought a weapon (i.e., gun, knife, or club) to school in the past 30 days, and 8.4 percent of students reported having been threatened or injured with a weapon in the past year. About half of gun carriers had skipped school at least once in the past year, compared to about 20 percent of non-gun carriers. Gun carriers were far more likely to have skipped school six or more times in the last year, have been in four or more fights or have been drunk or high at school six or more times. They were also more likely than non-gun carriers to have been suspended in the past 12 months, and had been suspended far more frequently.

The relationship between the level of a school's gun problem and school-related delinquency and the feeling of safety at school were analyzed in this report and were found to vary in regard to the level of the problem. Based upon the frequency of gun carrying behaviors, schools were defined as having a minor, average, or serious gun problem. Respondents at schools with a serious gun problem were more likely to report delinquency and victimization than students at schools with a moderate or minor gun problem. Students attending a school with a serious gun problem were about three

times more likely to report having frequently carried a weapon to school, repeatedly having been threatened or injured with a weapon at school, and chronically having engaged in fights at school. Only about 10 percent of students at schools with a minor gun problem reported not feeling safe at school, compared to almost 27 percent of students at schools with a serious gun problem. Students at schools with a serious gun problem were also much more likely to report having not gone to school because they felt unsafe at school or on their way to school. More than nine percent of students in schools with serious gun problems missed school at least one day within the school year because they did not feel safe at school or on the way to school, compared to less than four percent at schools with a minor or moderate gun problem.

The findings presented in this report have a number of policy implications. The data suggest that many youth who carry guns feel unsafe in their neighborhoods, are selling drugs and are frequently threatened with weapons. These findings suggest that many of these youth may be carrying guns for protection. Reducing the amounts of violence and crime in high-risk neighborhoods could reduce the perception that carrying a gun is necessary for protection. Most of the juveniles who carry guns did not believe that they would be caught by police if they carried a gun, reducing the deterrent effect of new legislation, however, a large percentage of youth believed that their parents would catch them, indicating that prevention efforts would be more effective if focused on the family. The results here illustrate that community, family, and school factors all influence gun carrying among Arizona's youth.

Introduction

Guns in the hands of delinquent youth has become an issue of national concern as juvenile violence increased dramatically, culminating in several high profile school shootings and other crimes of magnitudes generally not associated with juvenile offenders. In a study by the National Institute of Justice in 1998, 29 percent of males between the ages of 16 and 18 reported possessing a gun in the previous year. Of these youth, 43 percent cited a need to protect themselves as their primary reason for carrying a gun. Youth carrying guns for non-recreational purposes (purposes other than hunting or target practice) are considered a higher risk for participation in illegal activity.

The role of guns is at the center of the discussion on youth violence. Juvenile gun violence has become more prevalent; gun injuries today are the eighth leading cause of death among juveniles. Today's teenagers are widely reported to be more likely to die as a consequence of a gunshot wound than all other natural causes or diseases (Sheppard, Grant, Rowe, and Jacobs, 2000: 1).

The restriction of guns in general, and handgun ownership in particular, has been debated with great energy, but "few argue that adolescents should have unsupervised access to firearms or other lethal weapons. Fewer still argue that adolescents should be permitted to carry loaded firearms or other lethal weapons at school or on city streets" (Public Health Service, 1990: 1). Since 1968 federal laws have prohibited juveniles from purchasing guns. The Violent Crime Control and Law Enforcement Act of 1994 also prohibits juveniles from possessing handguns.

The Bureau of Alcohol, Tobacco and Firearms noted that "the misuse of handguns is a leading contributor to juvenile violence and fatalities" (7/1998). The danger posed by guns to youth has led to Federal laws banning youth from owning handguns except in very limited instances.

Background

Over the past two decades, the public has voiced substantial concern about the growing amount of violence committed by juveniles. Arrest and victimization data show that between 1984 and 1995, violent crime rates among 13- to 17-year-olds more than doubled. Some declared the trend an "unprecedented epidemic" in American society (Cook and Laub, 1998). Although the violent crime trend among juveniles has declined over the past five years, some are forecasting that offenses involving violence among 14- to 24-year-olds will be increasing substantially over the next 10 to 15 years because of a shift in demographics among the young (Fox and Piquero, 2003).

The attention on juvenile crime and guns has led policy-makers and researchers to further examine the nature and scope of the problem. Early research suggests that two primary types of juveniles own and possess guns. One group is comprised of youth who own their guns legally; the gun typically is bought by a family member and used for sporting activity. The other group is comprised of youth who own their guns illegally and carry them on the street. The latter individuals carry guns for reasons of protection,

to carry out crimes, and for status. Recently, this group has been the focus of much research, policy-making, and tactical and strategic intervention.

Preliminary work examining those enrolled in school suggests that today, gun carrying is relatively common among youth, particularly in urban areas. One study of junior high students in Washington, D.C., reported that 25 percent of males and 4 percent of females have carried a gun. Similarly, in New York City, seven percent of high school students reported carrying a handgun in the past 30 days. Data obtained from arrestees has yielded similar results. Decker, Pennell, and Caldwell (1997), using data obtained from 11 jurisdictions, found that 20 percent of juvenile males and 31 percent of gang members self-reported carrying a gun all or most of the time.

This body of research shows that the gun problem has been particularly pronounced among minority juveniles and young adults. For example, Fagan and Wilkinson (1998) noted that firearm injuries are the leading cause of death among 10- to 14-year-old African American males, causing 30 percent more deaths than motor vehicle injuries, which is the second leading cause of death for this demographic group. Likewise, they reported that 60 percent of deaths among African American juvenile males are gun related, compared to 23 percent for White juvenile males.

The high prevalence of the problem has led policy-makers to question why so many juveniles own and possess guns. Research has suggested four primary reasons: recreation, protection, crime, and status enhancement. First, some youth report that they own and frequently carry a gun for recreation such as hunting and target shooting. These individuals are most likely to live in rural areas and in small communities. They are also most likely to own and possess a rifle or shotgun, followed by a revolver or sawed-off shotgun (Sheley and Wright, 1998). Second, many youth have been found to own and possess a gun for protection or self-defense. In particular, youth have been more likely to self-report carrying a gun because of fears of violence in their neighborhoods, because they had received threats of violence, and because they had previously been the victim of a gun crime (Hemenway, Stith, Bergstein, Ander, and Kennedy, 1996; Sheley and Wright, 1998).

Third, some youths report carrying a gun for use in committing crime. For example, Decker et al. (1997) reported that among arrestees, just fewer than 25 percent owned a gun to commit crime. When compared to other juvenile arrestees, those who were male (33 percent), gang members (50 percent), and drug dealers (42 percent) were found to be the most likely to carry guns. Fourth, a few youths reported owning and carrying a gun for reasons related to status enhancement. Some indicated that they carried a gun to receive greater respect and to be viewed as tough by their peers (Decker et al., 1997; Fagan and Wilkinson, 1998; Sheley and Wright, 1998).

Purpose of this Report

The purpose of this report is to use self-report data from a general sample of school-aged youth to examine the nature and scope of Arizona's youth gun problem. In doing so, the focus of this study is on the students' perceptions, fears, and experiences related to guns. Next, an examination of the extent to which youth in Arizona carry

guns, and which individual, family, peer, school, and neighborhood factors are associated with gun carrying was conducted. The study also examines the links between various subgroups (i.e., gender, ethnicity, and grade) and gun possession and delinquency to assess whether gun carriers are more delinquent than non-gun carriers. Last, the impact of gun carrying on school-related issues such as school performance, school behavior, and school climate is analyzed. Accordingly, this report is organized around the following four themes:

1. Perceptions, fears, and experiences related to guns
2. Correlates of gun carrying
3. Relationships between gun carrying, crime, and drugs
4. Impacts of gun carrying on school performance, school behavior, and school climate

Study Overview

This report on gun carrying is part of the *2002 Arizona Youth Survey*, a larger study conducted by the Arizona Criminal Justice Commission, with technical assistance from the Southwest Prevention Center at the University of Oklahoma. The Youth Survey is conducted bi-annually in Arizona to inform state and local policy regarding youth drug use and delinquency. Site selection and sampling procedures were dictated by that study's design.

All schools in the state were identified using records provided by the Arizona Department of Education. First, schools were stratified by county to assure that a proportionate number of schools and students were sampled from each of Arizona's 15 counties. Second, because the study was limited to students in the 8th, 10th, and 12th grades, schools not offering these grades were removed from the sample. Third, schools were categorized by type, representing the size of the school (large, medium, and small) and the grade levels that were taught in each school (i.e., kindergarten through 12th grade, 6th through 8th grade, 10th through 12th grade). Schools then were randomly selected from each category. If a selected school declined to participate in the study, another school from the same category was randomly selected as a replacement.

Of the original 59 schools selected for the study, 30.5 percent declined to participate. When compared to refusal rates in similar studies, the refusal rate for this study was quite low (e.g., Johnston et al., *Monitoring the Future: National Survey Results on Drug Use, 1975-2001*). With a confidence interval of 0.95, the sample of 63 schools had a margin of error for each grade of less than ± 1.5 percent, providing a sample that is unusual in its geographical and demographic diversity. For counties, the overall sample of students produced a margin of error of less than ± 5 percent at the 95 percent confidence level.

At the selected sites, in each respective grade, all students in attendance on the specified date were administered questionnaires. Passive consent procedures were used to obtain consent from parents for their child(ren)'s participation in the study (i.e., parents were requested to inform the school if they did not want their child to participate in the study). The number of parents refusing to allow participation was very

low, ranging from .3 percent to 5.6 percent. As a result, participation rates in this study were quite high, with 66.9 to 95.8 percent of students in attendance on the day of the survey completing the questionnaire, resulting in a total sample of 12,203.

Initial data analysis showed that some respondents did not provide valid information. Two survey questions assessed the honesty of respondents' answers. One question asked about a nonexistent drug, and the other question, at the end of the survey, asked respondents how honest they had been in answering the questions. If a respondent indicated having used the nonexistent drug or having been "not honest at all" in completing the survey, he or she was removed from the sample. Additionally, some respondents were found to have self-reported an impossibly high amount of drugs, and some respondents did not respond to a large number of questions. These questionnaires were also removed from the sample. Seven hundred six (5.4 percent) surveys were eliminated, leaving a total of 12,203 questionnaires for analysis.

Measures

The questionnaire given to students was developed as part of a larger project called the Six-State Consortium, led by the Social Development Research Group at the University of Washington. The Consortium's goal was to develop a survey instrument that could be used by all six of its states to examine risk and protective levels associated with drug use. The survey used for this report is also used by the Diffusion Consortium project, a study that involves seven states, co-funded by four federal agencies: the National Institute of Drug Abuse (NIDA), the Safe and Drug Free Schools Program, the Office of Juvenile Justice and Delinquency Prevention (OJJDP), and the Center for Substance Abuse Prevention (CSAP).

Gun Carrying. This report examined two outcome measures related to gun carrying among Arizona youth. One measure examined whether the respondent had carried a handgun in the past 12 months, and the other asked whether the respondent had taken a handgun to school in the past 12 months. The heading for the two questions read: "How many times in the past year (the last 12 months) have you..." Specific items included "carried a handgun" and "taken a handgun to school." Responses were scored on an eight-point response scale (0=0 occasions, 1=1-2 occasions, 2=3-5 occasions, 3=6-9 occasions, 4=10-19 occasions, 5=20-29 occasions, 6=30-39, and 7=40 or more occasions). This question was dichotomized to indicate whether the respondent had engaged in the behavior in the last 12 months.

Socio-demographic and familial background. Respondents were asked several questions about their socio-demographic and familial backgrounds. Socio-demographic questions included measures of each respondent's ethnicity, gender, age, and grade. With regard to family background, questions related to the respondent's parental arrangement, number of siblings, the educational attainment of the mother and father, and the primary language spoken at home were asked.

