



# Firearms and Violence

## INTERPRETING THE CONNECTION

Stevens H. Clarke

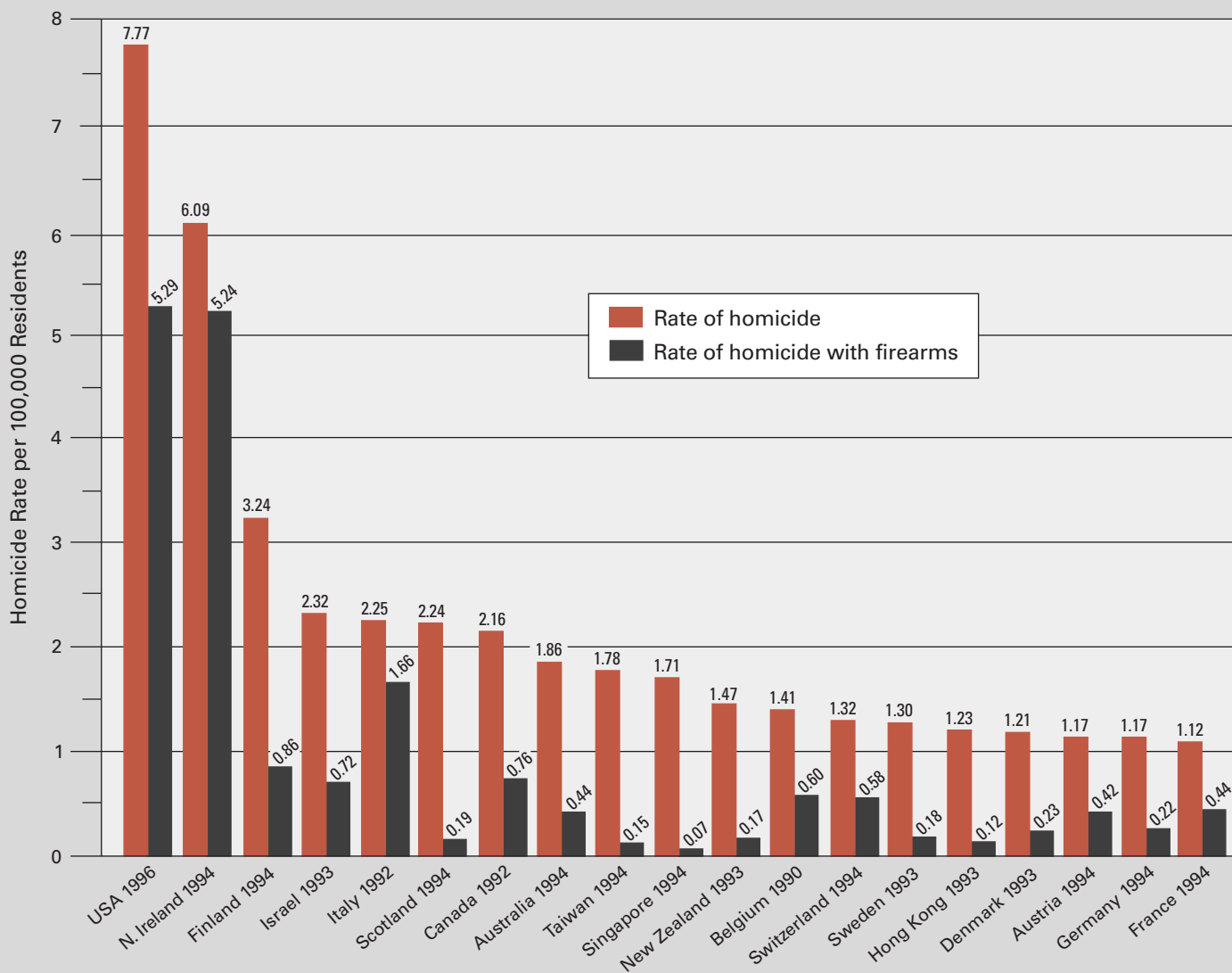
- Does the United States have a higher level of fatal violence than comparable countries?
- How much of the violence in the United States is due to crimes committed with guns?
- Does the United States have a higher level of gun ownership and possession than comparable countries?
- Why do people acquire firearms?
- How often do gun owners actually use their guns to defend themselves against crime?
- Do higher levels of gun ownership cause rates of violent crime to be higher in the United States than in comparable countries?
- Have restrictions on firearms been effective in reducing violence?
- What should be done about possession and use of guns by minors?

**T**his article interprets available information and discusses a variety of viewpoints on the association between possession of firearms and rates of violence, especially criminal violence that can or does cause death. Most of the article has a national or international perspective but, where possible, it includes comparable information on North Carolina.

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**Figure 1. Homicide Rates, 26 Industrialized Countries, 1990s**



Source: Data from Etienne G. Krug et al., *Firearm-Related Deaths in the United States and 35 Other High- and Upper-Middle-Income Countries, 1998* INTERNATIONAL JOURNAL OF EPIDEMIOLOGY 214–21; U.S. Centers for Disease Control and Prevention, Mortality Database, available at <http://wonder.cdc.gov>.

### Levels of Fatal Violence

The annual homicide rate in the United States reached its highest point ever in the twentieth century—10.7 homicides per 100,000 residents, in 1980. The rate declined afterward, to 8.4 in 1984, but subsequently increased again, to 10.5 in 1991. Since then it has declined, reaching 7.8 in 1996, the latest year for which mortality data are available from the U.S. Centers for Disease Control and Prevention. North Carolina’s homicide rate also declined from 1991 to 1996, from 13.1 per 100,000 residents to 9.1.<sup>1</sup>

Despite the recent drop, the United States has a much higher level of homicide than comparable nations. A com-

parison of homicide rates during the 1990s in the twenty-six nations that the World Bank considers highly industrialized reveals that the United States has the highest rate (see Figure 1). In fact, the U.S. rate is more than twice that of every other highly industrialized nation except Northern Ireland (treated in these statistics as a separate country), whose rate of 6.1 is a close second.

A comparison of rates of homicide committed with firearms reveals an even more striking difference: the U.S. rate of 5.29 in 1996 was more than five times that of every other highly industrialized country except Northern Ireland with 5.24 and Italy with 1.66 (see Figure 1).<sup>2</sup>

The United States also leads the

highly industrialized nations in fatal violence involving children and youth. On the basis of annual rates measured during 1990–95, the United States had 2.57 homicides per 100,000 children under age fifteen, compared with 0.51 for the twenty-five other highly industrialized countries combined (that is, for the total population of the twenty-five countries). For homicide with firearms, the U.S. rate was 0.94, compared with 0.06 for the other twenty-five countries, a ratio of nearly 16 to 1. Suicides and accidental deaths by firearm also were much higher for the United States.<sup>3</sup> Among teenagers and young adults as well as among young children, in the late 1980s the United States had a rate of 8.6 homi-

evated death toll from violence. . . . [I]t is hard to get them to consider anything else.”<sup>5</sup>

Nevertheless, the connection between firearms and violence is subject to a variety of interpretations. To examine this connection, one must first ask how many firearms people have and why people have them.

### Levels of Gun Ownership

Gun ownership is much more widespread in the United States than it is in similar countries (see Figure 2). An international survey measured gun ownership in seventeen highly industrialized countries in 1989 and 1992.<sup>6</sup> The percentage of households whose residents said that they or someone else in their household owned any kind of firearm ranged from less than 1 percent in Scotland, England, and Wales to 48 percent in the United States. The U.S. rate was more than twice that of most of the countries included in the survey.

The United States also led in households with handguns, and in this comparison the difference was more striking: the U.S. rate of 28.4 percent was more than three times the rates of all but one of the other countries included in the survey. The exception was Switzerland, whose handgun rate of 12.2 percent was probably relatively high because members of the Swiss defense forces are required to keep their service guns at home.<sup>7</sup> The U.S. proportion of households that possess guns, although still much higher than that of comparable nations, may have declined recently. The National Survey of Private Ownership of Firearms (NSPOF), conducted in 1994 after the international study just mentioned, indicated that a lower proportion of U.S. households, 35 percent, owned guns.<sup>8</sup> Gallup Polls indicate that the proportion of adults who say they have a gun in their home rose to 51 percent in 1993 and then dropped, reaching 36 percent in 1999.<sup>9</sup>

According to estimates reviewed by Albert J. Reiss and Jeffrey A. Roth, the total number of firearms in the United States was 60 million to 100 million in 1968 and has gradually increased since then, reaching 200 million in 1990.<sup>10</sup> Gary Kleck reports that the number of guns of all types per 1,000 U.S. resi-

dents more than doubled from 1946, when it was 344, to 1987, when it was 816. The number of handguns per 1,000 residents during the same period nearly tripled, from 91 to 271.<sup>11</sup> The data of the NSPOF, mentioned earlier, yield a rate in 1994 of about 737 firearms of all types per 1,000 U.S. residents, and 250 handguns. These figures on guns per capita, like the data on the household ownership rate, suggest that gun ownership may have declined somewhat in the late 1980s and early 1990s, although it still is considerably higher than it was in the 1940s.<sup>12</sup>

