U.S. Department of Justice
Office of Justice Programs
Office of Juvenile Justice and Delinquency Prevention

OJJDP
July 2001
JUVENILE JUSTICE BULLETIN

Gun Use by Male Juveniles: Research and Prevention



Alan Lizotte and David Sheppard

This Bulletin is part of the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Youth Development Series, which presents findings from the Program of Research on the Causes and Correlates of Delinquency. Teams at the University at Albany, State University of New York; the University of Colorado; and the University of Pittsburgh collaborated extensively in designing the studies. At study sites in Rochester, New York; Denver, Colorado; and Pittsburgh, Pennsylvania, the three research teams have interviewed 4,000 participants at regular intervals for a decade, recording their lives in detail. Findings to date indicate that preventing delinquency requires accurate identification of the risk factors that increase the likelihood of delinquent behavior and the protective factors that enhance positive adolescent development.

Much concern has been expressed recently, in both the popular press and the social science literature, about the use of firearms by adolescents—in American society in general and urban areas in particular. In a 1997 national survey of more than 16,000 students in grades 9–12, 18 percent said they had carried a weapon outside the home in the previous 30-day period (Kann et al., 1998). The problem is more severe in inner-city neighborhoods. One study involving 800 inner-city high school students reported that 22 percent of all students said they carried a weapon (Sheley and Wright, 1993).

Many adolescents own and use guns legally for sporting activity, but there is a perception that an increasing number of other adolescents own guns for protection and carry them on the street. In fact, one study of urban juvenile arrestees found that more than two-thirds of the juveniles said their primary reason for owning and carrying a weapon was self-protection; a smaller number also reported using their weapon for drug trafficking or other illegal activity (Decker, Pennel, and Caldwell, 1997; Snyder and Sickmund, 1999). It is illegal gun ownership and use among adolescents that constitute a problem of great concern. Researchers and policymakers have become increasingly interested in understanding patterns of gun ownership and use among adolescents so that programs can be developed to respond to this problem.

Prior research on gun ownership and use has focused mainly on adults and has characterized adults who own guns as either low risk or high risk, reflecting the extent to which they are likely to increase the risk of violent crime in the general population. Low-risk gun owners tend to be socialized by their families into gun ownership, to own guns legally (holding permits when required by their jurisdiction), and to own them for socially approved reasons (e.g., hunting). Because they do not tend to use their guns in criminal activities, they are unlikely to directly increase the risk of

A Message From OJJDP

Although many adolescents own and use guns for legitimate, legal sporting activities, other youth report that they own and carry guns for protection or for the purpose of committing a crime. Illegal gun ownership and use among juveniles are the focus of public concern and of this Bulletin.

While prior research on gun ownership and use has concentrated largely on adults, the Bulletin's authors draw on data from OJJDP's Rochester Youth Development Study to examine patterns of gun ownership and gun carrying among adolescents. The Bulletin also addresses the interrelationship between gangs and guns.

Efforts to reduce the illegal carrying of guns by youth and juvenile gun violence are described, in particular the Boston Gun Initiative, the Office of Community Oriented Policing Services' Youth Firearms Violence Initiative, and OJJDP's Partnerships To Reduce Juvenile Gun Violence Program.

Reducing the illegal carrying of guns by juveniles and youth firearm violence is not just a problem for law enforcement agencies to resolve. Effective efforts will require support and participation from multiple community agencies.

It is our hope that the information that this Bulletin provides will enhance those efforts.

violent crime in the general population. High-risk owners, on the other hand, tend to be socialized on the street into gun ownership, to own guns illegally, and to be more likely to use guns in criminal activities. Because of their criminal use of guns, they do increase the risk of violent crime in the general population (Bordua and Lizotte, 1979; Harding, 1990; Harding and Blake, 1989; Lizotte, Bordua, and White, 1981; Wright and Rossi, 1986).

As noted, most studies of gun ownership and use have focused on adults; most of these studies have been cross-sectional (i.e., based on a sample of adults at a particular point). Such studies provide snapshots of gun ownership and use among adults but do not show how juveniles come to use guns illegally. Showing how illegal gun ownership and use unfold for juveniles requires a longitudinal analysis that follows a sample of juveniles over an extended period. This Bulletin provides such an analysis using data from the Rochester Youth Development Study. The Bulletin also summarizes current research and prevention efforts aimed at reducing juvenile gun violence.

The Rochester Youth Development Study

The Rochester Youth Development Study (RYDS) is a longitudinal study investigating the development of delinquent behavior, drug use, and related behaviors among a group of urban adolescents. RYDS sample members and the adults primarily responsible for their care (usually mothers) have been interviewed periodically since the 1987–88 school year, when the youth were in the seventh or eighth grade. For more information on RYDS and the methodology used to measure gun ownership and crimes, see p. 3.

The following analysis is based on data for boys only. Girls are omitted because the girls in the Rochester sample rarely owned or used guns. The sample size *(n)* varies slightly, depending on which waves of data are used in each part of the analysis.



Table 1: Percentage of Boys Involved in Delinquency, by Gun Ownership Status

Type of Delinquency	Gun Ownership Status (%)		
	No Gun Owned (*n*=548)	Gun Owned for Sport (*n*=27)	Gun Owned for Protection (*n*=40)
Gun carrying	3.2	11.1	70.0
Gun crime	1.3	3.7	30.0
Street crime	14.8	18.5	67.5
Gang membership	7.2	11.1	55.0
Drug selling	3.5	7.4	32.5

Gun Ownership and Gun Crime

Table 1 shows the percentage of boys involved in different types of delinquent behavior, according to their gun ownership status: those who did not currently own guns, those who owned guns for sport, and those who owned guns for protection.[1] Overall, boys who owned guns for sport look more like those who didn't own guns at all than those who owned guns for protection. Compared with boys who did not own guns at all, those who owned guns for sport did have significantly elevated levels of gun carrying, gun crime, and drug selling. (For street crime and gang membership, the differences were not statistically significant from zero.) However, boys who owned guns for protection were significantly and substantially more likely to be involved in delinquent behavior than either those who did not own guns or those who owned guns for sport. For example, 70 percent of protection owners carried their guns, whereas only 11.1 percent of sport owners did so, and only 3.2 percent of those who did not own a gun had carried a gun in the past 6 months.[2] In other words, a protection owner was six times more likely than a sport owner to carry a gun. Further, protection owners were eight times more likely than sport owners to commit a gun crime, 3.5 times more likely to commit a street crime, nearly five times more likely to be in a gang, and 4.5 times more likely to sell drugs—all statistically significant differences.