Risk and Protective Factors. Exhibit 1 (below) summarizes the risk and protective factors used in the analyses. The measures are organized according to four domains: community, family, school, and individual-peer. Each domain was developed as part of a social development model (Catalano and Hawkins, 1996) that focuses on how risk and protective factors work in concert to influence pro-social and delinquent behaviors. In sum, the model posits that socialization processes are similar for those who engage in pro-social or delinquent behavior -- namely, (1) that behavior is influenced by an individual's involvement with pro-social or delinquent peers (differential association theory), (2) that behaviors are learned when costs and rewards are attached (social learning), and (3) that behaviors are influenced by the degree to which a youth becomes bonded to pro-social or delinquent individuals (social control) (Battin-Pearson, et al., 1998:2).

Exhibit 1: Risk and protective factors, organized by domain

<i>Community</i>	<i>Family</i>	<i>School</i>	<i>Individual-Peer</i>
Low neighborhood attachment	Poor family management	Academic failure	Early initiation of drug use
Community disorganization	Conflict	Little commitment to school	Early initiation of antisocial behavior
Transition and mobility	History of antisocial behavior	Opportunities for positive involvement	Antisocial behavior
Laws and norms favorable to drug use	Parental attitudes favorable toward drug use	Rewards for conventional involvement	Favorable attitudes towards antisocial behavior
Perceived availability of drugs	Parental attitudes favorable to antisocial behavior		Favorable attitudes toward drug use
Perceived availability of guns	Attachment		Perceived risks of drug use
Opportunities for positive involvement	Opportunities for positive involvement		Friends use of drugs
Rewards for conventional involvement	Rewards for conventional involvement		Interaction with antisocial peers
			Sensation seeking
			Rewards for antisocial involvement
			Social skills
			Belief in moral order

A total of 23 risk factor scales and nine protective factor scales were measured through the survey instrument. Each scale appeared reliable, with an average alpha value of 0.79. (For a dictionary containing each item for each risk and protective scale, see Appendix A.)

- The *community* domain included eight factors (or scales) associated with the area in which the respondent lived: neighborhood attachment (3 items);

community disorganization (5 items); transitions and mobility (5 items); laws and norms favorable to drug use (8 items); perceived availability of drugs (5 items); perceived availability of guns (1 item); opportunities for positive involvement (6 items); and rewards for conventional involvement (3 items).

- The *family* domain consisted of eight factors related to the individual's family history, behavior, involvement, and attitudes: family management (9 items); conflict (3 items); history of antisocial behavior (10 items); parental attitudes favorable to antisocial behavior (3 items); attachment (4 items); opportunities for positive involvement (3 items); and rewards for conventional involvement (4 items).
- The *school* domain contained four factors focused on the respondent's performance, commitment, and opportunities at school: academic failure (2 items); little commitment to school (9 items); opportunities for positive involvement (5 items); and rewards for conventional involvement (4 items).
- The *individual-peer* domain included 12 factors associated with the respondent's attitudes and behaviors, and their peers' attitudes and behaviors: rebelliousness (3 items); early initiation of drug use (14 items); early initiation of antisocial behavior (4 items); antisocial behavior (11 items); favorable attitudes towards antisocial behavior (5 items); favorable attitudes toward drugs (4 items); perceived risks of drug use (4 items); friends' use of drugs (4); interaction with antisocial peers (6 items); sensation seeking (3 items); rewards for antisocial behavior (4 items); social skills (4 items); and belief in moral order (4 items).

Scores for each factor were dichotomized to indicate whether the respondent was at high risk or protection, to make interpretation of the findings easier. Cut points were calculated to determine whether an individual was at high risk or protection using the procedure recommended by Briney et al. (2002). Specifically, for the risk factor scales, a median cut point plus 0.15 times the mean absolute deviation (MAD) was used; for the protective factor scores, a median cut point minus 0.15 times the mean absolute deviation (MAD) was used. This procedure has been shown to more accurately differentiate between those who exhibit a behavior of interest and those who do not, when compared to more commonly used cut-point procedures (e.g., Farrington, 1989; Herrenkohl et al., 2000).

Delinquency, drug use, and drug sales. Several questions were used to assess the extent of respondents' involvement in delinquency, drug use, and drug selling. These behaviors were measured using two sets of five items. First, one set of questions measured the age at which the respondent first engaged in a specific behavior. The heading for the set of questions read: "How old were you when you first..." Specific items included "had more than a sip or two of beer, wine, or hard liquor," "smoked marijuana," "used cocaine or crack," "got arrested," and "attacked someone with the idea of seriously hurting them." Responses were scored on a nine-point response scale (0=never have, 1=10 or younger, 2=11, 3=12, 4=13, 5=14, 6=15, 7=16, 8=17 or

older). This question was dichotomized to indicate whether the respondent had ever engaged in the behavior.

The second set of questions asked respondents how often they had engaged in specific forms of delinquency, drug use, and drug sales. One set of questions asked: "How many times in the past 12 months have you..." Items measuring this behavior included "sold illegal drugs," "stolen or tried to steal a motor vehicle such as a car or motorcycle," "been arrested," and "attacked someone with the idea of seriously hurting them."

Several additional questions addressed the number of occasions within the past 30 days when the respondent had used a specific drug. The question was asked for alcohol, marijuana, cocaine, and any drug. A seven-point response scale was used (0=0 occasions, 1=1-2 occasions, 2=3-5 occasions, 3=6-9 occasions, 4=10-19 occasions, 5=20-29 occasions, 6=30-39, and 6=40 or more occasions). Some respondents indicated that they had engaged in some of the behaviors more than six times; these variables were truncated for all responses indicating more than six occurrences, recoding them into a single category, in order to reduce the skewness of the data.

Gang involvement. Respondents were asked whether they had been gang members in the past and whether they were currently gang members. Esbensen and colleagues (1993, 1996, 2001) have frequently and repeatedly found that self-nomination for gang membership "is a particularly robust measure of gang membership capable of distinguishing gang from non-gang youth" (Esbensen et al., 2001: 124). In one study, Esbensen et al. (2001) examined about 6,000 middle school students using a continuum with five increasingly restrictive definitions for gang membership. The researchers reported that "the largest distinction...is that between those youths who claim to never have been a gang member and those who claim gang affiliation at some time" (p. 124). Therefore, for purposes of this study, respondents who self-reported that they were either former or current gang members were initially considered "gang members."

We further restricted our definition of a gang member by following the lead of Esbensen et al., asking respondents to name the gang to which they belonged. This procedure helped distinguish between those who were members of informal peer groups and those who were members of actual gangs. Only respondents who provided the name of a gang were considered gang members for this study. As such, our final sample of gang members consisted of those who either self-reported having been in a gang or admitted to current gang membership, and who could name the gang.

Perceptions, fears, and experiences related to gun carrying. Seven questions were used to measure the respondent's perceptions, fears, and experiences related to guns. Two questions focused on the perceptions and gun carrying patterns of the respondent's peers. The first question asked: "How many of your best friends have carried a handgun?" A response scale of 0 through 4 friends was provided. The second question asked: "What are the chances that you would be seen as cool if you carried a

handgun?" A five-point response scale was used (0=no or little chance, 1=little chance, 2=some chance, 3=pretty good chance, 4=very good chance). To make the analysis more interpretable, the categories "no or little chance" and "little chance" were collapsed into one category representing "little chance," and the two categories "pretty good chance and very good chance" were collapsed into one category representing "very good chance."

Two questions related to the respondents' perception of whether it is likely that they or others would be caught carrying a gun. One question asked: "If a kid carried a handgun in your neighborhood, would he or she be caught by the police?" The other question asked: "If you carried a handgun without your parents' permission, would you be caught by your parents?" Respondents were given the choice of answering the question with a response of "no" or "yes."

Another measure was used to assess the ease of obtaining a gun. The question asked: "If you wanted a handgun, how easy would it be for you to get one?" Respondents were permitted to indicate whether it was "easy" or "hard" to obtain a handgun. Still another measure was used to assess whether respondents felt safe in their neighborhood; they were permitted to reply with an answer of "no" or "yes." The last question measured the age that the respondent first carried a handgun. A categorical response scale was used (0=never have, 1=10 or younger, 2=11, 3=12, 4=13, 5=14, 6=15, 7=16, 8=17 or older).

School behavior, performance, and climate. Several questions were used to ask respondents about school behavior, school performance, and climate. First, two questions looked at school performance; one measured the number of whole school days the respondent missed due to skipping in the past 30 days, and the other asked how many times that student had been suspended within the past 12 months. Five questions focused on school behavior respondents were asked to indicate how many times within the past 12 months they: (1) had been threatened or injured with a weapon at school; (2) had been in a fight in school; (3) had been drunk or high at school; and (4) had taken a handgun to school. A seven-point response scale was used (0=0 occasions, 1=1-2 occasions, 2=3-5 occasions, 3=6-9 occasions, 4=10-19 occasions, 5=20-39 occasions, 6=40 or more occasions). Once again, some respondents indicated that they had engaged in some of the behaviors more than six times, and as a result, the scales were truncated to reduce skewness. A fourth question asked the respondent: "During the past 30 days, on how many days did you carry a weapon such as a gun, knife or club on school property?" A five-point response scale was used (0=0 days, 1=1 day, 2=2-3 days, 3=4-5 days, and 4=6 or more days). This variable was also truncated so that responses of "four or more times" were collapsed into one category.

Issues were examined relating to school climate and gun carrying by school. This allowed for the examination of the prevalence of gun carrying at each school surveyed, and for an examination of the effect that the prevalence of gun carrying had on that school's climate. Schools were categorized as "Schools with a Serious Gun Problem" if they were in the top 25 percent of schools with respect to the proportion of students

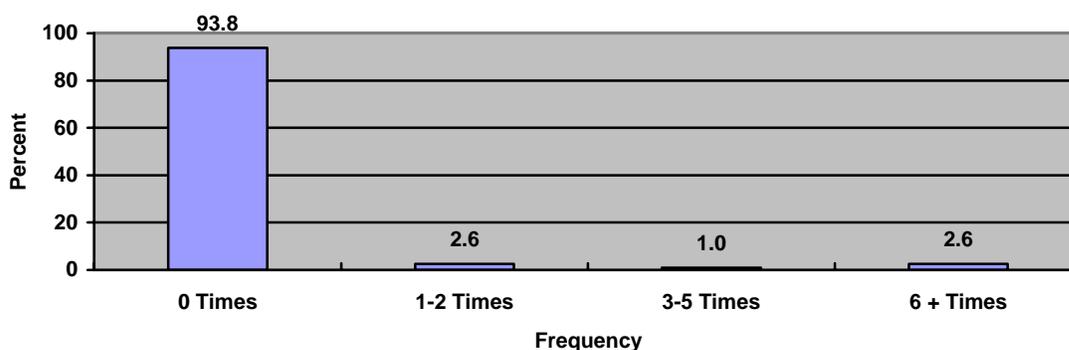
who were self-identified gun carriers. Conversely, schools were categorized as “Schools with a Minor Gun Problem” if they were in the bottom 25 percent of schools with respect to the proportion of students who were self-identified gun carriers. Schools between the 25th and 75th percentile were categorized as “Schools with an Average Gun Problem.”

Two school climate measures examined fear. One item was “I feel safe at school”; this had a “yes” or “no” response scale. Another more specific item asked the respondent: “During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on the way to or from school?” The response scale for this question was truncated so that responses of “four or more times” were collapsed into one category (i.e., 0= 0 times, 1=1 time, 2=2-3 times, 3=4 or more times).

Survey Findings: Perceptions, Fears, and Experiences Related to Gun Carrying

Proportion of youth who are gun carriers. Data analysis showed that gun carrying among Arizona’s youth was infrequent, but that some groups were more at-risk for gun carrying than others. About 6 percent of the youth studied had carried a handgun in the past year (exhibit 2). In terms of the frequency of gun carrying, 2.6 percent of respondents indicated that they had carried a handgun one to two times in the past 12 months, 1 percent indicated that they had carried a handgun three to five times in the past 12 months, and 2.6 percent indicated that they had carried a handgun six or more times in the past 12 months.