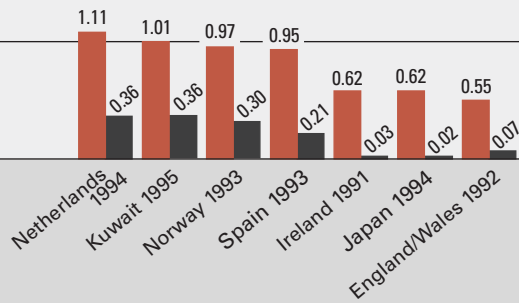
Apparently a large number of guns are concentrated in the hands of relatively few owners. According to estimates from the NSPOF in 1994, there were 192 million firearms (65 million of which were handguns), owned by 44 million people. Although that was enough guns to provide every adult in the nation with one, the NSPOF indicates that only 25 percent of adults actually owned firearms, while 74 percent of the owners had two or more. Cook and Ludwig cite NSPOF data indicating that in 1994, 10 million people

**A comparison of homicide rates . . . in the 26 nations that the World Bank considers highly industrialized reveals that the United States has the highest rate.**



owned 105 million guns, while the remaining 87 million guns were dispersed among 34 million other owners.<sup>13</sup>

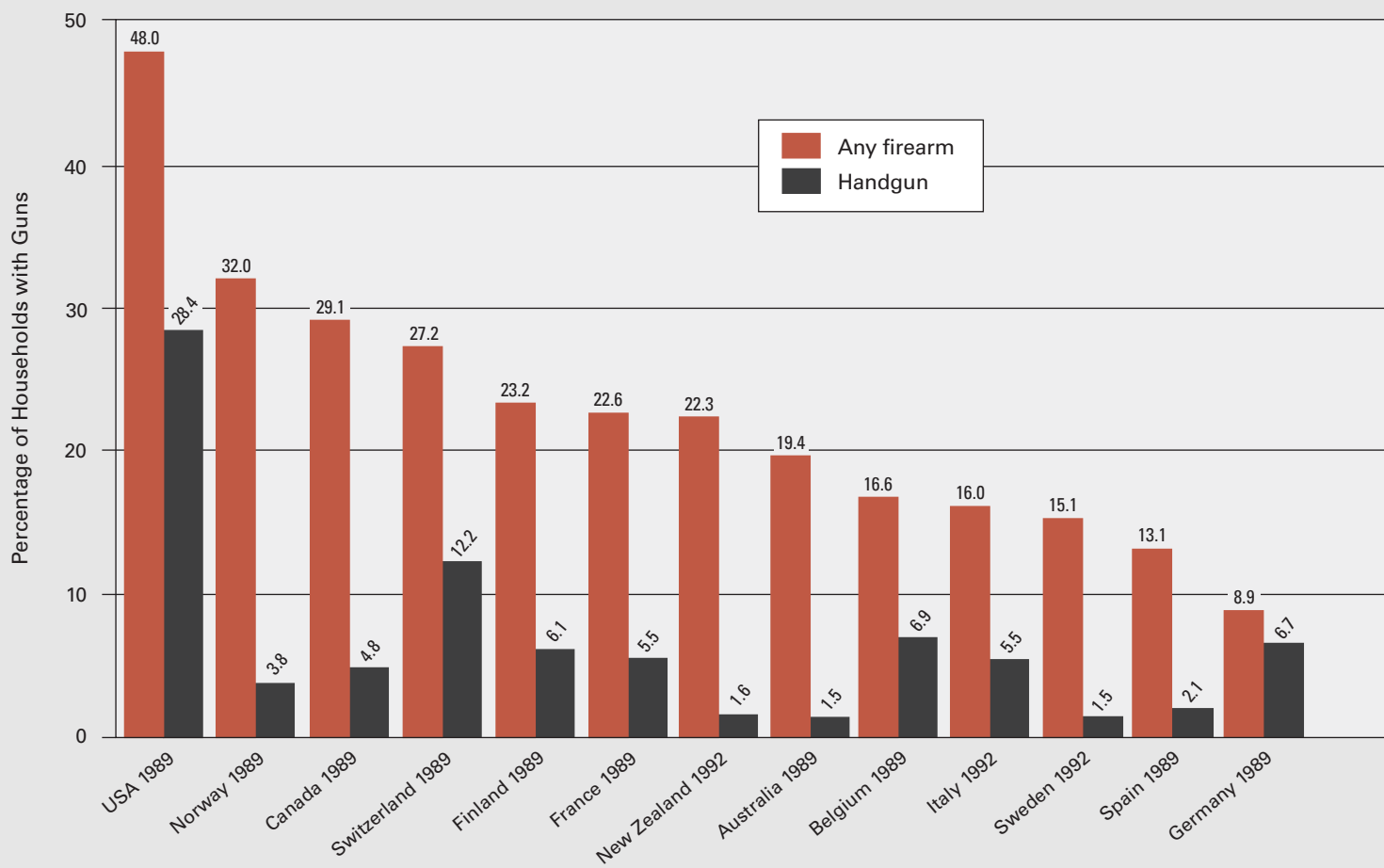
The proportion of adults who report having a gun in their home, according to a 1999 Gallup Poll, is higher for males than for females (47 percent versus 27 percent), higher for whites than for nonwhites (40 percent versus 19 percent), and higher in the South



cides per 100,000 people aged five to twenty-four, more than six times that of Canada (1.3), which had the second-highest rate among the G-7 countries (the Group of Seven Industrial Nations).<sup>4</sup>

Homicides with firearms account for most of the difference in homicide rates between the United States and other nations. For this reason, people seeking to explain the high level of fatal violence in the United States tend to look first at firearms as a possible cause. Franklin Zimring and Gordon Hawkins have observed that “those who analyze American violence by first making international comparisons tend to be adamant in their belief that gun use is a major explanation of the el-

**Figure 2.** Households with Guns, 17 Industrialized Countries, 1989 and 1992



Source: Data from Martin Killias, *Gun Ownership, Suicide, and Homicide: An International Perspective*, in *UNDERSTANDING CRIME: EXPERIENCES OF CRIME AND CRIME CONTROL* at 289–303 (Anna Alvazzi del Frate et al. eds., Rome: United Nations Interregional Crime and Justice Research Institute, 1993).

(46 percent) than in the Midwest (39 percent), the East (26 percent), or the West (33 percent).<sup>14</sup>

In North Carolina the most recent available data on gun ownership, from the Carolina Poll of 1994, indicate that 43 percent of residents aged eighteen or older possessed a gun and 28 percent possessed a handgun. Of North Carolinians who possessed a gun, 66 percent possessed more than one. Although some of the multiple-gun group had long guns (rifles or shotguns), 72 percent possessed handguns.<sup>15</sup>

### Reasons for Gun Ownership

One of the most common reasons that people want firearms is to protect themselves, other people, or their businesses. In national surveys in the 1970s, 74 percent of gun owners mentioned hunting, 65 percent protection, 40 percent sport or target shooting, and 21 percent gun collecting, as one of their reasons

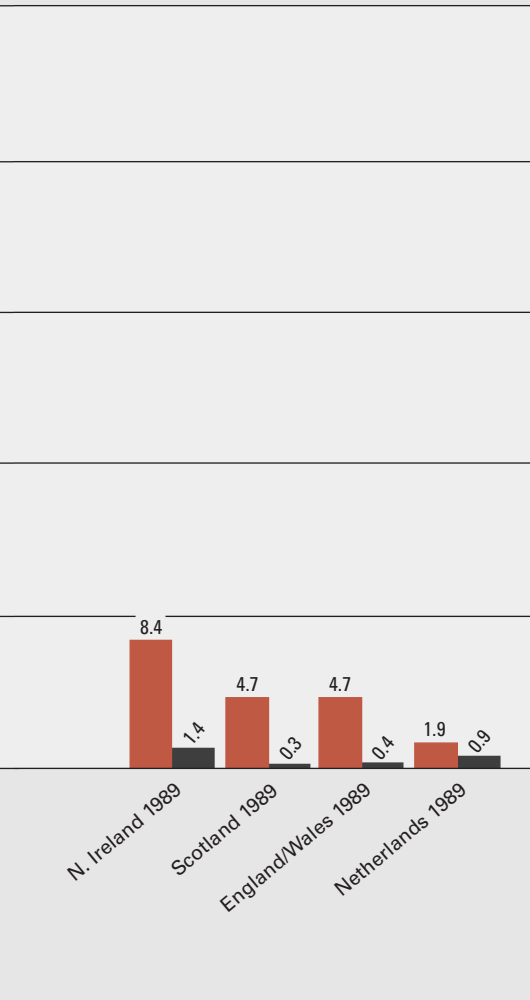
for ownership.<sup>16</sup> Among people who owned only handguns, 73 percent gave defense or protection as a primary or secondary reason. The NSPOF of 1994 produced similar results: About half of gun owners had guns for hunting or other recreational shooting, while 46 percent possessed them primarily for self-protection. Almost three-quarters of those who owned only handguns kept them primarily for self-protection. The Carolina Poll found that, among North Carolinians who had guns in 1985, 64 percent gave “self-defense at home or work” as one of their reasons for possession.<sup>17</sup>

People’s desire to possess handguns may stem from lack of confidence in the government’s ability to protect them. According to Gallup Polls since 1981, a fourth to a half of adults have little or no confidence in the ability of the police to protect them from violent crime—although, as explained later, their confidence has increased in the last few

years.<sup>18</sup> About one-third of teenagers are concerned about their safety while in school, as documented later in this article.