One should not necessarily infer from this analysis that owning a gun for protection leads to criminal activity. The opposite may be true: involvement in criminal activity may lead to the need to own a gun for protection. For example, a drug dealer may obtain a gun to ply his trade, rather than ply his trade because he happens to have a gun. However, one thing is certain: boys who own guns for protection have adapted to the dangerous associations and circumstances that surround criminal activity.

Socialization Into Gun Ownership—Peers and Gangs

As mentioned earlier, boys may be socialized into legal gun ownership by parents or illegal ownership by delinquent peers and gang members.[3] This appears to be the case for the boys in the Rochester study. Having a parent who owned a gun for sport increased the odds more than fivefold that a boy owned a gun for sport, but parental gun ownership had no impact on the likelihood that a boy owned a gun for protection. Conversely, having peers who owned guns for protection increased the odds more than sixfold that a boy owned a gun for protection. It appears that family socialization into gun use increases the likelihood of owning a gun

[1] Much more detail on the analysis presented in Table 1 is available in Lizotte et al. (1994).

[2] The carrying question asks about carrying guns "on the street." Boys could have carried illegal guns that they did not own (e.g., they could have borrowed or rented them). Sport gun owners might have misinterpreted their legal carrying and reported it (e.g., a boy could have carried his rifle from the car to the house before and after going target shooting with his parent)—this carrying issue is addressed further on page 5.

[3] Intergenerational gangs do exist in some cities, and it is possible that parents do socialize their children into illegal gun ownership; however, there is no empirical evidence of this process at this time.

Rochester Study Methodology

The Rochester study of gun ownership and use is part of the ongoing Rochester Youth Development Study (RYDS) of delinquency and drug use conducted by researchers at the University at Albany, State University of New York. RYDS is part of the Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) Program of Research on the Causes and Correlates of Delinquency. An OJJDP Fact Sheet (Browning et al., 1999) summarizes the research design for the RYDS and other Causes and Correlates projects.

The RYDS sample of 1,000 adolescents was selected from seventh and eighth grade public school students in Rochester, NY—a city with a diverse population and high crime rate. The sample was stratified to overrepresent youth at high risk of serious delinquency and drug use. Males were oversampled (75 percent of the sample) because they are more likely than females to engage in serious delinquency, and students from high-crime areas were oversampled on the assumption that they are at greater risk of offending. In the analysis presented in this Bulletin, the data on boys are weighted so that the sample is random and representative of the Rochester public school population of seventh and eighth grade students in the 1987–88 school year.

Participants were interviewed in 12 waves, beginning in the 1987–88 school year, when they were in the seventh or eighth grade, and continuing through 1996–97, when they were young adults (average age 22). The first nine waves of interviews were conducted at 6-month intervals and also included the adults primarily responsible for the care of the adolescents (usually mothers). The latest three waves were conducted annually. Data were also collected from schools, police, courts, and social service agencies.

Measuring Gun Ownership and Gun Crime

Gun ownership typically is categorized as legal or illegal. For adolescents, however, this distinction is not meaningful or measurable. In New York, handguns require a special permit, which must be signed by a judge. In Monroe County (where Rochester is located), the judge responsible for permits only rarely signed a permit for an adolescent. Thus, if a study participant reported owning a handgun, he either owned it illegally or was mistaken about his legal ownership. In the latter case, a parent or other responsible adult may have owned the gun, but the youth thought of it as his or thought it would be his when he was old enough to obtain a permit. Furthermore, although a permit is not needed for long guns, persons under 18 cannot buy such a gun, but a parent could buy it and the youth could possess it.

A more reasonable strategy is to classify the boys in this study on the basis of their motivation for owning a gun—for sport or for protection. Adolescents who own guns for sport should be at lower risk of using the guns for criminal activity than those who own for protection. Adolescents who own guns for protection probably travel in a dangerous world and will soon find themselves involved in gun crime. If this latter assumption is true, one would expect protection owners to have handguns and sawed-off rifles and shotguns, because such guns are concealed most easily and are the weapons of choice for criminal activity. Conversely, one would expect sport owners to have relatively few handguns and sawed-off rifles and shotguns.

Questions about gun ownership were first asked at wave 4 of the interviews, when the boys were in the ninth or tenth grade and were 14 or 15 years old. At this wave, 67 boys (about 10 percent of the sample) owned guns—27 said they owned only for sport, 30 owned only for protection, and 10 owned for both reasons. The 27 boys who owned for sport reported owning a total of 30 guns, of which 21 were rifles or shotguns and only 9 were handguns. (Only one of the long guns owned for sport was sawed off. The boy who owned the sawed-off long gun also owned a handgun. He reported no criminal activity and did not carry the guns or use drugs.) The 30 protection owners reported owning a total of 50 guns—an average of 1.67 guns per boy. Protection owners had more handguns (28) than rifles and shotguns (22), and more than half of their long guns (12) were sawed off. The 10 respondents who owned for both sport and protection owned a total of 12 guns: 5 handguns and 7 long guns (4 of which were sawed off). Because of the types of guns owned by boys who said they owned for both reasons, these boys were categorized as owning for protection. In short, sport owners tended to own unaltered long guns and protection owners tended to own handguns and sawed-off rifles and shotguns. This is precisely what one would expect if sport owners were legal owners and protection owners were illegal owners.

Study participants were asked whether they had participated in 44 types of delinquent behaviors and drug use in the last 6 months. If they answered yes, they were asked followup questions about the precise nature of the offense. Responses were screened to ensure that the behaviors reported fit properly into the category of delinquent behavior and that the behaviors were "actionable" offenses. In other words, researchers ensured that the behaviors were not trivial offenses such as pranks. The followup questions also determined whether a gun was used in the commission of the crime. If a gun was used, the crime was recorded as a gun crime.

for sport but has no impact on the likelihood of owning a gun for protection.