Exhibit 2: Number of times youth in Arizona had carried a handgun in the past 12 months



Age of first gun carrying experience. The age at which gun carriers first carried a gun was examined by gender and ethnicity. Although males were found to be substantially more likely to have carried a gun than females, females and males carried a gun for the first time at about the same age—between 12 and 13 years old (exhibit 3). Some differences among ethnic groups were found. Interestingly, although Asians were the least likely to have reported gun carrying, they first carried a gun at the mean age of 12.33, earlier than any other ethnic group. After Asians came Hispanics (12.61), Whites (12.71), Native Americans (12.91), and African Americans (13.06).

Exhibit 3: Mean age of first gun carrying experience by gender and ethnicity

	<i>Mean age</i>
Gender	
Female	12.96
Male	12.68
Ethnicity	
White	12.71
African American	13.06
Native American	12.91
Hispanic	12.61
Asian	12.33
Other	12.72

Perceptions and fears related to guns. With respect to the general perceptions and fears of Arizona youth related to guns, just fewer than 87 percent of students reported that they felt safe in their neighborhood; and about 13 percent reported that they did not feel safe in their neighborhood (exhibit 4).

Most students reported that their best friends did not carry a gun (91.6 percent), but 4.1 percent said that they had one friend who carried a gun, and just over 4 percent had two or more friends who carried a gun. Respondents were also asked if they thought they would be seen as cool by others if they carried a gun. Most said that there would be little chance of being seen as cool if they carried a gun; however, 2.7 percent said that there was some chance that they would be seen as cool, and 3.5 percent said that there was a good chance that they would be seen as cool.

When students were asked how easy it would be for them to get a gun, about 28 percent said that it would be easy, and 72 percent said that it would be hard. They were also asked about the likelihood of being caught with a gun by the police and their parents. Just under 42 percent of the students thought that the police would catch them if they had a gun, and almost 70 percent thought that their parents would catch them.

Exhibit 4: Perceptions and fears related to guns

	<i>Percent</i>
Feel safe in their neighborhood	
No	13.3
Yes	86.7
Number of friends that carry a gun	
0	91.6
1	4.1
2	1.7
3	0.8
4	1.8
What are the chances that you would be seen as cool if you carried a gun?	
Little chance	92.9
Some chance	2.7
Good chance	3.5
How easy is it to get a gun?	
Hard	71.7
Easy	28.3
Would police catch a kid carrying a gun?	
No	58.1
Yes	41.9
Would parents catch you carrying a gun?	
No	30.7
Yes	69.3

The differences in perceptions and fears related to gun carrying by gender were examined (exhibit 5). The data show that female gun carriers were more likely not to feel safe in their neighborhoods when compared to male gun carriers or to both male and female non-gun carriers. Female gun carriers were less likely to have friends who carried guns when compared to male gun carriers, but they were substantially more likely to have friends who carried guns when compared to male and female non-gun carriers. Similarly, male gun carriers were the most likely to believe that gun carrying increased their chances of being viewed as cool, followed by female gun carriers, male non-gun carriers, and female non-gun carriers.

Gun carriers, regardless of gender, were more likely to believe that it was easy to get a gun. In particular, about 58 percent of female gun carriers and 48.8 percent of male gun carriers thought that it was very easy to get a gun, compared to about 18 percent of male non-gun carriers and 10 percent of female non-gun carriers. Non-gun carriers were much more likely to believe that the police would catch them if they carried a gun and that their parents would catch them with a gun, compared to gun carrying youth. Specifically, over 40 percent of non-gun carriers (male and female) thought that the police would catch a youth who carried a gun, compared to 23 percent of male gun carriers and about 15 percent of female gun carriers. Similarly, about 76 percent of non-gun carrying females, 62 percent of non-gun carrying males, and just over 40 percent of male and female gun carriers thought that they would be caught by their parents if they carried a gun.

Exhibit 5: Perceptions and fears related to gun carrying, by gender

	<i>Non-gun Carriers</i>		<i>Gun Carriers</i>	
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
Feel safe in neighborhood				
No	13.5	12.6	25.8	18.4
Yes	86.5	87.4	74.2	81.6
Number of friends that carry a gun				
0	95.1	88.0	48.9	44.3
1	2.9	5.5	16.3	20.0
2	1.1	2.4	16.3	11.8
3	0.4	1.2	9.6	5.2
4	0.5	3.0	8.9	18.6
What are the chances that you would be seen as cool if you carried a gun?				
Little chance	95.1	92.7	78.9	73.4
Some chance	2.1	3.2	10.5	8.9
Pretty good chance	2.8	4.1	10.5	17.7
How easy is it to get a gun?				
Very hard	56.7	42.9	14.2	12.7
Sort of hard	21.2	22.3	11.8	16.9
Sort of easy	12.3	16.5	15.7	21.5
Very easy	9.9	18.4	58.3	48.8
Would police catch a kid carrying a gun?				
No	57.0	59.4	85.4	77.0
Yes	43.0	40.6	14.6	23.0
Would parents catch you carrying a gun?				
No	24.3	37.7	59.7	58.7
Yes	75.7	62.3	40.3	41.3

With respect to perceptions and fears related to gun carrying by ethnicity, the data showed that the more fear the youths felt in their neighborhoods, the more likely they were to have carried a gun (exhibit 6). Asian and Native Americans who felt unsafe in their neighborhoods were the most likely to have carried a gun, when compared to other ethnic groups. The data also illustrated that although non-gun carriers had few friends who carried guns, gun carriers typically had many friends who carried guns. Roughly 24 to 25 percent of gun carrying African Americans and Native Americans had four or more friends who carried a gun. Similarly, African Americans, Native Americans, and Hispanics were the most likely to believe that they would be seen as cool if they carried a gun.

Not surprisingly, when compared to non-gun carriers, gun carriers were more likely to believe that it was easy to get a gun. Over 70 percent of Whites, African Americans, and Hispanics responded that it was sort of easy or very easy to get a gun. Native Americans were the least likely to believe that it was easy to obtain a gun, with about 48 percent responding that it was sort of easy or very easy to get a gun. Native Americans were the most likely to believe that a youth would be caught by the police if carrying a gun (31.2 percent), followed by Hispanics (21.1 percent), Whites (20.7 percent), and African Americans (13 percent). Conversely, Whites were the most likely to believe that their parents would catch them if they carried a gun (47.8 percent), followed by African Americans, Native Americans, Hispanics, and Asians (each between 30 and 35 percent).

Exhibit 6: Perceptions and fears related to gun carrying by ethnicity

	<i>White</i>	<i>African American</i>	<i>Native American</i>	<i>Hispanic</i>	<i>Asian</i>	<i>Other</i>
Feel safe in neighborhood						
<i>Non-gun Carriers</i>						
No	9.7	19.6	20.3	16.9	11.7	13.8
Yes	90.3	80.4	79.7	83.1	88.3	86.2
<i>Gun Carriers</i>						
No	14.9	19.0	28.3	24.1	50.0	17.4
Yes	85.1	81.0	71.7	75.9	50.0	82.6
Number of friends that carry a gun						
<i>Non-gun Carriers</i>						
0	93.4	87.1	89.0	90.0	95.3	87.6
1	3.5	5.6	4.4	5.2	2.0	4.5
2	1.3	3.1	2.4	1.9	1.2	2.8
3	0.6	1.0	0.7	1.0	1.2	2.3
4	1.2	3.1	3.4	1.9	0.4	2.8
<i>Gun carriers</i>						
0	53.8	36.0	42.3	37.1	0.0	38.5
1	18.7	16.0	18.3	22.8	16.7	11.5
2	10.1	20.0	11.5	15.9	16.7	7.7
3	4.4	4.0	2.9	6.9	50.0	19.2
4	13.0	24.0	25.0	17.2	16.7	23.1
What are the chances that you would be seen as cool if you carried a gun?						
<i>Non-gun Carriers</i>						
Little chance	95.7	86.6	92.4	91.8	94.4	92.3
Some chance	2.3	5.4	2.5	3.2	3.2	2.9
Pretty good chance	2.1	8.0	5.1	5.0	2.4	4.9
<i>Gun carriers</i>						
Little chance	79.2	56.0	72.0	69.0	71.4	66.7
Some chance	8.6	8.0	9.0	10.3	14.3	14.8
Pretty good chance	12.1	36.0	19.0	20.7	14.3	18.5
How easy is it to get a gun?						
<i>Non-gun Carriers</i>						
Very hard	45.8	52.2	63.7	52.4	57.9	47.2
Sort of hard	23.2	18.0	14.6	21.1	27.3	21.5
Sort of easy	15.5	15.1	10.6	14.0	7.4	14.3
Very easy	15.4	14.7	11.1	12.5	7.4	17.0
<i>Gun Carriers</i>						
Very hard	12.4	9.1	27.7	8.4	16.7	11.5
Sort of hard	12.7	13.6	24.5	17.8	16.7	7.7
Sort of easy	19.2	36.4	11.7	25.7	33.3	7.7
Very easy	55.7	40.9	36.2	48.1	33.3	73.1
Would police catch a kid carrying a gun?						
<i>Non-gun Carriers</i>						
No	60.9	65.7	52.6	55.0	46.3	62.9
Yes	39.1	34.3	47.4	45.0	53.8	37.1
<i>Gun Carriers</i>						
No	79.3	87.0	68.8	78.9	100.0	84.0
Yes	20.7	13.0	31.2	21.1	0.0	16.0
Would parents catch you carrying a gun?						
<i>Non-gun Carriers</i>						
No	29.3	41.9	31.4	32.1	23.5	36.5
Yes	70.7	58.1	68.6	67.9	76.5	63.5
<i>Gun Carriers</i>						
No	52.2	65.0	64.7	68.7	66.7	52.2
Yes	47.8	35.0	35.3	31.3	33.3	47.8

Regarding perceptions and fears related to gun carrying by grade, the analyses clearly show that gun carriers had different attitudes and beliefs regarding guns, and that these attitudes and beliefs varied by grade (exhibit 7). For example, gun carriers were more likely than non-gun carriers to feel unsafe in their neighborhoods, with about 25 percent of 8th grade gun carriers, 19 percent of 10th grade gun carriers, and 16 percent of 12th grade gun carriers feeling unsafe. Although the number of friends who carried guns remained stable across grades among non-gun carriers, the number of friends of gun carriers who also carried guns increased with the grade of the respondent. Approximately 49 percent of 8th grade gun carriers had at least one friend who carried a gun, compared to 54 percent of 10th grade gun carriers, and 64 percent of 12th grade gun carriers. Gun carriers were much more likely to believe that they would be viewed as cool if they carried a gun, but this belief decreased as the respondent's grade increased. In the 8th grade, about 20 percent of gun carriers thought that there was a pretty good chance that they would be viewed as cool if they carried a gun; for 12th grade students, that figure declined to 13 percent.

Gun carriers were also much more likely to believe that guns were easy to obtain, although, once again, the grade of the respondent was found to have an impact. Specifically, about 40 percent of 8th grade gun carriers, 50 percent of 10th grade gun carriers, and 61 percent of 12th grade gun carriers thought that it was very easy to get a gun. Gun carriers were also less likely to believe that the police would catch a youth who carried a gun, and were less likely to believe that their parents would catch them if they carried a gun. In general, 8th graders were more likely than 12th graders to believe that the police would catch youth who carried guns, and that their parents would catch them if they carried a gun.