The connection between gun ownership and lack of confidence in police protection was the subject of a study by David McDowall and Colin Loftin. These researchers analyzed annual variations in the number of applications for handgun licenses in Detroit from 1951 to 1977. Controlling statistically for per capita income and the age distribution of the population, they found that handgun purchases went up when the 1967 riot occurred and when violent crime increased, and went down when the number of police increased relative to the population. The authors suggest that people are more apt to take protective measures if their faith in communal security is low.<sup>19</sup>

McDowall and Loftin’s analysis may explain why, as indicated by the Gallup Poll, the proportion of adults having a



gun in their home decreased from 1993 to 1999. While this decline was occurring, according to the same poll, the proportion expressing “a great deal” or “quite a lot” of confidence in the police to protect them from violent crime was increasing, from 45 percent in 1993, to 50 percent in 1995, to 70 percent in 1999.<sup>20</sup>

McDowall and Loftin’s analysis also helps explain public ambivalence toward guns and security, depending on whether people are thinking of community interests or their individual interests. If people feel that crime or civil unrest threatens their community, they may think of restrictions on gun possession to improve the community’s safety. On the other hand, when it comes to their own personal safety, they may want to acquire a gun for self-protection. This conflict between collective security and individual security may help explain why public policy toward firearms is so controversial. Later in this article, I re-

turn to the questions of whether people’s owning firearms is effective in protecting them and whether restrictions on gun possession are effective in preventing crime.

### Use of Guns for Protection

To measure defensive gun use,<sup>21</sup> a number of researchers have used the National Crime Victimization Survey (NCVS) conducted by the Census Bureau for the U.S. Department of Justice.<sup>22</sup> In the NCVS a representative sample of U.S. residents are asked about their experiences as crime victims and measures that they may have taken to protect themselves. One study of NCVS data indicates about 82,500 defensive uses of guns annually in the United States from 1987 to 1992 in connection with assaults, robberies, thefts, and household burglaries.<sup>23</sup> A more recent study suggests about 108,000 defensive uses per year.<sup>24</sup>

Gary Kleck, a criminologist at Florida State University, has published an extensive body of work challenging the notion that gun prevalence causes the high level of violence in the United States and supporting the notion that guns actually prevent crime. Because the work of Kleck and his coauthors is important in the debate about the connection between guns and violent crime, I give it considerable attention in this article.

Kleck and Marc Gertz assert that the measurement of defensive gun use de-

rived from the NCVS is a gross underestimate, for several reasons:<sup>25</sup>

- NCVS interviewers never directly ask whether the respondent used a gun for self-protection—only whether the respondent did anything to protect himself or herself or his or her property while the incident was going on. Thus the respondent has to volunteer the information that he or she used a gun.
- NCVS interviewers do not ask about protection unless the respondent already has said that he or she has been the victim of a crime or an attempted crime. If the respondent does not want to talk about the crime of which he or she was a victim (for example, a domestic assault or rape), he or she also will not report any gun used to fend off the crime.
- NCVS respondents are aware that the interviewer works for the government and knows where they live. Gun use is a sensitive and controversial matter, and respondents are unlikely to know whether their defensive use or their possession of the gun is lawful; therefore they may be reluctant to report.

Kleck and Gertz think that the true annual number of legitimately defensive gun uses in the United States is in the millions. In a recent publication, they reanalyzed thirteen surveys by private polling organizations. Their results implied more than 700,000



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Nearly three-quarters of gun owners surveyed in the 1970s cited hunting as one of their reasons for gun ownership.

defensive gun uses per year. Pointing out that these surveys had a variety of flaws,<sup>26</sup> Kleck and Gertz turned to their own National Self-Defense Survey. Conducted in 1993 and involving nearly 5,000 respondents, it was designed to correct the flaws of previous surveys.<sup>27</sup> The authors excluded uses in military and police work as well as against animals, and did not count a use as genuinely defensive unless it involved a threat against a person that the respondent actually saw. Thus, verbally threatening the perceived offender (“I’ve got a gun!”), brandishing or showing a gun, pointing it at the offender, or firing it was counted as a defensive use, but merely carrying a gun without confronting a person was not.

Kleck and Gertz estimated from their survey that 1.13 percent of people aged eighteen and older used guns defensively one or more times per year. Applying their results to the national population, the authors estimated 2.2–2.5 million defensive gun uses annually, of which 1.5–1.9 million involved handguns.<sup>28</sup>

Other researchers, such as Philip Cook, Jens Ludwig, and David McDowall, believe that Kleck and Gertz’s estimates of defensive gun use are enormously exaggerated.<sup>29</sup> Their main criticisms (technical details omitted) are as follows:

- Some exaggeration is likely in responding to surveys, because respondents tend to magnify the danger in incidents that they report as defensive gun use and because standing up to an intruder is considered socially desirable or heroic.
- Because defensive gun use is a rare occurrence (even in Kleck’s estimation), just a small amount of untruthfulness or exaggeration in survey responses can greatly inflate the measurement of defensive gun use.
- Survey interviewers hear from only one person involved in a gun use incident. If they were to hear from the person on the other side of the gun, some gun uses would be revealed as aggressive rather than defensive.
- Defensive gun use estimates are overstated in that they include some defensive use by criminals in the course of committing crimes.

## Role of Defensive Gun Use in Preventing Crime

Some people have guns to protect themselves, although, as explained earlier, estimates of how often the guns are used vary. How much crime such uses actually prevent is debatable.

Gary Kleck thinks that defensive gun use either limits or prevents a substantial number of crimes.<sup>30</sup> He identifies two ways in which people may use guns to defend themselves against crime:

- People with guns may *disrupt* crimes—that is, they may prevent completion of crimes that are attempted or threatened, in ways ranging from merely telling an offender that they have a gun to shooting and killing the offender.
- People with guns may deter some criminals from attempting crimes because criminals fear being shot by their potential victims.

Kleck argues that the crimes most likely to be affected by private possession of guns are those occurring in homes (where potential victims are mostly likely to have access to a gun) and business establishments (where proprietors may keep guns). Such crimes include assault in the home, residential burglary, and retail store robbery.

Kleck thinks that armed private citizens may present a more effective deterrent than the criminal justice system because

[b]eing threatened or shot at by a gun-wielding victim is about as probable as arrest and substantially more probable than conviction or incarceration. . . . There are . . . tens of millions of civilians who have immediate access to firearms and are well motivated to disrupt crimes directed at themselves, their families, or their property.<sup>31</sup>

Kleck presents the following kinds of evidence to support his view that armed private citizens stop, disrupt, or deter many crimes by means of their firearms.

*Killing and wounding felons.* Kleck estimates the number of legal killings by private citizens of people in the act of committing felonies at 1,500–2,800 in

1980.<sup>32</sup> This is much greater than the number reported by the FBI—around 300 annually.<sup>33</sup> But Kleck thinks that such killings are greatly underreported. He estimates that they greatly exceed legal killings of felons by police, which number 300–600 per year. He also estimates that justifiable woundings (non-fatal shootings) of criminals by civilians occur about six times as often as justifiable killings. (For further perspective on Kleck’s position, see the sidebar, which describes a study indicating that injurious shootings rarely involve justifiable defense.)

*Preventing completion and injury in robbery and assault.* From NCVS data for 1979–85, Kleck finds that robberies were much less often completed when the victim used a gun in self-protection than when the victim did not use a weapon or did not protect himself or

**Kleck thinks that armed private citizens may present a more effective deterrent than the criminal justice system.**



herself at all. In both robberies and assaults, gun-using victims were much less likely to be physically injured than victims using other weapons or not protecting themselves.

*Thwarting attempted rape.* Kleck cites his own study based on NCVS data indicating that victims of attempted rape who used guns to resist were less likely to have the attempt completed than were victims who used any other mode of resistance.<sup>34</sup>

*Reducing injuries of victims of burglaries.* Kleck believes that having guns in homes reduces the harm caused by burglary through deterrence. Burglars tend to pick times when no one is home to do their break-ins, in part because they fear that the occupants may be armed. Their avoidance of confronta-

tions reduces deaths and injuries that might otherwise occur.

*Deterring felons.* Kleck cites surveys of imprisoned criminals suggesting that their fear of firearms in the hands of potential victims may have reduced their criminal destructiveness. For example, in a study of imprisoned felons, 34 percent said that they had been scared off, shot at, wounded, or captured by an armed victim at one time or another, and 40 percent said that, in at least one instance, they had decided not to commit a crime because they thought the victim was carrying a gun.<sup>35</sup>

Kleck's assessment of crime prevention through defensive gun ownership or use is controversial. One criticism is that he greatly exaggerates the number of defensive uses, for reasons summarized in the previous section. Another criticism is that the crime-inducing effect of guns may exceed their crime-preventing effect.

