Mass Murder with Firearms: Incidents and Victims, 1999-2013

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Summary

In the wake of tragedy in Newtown CT, Congress defined “mass killings” as “3 or more killings in a single incident” (P.L. 112-265). Any consideration of new or existing gun laws that follows mass shootings is likely to generate requests for comprehensive data on the prevalence and deadliness of these incidents. Despite the pathos of mass shootings, only a handful of researchers and journalists have analyzed the principal source of homicide data in the United States—the Supplementary Homicide Reports (SHR) compiled by the Federal Bureau of Investigation (FBI)—to determine whether those incidents have become more prevalent and deadly.

According to the FBI, the term “mass murder” has been defined generally as a multiple homicide incident in which four or more victims are murdered, within one event, and in one or more locations in close geographical proximity. Based on this definition, for the purposes of this report, “mass shooting” is defined as a multiple homicide incident in which four or more victims are murdered with firearms, within one event, and in one or more locations in close proximity. Similarly, a “mass public shooting” is defined to mean a multiple homicide incident in which four or more victims are murdered with firearms, within one event, in at least one or more public locations, such as, a workplace, school, restaurant, house of worship, neighborhood, or other public setting.

This report analyzes mass shootings for a 15-year period (1999-2013). CRS analysis of the FBI SHR dataset and other research indicates that offenders committed at least 317 mass shootings, murdered 1,554 victims, and nonfatally wounded another 441 victims entirely with firearms during that 15-year period. The prevalence of mass shooting incidents and victim counts fluctuated sporadically from year to year. For the period 2007-2013, the annual averages for both incidents and victim counts were slightly higher than the years from 1999-2007.

With data provided by criminologist Grant Duwe, CRS also compiled a 44-year (1970-2013) dataset of firearms-related mass murders that could arguably be characterized as “mass public shootings.” These data show that there were on average:

- one (1.1) incident per year during the 1970s (5.5 victims murdered, 2.0 wounded per incident),
- nearly three (2.7) incidents per year during the 1980s (6.1 victims murdered, 5.3 wounded per incident),
- four (4.0) incidents per year during the 1990s (5.6 victims murdered, 5.5 wounded per incident),
- four (4.1) incidents per year during the 2000s (6.4 victims murdered, 4.0 wounded per incident), and
- four (4.5) incidents per year from 2010 through 2013 (7.4 victims murdered, 6.3 wounded per incident).

These decade-long averages suggest that the prevalence, if not the deadliness, of “mass public shootings” increased in the 1970s and 1980s, and continued to increase, but not as steeply, during the 1990s, 2000s, and first four years of the 2010s.

Mass shootings are arguably one of the worst manifestations of gun violence. As discussed in this report, statute, media outlets, gun control and rights advocates, law enforcement agencies, and
researchers often adopt different definitions of “mass killing,” “mass murder,” and “mass shooting,” contributing to a welter of claims and counter-claims about the prevalence and deadliness of mass shootings. With improved data, policymakers would arguably have additional vantage points from which to assess the legislative proposals that are inevitably made in the wake of these tragedies.

Toward these ends, Congress could consider directing one or several federal agencies, including but not limited to the FBI and BJS, to improve collection of data on multiple-victim homicides. Congress could also direct federal agencies, possibly the Bureau of Alcohol, Tobacco, Firearms and Explosives, to report annually on firearms-related mass murders, including data on (1) offender acquisition of firearms, (2) types of firearms used, (3) amounts and types of ammunition carried and shots fired, (4) killed and wounded counts, (5) offender histories of mental illness and domestic violence, and (6) victim-offender relationships.
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Introduction

Mass murders committed with firearms—particularly those incidents that occur in workplaces, schools, restaurants, houses of worship, and other public spaces—cause people to feel anxious and vulnerable, as the recent Charleston, SC, and Chattanooga, TN, tragedies demonstrate. Several such mass murders in 2012, seven incidents by most counts, compounded a fear among many people that “this could happen to me.” This rash of shootings prompted media outlets, gun control advocacy groups, and law enforcement agencies to question whether such incidents were becoming more prevalent and deadly, or had possibly reached “epidemic” proportions. Toward those ends, some of these groups amassed compilations of multiple victim homicides, but their methodologies often differed substantially, and their focus and findings were sometimes quite different. A handful of researchers who have studied mass murder have utilized official crime data to compile comprehensive datasets of multiple victim homicides and mass murders.