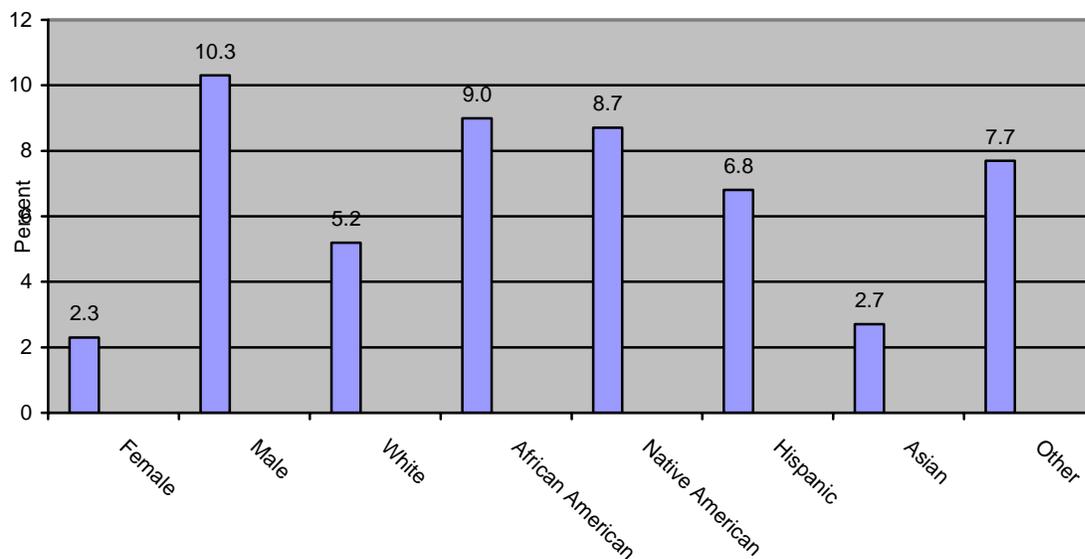
Exhibit 7: Perceptions and fears related to gun carrying, by grade

	8 th Grade	10 th Grade	12 th Grade
Feel safe in neighborhood			
<i>Non-gun Carriers</i>			
No	18.7	12.6	9.6
Yes	81.3	87.4	90.4
<i>Gun Carriers</i>			
No	26.2	19.1	16.4
Yes	73.8	80.9	83.6
Best friend carried a gun			
<i>Non-gun Carriers</i>			
0	92.1	91.7	91.0
1	4.1	4.2	4.0
2	1.3	1.7	2.0
3	0.8	0.6	1.1
4	1.7	1.7	2.0
<i>Gun Carriers</i>			
0	51.4	46.3	36.3
1	21.2	18.7	17.9
2	7.7	13.3	16.5
3	5.9	4.8	8.5
4	14.0	17.0	20.8
What are the chances that you would be seen as cool if you carried a gun?			
<i>Non-gun Carriers</i>			
Little chance	91.7	94.1	95.4
Some chance	3.1	2.7	2.3
Pretty good chance	5.2	3.2	2.3
<i>Gun Carriers</i>			
Little chance	72.8	70.8	79.3
Some chance	7.6	11.7	7.7
Pretty good chance	19.6	17.5	13.0
How easy is it to get a gun?			
<i>Non-gun Carriers</i>			
Very hard	62.3	48.9	41.3
Sort of hard	16.7	22.2	24.9
Sort of easy	11.6	14.5	16.5
Very easy	9.4	14.4	17.3
<i>Gun Carriers</i>			
Very hard	21.4	10.8	8.2
Sort of hard	18.9	16.8	11.1
Sort of easy	19.9	21.9	19.2
Very easy	39.8	50.5	61.5
Would police catch a kid carrying a gun?			
<i>Non-gun Carriers</i>			
No	46.2	60.4	65.3
Yes	53.8	39.6	34.7
<i>Gun Carriers</i>			
No	70.6	82.8	80.0
Yes	29.4	17.2	20.0
Would parents catch you carrying a gun?			
<i>Non-gun Carriers</i>			
No	22.9	30.3	37.3
Yes	77.1	69.7	62.7
<i>Gun Carriers</i>			
No	47.3	57.8	70.8
Yes	52.7	42.2	29.2

Correlates of Gun Carrying

Individual Characteristics of Gun Carriers. Analyses showed that the proportion of youth who carried a gun differed in accord with demographic variables. About 10 percent of males and 2.3 percent of females in our study self-admitted to having carried a gun in the past year (exhibit 8). With respect to ethnicity, 9 percent of African Americans, 8.7 percent of Native Americans, 6.8 percent of Hispanics, 2.7 percent of Asians, 5.2 percent of Whites, and 7.7 percent of those from other ethnic groups self-reported having carried a gun in the past year.

Exhibit 8: Percent of Youth that are Gun Carriers by Ethnicity and Gender



Gun carriers were more likely to be African American, Native American, and Hispanic when compared to non-gun carriers (exhibit 9). Over 80 percent of gun carriers were male, and almost 19 percent were female. There were few differences between gun and non-gun carriers in terms of their age or grade.

Exhibit 9: Demographic characteristics of gun and non-gun carriers

	<i>Non-gun carriers</i>	<i>Gun carriers</i>
Ethnicity		
White	52.5	44.2
African American	2.3	3.5
Native American	10.0	14.4
Hispanic	30.0	33.1
Asian	2.3	1.0
Other	2.9	3.7
Gender		
Female	53.2	18.9
Male	46.8	81.1
Age		
13 & under	27.2	27.8
14-15	40.2	39.4
16 & over	32.7	32.9
Grade		
8 th	27.8	31.0
10 th	41.1	40.3
12 th	31.1	28.7

Family background of gun and non-gun carriers. Substantial differences were found between gun and non-gun carriers in terms of family background (exhibit 10). First, gun carriers were less likely than non-gun carriers to come from intact families (59.4 percent compared to 70.7 percent), and more likely to come from single parent families (30.3 percent compared to 24.1 percent) or from families with a different parental arrangement, e.g., foster care, living with grandparent, other family (10.2 percent compared to 5.2 percent). Gun carriers were also more likely to live with more siblings than non-gun carriers. For example, about 40 percent of gun carriers came from families with two or fewer siblings compared to 50 percent of non-gun carriers. Likewise, almost 20 percent of gun carriers had six or more siblings compared to only 12.1 percent of non-gun carriers.

While gun carriers were just as likely to speak English or Spanish at home as non-gun carriers, they were about twice as likely to speak a language other than English or Spanish. Exhibit 10 also illustrates that the parents of gun carriers were somewhat less likely to have graduated from high school and were substantially less likely than the parents of non-gun carriers to have received a college or graduate degree.

Exhibit 10: Family background of gun and non-gun carriers

	<i>Non-gun carriers</i>	<i>Gun carriers</i>
Parental arrangement		
Intact family	70.7	59.4
Single parent	24.1	30.3
Other	5.2	10.2
Number of siblings		
None	4.7	3.2
1	21.0	14.4
2	25.4	22.2
3	17.9	18.1
4	11.9	15.5
5	7.0	7.1
6 or more	12.1	19.5
Language used at home		
English	82.5	80.0
Spanish	14.8	15.0
Other	2.7	5.0
Father's education		
Non-high school graduate	13.6	16.9
High school degree	58.1	60.4
College or graduate degree	28.2	22.7
Mother's education		
Non-high school graduate	15.0	17.5
High school degree	54.2	55.4
College or graduate degree	30.8	21.7

Risk and protective factors associated with gun carrying. The findings with regard to the risk and protective factors associated with gun carrying were consistent across grades, with one exception (exhibit 11). With regard to risk and protective factors within the community domain, gun carriers were more likely than non-gun carriers to have low attachment to their neighborhoods, to live in areas that were highly disorganized, and to live a mobile and transient lifestyle. Additionally, they resided in areas where neighbors tolerated drug use, and where the respondent perceived drugs and handguns to be readily available. While non-gun carriers reported more pro-social opportunities for involvement than gun carriers, the two groups showed few differences with regard to having received rewards for pro-social involvement by neighbors—with the exception of those in the 10th grade.

With respect to the family domain, gun carriers were more likely than non-gun carriers to come from families that were poorly managed, had significant family conflict, and had a history of antisocial behavior. Gun carriers were also more likely to come from families where the parents had more favorable attitudes toward antisocial behavior and drug use. When compared to non-gun carriers, gun carriers were less attached to their parents, had fewer family opportunities for involvement, and were less likely to have received rewards from their family for pro-social involvement. Likewise, at school, gun carriers were more likely to have experienced academic failure, had less commitment toward school, had fewer opportunities for pro-social involvement, and had received fewer rewards for pro-social involvement than non-gun carriers.

Within the peer-individual domain, gun and non-gun carriers were also likely to have very different attitudes and experiences. Gun carriers were substantially more likely to be rebellious, sensation seeking, and involved with a gang, as well as to have had earlier experiences with antisocial activity and drug use. They were also more likely than non-gun carriers to have favorable attitudes toward antisocial behavior and drugs, and to perceive the risks associated with drug use to be lower. Gun carriers were more likely to have friends who had engaged in antisocial behavior and drug use. Last, when compared to non-gun carriers, gun carriers were more likely to have been rewarded for antisocial behavior by their peers; they were also more likely to have poor social skills and weak beliefs in moral order.

Exhibit 11: Risk and protective factors associated with gun carrying

	<i>8th Grade</i>		<i>10th Grade</i>		<i>12th Grade</i>	
	<i>Non-gun carriers</i>	<i>Gun carriers</i>	<i>Non-gun carriers</i>	<i>Gun carriers</i>	<i>Non-gun carriers</i>	<i>Gun carriers</i>
Community domain						
Low neighborhood attachment	38.3	43.9	45.0	49.3	46.8	52.2
High community disorganization	41.1	61.9	46.5	70.3	41.6	65.9
Transitions and mobility	43.2	51.7	46.8	59.5	46.0	52.9
Laws and norms favor drug use	33.5	55.0	38.1	63.4	31.3	48.0
Perceived availability of drugs	36.4	65.8	49.8	74.9	55.8	75.0
Perceived availability of handguns	34.7	78.6	26.1	72.4	30.7	80.8
Opportunity for involvement	43.4	34.6	40.8	31.8	43.4	38.0
Rewards for involvement	34.3	33.8	40.8	35.6	40.0	38.6
Family domain						
Poor family management	41.6	65.9	41.8	64.6	43.6	66.0
High family conflict	45.8	54.5	35.7	50.0	31.5	38.5
Family history of antisocial behavior	40.3	69.7	42.0	71.0	35.8	60.5
Parent attitudes favor antisocial behavior	41.4	61.4	43.4	68.7	41.4	64.5
Parent attitudes favor drug use	24.5	44.4	41.1	60.7	41.4	58.0
Family attachment	53.0	43.3	47.3	35.9	60.0	55.0
Family opportunities for involvement	59.3	51.3	56.2	40.5	56.8	46.4
Family rewards for involvement	61.9	56.9	54.5	43.7	57.0	39.3
School domain						
Academic failure	48.9	30.3	51.6	66.3	46.5	58.3
Low commitment to school	38.1	58.1	42.8	68.0	41.0	62.3
School opportunity for involvement	58.5	42.3	55.6	34.9	63.0	47.2
School rewards for pro-social involvement	51.8	39.2	59.3	42.9	49.4	36.5
Peer-individual domain						
Rebelliousness	36.7	66.1	42.8	68.7	38.7	71.2
Early initiation of antisocial behavior	29.2	86.2	32.7	90.9	31.5	89.9
Early initiation of drug use	37.6	75.6	39.9	72.4	39.6	68.1
Attitudes favorable to antisocial behavior	42.5	74.0	53.0	80.7	50.3	73.1
Attitudes favorable to drug use	33.8	66.7	44.5	69.7	41.9	63.0
Perceived risk of drug use	45.7	69.5	43.8	61.1	44.3	61.0
Individual antisocial peers	48.5	86.2	49.9	86.4	49.2	84.4
Individual peer's drug use	39.7	71.9	43.2	70.8	38.6	63.7
Sensation seeking	38.0	73.4	42.4	79.4	43.9	78.3
Rewards for antisocial behavior	35.0	58.1	29.9	52.7	36.9	47.8
Individual social skills	62.1	22.3	53.1	23.6	66.0	34.8
Individual belief in moral order	53.9	29.8	60.8	28.5	47.2	17.9
Gang involvement	18.7	51.1	14.3	50.2	11.0	36.3

Relationship Between Guns, Crime, and Drugs

Self-reported drug use and sales. Exhibit 12 shows the incidence of self-reported drug use and sales by gender, controlling for gun carrying. Both male and female gun carriers were significantly more likely than their non-gun carrying peers to report having used alcohol, marijuana, cocaine, or any other drug in their lifetime and in the past 30 days. Similarly, regardless of gender, gun carriers were much more likely to have sold drugs. Of interest here is the finding that female gun carriers were the most likely to have used and sold drugs when compared to male gun carriers, as well as to male and female non-gun carriers. For example, in the past 30 days, when comparing drug use patterns among female gun carriers to drug use patterns among male gun carriers, females were about 13 percent more likely to have used alcohol, 10 percent more likely to have used marijuana, 7 percent more likely to have used cocaine, and about 18 percent more likely to have used any drug. Similarly, among gun carriers, females were about 6 percent more likely to have sold drugs than males.