### Defensive Gun Use versus Criminal Gun Use

Some studies that address the crime-inducing effect of guns measure how often guns are used to kill in self-protection, compared with how often they are used in criminal homicides, suicides, and accidental deaths. For example, looking at all 743 gunshot deaths in King County, Washington, from 1978 and from 1983, physicians Arthur Kellermann and Donald Reay found that 398 (54 percent) had occurred *in the home where the firearm was kept*. Only 11 of the gun killings in the home were justifiable in that they involved either the killing of a felon during the commission of a crime or legitimate self-defense as determined by police. For every instance in which a gun in the home was used in justifiable killing, the authors reported 4.6 criminal homicides, 37.0 firearm suicides, and 1.3 unintentional deaths.<sup>36</sup> The inference from such studies is that guns in the home are far more likely to be used in illegal or undesirable killings than in legitimate ones.

Kleck contemptuously rejects the Kellermann-Reay study and others like it, contending that they enormously undercount uses of guns to defend people against crime. Very few defensive

## Types of Shootings and Victims

For information on nonfatal as well as fatal shootings, one must turn to specific studies because there are no regularly published reports. In a particularly informative study, Arthur Kellermann and his colleagues investigated both nonfatal and fatal shootings, including noncriminal and criminal cases occurring at home or elsewhere, and including any shooting severe enough to cause death or require emergency medical attention.<sup>1</sup> The study involved three cities, whose approximate populations in 1992 were as indicated: Memphis, Tennessee, 610,000; Seattle, Washington, 516,000; and Galveston, Texas, 59,000. These cities are not necessarily typical—nor do the researchers claim that they are—but the study of them does give a fuller picture than other sources of the “mix” of types of shootings and victims.<sup>2</sup> The researchers combined the records of hospital emergency departments, medical examiners, and police to offset the deficiencies of each type of record.

The researchers identified 1,915 shooting cases from November 1992 through May 1994. From this database they computed an annual rate of firearm injury ranging from 54 per 100,000 residents in Seattle to 223 in Memphis. Males were much more likely to be shot than females, and blacks were more likely to be shot than whites. Young black males had by far the highest victimization rates, reaching 1,708 per 100,000 residents for those aged fifteen to twenty-nine.<sup>3</sup> The shooter and the victim were strangers to each other in 42 percent of the assaultive shootings, were nonintimate acquaintances in 38 percent, were known as rivals or adversaries in 8 percent, had intimate or family relationships in 7 percent, and had other relationships in 4 percent. Forty-seven percent of the assaultive shootings occurred on a street or in a



parking lot, 32 percent in someone's home, and the rest in motor vehicles, workplaces, bars, and other locations.

Nineteen percent of the injured persons died. Eighty-eight percent of the victims received care in a hospital emergency department, with a median stay of three days and a median cost of \$10,000, not counting professional fees.

Four and five-tenths percent of all the shootings were unintentional, and 7.2 percent were suicide attempts, whereas 78 percent involved assaults. *Of the assaults, only 2 percent were found to be justifiable*—1 percent by police in the course of law enforcement and 1 percent by private citizens. These results suggest that justifiable shootings are quite rare compared with criminal ones.

### Notes

1. Arthur L. Kellermann et al., *Injuries Due to Firearms in Three Cities*, 335 NEW ENGLAND JOURNAL OF MEDICINE 1438 (1996).

2. The murder rates per 100,000 residents in 1993 for the three cities, based on FBI data, were Memphis, 32.0; Seattle, 12.6; and Galveston, 39.5. According to the FBI, the average murder rate in 1993 for cities with populations in the 500,000–999,999 range was 21.6, and for cities in the 50,000–99,999 range, 7.5. Thus both Memphis and Galveston had much higher rates than the average city in their population group, whereas Seattle had a much lower rate. U.S. DEPARTMENT OF JUSTICE, FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES, 1993: UNIFORM CRIME REPORTS at 196, tbl. 16 (Washington, D.C.: U.S. Government Printing Office, 1994).

3. On the high rate of victimization among young black males, see Stevens H. Clarke, *Murder in North Carolina*, 61 POPULAR GOVERNMENT, Summer 1995, at 2; and Stevens H. Clarke, *At Last, Some Good News about Violent Crime*, 63 POPULAR GOVERNMENT, Summer 1998, at 2.



In a 1999 Gallup poll, more than one-third of adults said that they had a gun in their home.

gun uses involve killing a criminal, Kleck asserts. To assess the true defensive benefits of guns in the home, one must count not only defensive killings but also instances in which people or property are protected without killing—for example, “the number of burglars captured, frightened off, deterred from attempting burglaries, or displaced to unoccupied premises [by deterrence through the fear of armed householders] where they could not injure any victims.”<sup>37</sup>

Kleck makes a good point that nonfatal defensive uses should be counted. On the other hand, one must consider as well the nonfatal *undesirable or criminal* uses of guns, which also are not counted in the studies of deaths by gunshot. For example, a gun could be used unjustifiably to threaten or to shoot other members of a household, with no one dying as a result. Undesirable nonfatal use, like defensive nonfatal use, probably is more common than fatal use.<sup>38</sup>

Other studies have examined nonfatal as well as fatal uses of firearms. These studies help answer some of Kleck’s criticisms and also raise doubts about his position on the relative frequency of justifiable defensive use compared with criminal use. For example, a study by Arthur Kellermann and others of fatal and nonfatal gunshot injuries in three cities in the United States (see the sidebar, page 9) suggests that defensive use is almost insignificant. *Fewer than one percent of the injurious shootings in the three cities were justifiably defensive actions by private citizens.* More than three-quarters involved criminal assault or homicide, and most of the rest were accidental injuries, suicides, or attempted suicides.

Kleck does not dispute that when fatal use of guns in the home is involved,



undesirable or illegal killings far outnumber desirable or justifiable killings. Even if in some instances private citizens use firearms to prevent crime, the much larger number of criminal shootings may be a high price to pay for the crime prevention.

### **The Contribution of High Gun Availability to Homicide**

“Guns don’t kill people—people kill people” was once a popular bumper-sticker statement. Zimring and Hawkins analyze its meaning. The statement is true in the sense that guns are harmless without people firing them—and most people who own guns do not attack other people with them. The statement is true in another sense: people can and do kill one another without guns (according to FBI data, 32 percent of homicides in 1996 were committed without firearms).<sup>39</sup> However, the statement also suggests a more doubtful proposition: that the same number of people would be killed regardless of guns. Zimring and Hawkins reject this proposition:

The most accurate label for the role of firearms in those cases of death and injury from intentional attacks

in which they are used is *contributing cause*. Even where the availability of a gun plays no important role in the decision to commit an assault, the use of a gun can be an important contributing cause in the death and injury that results [from] gun attacks. When guns are used in a high proportion of such attacks, the death rate from violent attack will be high. Current evidence suggests that a combination of the ready availability of guns and the willingness to use maximum force in interpersonal conflict is the most important single contribution to the high U.S. death rate from violence. Our rate of assault is not exceptional; our death rate from assault is exceptional.<sup>40</sup>

“Our death rate from assault”—that is, the homicide rate in the United States—is far greater than the homicide rates of other highly industrialized countries, as explained earlier. For robbery and assault,<sup>41</sup> the most common serious nonfatal violent crimes, international comparison tells a different story: U.S. rates, though on the high side, do not greatly differ from those of comparable nations. Zimring and Hawkins discuss crime victimization surveys carried out by United Nations–sponsored

researchers in twenty nations in the late 1980s and early 1990s, using an identical telephone survey instrument in each country.<sup>42</sup> According to these surveys, five countries had robbery rates per 100 residents aged sixteen or older within 30 percent of the U.S. rate, and seven had assault rates within 30 percent of the U.S. rate.<sup>43</sup> This comparison is quite different from the homicide rate comparison, in which the United States far exceeds the other countries.

These data suggest that, although Americans do not commit more robberies and assaults than the residents of comparable countries do, they commit far more murders. If Americans decide to commit a robbery or an assault, so Zimring and Hawkins's thinking goes, the greater availability of guns in this country means that the crime is more likely to result in the victim's death. The perpetrator may not necessarily intend to kill the victim, but the instrumentality of the firearm makes killing much more likely. "People kill people" is a true statement, but armed attackers are more likely than unarmed attackers to kill their victims.

Kleck has different views on this issue, expressed in his latest book, *Targeting Guns*.<sup>44</sup> He concedes that the United States has high levels of both violence and gun ownership. Nevertheless, he says, high levels of gun ownership are not necessarily the cause of high levels of violence; the same amount of violence might occur without the guns. Kleck rejects analysis based on international comparisons because, he says, it all rests on just one special case, the United States, with uniquely high rates of both homicide and gun ownership.<sup>45</sup> Also, Kleck says, there may be a causal connection between gun ownership and violence, but the causation may work the other way: a high level of violence may cause people to acquire guns.