1 According to one nationwide survey of adults, Americans’ top fears include (1) walking alone at night, (2) becoming the victim of identity theft, (3) various risks of using the Internet, (4) being the victim of a mass/random shooting, and (5) public speaking. See Jerry Lane, “When Fear Outweighs Reality,” Seattle Times, October 23, 2014.


3 On July 16, 2015, a lone offender fired more than 50 shots into a U.S. Armed Forces recruiting center in Chattanooga, TN. He then drove to a U.S. Navy Operational Support Center and shot to death four Marines and fatally wounded a Sailor. He also nonfatally wounded another Marine and a police officer. The offender was 24-years old. He was armed with an AK-74. Police recovered a Saiga 12-gauge pistol grip shotgun from his rental car. He was reportedly shot to death by police, who were attempting stop and arrest him. Police recovered two other pistols that were privately owned and possibly carried by two of the Marines. It is possible that the Marines exchanged fire with the offender, but it is unclear whether they hit the offender and preliminary reports have ruled out any friendly fire casualties among the victims. According to the Federal Bureau of Investigation, the incident is being investigated as a case of “home-grown violent extremism.” Adam Goldman, “Gunman Worked Methodically, FBI Says of Attack,” Washington Post, July 23, 2015, p. A3. Thomas Gibbons Neff and Adam Goldman, “Marine Slain in Tenn. May Have Returned Fire,” Washington Post, July 21, 2015, p. A02.


8 Ibid.
analysis in this report builds upon the latter work and scholarship, as well as the compilations described above.

<table>
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<tr>
<th>Key Takeaways of This Report</th>
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<td>• For 15 years (1999-2013), the United States has seen about 31 mass murders per year on average that resulted in four or more persons being murdered in a single incident. Of those incidents, CRS has confirmed that 21 per year on average were committed entirely with firearms.</td>
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<td>• Of those mass murders with firearms, 4.4 per year on average were mass public shootings that occurred in one or more public locations, such as a workplace, school, restaurant, house of worship, neighborhood, or other public setting.</td>
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<td>• For the same 15 years, the United States has seen about 8.5 familicide mass shootings per year on average, in which offenders typically murdered their domestic partners and children in private residences or secluded, sparsely populated settings, and 8.3 other felony mass shootings per year on average, in which offenders committed murders as part of some other underlying criminal activity (robbery, insurance fraud, or criminal competition) or commonplace circumstance (argument).</td>
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<td>• Since the 2012 Newtown, CT tragedy, the national dialogue on gun violence has been focused on mass public shootings, partly due to several such shootings in recent years (2007, 2009, and 2012) that resulted in double-digit victim counts.</td>
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<td>• Based on five-year annual averages, the United States saw an uptick in the prevalence and deadliness of mass public shootings for the last five years (2009-2013). However, those increases were largely driven by a few incidents in 2012. If 2012 were excluded, the averages would actually have been lower than the preceding five-year period (2004-2008).</td>
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<td>• For 44 years (1970-2013), the prevalence of mass public shootings has increased: 1.1 incidents per year on average in the 1970s, 2.7 in the 1980s, 4.0 in the 1990s, 4.1 in the 2000s, and 4.5 in the first four years of the 2010s.</td>
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<td>• Generalizations about offenders who commit mass public shootings are often carried over and applied to other offenders, who commit mass shootings under different circumstances. The three broad patterns of firearms-related mass murders identified in this report—public, familicide, and other felony—present different, but sometimes overlapping, sets of issues and challenges.</td>
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What is “mass murder” with firearms? According to the Federal Bureau of Investigation (FBI) criminal profilers, the term “mass murder” has been defined generally as a multiple homicide incident in which four or more victims are murdered—not including the offender(s)—within one event, and in one or more geographical locations relatively near one another. It follows then that a “mass shooting” could be defined as a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and in one or more locations relatively near one another. Similarly, a “mass public shooting” could be, and has been,


defined to mean a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, in one or more public locations, such as a workplace, school, restaurant, house of worship, neighborhood, or other public setting.\footnote{11}