Exhibit 12: Incidence of Self-Reported Drug Use & Sales By Gender, Controlling for Gun Carrying

	<i>Non-gun Carriers</i>		<i>Gun Carriers</i>		<i>Ratio of Female Gun to Male Non-gun Carriers</i>
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	
Lifetime Usage					
Alcohol	72.2	68.7	88.1	86.4	1.28
Marijuana	37.5	40.7	66.7	62.7	1.63
Cocaine	7.3	7.2	34.1	23.7	4.73
Any	41.5	43.8	75.9	67.6	1.73
30-Day Usage					
Alcohol	31.4	46.4	80.6	67.3	1.73
Marijuana	17.7	20.3	51.2	41.5	1.10
Cocaine	1.7	2.7	20.5	13.6	7.59
Any	21.7	23.9	65.9	48.0	2.75
12-Month Sold Drugs					
	4.5	8.8	43.0	37.2	4.8

Exhibit 13 compares the incidence of self-reported drug use and sales by ethnicity, controlling for gun carrying. Within each ethnic group, gun carriers were substantially more likely to report having used and sold drugs than non-gun carriers. The largest ratios occurred for cocaine use, for both lifetime and 30-day use, and drug sales. For instance, gun carrying African Americans, Native Americans, and Hispanics were four times more likely to have ever used cocaine than non-gun carriers. Similarly, gun carriers in all of the ethnic groups were three times more likely to have used cocaine in the past 30 days.

The data clearly show that lifetime and 30-day alcohol use is a very common experience among gun carriers, regardless of ethnicity. More than 60 percent of gun carriers in all of the ethnic groups had used alcohol in the past 30 days. Thirty-day marijuana and cocaine use among gun carriers varied by ethnicity. More than 70 percent of African American gun carriers had used marijuana in the past 30 days, compared to 66.7 percent of Asians, 59.2 percent of Native Americans, 44.4 percent of Hispanics, and 33.1 percent of Whites. This trend was somewhat different for cocaine use. Asian gun carriers were the most likely to self-report 30-day cocaine use (50 percent), followed by Hispanics (18.6 percent), Native Americans (18.4 percent), Whites (9.7 percent), and African Americans (8.3 percent).

The proportion of gun carriers who sold drugs also varied by ethnicity. Almost 50 percent of Native American gun carriers had sold drugs, followed by about 46 percent of Hispanics, 43 percent of Asians, 40 percent of African Americans, and 27 percent of Whites.

Exhibit 13: Incidence of self-reported drug use and sales by ethnicity, controlling for gun carrying

	<i>White</i>	<i>African American</i>	<i>Native American</i>	<i>Hispanic</i>	<i>Asian</i>	<i>Other</i>
Non-gun carriers						
<i>Lifetime usage</i>						
Alcohol	70.4	63.6	64.2	74.0	64.1	76.3
Marijuana	38.0	35.2	55.2	35.7	27.6	44.4
Cocaine	7.0	4.4	8.1	7.6	2.9	9.0
Any	41.3	38.2	58.7	40.1	31.5	47.5
<i>30-day usage</i>						
Alcohol	46.6	37.9	35.0	48.3	38.9	46.1
Marijuana	19.1	21.1	26.1	15.7	13.6	23.3
Cocaine	2.3	2.5	2.9	3.0	0.4	3.8
Any	22.7	24.6	29.4	20.2	16.7	27.5
<i>12-month sold drugs</i>	6.9	6.3	6.7	5.8	3.6	9.3
Gun carriers						
<i>Lifetime usage</i>						
Alcohol	81.7	92.0	87.3	93.2	100.0	76.9
Marijuana	51.3	88.0	80.6	65.9	71.4	69.2
Cocaine	16.2	18.2	36.6	33.0	42.9	23.1
Any	58.9	88.0	81.7	74.1	85.7	70.4
<i>30-day usage</i>						
Alcohol	66.6	69.6	66.7	75.4	66.7	57.7
Marijuana	33.1	70.8	59.2	44.4	66.7	46.2
Cocaine	9.7	8.3	18.4	18.6	50.0	23.1
Any	42.1	70.8	63.9	54.6	66.7	53.8
<i>12-month sold drugs</i>	27.3	40.0	48.0	46.4	42.9	29.6
Ratio of gun to non-gun carrier drug use and sales, by ethnicity						
<i>Lifetime usage</i>						
Alcohol	1.16	1.44	1.35	1.25	1.56	1.00
Marijuana	1.35	2.50	1.46	1.84	2.58	1.55
Cocaine	2.31	4.13	4.51	4.34	1.47	2.56
Any	1.42	2.30	1.39	1.84	2.72	1.48
<i>30-day usage</i>						
Alcohol	1.42	1.83	1.90	1.56	1.71	1.25
Marijuana	1.73	3.35	2.26	2.82	4.90	1.98
Cocaine	4.20	3.32	6.34	6.2	125	6.07
Any	1.85	2.87	2.17	2.70	3.99	1.95
<i>12-month sold drugs</i>	3.90	6.34	7.16	8.00	11.9	3.18

Additionally, the incidence of self-reported drug use and sales was examined by grade, controlling for gun carrying. While gun carriers were more likely to have been involved in drug use and sales than non-gun carriers, the disparity between the two declined as the grade level increased. For example, gun carriers in the 8th grade were two times more likely to have used alcohol in the past 30 days, 3.5 times more likely to have used marijuana, and eight times more likely to have used cocaine. By the 12th grade, gun carriers were only 29 percent more likely to have used alcohol in the past 30 days, 91 percent more likely to have used marijuana, and almost five times more likely to have used cocaine.

Likewise, the ratio between the proportion of gun and non-gun carriers involved in drug sales declined as the grade level increased. Eighth grade gun carriers were nine times more likely than 8th grade non-gun carriers to have sold drugs in the past 12 months, whereas 12th grade gun carriers were only 4.5 times more likely than 12th grade non-gun carriers to have sold drugs in the past 12 months.

The finding is of special interest that, regardless of the grade, cocaine use and drug sales were much more common among gun carriers than non-gun carriers. Between 13 and 15 percent of gun carriers had used cocaine in the past 30 days, and more than one-third of those who sold drugs carried a handgun.

Exhibit 14: Incidence of self-reported drug use and sales by grade, controlling for gun carrying

	<i>8th Grade</i>	<i>10th Grade</i>	<i>12th Grade</i>
Non-gun carriers			
<i>Lifetime usage</i>			
Alcohol	54.6	73.4	81.0
Marijuana	23.8	40.9	49.5
Cocaine	3.4	7.3	10.4
Any	30.3	44.1	51.5
<i>30-day usage</i>			
Alcohol	31.4	46.4	56.2
Marijuana	12.0	20.6	22.0
Cocaine	1.7	2.7	3.1
Any	17.1	24.3	25.0
<i>Sold drugs in past 12 months</i>	3.7	7.4	7.7
Gun carriers			
<i>Lifetime usage</i>			
Alcohol	84.4	88.7	87.5
Marijuana	56.4	66.1	66.3
Cocaine	20.8	26.8	28.9
Any	65.2	70.9	71.4
<i>30-day usage</i>			
Alcohol	64.5	70.9	72.5
Marijuana	42.3	44.4	42.1
Cocaine	13.6	15.5	14.9
Any	52.9	51.8	49.0
<i>Sold drugs in past 12 months</i>	33.5	43.9	35.6
Ratio of gun to non-gun carriers drug use and sales by grade			
<i>Lifetime usage</i>			
Alcohol	1.54	1.20	1.08
Marijuana	2.35	1.61	1.33
Cocaine	6.11	3.67	2.77
Any	2.15	1.60	1.38
<i>30-day usage</i>			
Alcohol	2.05	1.52	1.29
Marijuana	3.52	2.15	1.91
Cocaine	8.00	5.74	4.80
Any	3.09	2.13	1.96
<i>Sold drugs in past 12 months</i>	9.05	5.93	4.62

The prevalence of 30-day drug use and selling by gender was examined, controlling for gun carrying. Gun carriers of either gender were more likely to report using and selling drugs than their non-gun carrying peers (exhibit 15). Gun carriers were roughly three times more likely to be chronic users of alcohol; they were also 2.5 to 5 times more likely to be chronic users of marijuana, more than 13 times more likely to be chronic users of cocaine, and 5 to 20 times more likely to have sold drugs.

Female gun carriers were more often chronically involved in drug use and sales than all other groups. For example, when compared to male gun carriers, they were substantially more likely to be chronic users of alcohol (38.8 percent versus 30.7 percent) and cocaine (5.5 percent versus 4.5 percent), and were more likely to be frequent sellers of drugs (24.4 percent versus 21.7 percent).

Likewise, when compared to male non-gun carriers, female gun carriers were significantly more likely to be chronic users of drugs, and were more likely to have sold drugs. For example, female gun carriers were more than 3 times as likely to chronically use alcohol, 2.5 times more likely to chronically use marijuana, and 13 times more likely to chronically use cocaine. They were also more than six times as likely to be frequent sellers of drugs.

Exhibit 15: 30-day prevalence of drug use and sales by gender, controlling for gun carrying

	<i>Non-gun carriers</i>		<i>Gun carriers</i>		<i>Ratio of female gun to male non-gun carriers</i>
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	
Alcohol					
0 times	53.2	56.0	19.4	32.7	0.34
1-2 times	25.9	21.9	17.1	19.4	0.78
3-5 times	10.8	10.2	24.8	17.2	2.43
6 + times (chronic)	10.0	11.8	38.8	30.7	3.28
Marijuana					
0 times	82.3	79.7	48.8	58.5	0.61
1-2 times	8.4	7.4	19.4	9.8	2.62
3-5 times	3.5	2.7	6.2	5.3	2.29
6 + times (chronic)	5.7	10.2	25.6	26.4	2.50
Cocaine					
0 times	97.5	97.4	79.5	86.4	0.81
1-2 times	1.7	1.4	11.8	6.4	8.42
3-5 times	0.3	0.8	3.1	2.7	3.87
6 + times (chronic)	0.6	0.4	5.5	4.5	13.75
Sell drugs (12 months)					
0 times	95.5	91.2	57.0	62.8	0.62
1-2 times	2.5	3.4	11.9	10.0	3.5
3-5 times	0.9	1.6	6.7	5.5	4.18
6 + times (frequent)	1.2	3.8	24.4	21.7	6.42

Regardless of ethnicity, gun carriers were significantly more likely than non-gun carriers to use and sell drugs (exhibit 16). In general, the differences between the two groups were smallest between White gun and non-gun carriers, and were largest between African American, Native American, and Hispanic gun and non-gun carriers.

Hispanic, Native American, and Asian gun carriers were the most likely to report being chronic users of alcohol, followed by White and African American gun carriers. With regard to marijuana, African American and Native American gun carriers were the most likely to self-report chronic marijuana use, followed closely by Hispanics, Whites, and Asians. Substantial differences emerged among ethnic groups in terms of their cocaine use. Asian, African American, Hispanic, and Native American gun carriers were much more likely to report having chronically used cocaine when compared to White gun carriers. About 28 percent of African American and Hispanic gun carriers reported having sold drugs, followed by 20 percent of Native Americans, 16 percent of Whites, and 14 percent of Asians.