The reasoning in *Targeting Guns* can be summarized as follows: According to NCVS data, about half of assaults are threats without any physical attack. When physical attacks occur, about half result in injury. Only 1.4 percent of these injuries result in death. What is the possible contribution of gun possession at each of the points in this "hierarchy of violence"? With regard to *initiat-*

*ing assaults*, research is inconclusive on whether gun possession encourages this behavior—for example, whether having a gun makes attacking a stronger adversary easier or stimulates people to behave more aggressively than they otherwise would. With regard to *causing injury*, NCVS data show that attacks with guns resulted in wounding the victim only 18 percent of the time while attacks with knives resulted in injuries 45 percent of the time. Kleck implies that if assailants de-escalated from guns to knives, injuries would not lessen. However, Kleck offers no evidence that if guns were harder to get, people would use knives rather than other less dangerous weapons or no weapons. With regard to *causing death*, research by Zimring and others suggests that firearm use makes some assault injuries fatal that otherwise would not be fatal. Killers frequently do not intend to kill, or are just "average Joes" (not hardened felons) who lose their temper and happen to have a gun handy. But Kleck rejects these studies,

**“People kill people” is a true statement, but armed attackers are more likely than unarmed attackers to kill their victims.**



asserting that the average killer has a long criminal history, even the perpetrator of a "crime of passion" in a domestic dispute. Thus one cannot assume that a killer did not intend to kill or would not have killed if he or she had not had a gun.

Kleck cites research by himself and Gary Patterson on the association between gun ownership levels and violent crime rates in 170 cities in the United States. He and Patterson concluded that, although the level of gun ownership had no effect on the total rate of violent crime, the rates of homicide,

gun assault, and rape all tended to increase the level of gun ownership.<sup>46</sup>

Kleck concludes as follows:

When aggressors possess guns, this has many effects on the outcome of violent incidents, some tending to make harmful outcomes more likely, some making them less likely. . . . On the other hand, aggressor possession of guns has the overall effect of reducing the likelihood of attack, probably because it often makes attack unnecessary, and of reducing the probability of an injury being inflicted, while [defensive] gun use by victims reduces the likelihood of injury or crime completion. . . . Consequently, *the hypothesis that general gun availability causes increases in rates of homicide and other violent crimes is not supported. The policy implication is that nothing appears to be gained from reducing the general gun ownership level.*<sup>47</sup>

Kleck's analyses and conclusions differ in a number of respects from those of other distinguished criminologists who have studied this issue. Perhaps the most important difference is in the degree to which they consider the crime-preventing effects of gun possession to outweigh the crime-causing effects. Other criminologists concede that having firearms prevents or disrupts some crime, but they think that such prevention is far too little to outweigh the role that guns play as a contributing cause of violent crime. Their position is based on (1) their conclusion (explained earlier) that Kleck enormously overestimates the frequency of justifiable defensive gun use and (2) the lack of solid evidence that defensive gun ownership deters crime.<sup>48</sup>

Regardless of how much violent crime defensive gun ownership may prevent, other means of prevention may be preferable to relying on fear of armed retaliation. Richard Alba and Steven Messner make this comment on the implications of Kleck's views:

We wonder, finally, about the quality of life in the kind of society where routine social order depends upon the massive armament of the citizenry. Fear is a keynote, we presume, because in a society where

many are armed, others will be afraid to assert their rights in ordinary encounters with strangers—to honk their horn when their car is cut off, for example—out of fear of being confronted with a gun. [Kleck does not consider] the psychological effect on a community’s residents of the knowledge that many guns are in its homes, on its streets, and even in its schools. These are the conditions in many inner-city, minority communities in the United States. . . . [F]ear is the dominant emotion inspired by the pervasiveness of guns and gun crime. Are these the conditions we should be willing to accept in a hellish bargain to obtain, if Kleck is right, some check on criminal propensities?<sup>49</sup>

### Gun Control Measures

National opinion polls indicate that a majority of Americans support a variety of restrictions on guns. This support increased after the well-publicized school shootings in Colorado and Georgia in spring 1999. For example, Gallup Polls indicate that the proportion of adults who favor registration of all firearms increased from 67 percent in fall 1998 to 79 percent in June 1999. Large majorities responding to the June 1999 poll also supported such gun control policies as mandatory background checks before gun purchases at gun shows; mandatory prison sentences for felonies committed with guns; and mandatory safety locks or trigger guards on all newly purchased firearms.<sup>50</sup>

Policy makers and researchers have conducted and evaluated a variety of interventions to reduce the availability of firearms. Reiss and Roth, in a book stemming from the work of the National Research Council’s Panel on the Understanding and Control of Violent Behavior, recognize four strategies for intervention:<sup>51</sup>

1. *Altering the uses or the storage of guns*—for example, by restricting the carrying of guns; enhancing criminal sentences for gun use; making owners liable for damage caused by their guns; improving the detectability of guns; and educating the public about safe use and storage of firearms

2. *Changing gun allocation*—for example, by licensing gun ownership to exclude felons, drug users, and minors; establishing waiting periods for gun purchases; disrupting illegal gun markets; and putting combination locks on guns
3. *Reducing the destructiveness of guns*—for example, by reducing barrel lengths, muzzle bores, and magazine sizes; and banning dangerous ammunition
4. *Reducing the number of guns*—for example, by restricting licensing, imports, or ownership

Reiss and Roth list most of these strategies as not having been evaluated. Of those that have been evaluated, they consider three to be effective or partially effective:<sup>52</sup>

- *Restricting the carrying of firearms.* The 1974 Bartley-Fox Amendment expanded gun licensing procedures in Massachusetts and mandated a one-year sentence for unlicensed carrying of firearms in public. During the first two years the law was in effect, gun use in assaults, robberies, and homicides decreased in Massachusetts, compared with neighboring states.<sup>53</sup>
- *Enhancing sentences for gun use.* This approach was evaluated in six jurisdictions. Analysis of the findings revealed that sentence enhancements for using a gun decreased gun homicide rates, left nongun homicide levels unchanged, and had no consistent effect on rates of gun robbery or assault.<sup>54</sup>
- *Restricting licensing.* The 1977 District of Columbia Firearms Control Act has been, according to Reiss and Roth (writing in 1993), this country’s most ambitious effort to reduce the number of firearms in a community. It prohibited handgun ownership by virtually everyone except police officers, security guards, and previous gun owners. Several researchers concluded that this law reduced the rates of gun robbery, assault, and homicide during the three years following implementation of the law and, to a lesser extent, until 1988, when gun homicides associated with crack cocaine increased. Furthermore, there were no compen-

sating increases in homicides committed without guns.<sup>55</sup>

Besides the strategies that have been evaluated, Reiss and Roth urge testing of three strategies that they consider promising: disrupting illegal gun markets; conducting community-oriented police work to reduce gun prevalence and gun violence; and enforcing existing laws forbidding juvenile possession of handguns. (The next section of this article deals with juvenile possession.)

Kleck disputes the efficacy of the gun control programs that Reiss and Roth think are promising, questioning both the methods and the findings of the studies they cite.<sup>56</sup> In fact, Kleck thinks that gun control programs thus far have had little or no effect on either gun prevalence or violence. One basis for his doubts is his study with Patterson of

In a society where  
many are armed, others  
will be afraid to assert  
their rights in ordinary  
encounters with  
strangers—to honk  
their horn when their  
car is cut off, for  
example—out of fear  
of being confronted  
with a gun.



all 170 U.S. cities with a population of at least 100,000 in 1980.<sup>57</sup> The authors looked for effects of nineteen types of gun regulations that existed in these cities around 1980 (of course, cities varied in the regulations they had). Some examples of these regulations are as follows: requiring a license to possess a gun in the home; requiring a permit to purchase a gun; establishing a waiting period to buy or receive a gun; prohibiting possession of guns by criminal, mentally ill, or incompetent people; requiring gun registration; and imposing

additional criminal penalties for committing crimes with a gun.

Perhaps the most important finding of the Kleck and Patterson study was that the various gun regulations had practically no effect on gun prevalence and little effect on rates of violent crime. Of course, Kleck does not support gun regulations because he does not think that gun prevalence has a net effect on violence. Those who disagree on this point and support gun regulations as a possible means of reducing violence should be aware that reducing the availability of guns will not be easy, according to the research thus far.

### **Involvement of Children and Youth with Firearms**

As explained at the beginning of this article, the United States leads the industrialized world in homicides of children and youth, especially homicides committed with firearms. Many homicides of young people are committed by young people. For example, in North Carolina in 1992, of murders of white males aged fifteen to twenty-four, according to police data, 27 percent of the suspected killers were in the same age range, and another 39 percent were twenty-five to thirty-four years of age. Of murders of black males aged fifteen to twenty-four, 67 percent of the suspected killers were in the same age group.<sup>58</sup> Most of these murders were committed with firearms, primarily handguns.

Young people sometimes kill older people as well. The State Bureau of Investigation reports that in 1997, of murders of victims of all ages in which police believed they knew the age of the killer (these constituted 77 percent of all murders), youth aged fifteen to nineteen were responsible for 24 percent, and those aged eleven to fourteen were responsible for just under 1 percent. Again, many of these murders were committed with firearms.