Gangs and Guns

Media reports leave the impression that illegal gun ownership and use by gang members have become more and more commonplace and are now a standard feature of gangs. Implicit in these reports is the assumption that gangs provide illegal guns and training in their use. However, it is equally plausible that gangs recruit boys who already own guns and are well versed in their use. Table 1 shows that gang membership was more common for boys who owned guns for protection than for those who owned them for sport and those who did not own them. Do gangs recruit youth who are already involved with guns, or does gang membership lead to gun ownership? Past research has usually indicated that gangs and guns go hand in hand. Strodtbeck and Short (1964) describe a gun diffusion process that operates in gangs. Members fear that sudden violence may be perpetrated against them. Since most gang activity takes place outside the realm of police protection, gang members see a need to protect themselves from others who are just like them. As members of one gang arm, members of opposing

gangs arm for the same reason. These observations have been confirmed by many researchers. Horowitz (1983) reported that gang members go armed because their rivals have guns. Similarly, Miller (1992), Block and Block (1993), Sheley and Wright (1993 and 1994), Bjerregaard and Lizotte (1995), and Decker and Van Winkle (1996) all found a strong connection between illegal gun use and gang membership.

A longitudinal data set such as that from the Rochester study offers the unique advantage of allowing researchers to determine whether gun ownership (for sport or protection) occurs prior to, during, or after gang participation. To examine this relationship, researchers used three measures of gang membership and compared gang members with nonmembers, at interview waves 7, 8, and 9. Future gang members are boys who were not in a gang in a preceding wave (7 or 8) but who joined a gang in a subsequent wave (8 or 9). Current gang members are boys who reported being in a gang during the current wave (7, 8, or 9). Past gang members are boys who were in a gang in a preceding wave (7 or 8) but were not currently in a gang.[4] Nonmembers are boys who said they were never in a gang. Table 2 shows the percentage of nonmembers and future, current, and past members who reported owning guns for sport and protection, carrying guns, and having peers who owned guns for protection.[5]

There were no statistically significant differences by gang status in the percentage of boys owning guns for sport. That is, gang membership neither enhanced nor diminished the likelihood of owning a gun for sport. However, gang membership did enhance the likelihood of owning a gun for protection. Future gang members were somewhat more likely than nonmembers to own guns for protection (23.1 percent versus 14.2 percent), but current gang members were clearly more likely than nonmembers to own guns for protection (30.9 percent versus 14.2 percent).

The rate of owning illegal guns was not significantly higher for future gang members than for those who did not join gangs. This finding suggests that gangs



are not particularly likely to recruit boys who already own and carry guns for protection. Furthermore, among boys who had left gangs, the rate of gun ownership for protection dropped to a level similar to that of boys who had never belonged to a gang (13.2 percent for past members versus 14.2 percent for nonmembers). A similar pattern was found for carrying guns on the street. These findings suggest that boys who do not want to participate in the violence and gun carrying associated with gangs leave the gangs. The findings might also suggest that when youth leave gangs, they feel less need to carry guns because they are no longer in a climate of conflict and violence. Statistically, past gang members look like nonmembers in terms of owning guns for protection and carrying guns on the street. Thus, it appears that gangs cause new members to obtain and then carry guns, but they do not recruit boys who already carry guns.

Table 2 also shows that joining a gang made it more likely that a boy would have peers who owned guns for protection. The likelihood of peer gun ownership for future gang members was similar to that

Table 2: Percentage of Boys Engaging in Gun-Related Behaviors, by Gang Membership Status

	Gang Membership Status (%)			
Gun Behavior	**Nonmember (*n*=548)**	**Future Member (*n*=39)**	**Current Member (*n*=81)**	**Past Member (*n*=32)**
Owns gun for sport	8.4	12.8	9.9	7.5
Owns gun for protection[a, b]	14.2	23.1	30.9	13.2
Carries a gun[a, b]	8.6	12.8	21.0	5.7
Peers own guns for protection[a, b, c]	55.1	53.8	77.8	52.8

Note: Nonmembers were never in a gang. Future members were not in a gang in a preceding interview wave but joined a gang in a subsequent wave. Current members belonged to a gang at the time of the current wave. Past members belonged to a gang in a preceding wave but not in the current wave.

Significance tests are for 0.5-level 1-tail tests. The superscripts indicate statistically significant differences for the following comparisons:

[a] Current With Past.

[b] Nonmember With Current.

[c] Current With Future.

[4] Boys who were gang members in more than one wave were included in membership prevalence rates for the most recent wave of gang activity. Boys had two chances to be counted as past or future gang members.

[5] Much more detail on the analysis presented in Table 2 is available in Bjerregaard and Lizotte (1995).

for nonmembers (53.8 percent versus 55.1 percent). However, peer gun ownership increased significantly (to nearly 78 percent) for current members. For past members, peer ownership dropped down to a rate comparable to that for nonmembers (52.8 percent versus 55.1 percent), suggesting that gang members were the peer owners.

These results indicate that gangs do not recruit youth who already own and carry guns for protection. However, gangs do facilitate gun ownership and carrying among current members. Boys in gangs are more likely than others to say they have peers who own guns for protection. Presumably, these peer gun owners are the other gang members. In turn, having peers who own guns for protection makes it more likely that a boy will own a gun for protection and carry it.

Gun Carrying

Thus far, this analysis has considered gun carrying for boys who report owning guns for sport or protection. However, one need not own a gun to carry one either illegally[6] or legally. Sport owners may carry their guns on the street for perfectly legal reasons. Depending on how "carrying" is defined, boys may even carry guns to school legally. (For example, a boy's father could drive him to school with a shotgun in the back window of the pickup truck, and if asked whether he carried a gun to school, the boy might say that he had.) Surveys that simply ask teenagers whether they carried a gun or carried a gun to school are inadequate. Surveyors need to make it clear to respondents that they should report only illegal carrying.

Another potential problem arises when survey questions ask about "carrying a gun" without making it clear that the gun in question is a firearm. Such wording could be interpreted by respondents to include blank guns, inoperative guns, BB guns, or pellet guns. This may be why reported percentages of gun carriers sometimes seem shockingly high. Additionally, surveys sometimes ask students whether they know someone who carried a gun or carried a gun to school. Percentages based on such questions can be even higher, because many respondents might report about the same infamous individual.