Exhibit 16: 30-day prevalence of drug use and sales by ethnicity, controlling for gun carrying

	<i>White</i>	<i>African American</i>	<i>Native American</i>	<i>Hispanic</i>	<i>Asian</i>	<i>Other</i>
Alcohol						
<i>Non-gun carriers</i>						
0 times	53.4	62.1	65.0	51.7	61.1	53.9
1-2 times	23.8	21.8	19.8	26.2	24.2	25.1
3-5 times	10.8	4.9	7.7	11.7	7.0	11.4
6 + times (chronic)	12.0	11.1	7.5	10.4	7.8	8.8
<i>Gun carriers</i>						
0 times	33.4	30.5	33.3	24.6	33.3	42.3
1-2 times	20.9	21.7	18.2	17.9	0.0	19.2
3-5 times	16.7	26.1	15.2	22.3	33.3	15.4
6 + times (chronic)	28.9	21.7	33.3	35.3	33.3	23.1
Marijuana						
<i>Non-gun carriers</i>						
0 times	80.9	78.9	73.9	84.3	86.4	76.7
1-2 times	7.4	8.9	11.8	7.4	7.4	10.7
3-5 times	3.0	3.0	5.8	2.6	2.9	2.8
6 + times (chronic)	8.7	9.3	8.5	5.7	3.3	9.7
<i>Gun carriers</i>						
0 times	66.9	29.2	40.8	55.6	33.3	53.8
1-2 times	10.1	20.8	13.3	12.4	33.3	11.5
3-5 times	3.9	12.5	11.2	4.4	16.7	7.7
6 + times (chronic)	19.2	37.5	34.7	27.6	16.7	26.9
Cocaine						
<i>Non-gun carriers</i>						
0 times	97.7	97.5	97.1	97.0	99.6	96.2
1-2 times	1.3	1.3	2.4	1.7	0.4	1.9
3-5 times	0.5	0.8	0.2	0.6	0.0	0.9
6 + times (chronic)	0.5	0.4	0.3	0.7	0.01	0.9
<i>Gun carriers</i>						
0 times	90.3	91.7	81.6	81.4	50.0	76.9
1-2 times	6.1	0.0	9.2	9.0	16.7	11.5
3-5 times	2.3	0.0	4.1	2.3	0.0	7.7
6 + times (chronic)	1.3	8.3	5.1	7.2	33.3	3.8
Drug sales (12 Months)						
<i>Non-gun carriers</i>						
0 times	93.1	93.7	93.3	94.2	96.4	90.7
1-2 times	2.9	2.0	3.2	2.8	1.2	3.1
3-5 times	1.1	1.2	1.8	1.0	0.4	2.5
6 + times (frequent)	2.8	3.2	1.6	1.9	2.0	3.7
<i>Gun carriers</i>						
0 times	72.7	60.0	52.0	53.6	57.1	70.4
1-2 times	8.6	42.0	15.7	11.4	0.0	7.4
3-5 times	2.9	0.0	11.8	6.3	28.6	0.0
6 + times (frequent)	15.9	28.0	20.6	28.7	14.3	22.2
Ratio of gun to non-gun carrier use and sales by ethnicity, chronic drug use and frequent drug sales only						
Alcohol	2.40	1.95	4.44	3.39	4.26	2.62
Marijuana	2.20	4.03	4.08	4.84	5.06	2.77
Cocaine	2.60	20.75	17.00	10.28	33.00	4.22
Drug Sales	.60	8.75	12.87	15.10	7.15	6.00

Regardless of grade, gun carriers were more likely than non-gun carriers to be chronic users of drugs, and they more often sold drugs. In particular, gun carriers, with variations by grade, were 2 to 5 times more likely to be chronic users of alcohol and marijuana, 7 to 15 times more likely to be chronic users of cocaine, and 7 to 20 times more likely to sell drugs frequently. Although the differences in drug use and sales between gun and non-gun carriers lessened substantially between the 8th and 12th grades, sharp differences still appeared between gun and non-gun users (exhibit 17).

Among 12th grade gun carriers, about one-third reported chronically using alcohol, 25 percent reported chronically using marijuana, and five percent reported chronically using cocaine. Interestingly, regardless of grade, many gun carriers were involved in drug sales. About 18 percent of 8th grade gun carriers had frequently sold drugs, followed by 25 percent of 10th graders, and 23 percent of 12th graders.

Exhibit 17: 30-day prevalence of drug use and sales by grade, controlling for gun carriers

	<i>8th Grade</i>	<i>10th Grade</i>	<i>12th Grade</i>
Alcohol			
<i>Non-gun carriers</i>			
0 times	68.6	53.6	43.8
1-2 times	20.1	23.4	28.3
3-5 times	6.6	10.9	13.4
6 + times (chronic)	4.8	12.0	14.6
<i>Gun carriers</i>			
0 times	35.5	29.1	27.5
1-2 times	19.6	20.4	17.1
3-5 times	18.7	16.5	20.9
6 + times (chronic)	26.2	34.0	34.6
Marijuana			
<i>Non-gun carriers</i>			
0 times	88.0	79.4	78.0
1-2 times	5.7	8.5	9.0
3-5 times	2.2	3.6	3.3
6 + times (chronic)	4.1	8.5	9.7
<i>Gun carriers</i>			
0 times	57.1	55.6	57.9
1-2 times	13.0	12.3	9.1
3-5 times	6.0	4.6	6.2
6 + times (chronic)	23.3	27.5	26.8
Cocaine			
<i>Non-gun carriers</i>			
0 times	98.3	97.3	96.9
1-2 times	1.4	1.5	1.7
3-5 times	0.2	0.6	0.7
6 + times (chronic)	0.2	0.6	0.7
<i>Gun carriers</i>			
0 times	86.4	84.5	85.1
1-2 times	7.0	8.1	6.7
3-5 times	3.8	2.1	2.9
6 + times (chronic)	2.8	5.3	5.3
Drug sales (12 months)			
<i>Non-gun carriers</i>			
0 times	96.3	92.6	92.3
1-2 times	2.3	3.3	2.9
3-5 times	0.6	1.3	1.7
6 + times (regular)	0.9	2.9	3.1
<i>Gun carriers</i>			
0 times	66.5	56.1	64.4
1-2 times	10.0	12.2	7.7
3-5 times	5.2	6.4	5.3
6 + times (regular)	18.3	25.3	22.6
Ratio of gun to non-gun drug use and sales by grade, for chronic drug use and frequent drug sales only			
Alcohol	5.45	2.83	2.36
Marijuana	5.68	3.23	2.76
Cocaine	14.00	8.83	7.57
Drug Sales	20.30	8.72	7.29

The incidence of self-reported delinquent behavior in the past 12 months by gender, controlling for gun carrying, is shown in exhibit 18. First, the analyses show that gun carriers were significantly more likely to have been arrested, stolen a vehicle, and attacked someone in the past 12 months, compared to non-gun carriers. For example, about 36 percent of male and female gun carriers had been arrested in the past 12 months, compared to approximately 10 percent of male non-gun carriers and 6 percent of female non-gun carriers. Similarly, although almost 23 percent of male and female gun carriers had stolen a vehicle in the past year, only two to three percent of male and female non-gun carriers had stolen a vehicle. In terms of violence, almost half of gun carriers of both genders had attacked someone in the past 12 months with the intention of hurting them, compared to 10 percent of male non-gun carriers and seven percent of female non-gun carriers.

Interestingly, few differences were found between males and females in terms of delinquency after controlling for gun carrying. Specifically, female gun carriers were slightly more likely to have engaged in delinquency in the past 12 months compared to male gun carriers. However, female gun carriers were significantly more likely to have been involved in delinquency compared to male non-gun carriers. For instance, compared to male non-gun carriers, female gun carriers were about 3.7 times more likely to have been arrested in the past year, 8.5 times more likely to have stolen a vehicle, and 4.6 times more likely to have attacked someone with the intention of hurting them

Exhibit 18: Incidence of self-reported delinquent behavior in past 12 months by gender, controlling for gun carrying

	<i>Non-gun carriers</i>		<i>Gun carriers</i>		<i>Ratio of female gun to male non-gun carriers</i>
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	
Been arrested	5.6	9.8	36.5	35.7	3.72
Vehicle theft	1.8	2.7	23.0	22.7	8.51
Attacked someone	7.3	10.7	49.2	46.7	4.59

Exhibit 19 shows the incidence of delinquent behavior by ethnicity, controlling for gun carrying. Across ethnic groups, gun carriers were substantially more likely than non-gun carriers to have been arrested, stolen a vehicle, and attacked someone with the intention of hurting them. The difference between gun and non-gun carriers was smallest for Whites being arrested, Native Americans for vehicle theft, and African Americans for attacking someone. The largest differences between gun and non-gun carriers within an ethnic group were for Asians, with gun carrying Asians being 8 to 17 times more likely to have been arrested, stolen a vehicle, and attacked someone. Native American gun carriers were the most likely to self-report having been arrested and having stolen a vehicle in the past 12 months, followed by Hispanics, Asians, African Americans, and Whites. More than 56 percent of gun carrying African Americans had attacked someone in the past year, followed by 55.2 percent of Hispanics, 50 percent of Native Americans, 42.9 percent of Asians, and 38.3 percent of Whites.

Exhibit 19: Incidence of self-reported delinquent behavior in past 12 months by ethnicity, controlling for gun carrying

	<i>White</i>	<i>African American</i>	<i>Native American</i>	<i>Hispanic</i>	<i>Asian</i>	<i>Other</i>
Non-gun Carrier						
Been arrested	6.9	7.5	11.7	7.6	4.9	8.4
Vehicle theft	2.0	3.2	2.5	2.4	1.6	3.1
Attacked someone	8.0	12.8	10.8	9.4	5.3	13.5
Gun Carrier						
Been arrested	26.2	36.0	46.2	43.2	42.9	33.3
Vehicle theft	13.6	16.7	33.7	31.2	28.6	15.4
Attacked someone	38.3	56.5	50.0	55.2	42.9	41.7
Ratio of Gun to Non-gun Carrier Delinquency by Ethnicity						
Been arrested	3.79	4.80	3.94	5.68	8.75	2.46
Vehicle theft	6.80	5.21	1.34	13.00	17.80	4.96
Attacked someone	4.78	4.41	4.62	5.87	8.09	3.08

Gun carriers were significantly more likely to self-report incidents of delinquency occurring within the past 12 months, regardless of the grade of the respondent (exhibit 20). In the 8th grade, compared to non-gun carriers, gun carriers were more than five times as likely to have been arrested, more than 11 times as likely to have stolen a vehicle, and 4.5 times as likely to have attacked someone. Similar trends for those respondents in the 10th and 12th grades were observed, with the proportion of respondents indicating that they had engaged in delinquent behavior varying slightly by grade. Eighth grade gun carriers were the most likely to report having been arrested in the past 12 months. In particular, about 38 percent of 8th grade gun carriers reported having been arrested in the past year, compared to 36.7 percent of 10th graders and 32.4 percent of 12th graders. Respondents in the 10th grade were the most likely to report having stolen a vehicle and having attacked someone (25.5 percent and 53.5 percent, respectively), followed by 8th graders (22.9 percent and 43.0 percent) and 12th graders (19.0 percent and 42.1 percent).

Exhibit 20: Incidence of self-reported delinquent behavior in past 12 months by grade, controlling for gun carrying

	<i>8th Grade</i>	<i>10th Grade</i>	<i>12th Grade</i>
Non-gun carriers			
Been arrested	6.9	8.1	7.5
Vehicle theft	2.0	3.0	1.3
Attacked someone	9.5	9.8	7.3
Gun carriers			
Been arrested	38.2	36.7	32.4
Vehicle theft	22.9	25.5	19.0
Attacked someone	43.0	53.5	42.1
Ratio of gun to non-gun carriers delinquency by grade			
Been arrested	5.53	4.53	4.32
Vehicle theft	11.45	8.50	14.60
Attacked someone	4.52	5.45	5.76

Exhibit 21 shows the prevalence of self-reported delinquent behavior in the past 12 months by gender, controlling for gun carrying. Once again, gun carriers were found to be much more prevalent offenders than non-gun carriers, regardless of gender. About 10 percent of female gun carriers had been arrested six or more times in the past year, compared to 7.6 percent of male gun carriers and 0.3 percent of male and female non-gun carriers. Similarly, 22 percent of female gun carriers had attacked someone with the intention of hurting them in the past year, compared to 17.5 percent of male gun carriers, 1.3 percent of male non-gun carriers, and 0.8 percent of female non-gun carriers. For vehicle theft, male gun carriers were the most likely to be chronic offenders (7.6 percent), followed by female gun carriers (7.4 percent), male non-gun carriers (0.4 percent), and female non-gun carriers (0.1 percent).