How many young people have or carry guns? The U.S. Centers for Disease Control and Prevention, in their 1997 survey of risk behavior by students in grades 9–12 nationwide, indicated that 9.6 percent of male students and 1.5 percent of female students reported carrying a gun *within the previ-*

*ous thirty days.* The gun-carrying proportion was higher for black males (16.3 percent) and Hispanic males (16.9 percent) than for white males (7.2 percent).<sup>59</sup> A recent Gallup Poll, conducted just before the well-publicized shooting incident in Littleton, Colorado, indicates that 17 percent of teenagers regard students bringing weapons to school as a “big” or “very big” problem in their school. A 1996 poll indicates that 30 percent of teenagers fear for their physical safety when they are in school.<sup>60</sup>

Other studies have found that gun-owning youth are disproportionately represented among those in serious trouble with the law. For example, Joseph Sheley and James Wright surveyed 835 male inmates in juvenile correctional facilities in California, Illinois, Louisiana, and New Jersey in 1991, as well as 758 male students in ten inner-city public high schools near these correctional institutions. Twenty-two percent of the students said that they owned some kind of firearm at the time of the survey; in contrast, 83 percent of the inmates said that they had owned one just before confinement. Ninety percent of the inmates had friends or associates who owned and carried guns routinely. Sheley and Wright comment as follows:

Thus, in the street environment inhabited by these juvenile offenders, owning and carrying guns were virtually universal behaviors. Further, in this same environment, the inmate respondents regularly experienced threats of violence and violence itself. A total of 84 percent reported that they had been threatened with a gun or shot at during their lives.<sup>61</sup>

How do juveniles get guns? Of the inmates in the Sheley and Wright study, 22 percent said that they had obtained their most recently acquired gun from someone “off the street,” 36 percent from a family member or a friend, 21 percent from a drug dealer or addict, and 12 percent from someone’s house or car (from which the inmate “took” it). Only 7 percent bought their gun from a gun shop or a pawnshop. Compared with the inmates, the students in this study more often acquired their guns from a friend or a family member

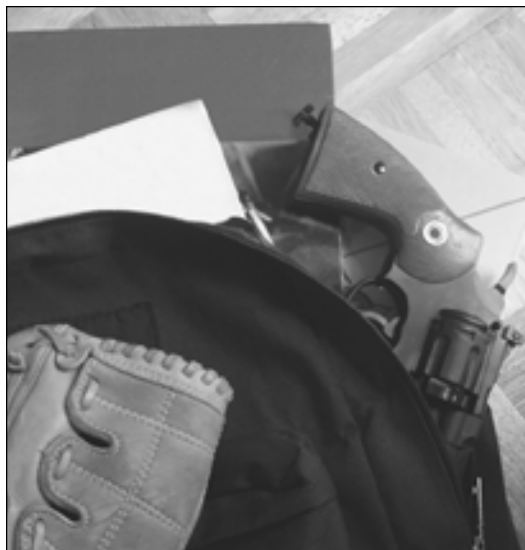
(61 percent) and less often from “the street,” a drug dealer, or a drug addict (20 percent). The studies of minors’ access to guns have not attempted to measure to what extent gun possession might have been authorized or supervised by responsible adults.

The Bureau of Alcohol, Tobacco, and Firearms (BATF) of the U.S. Treasury Department regularly traces weapons used in crimes to see how the offenders obtained them. Concerned about the increase in juvenile and youth homicides in the late 1980s and early 1990s, Congress approved the Youth



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Crime Gun Interdiction Initiative (YCGII) to support BATF in investigating illegal trafficking that puts guns in the hands of young people. A 1999 BATF report covers investigations of 1,604 firearms that were illegally trafficked in twenty-seven cities.<sup>62</sup> Of these investigations, 13 percent involved juveniles under age eighteen, and 39 percent involved youth aged eighteen to twenty-four. In the 648 cases involving juveniles and youth, the investigations



**Table 1. Sources of Firearms Obtained by Juveniles and Youth**

Source	Percentage
Trafficked by "straw purchaser" (ostensibly legal purchaser)	51
Stolen from federally licensed dealer	21
Trafficked by unregulated private seller	14
Stolen from residence	14
Trafficked at gun shows and auctions, in want ads and gun magazines	10
Trafficked by licensed dealer	6
Bought or sold by street criminal	4
Stolen from common carrier	3
Other sources	1

*Source:* From U.S. TREASURY DEPARTMENT, BUREAU OF ALCOHOL, TOBACCO, AND FIREARMS, THE YOUTH CRIME GUN INTERDICTION INITIATIVE (YCGII): 27 COMMUNITIES, at app., pp. 10, 13 (Washington, D.C.: BATF, 1999).

*Note:* The percentages add to more than 100 because a single firearm may have more than one source.

revealed that most of the guns came from illegal sources (see Table 1).

### Reduction of Minors' Access to Guns

Most Americans seem to agree that minors should not possess or have access to guns without adult supervision. The 1994 Carolina Poll found that 79 percent of 673 adult North Carolinians favored making it a felony to sell a handgun to a minor. The state's legislators also apparently favor restrictions on minors' access to guns. North Carolina law prohibits possession of a handgun by a minor (under age eighteen), with certain exceptions,<sup>63</sup> and imposes tough restrictions on possession of guns and other weapons on school property.<sup>64</sup>

The surge in homicides of children and youth in the late 1980s and early 1990s stimulated many violence-prevention efforts, both governmental and nongovernmental, involving citizens' groups as well as law enforcement and social service agencies. A new report by the U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention (OJJDP) offers some examples.<sup>65</sup> The OJJDP report reviews four types of strategies to reduce gun violence: community organizing in areas with high levels of gun violence; disrupting sources of illegal guns; deterring illegal gun possession; and other.

*Community organizing in areas with high levels of gun violence.* The report describes violence-prevention efforts in eight cities in considerable detail.<sup>66</sup> The efforts begin with the community rec-

ognizing its gun-violence problem. A partnership of community residents—such as victims, offenders, and families associated with gun violence—and law enforcement and other governmental agencies then faces the challenge to

convince those who carry guns that they can survive in their neighborhoods without being armed. Programs in these communities must work to dispel the perception of many residents that the authorities can neither protect them nor maintain order in their neighborhoods.<sup>67</sup>

The partnership must have resources, including professional staff, volunteers, and funding from sources within and outside the community. It develops a comprehensive plan, which is likely to be most successful, according to OJJDP, if it addresses not one but a variety of risk factors, and the demand for illegal firearms as well as the supply. The risk factors associated with violence include aggressive behavior in

**The American public may expect adults to be able to protect themselves with guns, but it does not think that minors should do so.**



young children; gun possession and carrying; gang membership; drug abuse; poor parental supervision; low academic achievement and truancy; and unemployment.

Operation Cease-fire, a gun-violence prevention effort in Boston aimed at youth aged eight to eighteen, involves police initiatives to (1) identify and disrupt illegal gun markets by tracing guns used in crime; and (2) conduct unannounced visits to the homes of high-risk youth probationers in the evening to enforce curfews imposed on these offenders and encourage their parents to keep them out of trouble. Along with the police initiatives, a Streetworkers Program brings members of youth gangs together with police and probation officers for informational meetings and referrals to employment opportunities. A related initiative offers residents of high-crime areas the opportunity to work with law enforcement and governmental officials to expedite city services, rehabilitate abandoned property, and obtain job training.

*Disrupting sources of illegal guns.* Tracing guns used in crimes serves two functions. It enables police to reconstruct the history of a firearm used in a crime and may lead to the arrest of a network of people associated with that crime and perhaps related cases. Also, it helps identify patterns of illegal gun trafficking. This can provide evidence for prosecution of trafficking rings.

Another approach is to focus on the few federally licensed firearms dealers who may be involved in systematic illegal transfer of guns to minors and fel-

ons. Joint federal and local police task forces can take advantage of gun-tracing information, especially when it is geographically coded, to find and shut down illegal firearms markets.

*Detering illegal gun possession.* This strategy focuses on making it harder for youth to gain access to guns. This may be done, for example, through “silent witness” or “weapons hotline” systems, involving anonymity and a cash reward for reporting illegal gun possession; and through police seizures of guns from juveniles by obtaining their parents’ consent.

*Other strategies.* Other strategies reviewed by OJJDP include specialized prosecution of firearms offenders (a strategy that usually involves federal prosecutors and adult offenders) and education of citizens about guns and violence.

## Conclusions

The evidence discussed in this article suggests the following answers to the questions posed at the beginning:

- The United States has a much higher level of lethal violence (homicide) than comparable countries.
- Most of the difference in homicide rates is attributable to crimes committed with guns.
- The United States also has a much higher level of gun ownership than comparable countries.
- Most people cite protection (of people or property) as a primary reason for possessing firearms. Other common purposes are hunting, target shooting, and amassing a gun collection.
- Experts disagree on how often guns are used for legitimate defense.
- The relationship between gun ownership and violent crime is a “chicken and egg” issue: availability of guns contributes to violence, but the level of violence also probably motivates people to acquire guns.
- Some restrictions on firearms have shown some results in reducing violence, although the research makes it clear that this is not an easy task. In particular, there seem to be some effective strategies for reducing the number of guns in the hands of unsu-

pervised juveniles, such as identifying and disrupting illegal gun markets.

The reader must make up his or her own mind about whether guns prevent more crimes than they cause. My view, based on research on typical firearms usage (illustrated by the study described in the sidebar), is that criminal uses of guns enormously outnumber justifiable defensive uses.

Most readers probably would agree that the argument that guns are needed for self-protection does not apply to the possession of guns by minors without adult supervision. The American public may expect adults to be able to protect themselves with guns, but it does not think that minors should do so. That is why, even though some children believe that they need guns for protection, laws forbid guns in schools.