The FBI profilers, notably, did not specifically address whether mass murder involved a single or multiple offenders, although in a majority of cases, mass murders involve a single offender. According to FBI profilers, a “classic mass murder” involves one person operating in one location at one period of time. They also noted “family mass murder” or “familicide” as a distinct form of mass murder. If a murderer (offender) committed suicide, the incident was labeled a murder-suicide. In this report, the definitions of three, overarching mass shooting patterns—mass public shooting, familicide mass shooting, and other felony mass shooting—mirror guidance provided by FBI profilers and other prominent criminologists. Under these definitions, offenders are not counted as victims.\footnote{12}

Mass shootings typically renew calls for passage of gun control legislation.\footnote{13} In response to the 2007 Virginia Tech massacre, for example, Congress passed the NICS Improvement Amendments Act of 2007 (P.L. 110-180), which addressed improving both federal and state electronic recordkeeping on persons ineligible to possess firearms under federal law due to past histories of mental illness or domestic violence. In response to the Newtown, CT, tragedy, the Senate considered gun control proposals, including amendments to P.L. 110-180, but tabled that legislation when a consensus could not be achieved.\footnote{14} In the House, similar proposals were introduced, but they were not considered in committee, nor did they reach the House floor for general debate.

Any mass shootings and subsequent calls to amend gun control laws will likely generate requests for comprehensive data on the prevalence and deadliness of these incidents. To these ends, this report provides data and analysis on mass shootings, that is, mass murders committed entirely with firearms, for a 15-year period (1999-2013) and mass public shootings for the 44-year period (1970-2013).\footnote{15} These datasets could possibly provide policymakers with additional vantage points from which to evaluate legislative gun control proposals that are often offered in the wake of particularly deadly mass public shootings.

\footnote{11} The term “mass public shooting” has been used by several researchers and commentators, but with different meanings and victim thresholds. Grant Duwe arguably first conclusively demonstrated that “mass public shootings,” as a pattern of homicidal behavior, increased in frequency during the 1970s, 1980s, and 1990s, in his book, \textit{Mass Murder in the United States: A History}, 2007, p. 27.

\footnote{12} Out of 317 incidents of mass shootings from 1999 through 2013, CRS found one incident in which a mass murderer was killed by a civilian in a justifiable homicide with a firearm.

\footnote{13} For example, within a week of the August 1, 1966, University of Texas, Austin, tower shooting, President Lyndon B. Johnson called on Congress to pass gun control legislation. See Gary M. Lavergne, \textit{A Sniper in the Tower: The Charles Whitman Murders}, University of North Texas Press 1997, p. 268. See also Fox and Levin, \textit{Extreme Killing}, 2014, pp. 287-293.

\footnote{14} See CRS Report R42987, \textit{Gun Control Legislation in the 113th Congress}, by William J. Krouse, for discussion and analysis of legislation considered in response to the December 2012 Newtown, CT, mass shooting.

\footnote{15} This report complements an April 2013 CRS report that focused on federal public health and safety implications associated with “public mass shootings.” The current CRS report, however, adopts a slightly different definition of “mass shootings” that occur in public places that does not exclude incidents that can be attributed to terrorism or hate crime. The earlier report’s definition of “public mass shooting” excluded such incidents, because the motives of offenders in those cases could be viewed as a “means to an end,” the intimidation of some larger group of people, as opposed to “indiscriminate killing.” See CRS Report R43004, \textit{Public Mass Shootings in the United States: Selected Implications for Federal Public Health and Safety Policy}, coordinated by Jerome P. Bjelopera.
What Constitutes Mass Killings, Multiple Murder, Mass Murder, and Mass Shootings?

In the wake of tragedy in 2012 in Newtown, CT, Congress defined “mass killings” to mean “3 or more killings in a single incident” (P.L. 112-265; January 14, 2013). That definition does not make reference to a weapon.  