Exhibit 21: Prevalence of self-reported delinquent behavior in past 12 months by gender, controlling for gun carrying

	<i>Non-gun carriers</i>		<i>Gun carriers</i>		<i>Ratio of female gun to male non-gun carriers</i>
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	
Arrested					
0 times	94.4	90.2	63.5	64.3	0.70
1-2 times	4.8	8.4	17.5	20.0	2.08
3-5 times	0.5	1.1	8.8	8.1	8.00
6 + times (chronic)	0.3	0.3	10.2	7.6	34.00
Vehicle theft					
0 times	98.2	97.3	77.0	77.3	0.79
1-2 times	1.4	1.9	10.4	11.2	0.54
3-5 times	0.3	0.4	5.2	4.0	13.00
6 + times (chronic)	0.1	0.4	7.4	7.6	18.50
Attacked someone					
0 times	92.7	89.3	50.8	53.3	0.56
1-2 times	5.5	7.6	21.2	21.0	2.77
3-5 times	1.0	1.8	6.1	8.3	3.38
6 + times (chronic)	0.8	1.3	22.0	17.5	16.90

Few non-gun carriers self-reported chronic delinquency, regardless of ethnicity (exhibit 22). On the other hand, with the exception of Asians, a large proportion of gun carriers in every ethnic group were found to be chronic delinquents. The data showed that Native American gun carriers were the most likely to have been arrested and to have stolen a vehicle six or more times in the past 12 months; African American gun carriers were the most likely to have chronically attacked others with the intention of hurting them. In almost every category, White and Asian gun carriers reported the least amount of chronic delinquency.

Exhibit 22: Prevalence of self-reported delinquent behavior in past 12 months by ethnicity, controlling for gun carrying

	<i>White</i>	<i>African American</i>	<i>Native American</i>	<i>Hispanic</i>	<i>Asian</i>	<i>Other</i>
Arrest						
<i>Non-gun carriers</i>						
0 times	93.1	92.5	88.3	92.4	95.1	91.6
1-2 times	6.0	7.1	9.8	6.4	4.1	6.5
3-5 times	0.6	0.4	1.4	0.9	0.8	0.9
6 + times (chronic)	0.3	0.01	0.5	0.4	0.01	0.9
<i>Gun carriers</i>						
0 times	73.8	64.0	53.8	56.8	57.1	66.7
1-2 times	17.4	16.0	22.1	22.6	14.3	14.8
3-5 times	4.1	8.0	11.5	10.7	28.6	11.1
6 + times (chronic)	4.7	12.0	12.5	9.8	0.01	7.4
Vehicle theft						
<i>Non-gun carriers</i>						
0 times	98.0	96.8	97.5	97.6	98.4	96.9
1-2 times	1.5	2.0	1.7	1.6	1.6	2.2
3-5 times	0.2	1.2	0.4	0.5	0.0	0.6
6 + times (chronic)	0.3	0.01	0.4	0.3	0.01	0.3
<i>Gun carriers</i>						
0 times	86.4	83.3	66.3	68.8	71.4	84.6
1-2 times	7.6	4.2	15.4	15.2	14.3	11.5
3-5 times	1.6	4.2	6.7	6.8	14.3	3.8
6 + times (chronic)	4.4	8.3	11.5	9.3	0.01	0.0
Attacked someone						
<i>Non-gun carriers</i>						
0 times	92.0	87.2	89.2	90.6	94.7	86.5
1-2 times	6.0	9.6	8.1	6.6	3.3	8.5
3-5 times	1.1	2.0	1.6	1.5	1.2	3.1
6 + times (chronic)	0.9	1.2	1.1	1.3	0.8	1.9
<i>Gun carriers</i>						
0 times	61.7	43.5	50.0	44.8	57.1	58.3
1-2 times	18.3	21.7	22.5	25.0	14.3	4.2
3-5 times	6.8	0.0	7.8	10.3	14.3	4.2
6 + times (chronic)	13.2	34.8	19.6	19.8	14.3	33.3
Ratio of gun to non-gun carriers delinquency by grade, for chronic offenders only						
Arrest	15.6	1,200.0	25.0	24.5	1.0	8.2
Vehicle theft	14.6	830.0	28.7	31.0	1.0	0.0
Attacked someone	14.6	29.0	17.8	15.2	17.8	17.5

For all grades, non-gun carriers rarely reported involvement in chronic delinquency (exhibit 23). On the other hand, gun carriers in every grade reported having been involved in substantial delinquency. Only slight differences were found between grades in terms of the proportion of gun carriers involved in delinquency. The greatest variation was found for arrests, with 9.2 percent of 8th grade gun carriers having been arrested six or more times in the past year, compared to 8.5 percent of 10th graders and 6.1 percent of 12th graders. Roughly seven to eight percent of gun carriers had stolen a vehicle, and 18 to 19 percent of gun carriers had attacked someone during the preceding 12 months.

Exhibit 23: Prevalence of self-reported delinquent behavior in past 12 months by grade, controlling for gun carrying

	8 th Grade	10 th Grade	12 th Grade
Arrest			
<i>Non-gun carriers</i>			
0 times	93.1	91.9	92.5
1-2 times	5.7	6.7	6.8
3-5 times	0.9	0.9	0.5
6 + times (chronic)	0.4	0.5	0.1
<i>Gun carriers</i>			
0 times	61.8	63.3	67.6
1-2 times	20.6	18.0	20.7
3-5 times	8.3	10.2	5.6
6 + times (chronic)	9.2	8.5	6.1
Vehicle Theft			
<i>Non-gun carriers</i>			
0 times	98.0	97.0	98.7
1-2 times	1.5	2.1	1.0
3-5 times	0.3	0.5	0.1
6 + times (chronic)	0.2	0.4	0.2
<i>Gun carriers</i>			
0 times	77.1	74.5	81.0
1-2 times	9.7	13.4	9.5
3-5 times	5.3	4.4	2.9
6 + times (chronic)	7.9	7.7	6.7
Attacked someone			
<i>Non-gun carriers</i>			
0 times	90.5	90.2	92.7
1-2 times	6.9	7.1	5.3
3-5 times	1.2	1.5	1.3
6 + times (chronic)	1.3	1.2	0.8
<i>Gun carriers</i>			
0 times	57.0	46.5	57.9
1-2 times	17.9	25.5	18.2
3-5 times	7.2	9.4	6.2
6 + times (chronic)	17.9	18.9	17.7
Ratio of Gun to non-gun carriers delinquency by grade for chronic offenders only			
Arrest	2.50	17.00	61.00
Vehicle Theft	39.50	19.25	33.50
Attacked someone	13.76	15.75	22.12

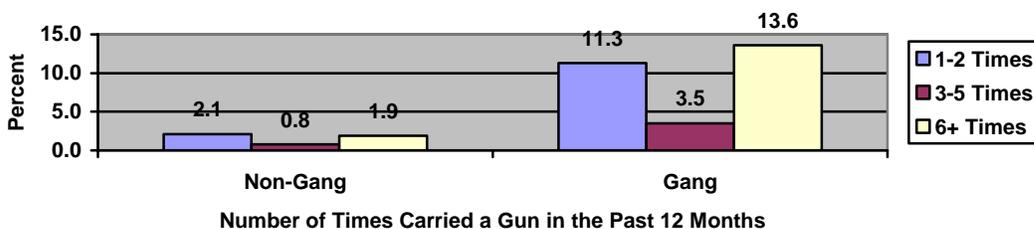
Guns and gangs. More than 28 percent of gang members in our study and about 5 percent of non-gang members had carried a gun in the past 12 months, according to the data (exhibit 24).

Exhibit 24: Percent of Gang and Nongang Members that Carry a Gun



With respect to the number of times that both gang and non-gang members had carried a gun in the past 12 months, gang members reported having carried a gun much more frequently than non-gang members (exhibit 25). Only 1.9 percent of non-gang members had carried a gun six or more times in the past year, compared to 13.6 percent of gang members.

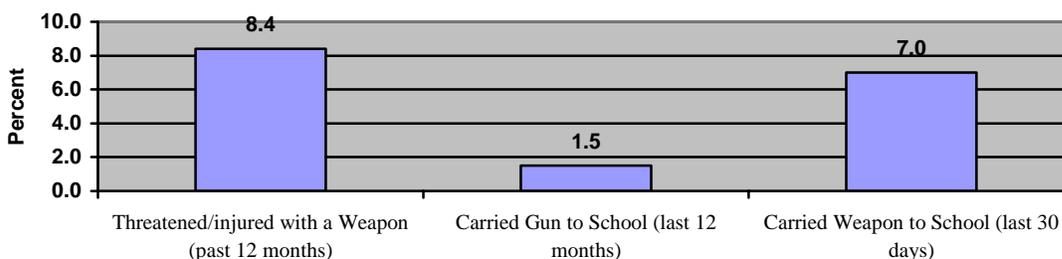
Exhibit 25: Percent of Gang and Nongang Members that are Chronic Gun Carriers



Impact of Gun Carrying on School Performance, Behavior, and Climate

Although gun carrying in school is rather rare, weapons-related activity is frequent (exhibit 26). Only 1.5 percent of students reported having brought a gun to school in the past 12 months. On the other hand, 7 percent of students reported having brought a weapon (i.e., gun, knife, or club) to school in the past 30 days, and 8.4 percent of students reported having been threatened or injured with a weapon in the past year.

Exhibit 26: Gun and Weapon Behavior at School



The next exhibit shows data on the number of missed school days due to skipping, and the number of times that the respondent had been suspended within the past 12 months. Compared to non-gun carriers, gun carriers were much more likely to have skipped school, and had skipped school more often. About 50 percent of gun carriers had skipped school at least once in the past year, compared to about 20 percent of non-gun carriers. Additionally, over 16 percent of gun carriers had skipped school six or more times in the past year, compared to less than 2 percent of non-gun carriers.

Likewise, gun carriers were more likely than non-gun carriers to have been suspended in the past 12 months, and had been suspended far more frequently. Almost 60 percent of gun carriers had been suspended at least once in the prior year, compared to about 12 percent of non-gun carriers. When compared to non-gun carriers, gun carriers were more than 22 times as likely to have been suspended six or more times in the preceding year.

Exhibit 27: School performance by gun and non-gun carriers

	<i>Non-gun carriers</i>	<i>Gun carriers</i>	<i>Ratio of gun to non-gun carriers</i>
Missed due To skipping or cutting			
0 times	79.4	48.8	0.61
1-2 times	14.1	20.0	1.41
3-5 times	5.0	14.7	2.94
6 + times	1.5	16.5	11.0
Been suspended in last 12 months			
0 times	87.8	42.5	0.48
1-2 times	9.8	29.3	2.98
3-5 times	1.6	10.3	6.43

6 + times	0.8	17.8	22.25
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When the number of times gun and non-gun carriers engaged in delinquent behavior at school was examined, gun carriers were found to frequently and regularly brought weapons to school (exhibit 28). For example, more than 36 percent of gun carriers reported having taken a weapon to school six or more times in the past 30 days, and about 44 percent of gun carriers reported having taken a handgun to school six or more times in the past 12 months.

Similarly, gun carriers were significantly more likely to have been threatened or injured with a weapon at school, and they had been threatened or injured with a weapon more frequently than non-gun carriers. Approximately 45 percent of gun carriers and 8 percent of non-gun carriers reported having been threatened or injured with a weapon at school in the last 12 months. Likewise, when compared to non-gun carriers, gun carriers were almost 14 times more likely to have been threatened or injured with a weapon at school four or more times in the last 12 months.

Gun carriers were 17 times more likely than non-gun carriers to have been in four or more fights at school, and eight times more likely to have been drunk or high at school six or more times. Specifically, in the past year, more than 27 percent of gun carriers had been in four or more fights at school, and about 60 percent of them had also been drunk or high six or more times at school.