That the United States leads the industrialized world in homicide and firearms possession is no doubt troubling to most readers. That this country stands out even more in gun homicides among children and youth probably is even more troubling. To reduce the levels of violence in this country, the first step should be to put an end to illegal firearms possession by minors. This step is important to take even as schools and parents put more emphasis on teaching children to deal with conflicts without violence. As Philip Cook notes,<sup>68</sup> despite the best efforts to teach nonviolence, there may be a few youngsters who are inclined to violence, and all it takes is one per high school. If these few are able to get guns, tragedies like the recent school shootings will continue to occur.

## Notes

1. Stevens H. Clarke, *At Last, Some Good News about Violent Crime*, 63 POPULAR GOVERNMENT, Summer 1998, at 2. This article contains information on these and related trends.

2. The data in Figure 1 were taken from Etienne G. Krug et al., *Firearm-Related Deaths in the United States and 35 Other High- and Upper-Middle-Income Countries*, 1998 INTERNATIONAL JOURNAL OF EPIDEMIOLOGY 214. Krug and his colleagues based their publication on data provided by the ministries of health or the national statistical institutes of the various countries. For

the United States, I have inserted 1996 data from the U.S. Centers for Disease Control and Prevention, taken from the agency’s mortality data set, on the Web at <http://wonder.cdc.gov/>.

3. U.S. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, *Rates of Homicide, Suicide, and Firearm-Related Death among Children—26 Industrialized Countries*, 46 MORTALITY AND MORBIDITY WEEKLY REPORT 101 (1997).

4. For the five other G-7 countries, the youth homicide rates were France, 0.6; Germany, 0.7; Italy, 0.9; Japan, 0.4; and the United Kingdom, 1.1. The source for these data is WORLD HEALTH ORGANIZATION, WORLD HEALTH STATISTICS ANNUAL § D, tbl. 9 (Geneva, Switzerland: WHO, 1990), cited by the National Center for Education Statistics at its Web site, <http://nces01.ed.gov/NCES/pubs/esn/n07a.html>.

5. FRANKLIN E. ZIMRING & GORDON HAWKINS, *CRIME IS NOT THE PROBLEM: FATAL VIOLENCE IN AMERICA* at 110 (New York: Oxford University Press, 1997).

6. Martin Killias, *Gun Ownership, Suicide, and Homicide: An International Perspective*, in UNDERSTANDING CRIME: EXPERIENCES OF CRIME AND CRIME CONTROL at 289 (Anna Alvazzi del Frate et al. eds., Rome: United Nations Interregional Crime and Justice Research Institute, 1993).

7. JAN J. M. VAN DIJK ET AL., EXPERIENCES OF CRIME ACROSS THE WORLD: KEY FINDINGS OF THE 1989 INTERNATIONAL CRIME SURVEY at 42 (Deventer, The Netherlands: Kluwer Law and Taxation Publishers, 1990). These authors report that in Swiss homes “52% of all handguns were said to be army guns.”

8. PHILIP J. COOK & JENS LUDWIG, *GUNS IN AMERICA: NATIONAL SURVEY ON PRIVATE OWNERSHIP AND USE OF FIREARMS* (Washington, D.C.: National Institute of Justice, U.S. Department of Justice, 1997).

9. The Gallup Organization, *U.S. Gun Ownership Continues Broad Decline*, POLL RELEASES, Apr. 6, 1999, obtained from the organization’s Web site, <http://www.gallup.com/poll/releases/pr990406.asp>. According to this same series of polls, from 1965 to 1991, the proportion of adults having a gun in their home ranged from 40 to 50 percent and averaged about 45 percent.

10. ALBERT J. REISS, JR., & JEFFREY A. ROTH, *UNDERSTANDING AND PREVENTING VIOLENCE* at 256 (Washington, D.C.: National Academy Press, 1993).

11. GARY KLECK, *POINT BLANK: GUNS AND VIOLENCE IN AMERICA* at 49 (New York: Aldine, 1991).

12. These per capita rates were computed on the basis of the number of guns

reported in COOK & LUDWIG, GUNS IN AMERICA, and an estimated U.S. population of 260,341,000 in 1994.

13. COOK & LUDWIG, GUNS IN AMERICA at 2.

14. Gallup Organization, *U.S. Gun Ownership*.

15. The Carolina Poll is conducted by the School of Journalism and the Institute for Research in Social Science, both at The University of North Carolina at Chapel Hill. These results were obtained from the poll's Internet site ([http://veblen.irss.unc.edu/data\\_archive](http://veblen.irss.unc.edu/data_archive)) and are based on responses from 673 North Carolina residents. The Carolina Poll responses are not directly comparable to the Gallup Poll responses because the Gallup Poll asked whether the respondent had a gun *in his or her home*, whereas the Carolina Poll asked whether the respondent *possessed* a gun (which could be somewhere besides home).

16. KLECK, POINT BLANK at 25–26.

17. Carolina Poll, at [http://veblen.irss.unc.edu/data\\_archive](http://veblen.irss.unc.edu/data_archive).

18. These Gallup Poll results were obtained from THE POLLING REPORT in Washington, D.C., through its Web site, <http://www.pollingreport.com>.

19. David McDowall & Colin Loftin, *Collective Security and the Demand for Legal Handguns*, 88 AMERICAN JOURNAL OF SOCIOLOGY 1146 (1983).

20. Gallup Poll results obtained from the POLLING REPORT, at <http://www.pollingreport.com>.

21. By “defensive gun use,” I mean use by private citizens, not by police.

22. For an explanation of the NCVS, see Clarke, *At Last, Some Good News*.

23. MICHAEL R. RAND, GUNS AND CRIME (Publication No. NCJ-147003, Washington, D.C.: Bureau of Justice Statistics, U.S. Department of Justice, Apr. 1994).

24. Philip J. Cook et al., *The Gun Debate's New Mythical Number: How Many Defensive Uses Per Year?* 16 JOURNAL OF POLICY ANALYSIS AND MANAGEMENT 463 (1997), cited in Philip J. Cook & Jens Ludwig, *Defensive Gun Uses: New Evidence from a National Survey*, 14 JOURNAL OF QUANTITATIVE CRIMINOLOGY 111 (1998).

25. Gary Kleck & Marc Gertz, *Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun*, 86 JOURNAL OF CRIMINAL LAW AND CRIMINOLOGY 150 (1995).

26. Following are some examples of the flaws that Kleck found: using an unrepresentative sample of survey respondents (such as only gun owners or only registered voters); using a lifetime-recall period, making it impossible to estimate uses within any specified time period; and failing to ask

enough questions to establish exactly what was done with the gun in a reported defensive incident.

27. Employing random-digit telephone dialing, the survey involved a nationally representative sample of 4,977 adults aged eighteen and older in the lower forty-eight states living in households with telephones. The sample was stratified to represent each state's population adequately. The survey inquired about experiences during both the last year and the last five years, and included detailed questions to establish exactly what the gun-using respondents did with their guns. Other questions established what specific crime or crimes the user sought to prevent (burglary, robbery, assault, and so on). The interviewers worked for a private professional polling firm and did not know the names or addresses of the respondents.

28. Kleck & Gertz, *Armed Resistance* at 164.

29. See Cook & Ludwig, *Defensive Gun Uses*; David McDowall, *Firearms and Self-Defense*, 539 ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCES 130 (1995).

30. KLECK, POINT BLANK at 120–51.

31. KLECK, POINT BLANK at 132.

32. Kleck bases this estimate on homicide studies in Dade County, Florida, and Detroit, Michigan.

33. FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES, 1996: UNIFORM CRIME REPORTS at 22, tbl. 2.17 (Washington, D.C.: U.S. Government Printing Office, 1997).

34. Gary Kleck & Susan Sayles, *Rape and Resistance*, 37 SOCIAL PROBLEMS 149 (1990), cited in KLECK, POINT BLANK at 126.

35. JAMES D. WRIGHT & PETER H. ROSSI, ARMED AND CONSIDERED DANGEROUS: A SURVEY OF FELONS AND THEIR FIREARMS at 155 (New York: Aldine, 1986). The sample sizes for these two percentages were 1,673 and 1,627, respectively.

36. A. L. Kellermann & D. T. Reay, *Protection or Peril? An Analysis of Firearm-Related Deaths in the Home*, 314 NEW ENGLAND JOURNAL OF MEDICINE 1557 (1986). The earliest study of this type, involving Cuyahoga County, Ohio, from 1958 to 1973, reached similar results: accidental killings in the home outnumbered justifiable-defense killings by six to one. N. B. Rushforth et al., *Accidental Firearm Fatalities in a Metropolitan County*, 100 AMERICAN JOURNAL OF EPIDEMIOLOGY 499 (1975).

37. KLECK, POINT BLANK at 128. Kellermann and his colleagues did later research that matched households in which homicides occurred with similar households in which homicides had not occurred. They

found that gun ownership was more common in the households of homicide victims and concluded that guns kept in the home pose a substantial threat to members of the household. Arthur L. Kellermann et al., *Gun Ownership as a Risk Factor for Homicide in the Home*, 329 NEW ENGLAND JOURNAL OF MEDICINE 1084 (1993). Kleck rejects this research because it failed to control for confounding factors that increase the risk of homicide victimization. Most factors that increase the risk of homicide victimization, Kleck notes, also could increase the likelihood that people exposed to those factors would acquire a gun for self-protection. Furthermore, Kellermann and his colleagues did not document a single case in which the victim was killed *with a gun kept in his or her home*, and it was likely that most of the guns used came from outside the home because most of the killers did. GARY KLECK, TARGETING GUNS: FIREARMS AND THEIR CONTROL at 224–25 (New York: Aldine, 1997).