In the 1980s, the FBI established a system to classify multiple murder, mass murder, spree murder, and serial murder. These efforts were led by the FBI Behavioral Science Unit (BSU) and National Center for the Analysis of Violent Crime (NCAVC). Both the BSU and NCAVC began documenting and studying multiple rapists and killers, as part of a wider process to research and analyze violent crime trends. According to several criminologists, some of whom are retired FBI Special Agents previously assigned to the BSU, crimes can be classified by type, style, and victim counts. Homicides, for example, have been traditionally classified by victim counts (or thresholds) as follows:

- A single homicide is one victim slain in one event.
- A double homicide is two victims slain, in one event, in one location.
- A triple homicide is three victims slain, in one event, in one location.
- A mass murder is four or more victims slain, in one event, in one location.

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16 Based on data provided to CRS by the Bureau of Justice Statistics, which are presented in Appendix A of this report, it can be extrapolated that the United States saw about 116 triple or greater homicide incidents per year on average from 1999 through 2011. Of those incidents, about 84 incidents were triple homicides and 32 were quadruple or greater homicides.


18 The BSU was established at the FBI in May 1972, as part of the FBI Academy. Through the BSU, the FBI trained and provided assistance to federal, state, and local law enforcement agencies in analyzing crimes, especially unsolved serial rape and murder cases. See Don DeNevi and John H. Campbell, Into the Minds of Madmen: How the FBI’s Behavioral Science Unit Revolutionized Crime Investigation (2004), p. 79.

19 The BSU-administered NCAVC was established at the FBI in 1984. In January 1986 the BSU was split into the Behavioral Science and Instruction and Research Unit (BSIRU) and the Behavioral Science Investigative Support Unit (BSISU). The former was charged with the traditional training mission of the BSU, as well as the research and development and training programs of the NCAVC. The latter was charged with offender profiling and consultative support and the Violent Criminal Apprehension Program (VICAP). See Robert K. Ressler, Ann W. Burgess, and John E. Douglas, Sexual Homicide: Patterns and Motives (1988), p. 102. Hereinafter referred to as Ressler, Burgess, and Douglas, Sexual Homicide (1988).

20 Ibid, p. 236.


23 In a 2008 report on “serial murder,” the FBI National Center for the Analysis of Violent Crime and Behavioral Sciences Unit summarized a common understanding of the nature of “mass murder” that was held by many of the attendees at a 2005 national crime symposium:

Generally, mass murder was described as a number of murders (four or more) occurring during the same incident, with no distinctive time period between the murders. These events typically involved a single location, where the killer murdered a number of victims in an ongoing incident (e.g. the 1984 San Ysidro McDonalds incident in San Diego, California; the 1991 Luby’s (continued...)}
A *spree murder* is two or more murder victims slain, in one event, in two or more locations, without the offender “cooling-off” emotionally between murders. The event, however, can be of short or long duration.

A *serial murder* is three or more separate homicidal events, with the offender cooling-off emotionally between homicidal events.\(^{24}\)

In the view of FBI criminal profilers, a four-murder victim threshold constituted a “massacre.”\(^{25}\) And, in this report, an offender is not included in the mass shooting victim counts, if he committed suicide, or was killed in a justifiable homicide.

In the *Crime Classification Manual*, FBI criminal profilers discuss two basic mass murder prototypes: “classic mass murder” and “family mass murder.” A classic mass murder commonly involves “a mentally disordered individual” whose problems have increased to the point that he acts out against groups of people who are unrelated to him or his problems.\(^{26}\) The FBI criminal profilers pointed to the 1966 University of Texas, Austin, mass shooting as an example of a classic mass murder.\(^{27}\) Sometimes, but not always, offenders in mass public shootings, which are discussed in this report, possibly fit this prototype. The FBI criminal profilers noted further that a classic mass murder event could last minutes, hours, or days.\(^{28}\)

In addition, FBI criminal profilers identified family mass murder as a mass murder prototype, in which an offender murders four or more family members in one event and in one location.\(^{29}\) Similarly, “familicide” is a term used to describe the murder of multiple family members, most commonly the murder of an intimate partner and children.\(^{30}\)

These definitions with four victim thresholds, however, are not without limitations. For example, they do not capture mass murders in which three victims were shot to death, but additional victims were killed by means other than firearms.\(^{31}\) Nor do such definitions capture murders in

(...continued)

Restaurant massacre in Killeen, Texas; and the 2007 Virginia Tech murders in Blacksburg, Virginia).