To deal with these problems, the Rochester survey asked the boys whether they had carried a hidden weapon since the time of the last interview. This was asked as part of the survey battery of questions on self-reported delinquency. If a boy said he had carried a hidden weapon, he was asked whether that weapon was a gun. With this strategy, respondents did not have to own a gun to report carrying one.

Table 3 shows that at interview waves 2 and 3 of the study, when the boys were only 14 or 14½ years old, 5 percent had carried a hidden gun at least once in the previous 6 months. In other words, substantial numbers of boys carry hidden guns at very young ages.[7]

As Table 3 shows, asking boys about carrying a hidden firearm (in the context of other self-reported delinquency questions) revealed more gun carriers than asking about carrying a gun owned for protection and many more carriers than asking about carrying a gun owned for sport.[8] At wave 4, when the boys were about 15 years of age, 1 percent reported carrying a gun owned for sport, 4 percent reported carrying a gun owned for protection, and 6 percent reported carrying a hidden gun (in response to a survey question on self-reported delinquency). Carrying hidden guns increased as these boys became older. By wave 10, when the boys were about 20 years old, 10 percent carried hidden guns. It is interesting that the percentage carrying hidden guns was twice the percentage carrying guns they owned for protection. Therefore, at age 20, half of illegal gun carrying involved guns the boys did not own—i.e., guns they had borrowed, rented, or temporarily stolen.

Carrying hidden guns is somewhat transitory. Only about one-third of the boys carried hidden guns from one wave to the next. The other two-thirds stopped carrying guns after only 6 months. Moreover, of those boys who ever carried a hidden gun, more than half (53.2 percent, *n*=67) carried the gun only during one 6-month period. About one-third (32.5 percent, *n*=41) carried a gun during two or three waves (1 year to 1½ years). The remaining 14 percent (*n*=21) carried a gun consistently for 2 to 3 years. In other words, half of the carriers of hidden guns were very transitory carriers and half were persistent (if intermittent) carriers. Carrying hidden guns is probably instrumental (i.e., done for a specific reason), in the sense that a boy carries a gun because he perceives a need for protection. When traveling in a dangerous world where others carry guns and when part of a gang, a boy sees the need for a gun. This might suggest that those who are transitory carriers are easier to deter or dissuade from carrying guns because their need to carry them is equally transitory.

Part of the reason that carrying hidden guns is transitory is that adolescent boys' reasons for carrying guns change over the

Table 3: Percentage of Boys Carrying a Gun, Based on Alternative Measures, by Interview Wave

	Wave								
Measure	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Carry a gun owned for sport (%)			1	2	1	2	2	3	3
Carry a gun owned for protection (%)			4	5	3	5	4	6	5
Carry a hidden gun (%)	5	5	6	7	6	6	8	8	10
Mean age at time of interview (years)	14	14½	15	15½	16	16½	17	17½	20

Note: The three measures reflect three ways in which the boys were asked about carrying guns. Except in waves 2 and 3 (when the boys were only 14 or 14½ years old), they were asked whether they had carried a gun they owned for sport and whether they had carried a gun they owned for protection. In all waves, the boys were asked a battery of questions about various delinquent behaviors; as part of that battery, they were asked whether they had carried a hidden weapon and, if so, whether that weapon was a firearm.

[6] Boys who do not own guns could illegally carry guns that another household member owns or that were borrowed or rented from someone else.

[7] The study did not ask boys at these ages about carrying guns owned for sport or protection.

[8] Much more detail on the analysis presented in this section is available in Lizotte et al. (1997).

course of their youth. Carrying hidden guns was found to be strongly related to gang membership at younger ages, but that relationship diminished as the boys left the gangs, at around age 16. On the other hand, involvement in drug selling was found to be more strongly related to carrying hidden guns in the later teens, when serious drug dealing takes place. For example, after age 15, involvement in selling large amounts[9] of drugs increased the odds of gun carrying 8- to 35-fold, depending on the exact age of the boy. Similarly, the strong relationship between carrying hidden guns and having peers who owned guns for protection suggests that changes in peer groups can influence gun carrying (Lizotte et al., 2000).

It is also important to note that the Rochester study found no relationship between gun carrying and race-ethnicity or income. This dangerous behavior crosses racial and class lines.

Study Summary

By age 15, about 6 percent of the boys in the Rochester study owned guns for protection. This ownership was related to a wide range of undesirable delinquent behaviors, including gun carrying, gun crime, gang membership, and drug selling. When in a gang, boys were much more likely to have peers who owned guns for protection, and these peers most likely were the gang members.

Depending on their age, between 5 and 10 percent of the boys in the Rochester study carried hidden guns on the street. The percentage increased with age and was associated with different types of delinquency at different ages. This carrying was instrumental, and the reason for the instrumentality changed with the changing delinquency. Half of the boys who carried hidden guns did not own the guns they carried. Much carrying was transitory. Half of the boys who carried hidden guns did so for 6 months or less, but the other half were much more persistent carriers.

Implications

The findings reported here suggest that interventions to stop illegal gun use by boys must begin when they are quite young. Because boys' reasons for carrying guns change as they age, interventions must adapt to these changes. Interventions must also make boys feel safer in their environments. Additionally, strategies to reduce illegal gun carrying should probably be different for transitory and long-term carriers. Because there is so much turnover in boys' illegal gun ownership and carrying, confiscating a single illegal gun probably stops several boys from possessing that gun over a period of time. Finally, because such a high percentage of urban boys carry illegal guns (5 to10 percent in the Rochester study), targeting this population for interventions might be an effective strategy.

In addition to the findings reported above, the Rochester study compared the amount of serious violent crime that boys committed during periods when they carried illegal guns to the amount of crime the same boys committed when they did not carry illegal guns. The amount of serious violent crime the boys committed during periods of active gun carrying was more than five times the amount they committed when they did not carry guns. Even though the number of boys who carried illegal guns was relatively small, since these boys were high-rate offenders even when they did not carry guns, decreasing gun carrying among them could avert many thousands of serious crimes. This means that preventing gun carrying among at-risk boys could go a long way toward reducing the violent crime rate.