38. Marianne Zawitz looked at shootings that were part of criminal assaults and resulted in serious injuries, regardless of where the shootings occurred. She estimated that 57,500 nonfatal gunshot wounds from criminal assaults were treated in hospital emergency departments from June 1992 to May 1993 throughout the United States. Sixteen percent of these, or about 9,200, were reported by hospital staff to have occurred in a home. The true number may be considerably larger because, in more than half of the cases, hospital staff did not know where the shooting took place. Zawitz's study did not distinguish shootings committed with a gun kept in the home from those committed with a gun brought in from outside the home. MARIANNE W. ZAWITZ, FIREARM INJURY FROM CRIME (Selected Findings series, Washington, D.C.: Bureau of Justice Statistics, U.S. Department of Justice, 1995).

39. FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES, 1996, at 18, tbl. 2.11.

40. ZIMRING & HAWKINS, CRIME IS NOT THE PROBLEM at 122–23.

41. The crime of robbery involves assault—that is, the physical attack or the threatened attack that is used to take another person's property from his or her personal control. What is referred to as assault here is physical attack, which does not involve taking another person's property. Both categories of crimes may result in the death of the victim, in which case they would be counted as murders.

42. In the countries studied, most homes had telephones. In Northern Ireland and rural Spain, where fewer homes had

telephones, personal interviews were used. VAN DIJK ET AL., EXPERIENCES OF CRIME at 7.

43. "Within 30 percent of the U.S. rate" means plus or minus 30 percent of that rate. So, to use the 1996 U.S. homicide rate of 7.8 per 100,000 residents as an example, rates within 30 percent of that would range from 5.5 to 10.1. Within 30 percent in their robbery rate were (in increasing order by rate) England, Canada, Czechoslovakia, Australia, Italy, and Poland. Within 30 percent in their assault rate were (in increasing order by rate) Sweden, Czechoslovakia, England, Poland, The Netherlands, Finland, and Canada. ZIMRING & HAWKINS, CRIME IS NOT THE PROBLEM at 38–39, citing JAN J. M. VAN DIJK & PAT MAYHEW, CRIMINAL VICTIMIZATION IN THE INDUSTRIAL WORLD (The Hague, The Netherlands: Ministry of Justice, 1992). Zimring and Hawkins's graphs of the data on pages 38–39 refer to the robbery and assault rates as rates per 1,000 persons, but apparently these actually are rates per 100 persons, as explained in VAN DIJK ET AL., EXPERIENCES OF CRIME at 13.

44. KLECK, TARGETING GUNS at 215–64.

45. Kleck reviews research by Killias (*Gun Ownership*) that showed a positive correlation between household gun ownership and homicide rates in eighteen countries. Looking at all eighteen countries, Killias found a statistically significant correlation of .610 between gun ownership and homicide rates. Killias then removed the two "outliers," the United States and Northern Ireland, both of which have very high homicide rates, from the analysis. For the remaining sixteen more "normal" nations, the correlation between gun ownership and homicide rates was lower (.476) but still statistically significant. However, Kleck notes that if one removes only the United States from the data, the correlation ceases to be statistically significant. He therefore concludes that Killias's findings merely reflect the unique status of the United States as a country with high levels of both violence and gun ownership.

46. Gary Kleck & E. Britt Patterson, *The Impact of Gun Control and Gun Ownership Levels on Violence Rates*, 9 JOURNAL OF QUANTITATIVE CRIMINOLOGY 249 (1993). Kleck and Patterson used a statistical-modeling technique that took into account a possible two-way relationship between violence and gun prevalence—that is, a relationship in which gun availability can cause violence, and violence can cause gun availability. Their measurements of violence were the rates of homicide, suicide, aggravated assault, robbery, rape, and fatal gun accidents, per 100,000 residents. The models controlled for various characteristics of the cities' populations that could be associ-

ated with levels of violence, such as percentage of males aged fifteen to twenty-four, percentage of families headed by females, and percentage of families with incomes below the poverty line. Like other researchers, Kleck and Patterson were unable to measure gun prevalence directly in the cities they studied. Instead, they measured it indirectly with a variety of indicators, such as percentages of certain crimes committed with guns.

47. KLECK, TARGETING GUNS at 258 (emphasis added).

48. Richard D. Alba & Steven F. Messner, *Point Blank against Itself: Evidence and Inference about Guns, Crime, and Gun Control*, 11 JOURNAL OF QUANTITATIVE CRIMINOLOGY 391 (1995). It is difficult to prove deterrent effects of any policy or behavior on crime because one cannot be sure how much crime would take place in the absence of the policy or the behavior. Kleck himself concedes the difficulty (KLECK, POINT BLANK at 131–32).

49. Alba & Messner, *Point Blank against Itself* at 408–9.

50. Frank Newport, *Americans Support Wide Variety of Gun Control Measures*, POLL RELEASES (The Gallup Organization), June 16, 1999, available at the organization's Web site, <http://www.gallup.com/poll/releases/pr990616.asp>.

51. REISS & ROTH, UNDERSTANDING AND PREVENTING VIOLENCE at 255 (Washington, D.C.: National Academy Press, 1993).

52. See REISS & ROTH, UNDERSTANDING AND PREVENTING VIOLENCE at 275–79.

53. REISS & ROTH, UNDERSTANDING AND PREVENTING VIOLENCE at 275, citing Glenn L. Pierce & William J. Bowers, *The Impact of the Bartley-Fox Gun Law on Crime in Massachusetts* (unpublished manuscript, Northeastern University, Center for Applied Social Research, 1979). A published version of this work is Glenn L. Pierce & William J. Bowers, *The Bartley-Fox Gun Law's Short-Term Impact on Crime in Boston*, 455 ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE 120 (1981).

54. REISS & ROTH, UNDERSTANDING AND PREVENTING VIOLENCE at 275–76, citing David McDowall et al., *A Comparative Study of the Preventive Effects of Mandatory Sentencing Laws for Gun Crimes*, 29 CRIMINOLOGY 541 (1992); and citing David McDowall et al., *Preventive Effects of Mandatory Sentencing Laws for Gun Crimes*, in PROCEEDINGS OF THE SOCIAL STATISTICS SECTION, ANNUAL MEETING OF THE AMERICAN STATISTICAL ASSOCIATION, 1991, at 87 (Alexandria, Va.: American Statistical Association, 1992).

55. REISS & ROTH, UNDERSTANDING AND PREVENTING VIOLENCE at 278, citing Philip J.

Cook, *The Technology of Personal Violence*, in 14 CRIME AND JUSTICE: A REVIEW OF RESEARCH 1 (Michael Tonry ed.) (Chicago: University of Chicago Press, 1991); and citing Colin Loftin et al., *Effects of Restrictive Licensing of Handguns on Homicide and Suicide in the District of Columbia*, 325 NEW ENGLAND JOURNAL OF MEDICINE 1615 (1991).

56. KLECK, POINT BLANK at 390–416.

57. Kleck & Patterson, *The Impact of Gun Control*.

58. Stevens H. Clarke, *Murder in North Carolina*, 61 POPULAR GOVERNMENT, Summer 1995, at 2.

59. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Youth Risk Behavior Surveillance—United States, 1997*, 47 MORBIDITY AND MORTALITY WEEKLY REPORT SS-3, at i-89, 38 (tbl.), 6–7. The study employed a three-stage cluster sample involving 151 schools nationally; 16,292 questionnaires were completed, for an overall response rate of 69 percent. Participation was anonymous and voluntary.

60. The Gallup Organization, *One-Third of Teenagers Feel Unsafe at School*, POLL RELEASES, Apr. 22, 1999, obtained from the organization's Web site, <http://www.gallup.com/poll/releases/pr990422b.asp>.

61. JOSEPH F. SHELEY & JAMES D. WRIGHT, GUN ACQUISITION AND POSSESSION IN SELECTED JUVENILE SAMPLES at 4 (Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, 1993).

62. U.S. TREASURY DEPARTMENT, BUREAU OF ALCOHOL, TOBACCO, AND FIREARMS, THE YOUTH CRIME GUN INTERDICTION INITIATIVE (YCGII): 27 COMMUNITIES, at app., pp. 10, 13 (Washington, D.C.: BATF, 1999).

63. N.C. GEN. STAT. § 14-269.7 (hereinafter G.S.). This statute makes an exception for minors using handguns for educational or recreational purposes under the supervision of an adult.

64. See, e.g., G.S. 14-269.2.

65. U.S. DEPARTMENT OF JUSTICE, OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION, PROMISING STRATEGIES TO REDUCE GUN VIOLENCE (Washington, D.C.: OJJDP, 1999).

66. The eight cities (as presented in the report) are as follows: Baltimore; Boston; Buffalo, New York; Richmond, California; Oakland, California; Indianapolis; Minneapolis–St. Paul; and Baton Rouge, Louisiana.

67. OJJDP, PROMISING STRATEGIES at 17.

68. Philip J. Cook, personal communication with John Rubin, editor of POPULAR GOVERNMENT, July 1, 1999.