Exhibit 28: Delinquent behavior in school by gun and non-gun carriers

	<i>Non-gun carriers</i>	<i>Gun carriers</i>	<i>Ratio of gun to non-gun carriers</i>
Carried a weapon to school in past 30 days			
0 times	94.2	24.7	0.26
1 time	1.4	10.9	7.78
2-3 times	1.2	17.2	14.33
4-5 times	0.3	10.3	34.30
6+ times	2.9	36.8	12.60
Taken hand gun to school in last 12 months			
0 times	100.00	0.0	0
1-2 times	0.01	44.9	4,490
3-5 times	0.01	10.8	1,080
6 + times	0.01	44.3	4,430
Drunk or high at school in last 12 months			
0 times	80.7	21.4	0.26
1-2 times	8.7	9.8	1.12
3-5 times	3.3	9.2	2.78
6 + times	7.3	59.5	8.15
Threatened or injured with weapon at school in last 12 months			
0 times	92.2	55.1	0.59
1 time	3.7	8.5	2.29
2-3 times	2.5	14.2	5.68
4 + times	1.6	22.2	13.80
Been in a fight at school in last 12 months			
0 times	86.8	41.1	0.47
1 time	8.0	10.9	1.36
2-3 times	3.7	20.6	5.56
4 + times	1.6	27.4	17.10

Exhibit 29 examines school performance by the seriousness of the gun problem at the respondent's school. The exhibit illustrates that at schools with a serious gun problem students were more likely to miss school due to both illness and skipping. For example, only about 15 percent of students in schools with a minor gun problem reported having missed school three or more times due to illness, compared to more than 25 percent of students in schools with a serious gun problem. Similarly, 5.1 percent of students in schools with a minor gun problem reported having missed three or more days of school due to skipping, compared to about nine percent of students at schools with a serious gun problem.

Exhibit 29: School performance by level of school's gun problem

	<i>Minor gun problem</i>	<i>Average gun problem</i>	<i>Serious gun problem</i>
School days missed due to illness			
0 times	57.6	50.6	43.9
1 time	14.9	17.4	16.3
2 times	12.7	13.7	14.4
3 + times	14.9	18.3	25.4
School days missed due to skipping			
0 times	83.6	77.9	79.2
1 time	6.5	9.4	6.1
2 times	4.9	5.6	5.3
3 + times	5.1	7.1	9.3

The prevalence of school-related delinquency also varied by the level of the school's gun problem (Exhibit 30). Respondents at schools with a serious gun problem were more likely to report delinquency and victimization than students at schools with a moderate or minor gun problem. Students attending a school with a serious gun problem were about three times more likely to report having frequently carried a weapon to school, repeatedly having been threatened or injured with a weapon at school, and chronically having engaged in fights at school. Furthermore, students at schools with a serious gun problem were twice as likely to report having been chronically drunk or high at school, and many times more likely to report having brought a handgun to school.

Exhibit 30: Amount of school-related delinquency by school gun problem

	<i>Minor gun problem</i>	<i>Average gun problem</i>	<i>Serious gun problem</i>
Carried weapon to school in past 30 days			
0 times	95.2	93.1	86.8
1 time	1.3	1.5	3.2
2-3 times	1.1	1.3	3.9
4 + times	2.5	4.1	6.1
Been threatened/injured with a weapon at school in past 12 months			
0 times	92.9	91.7	87.7
1 time	3.5	3.7	4.9
2-3 times	2.2	2.7	2.7
4 + times	1.4	1.8	4.7
Number of times in a fight at school in past 12 months			
0 times	87.3	86.2	77.5
1 time	7.6	8.1	10.6
2-3 times	3.6	4.0	6.4
4 + times	1.5	1.8	5.4
Number of times drunk or high at school in past 12 months			
0 times	81.0	80.6	67.8
1-2 times	7.6	8.5	13.3
3-5 times	3.6	3.3	4.9
6 + times	7.8	7.7	14.0
Number of times taken a handgun to school in past 12 months			
0 times	100.0	98.5	95.2
1-2 times	0.0	0.6	2.3
3-5 times	0.0	0.2	0.4
6 + times	0.0	0.6	2.1

Exhibit 31 reports on student perceptions of safety and fear by the seriousness of the school's gun problem. Only about 10 percent of students at schools with a minor gun problem reported not feeling safe at school, compared to almost 27 percent of students at schools with a serious gun problem. Students at schools with a serious gun problem were also much more likely to report having not gone to school because they felt unsafe at school or on their way to school. Just over nine percent of students in schools with a serious gun problem reported having missed at least one day of school within the school year because they felt unsafe at school or on their way to school, compared to less than four percent at schools with a minor or moderate gun problem.

Exhibit 31: School safety and fear by level of school's gun problem

	<i>Minor gun problem</i>	<i>Average gun problem</i>	<i>Serious gun problem</i>
I feel safe at my school			
No	10.6	16.0	26.7
Yes	89.4	84.0	73.3
Number of days did not go to school because felt that it was unsafe at school or on the way to school (past 30 days)			
0 times	97.0	96.5	90.6
1 time	1.6	1.9	4.4
2-3 times	0.8	0.8	2.4
4+ times	0.6	0.8	2.5

Summary and Implications

The purpose of the present study was to examine the nature and scope of Arizona's youth gun problem. The report was organized around four thematic issues: (1) perceptions, fears, and experiences related to guns; (2) the correlates of gun carrying; (3) the relationship between gun carrying, crime, and drugs; and (4) the impact of gun carrying on school performance, school behavior, and school climate. These four issues were examined using data obtained from the *2002 Arizona Youth Survey*, which surveyed 12,203 students in the 8th, 10th, and 12th grades in 63 schools across the state.

The findings showed that gun carrying among Arizona youth is relatively infrequent. Roughly six percent of the youth surveyed reported having carried a handgun at some time in the past year; about one-third of those had carried a gun regularly. About 10 percent of males and just over 2 percent of females reported having carried a gun. Nine percent of African American youth reported having carried a gun, followed by 8.7 percent of Native Americans, 6.8 percent of Hispanics, 5.2 percent of Whites, and 2.7 percent of Asians. In terms of raw numbers, most gun carriers were White, followed by Hispanics, Native Americans, African Americans, and Asians. Likewise, most gun carriers were male (81.1 percent), with only about 19 percent of gun carriers being female. Half of the youth who had carried a gun did so for the first time before they were 13 years old.

Only a small proportion of the youth surveyed had friends who had carried a gun, and most did not believe that their friends would think that they were cool if they did carry a gun. However, just over one-quarter of the respondents thought that it would be easy to get a gun if they wanted one, and did not believe that the police would catch them carrying it. Of particular interest was the finding that about 70 percent of youth thought that their parents would catch them if they were to carry a gun.

These findings differed by gun and non-gun carriers. When compared to non-gun carriers, gun carriers were more likely to have friends who had carried guns, and were more likely to think that others would think that they were cool for carrying a gun. Gun carriers were also more likely to think that it was easy to get a gun, and were less likely to think that they would get caught by the police or their parents. Additionally, gun carriers were significantly more likely to feel unsafe in their neighborhoods, compared to non-gun carriers.

Gun carrying minority males were the most likely to have friends who had carried guns, and were also the most likely to think that their friends would think that they were cool for carrying a gun. Females were the least likely to believe that the police or their parents would catch them if they carried a gun. On the other hand, Native Americans were the most likely to think that the police would catch them if they carried a gun, and Whites were the most likely to think that their parents would catch them if they had a gun.

Gun carriers, in general, came from families with a single parent or from a family with a parental arrangement other than an intact or single parent family. They were

also more likely to have more siblings living with them at home, and were more likely to speak a language other than English or Spanish. Additionally, the parents of gun carriers typically had less education than the parents of non-gun carriers.

The findings also showed that youth who were exposed to poor neighborhood conditions, who had antisocial and dysfunctional parents and peers, and who displayed antisocial attitudes and early problem behaviors were the most at risk for carrying a gun. Gun carriers were exposed to fewer protective factors such as opportunities for pro-social neighborhood, family, and school activities, and were less likely than non-gun carriers to report having been rewarded for good behavior by their neighbors, families, and school staff.

The analysis of the data also indicated that the gun carriers in this study were significantly more likely to have engaged in delinquency, drug use, and drug sales, and to have engaged in these activities more often than non-gun carriers. The incidence and prevalence of delinquency, drug use, and drug sales among gun carriers varied by gender, ethnicity, and grade. Female gun carriers were the most likely to have ever been involved in delinquency, drug use, and drug sales, and had engaged in these activities more often (other than chronic marijuana use and chronic vehicle theft) when compared to male gun carriers, male non-gun carriers, and female non-gun carriers.

Delinquency, drug use, and drug sales among gun carriers also varied by ethnicity. Native American gun carriers, followed closely by African American and Hispanic gun carriers, were the most likely to have been arrested and to have stolen a vehicle six or more times in the past year. African American gun carriers were more than twice as likely, when compared to all other ethnic groups, to have attacked someone with the intention of hurting them six or more times in the past year. Likewise, African American gun carriers were the most likely of any ethnic group to be chronic users of marijuana and cocaine, and to have sold drugs. However, many Hispanics and Native Americans also indicated that they frequently had used and sold drugs. It should be emphasized that gun carrying frequently coincided with drug sales. For example, over 40 percent of gun carrying African Americans, Native Americans, Hispanics, and Asians had sold drugs in the past year.

Related, gun carriers were more likely to be involved in gangs. Specifically, about 28 percent of gang members reported carrying a gun in the past year, compared to four percent of non-gang members. Gang members were also found to be chronic carriers of guns, with 13 percent of them carrying a gun six or more times in the past year, compared to about 2 percent of non-gang members.

Last, the analyses showed that gun carrying was related to school performance and behavior. When compared to non-gun carriers, gun carriers were more likely to have skipped school and been suspended. Similarly, they were more likely to have taken a weapon to school in the past 30 days, taken a gun to school in the past 12 months, been threatened or injured with a weapon at school, been drunk or high at school, and been in a fight at school. Schools with serious gun problems were also more likely than schools with minor or moderate gun problems to have students missing school, engaging in delinquency and drug use, and being threatened or injured with a weapon at school. Students attending schools with serious gun problems were

also more likely to not feel safe at school and to have missed multiple days of school because they felt that it was unsafe at school or on the way to school.

The findings presented in this report have a number of policy implications. First, the data suggest that many youths who carry a gun do not feel safe in their neighborhoods, do sell drugs, and are frequently threatened or victimized with a weapon. Together these findings suggest that many youths carry a gun for protection (e.g., general fear of crime or fear that someone might rob them of their drug profits). Intervention and suppression efforts focused on neighborhoods and schools with high gun crime might de-escalate the amount of violence and crime in these neighborhoods and schools, and in turn, reduce the perception that gun carrying is necessary for protection.

Second, while numerous laws bar juveniles from owning handguns, this data shows that most juveniles, especially gun carriers, do not believe that they will be caught carrying a gun by the police; therefore, new legislation aimed at juvenile gun carrying might not have a deterrent effect. However, there was one exception: Native American juveniles were substantially more likely to believe that youths carrying a gun would be caught by the police. Although more research is needed to fully understand this relationship, municipal police agencies might work with tribal police departments to better understand the practices and strategies that they use to respond to gun carrying. Related was the finding that many youths, including gun carriers, believed that their parents would catch them if they carried a gun. Prevention and intervention efforts aimed at reducing gun carrying might be better focused on the family and the parents' role in deterring their child(ren) from carrying a gun.

Third, the data showed that gun carrying was particularly problematic among females and among minority youth. Both female and minority gun carriers were the most likely to be involved in delinquency, drug use, and drug sales. This was especially true of African American gun carriers who were involved in very high levels of violence. Prevention, intervention, and suppression strategies should be particularly focused on these populations.

The results here illustrate that community, family, and school factors all influence gun carrying among Arizona's youth. Prevention efforts should be directed toward youth who are exposed to the greatest number of risk factors. Decreasing the number of risk factors might have a long term impact on prevention of gun carrying and violence in the state.

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