The remaining sections of this Bulletin describe efforts to understand and prevent juvenile gun violence. A summary of selected research is followed by a discussion of the Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) Partnerships To Reduce Juvenile Gun Violence Program (with a focus on the Baton Rouge (LA) Partnership and its Operation Eiger) and comments on programs identified by OJJDP as promising strategies to reduce gun violence.

Other Research on Reducing Illegal Gun Carrying and Gun Violence

Boston Gun Initiative

Research conducted in Boston, MA, and other cities demonstrates the value of problem-solving planning to reduce gun carrying and use by juveniles. In Boston, an analysis of the city's gun crime problem found that approximately 1,300 gang members, representing less than 1 percent of the city's youth, were responsible for at least 60 percent of juvenile homicides (Kennedy, Piehl, and Braga, 1996). Youth who were victims or suspects in these homicides had long histories of involvement in the justice system. Researchers concluded that youth homicide was concentrated among a small number of serially offending, gang-involved youth. In response to this analysis, Boston police, working with other criminal justice agencies and with city social service agencies, used a mix of strategies to discourage juveniles—especially gang members and probationers—from carrying guns in public places.

The strategies developed in Boston included gun use reduction tactics employing new gun-tracing technologies to interrupt the flow of illegal firearms to youth and a deterrence approach to inform juveniles of the severe criminal consequences they would face if caught with an illegal firearm (Kennedy, 1998). As a result of these and other strategies initiated by the city, youth firearm-related homicides dropped 75 percent during 1990–98.

Youth Firearms Violence Initiative

In 1995, the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS) began its Youth Firearms Violence Initiative (YFVI). This program provided funding to several cities for the development of interventions to combat recent increases in youth firearm violence. The initiative encouraged demonstration sites to implement community policing strategies that would decrease violent firearm crimes and reduce youth gun-related gang and drug offenses. Five of the sites were selected for intensive evaluation—Baltimore, MD; Cleveland, OH; Inglewood, CA; Salinas, CA; and San Antonio, TX. Most of these sites developed new police operations for suppressing firearm violence or expanded existing ones. Enforcement strategies generally were based on analyses of local crime data that enabled police to identify specific locales and populations that were prone to youth gun violence. The demonstration sites used a variety of enforcement tactics. In addition to traditional approaches such as surveillance and intelligence gathering,

[9] More than the median amount sold by all boys who have sold drugs.

these tactics included less traditional approaches such as police and probation officers' joint monitoring of gang members on probation and school-based prevention efforts for juveniles at risk of gun violence (Dunworth, 2000).

Each of the intensive evaluation sites reported that youth gun crimes declined following implementation of the YFVI program (Dunworth, 2000). For example, the program had a measurable effect in reducing youth gun crimes in Inglewood and Salinas. In Inglewood (where the program included use of police-probation teams), gun crimes returned to prior levels once the program's operational period ended. In Salinas, however, the initial reductions in gun crimes were sustained by the city's commitment to continue program operations even after YFVI funding ended.

Implications

Results from the Boston gun initiative and the YFVI evaluation suggest that the sustainability of these efforts to reduce illegal gun carrying by youth depends on a community's commitment to engage in a problem-solving planning process. This commitment includes participation of Federal and local law enforcement agencies and key community stakeholders who are willing to commit resources for the development of a comprehensive plan. The planning process should include a thorough needs assessment that identifies specific youth populations at risk for illegal gun carrying and use. It should also include development of both suppression strategies to take illegal guns off the streets and intervention and prevention strategies to reduce the need and demand for those weapons.

OJJDP's Partnerships To Reduce Juvenile Gun Violence Program

In 1997, as part of its commitment to address the continuing problem of juvenile gun violence, OJJDP awarded community demonstration grants to three cities—Baton Rouge, LA; Oakland, CA; and Syracuse, NY—to implement its Partnerships To Reduce Juvenile Gun Violence Program. These communities were asked to build extended partnerships to address risk factors associated with juvenile gun violence, including the carrying of illegal guns. The partnerships were established to develop comprehensive and effective juvenile gun violence reduction programs by enhancing and coordinating prevention, intervention, and suppression strategies and by strengthening linkages between community residents, law enforcement, and the juvenile justice system.

The problem-solving approach of the Partnerships To Reduce Juvenile Gun Violence Program recognizes that local community assessment of juvenile gun violence problems should guide program development and that strategies designed to reduce gun violence should be comprehensive and theory driven and should include prevention, intervention, and suppression components. The Partnerships Program goals include reducing youth access to illegal guns, reducing the incidence of juveniles illegally carrying guns and committing gun-related crimes, increasing community participation in addressing gun violence, and coordinating juvenile justice and social services for youth at risk for gun violence.

Each of the Partnerships Program communities is implementing several linked youth gun violence reduction strategies:

- A firearm suppression strategy to reduce juvenile access to and carrying of illegal guns.
- A juvenile justice strategy to use appropriate sanctions and intervention services for juvenile gun offenders.
- A positive opportunities strategy, involving components such as academic tutoring, mentoring, job training and placement, and afterschool programs.
- A public information strategy to communicate to juveniles, families, and community residents the dangers and consequences of gun carrying and use.
- A community mobilization strategy to engage neighborhood residents, parents, and youth in addressing community risk factors associated with gun violence.

A national cross-site evaluation assessing the various strategies developed by the Partnerships Program communities is being conducted for OJJDP by COSMOS Corporation and will be reported at a later date.

The Baton Rouge Partnership

The Baton Rouge Partnership is an example of how communities have developed and implemented their partnership programs. The number of juveniles arrested annually in East Baton Rouge increased 61 percent from 1992 to 1996. One-fourth of the juveniles arrested in 1996 were involved in multiple violent crimes. More than 90 percent of all homicides involving a juvenile were committed with a handgun. Further analysis revealed that a large percentage of these gun-related crimes were being committed in a relatively small area of the city.

With the Mayor's Office serving as lead, the Baton Rouge program built a partnership structure that includes local, State, and Federal law enforcement agencies; the U.S. Attorney's Office, the East Baton Rouge District Attorney, the courts, and juvenile and adult probation agencies; public and private service providers; the faith community; and community grassroots organizations. The Baton Rouge Partnership consists of task forces that focus on enforcement (suppression), intervention, prevention, and grassroots mobilization.

The Partnership monitors the tracing and seizure of crime guns by the Federal Bureau of Alcohol, Tobacco and Firearms and the Baton Rouge Police Department and also reviews Brady Bill background checks of residents applying for gun permits. The Partnership uses this information to identify juvenile and young adult gun offenders and also to provide local, State, and Federal law enforcement agencies with information on gun applicants who have felony records or who are known associates of individuals with felony records. A Judicial Advisory Committee, composed of the District Attorney and juvenile court judges, also advises the Partnership on justice system reforms and on available residential and nonresidential treatment services. The Partnership also has played an integral role in the formation of ACT NOW, a grassroots organization that links a diverse array of 54 community and faith leaders to respond to violence in their neighborhoods and to work with the Partnership's target population and families. One of the programs developed by the Partnership to address the needs of the target population was Operation Eiger, a comprehensive program that links juvenile gun violence suppression, intervention, and prevention strategies. The structure, activities, and outcomes of Operation Eiger are described on pages 8–9.

Baton Rouge's Operation Eiger: Linked Strategies To Address Juveniles at Risk for Gun Violence

The Baton Rouge Partnership developed Operation Eiger, a comprehensive set of problem-solving strategies that link the resources of the juvenile justice system, law enforcement, public and private service providers, and community grassroots organizations (see figure). The Partnership designated juveniles and young adults on probation for a gun-related offense as "Eigers." (Eiger is a mountain in Switzerland reported to be one of the world's most difficult to climb.)

The Partnership's case coordinator records conditions of probation imposed by the juvenile court on juveniles identified as Eigers. The juveniles are placed on a contact list for the Eiger police-probation teams, composed of specially trained police and probation officers. These teams conduct unscheduled evening visits to each Eiger's home an average of six times per month. During the visits, the teams check for compliance with conditions of probation and assess the youth's needs and family situation.

The juvenile court enhances the effectiveness of the process by setting enforceable conditions of probation to help Eiger youth and family members address risk factors associated with the youth's violent behaviors. Such conditions might pertain to curfews, school attendance, possession of illegal guns or other weapons, association with delinquent peers, and abstinence from drugs and alcohol. Through a zero tolerance policy, the court imposes sanctions on Eigers who violate conditions of probation or commit new offenses. Sanctions can include jail sentences. The Police Department's Operation Takedown, a drug trafficking enforcement program, also identifies any violations committed by Eigers and reports the violations to the court and the Partnership.

Police and other Partnership participants bring needs of Eiger youth to the attention of the Partnership's case coordinator, who develops and oversees an individual case plan for each Eiger. (The case plan remains in effect even when the juvenile leaves the Eiger program or is no longer on probation.) A three-pronged service program for the Eigers includes the following strategies:

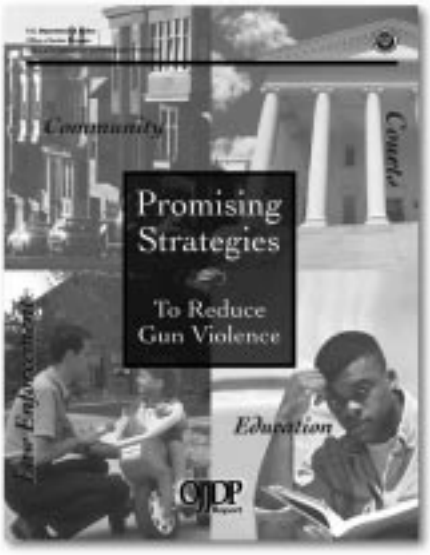
- Provide intensive intervention services to address substance abuse, anger management, academic failure, and unemployment. A primary component of the intervention strategy is the Life Skills Academy, which addresses character strengthening and parenting skills for Eigers, their siblings, and their parents. Held in participating churches in target areas, the Academy covers 12 skill areas over a 22-week period; involves 20 grassroots leaders as speakers, mentors, and tutors; and offers direct access to a wide variety of social services and recreational programs either operated or coordinated by the Baton Rouge Partnership.
- Strengthen Eigers' families by helping resolve intrafamily and interfamily disputes and by addressing alcohol and drug abuse problems. Parents of Eiger youth may be referred to family counseling and other family management services, if needed. Siblings also can be referred to myriad prevention services coordinated by the Partnership.
- Build resiliency in the community by addressing risk factors associated with gun violence. These community-strengthening initiatives include efforts to reduce neighborhood deterioration, promote activities that increase community cohesion, and address factors that contribute to economic deprivation.

The Partnership tracks the Eigers as they complete the terms of their probation and records their progress while they are receiving social services. The results of this monitoring activity are used to refine and modify the Partnership's comprehensive plan. During Operation Eiger's first 22 months, 304 juveniles were identified and police-probation teams conducted 9,600 home visits. The percentage of contacts for which probation violations were reported decreased from 44 percent when the program began in September 1997

Promising Strategies To Reduce Gun Violence

Firearm violence has often been assumed to be largely impervious to law enforcement and community interventions. Recent experiences in several cities that have developed and implemented effective strategies to reduce gun violence suggest that this assumption may be erroneous. In 1998, OJJDP identified more than 400 gun violence reduction programs around the Nation. A study of these programs yielded 60 individual programs that were featured in the report *Promising Strategies To Reduce Gun Violence* (Office of Juvenile Justice and Delinquency Prevention, 1999).

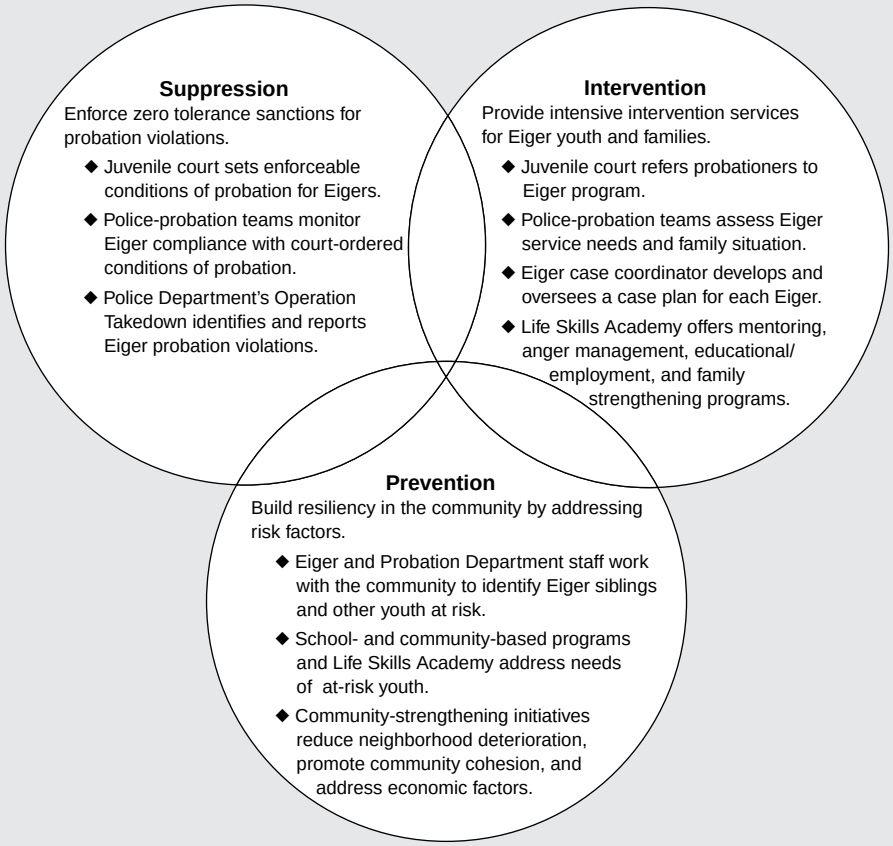
The report highlights the programs in Baton Rouge and Boston and in COPS' YFVI as examples of comprehensive initiatives that use multiple strategies to address risk factors associated with gun violence. These risk factors include aggressive behaviors at an early age, gun possession and carrying, substance abuse, exposure to violence, conflicts with authority, lack of anger management skills, poor parental supervision, low academic achievement, truancy, delinquent peers, and unemployment (Loeber and Farrington, 1998). Rather than focusing on one or two risk factors, these collaborative programs recognize that success is more likely to result from strategies that address identified risk factors in multiple ways.



to 26 percent in December 1999. In addition, preliminary results show that gun-related homicides as a percentage of all homicides in the program's target area decreased from 91 percent in 1996 to 63 percent in 1999 (Sheppard, 1999).

Although Federal funding for Operation Eiger has terminated, the program continues through funding from the City of Baton Rouge. For more information on the program, contact Ms. Yvonne Day, Baton Rouge Partnerships for Prevention, 222 St. Louis Street, Room 936, Baton Rouge, LA 70802; phone 225–389–7871.

Baton Rouge Operation Eiger's Linked Strategies



The communities profiled in *Promising Strategies* incorporated productive capacity-building characteristics in developing their program structures. These activities included identification of high-risk populations and target neighborhoods based on data-driven problem-solving processes, enlistment of law enforcement agencies and other key stakeholders in a collaborative partnership, and development of a comprehensive plan with multiple strategies and measurable goals and objectives (Sheppard et al., 2000). The communities' programs demonstrate the value of a local collaborative group's ability to mobilize resources and transform them into strategies that address risk factors associated with gun violence (Kumpfer et al., 1997). Each program has involved community residents, law enforcement agencies, and other public and private agencies in developing a comprehensive plan and has created a strong collaborative structure to mobilize and sustain gun violence reduction strategies.

Conclusion

Research conducted in Baton Rouge, Boston, and other cities suggests that reducing illegal gun carrying and firearm violence is not just a law enforcement problem. Effective efforts are as dependent on community participation as on actions taken by police and other criminal and juvenile justice agencies. Law enforcement agencies can do their job more effectively when community priorities shape their actions. Evidence suggests that the build-up of trust engendered by such an approach enhances the partnership between police and the communities they serve, resulting in greater police-community cooperation and mutual support (Skogan et al., 2000). Research also shows that rates of violent crime are lower in urban communities where police and residents have a higher level of mutual trust than exists in similar communities and where residents in high-crime neighborhoods are willing to intervene on behalf of the common good (Sampson, Raudenbush, and Earls, 1998). Neighborhoods that scored high on "mutual trust" and "willingness to intervene" factors had violent crime rates 40 percent lower than those in other, less cohesive communities. Such findings

demonstrate the value of forming community collaboratives to address risk factors associated with gun violence.

Research also consistently finds that illegal firearm use among juveniles is a relatively small and localized problem. For example, as noted recently, "one in four reported murders of juveniles in 1997 occurred in just 5 of the Nation's more than 3,000 counties" (Snyder and Sickmund, 1999:21). Similarly, research in Boston and other cities suggests that within specific cities or counties, very specific neighborhoods harbor most of the juvenile illegal firearm problem. Furthermore, survey data from the Rochester study show that relatively small percentages of youth within that urban area are responsible for the majority of illegal gun carrying and gun crime. In addition, illegal gun carrying among juveniles tends to be transitory (Lizotte et al., 1997; Cook, Molliconi, and Cole, 1995). Such findings suggest that illegal gun carrying can be deterred. The Rochester study's finding that boys quickly move out of illegal gun ownership and carrying suggests that their illegal guns get passed along to other boys, and that likelihood in turn suggests that the number of illegal guns used is smaller than the number of boys using them. Taken together, these facts suggest that interventions targeting specific "hot spots" (locales with a high incidence of gun problems) could succeed in deterring illegal gun use among boys, whereas broad policies directed at large populations of young people might be too diffuse to be effective.

References

Bjerregaard, B., and Lizotte, A.J. 1995. Gun ownership and gang membership. *Journal of Criminal Law and Criminology* 86(1):37–59.

Block, C.R., and Block, R. 1993. *Street Gang Crime in Chicago.* Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Bordua, D.J., and Lizotte, A.J. 1979. Patterns of legal firearms ownership: A cultural and situational analysis of Illinois counties. *Law and Policy Quarterly* 1(2):144–174.

Browning, K., Huizinga, D., Loeber, R., and Thornberry, T.P. 1999. *Causes and Correlates of Delinquency Program.* Fact Sheet. Washington, DC: U.S. Department of Juvenile Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Cook, P.J., Molliconi, S., and Cole, T.B. 1995. Regulating gun markets. *Journal of Criminal Law and Criminology* 86(1): 59–92.

Decker, S.H., Pennel, S., and Caldwell, A. 1997. *Illegal Firearms: Access and Use by Arrestees.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Decker, S.H., and Van Winkle, B. 1996. *Life in the Gang: Family, Friends, and Violence.* New York, NY: Cambridge University Press.

Dunworth, T. 2000. *National Evaluation of the Youth Firearms Violence Initiative.* Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Harding, R.W. 1990. Rational-choice gun use in armed robbery: The likely deterrent effect on gun use of mandatory additional imprisonment. *Criminal Law Forum* 1:427–451.

Harding, R.W., and Blake, A. 1989. *Weapon Choice by Violent Offenders in Western Australia: A Pilot Study.* Nedlands, Western Australia: Crime Research Centre, University of Western Australia.

Horowitz, R. 1983. *Honor and the American Dream: Culture and Identity in a Chicano Community.* New Brunswick, N.J.: Rutgers University Press.

Kann, L., Kinchen, S., Williams, B., Ross, J., Lowry, R., Hill, C., Grunbaum, J., Blumson, P., Collins, J., and Kolbe, L. 1998. Youth risk behavior surveillance—United States, 1997. *Mortality Weekly Report* 47:1–89.

Kennedy, D.M. 1998. Pulling levers: Getting deterrence right. *National Institute of Justice Journal* 236:2–8.

Kennedy, D.M., Piehl, A.M., and Braga, A.A. 1996. *Youth Gun Violence in Boston: Gun Markets, Serious Youth Offenders, and a Use Reduction Strategy.* Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Kumpfer, K., Whiteside, H.O., Wandersman, A., and Cardenas, E. 1997. *Community Readiness for Drug Abuse Prevention: Issues, Tips and Tools,* Washington, DC: U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse.

Lizotte, A.J., Bordua, D.J., and White, C.S. 1981. Firearms ownership for sport and protection: Two not so divergent models. *American Sociological Review* 46:499–503.

Lizotte, A.J., Howard, G.J., Krohn, M.D., and Thornberry, T.P. 1997. Patterns of illegal gun carrying among young urban males. *Valparaiso University Law Review* 31(2):375–393.

Lizotte, A.J., Krohn, M.D., Howell, J.C., Tobin, K., and Howard, G.J. 2000. Factors influencing gun carrying among young urban males over the adolescent-young adult life course. *Criminology* 38(3): 811–834.

Lizotte, A.J., Tesoriero, J., Thornberry, T., and Krohn, M.D. 1994. Patterns of adolescent firearms ownership and use. *Justice Quarterly* 11:51–74.

Loeber, R., and Farrington, D.P., eds. 1998. *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions.* Thousand Oaks, CA: Sage Publications.

Miller, W.B. 1992 (Revised from 1982). *Crime by Youth Gangs and Groups in the United States.* Washington D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Office of Juvenile Justice and Delinquency Prevention. 1999. *Promising Strategies To Reduce Gun Violence.* Report. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Sampson, R.J., Raudenbush, S.W., and Earls, F. 1998. *Neighborhood Collective Efficacy—Does It Help Reduce Violence?* Research Preview. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Sheley, J.F., and Wright, J.D. 1993. *Gun Acquisition and Possession in Selected Juvenile Samples.* Research in Brief. Washington, D.C. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Sheley, J.F., and Wright, J.D. 1994. *In the Line of Fire: Youth, Guns and Violence in Urban America.* Hawthorne, NY: Aldine De Gruyter.

Sheppard, D.I. 1999. Reducing juvenile gun violence: The Baton Rouge Partnership To Reduce Juvenile Gun Violence. Paper presented at the annual meeting of the American Society of Criminology, Toronto, Canada.

Sheppard, D., Grant, H., Rowe, W., and Jacobs, N. 2000. *Fighting Juvenile Gun Violence.* Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Skogan, W.G., Hartnett, S.M., DuBois, J., Comey, J.T., Kaiser, M., and Lovig, J.H. 2000. *Problem Solving in Practice: Implementing Community Policing in Chicago.* Research Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Snyder, H.N., and Sickmund, M. 1999. *Juvenile Offenders and Victims: 1999 National Report.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Strodtbeck, F.L., and Short, J.F., Jr. 1964. An explanation of gang action. *Social Problems* 12:127–140.

Wright, J.D., and Rossi, P.H. 1986. *Armed and Considered Dangerous: A Survey of Felons and Their Firearms.* Hawthorne, N.Y.: Aldine de Gruyter.

This Bulletin was prepared under grant numbers 97–MU–FX–0004 and 96–MU–FX–0014 from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.

Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the National Institute of Justice, and the Office for Victims of Crime.

Acknowledgments

Alan Lizotte, Ph.D., is a Professor in the School of Criminal Justice, The University at Albany, and is co-principal investigator for the Rochester Youth Development Study. David Sheppard, Ph.D., is a Program Director at COSMOS Corporation, Bethesda, MD, and is project director of the national evaluation of the Partnerships To Reduce Juvenile Gun Violence Program.

Photographs pages 2 and 4 © 1997–99 PhotoDisc, Inc.; cover photographs page 8 (clockwise from top left) © 1995 PhotoDisc, Inc.; © 1997 PhotoDisc, Inc.; © 1997 Digital Stock Corporation; © 1998 Digital Stock Corporation.

Share With Your Colleagues

Unless otherwise noted, OJJDP publications are not copyright protected. We encourage you to reproduce this document, share it with your colleagues, and reprint it in your newsletter or journal. However, if you reprint, please cite OJJDP and the authors of this Bulletin. We are also interested in your feedback, such as how you received a copy, how you intend to use the information, and how OJJDP materials meet your individual or agency needs. Please direct your comments and questions to:

Juvenile Justice Clearinghouse
Publication Reprint/Feedback
P.O. Box 6000
Rockville, MD 20849–6000
800–638–8736
301–519–5600 (fax)
E-mail: tellncjrs@ncjrs.org

U.S. Department of Justice
Office of Justice Programs
Office of Juvenile Justice and Delinquency Prevention

Washington, DC 20531

Official Business
Penalty for Private Use $300

PRESORTED STANDARD
POSTAGE & FEES PAID
DOJ/OJJDP
PERMIT NO. G–91