\(^{24}\) Ibid, pp. 138-139. In the Protection of Children from Sexual Predator Act of 1998 (P.L. 105-314; October 30, 1998; 112 Stat. 2974, 2987), Congress defined “serial killings” to mean “a series of three or more killings, not less than one of which was committed within the United States, having common characteristics such as to suggest the reasonable possibility that the crimes were committed by the same actor or actors” (28 U.S.C. §540B(b)(2)). This provision authorizes the Attorney General and the FBI Director to investigate serial killings in violation of the laws of a state or political subdivision, if such investigation is requested by the head of a law enforcement agency with investigative or prosecutorial jurisdiction over the offense (see 28 U.S.C. §540B(a)).


\(^{27}\) Ibid.

\(^{28}\) Ibid.

\(^{29}\) Ibid.


\(^{31}\) On May 23, 2014, an offender murdered six people in Isla Vista, CA. He stabbed three victims, and shot three more (continued...)
which fewer than four victims were shot to death, but several victims were wounded, sometimes seriously.

It is also noteworthy that these FBI classifications of multiple homicides—double, triple, mass, spree, and serial—were largely conceptualized to aid law enforcement in investigations through criminal profiling and not for statistical data collection purposes. When the cases of individual offenders are evaluated, there sometimes exists potential for overlap among these classifications, particularly for mass and spree murders, and less so for mass and serial murders. Consequently, for statistical purposes, these classifications are not always mutually exclusive, which in some cases can present difficulties for researchers and can result in different judgments and varying findings with regard to the frequency and deadliness of these incidents.

According to one journal article, in 2010 the FBI adopted a revised definition of mass murder, that is, murderous events resulting in at least four deaths normally taking place at one or more geographical locations relatively near one another. This revised definition indicates that the potential overlap between mass and spree murders is an issue that has been addressed. As demonstrated below, the definitions used in this report of three, overarching mass shooting patterns—mass public shooting, familicide mass shooting, and other felony mass shooting—mirror in part concepts and definitions developed by FBI profilers.

Notwithstanding FBI guidance, gun control and rights advocates, media outlets, law enforcement agencies, and academic researchers often adopt quite different definitions of “mass murder,” “mass shootings,” and “mass public shootings.” As a result, their findings often vary.

 victims to death, before committing suicide by shooting himself. He shot and wounded at least two others and injured 11. He reportedly carried three semiautomatic pistols equipped with multiple ten-round magazines, all of which he had legally acquired under both federal and California state law. About a month prior to the shootings, he had exhibited disturbing online behavior that prompted his parents to call the police. However, when the police stopped by his apartment on a “welfare” stop, he was able to convince them reportedly that he was “depressed,” but posed no threat to anyone. He reportedly recognized that encounter with the police was a close call, for he had already purchased the three handguns and had already written a misogynistic diatribe outlining his plan to seek retribution against those who had allegedly mistreated and disrespected him. For further information, see Santa Barbara County Sheriff’s Office, Isla Vista Mass Murder, May 23, 2014, Investigative Summary, February 18, 2015, 68 pp.


33 For example, spree murderers have killed four or more persons at a single location, as well as additional victims at other locations. Thus, those spree murderers could also be classified as mass murderers, but only for that incident. And some spree murderers have killed four or more people at two or more locations within a single municipality or county within a time frame of comparatively short duration, such as less than 24 hours. These spree murderers could also be classified as mass murderers, if the two or more murder locations were comparatively close in proximity and, thus, could possibly be considered one location, and the murders a single incident. In October 2002, two offenders shot to death 10 victims and wounded 3 others in several incidents in the greater Washington, DC, area. On October 3, 2002, during a 14-hour period, however, they shot five of those victims to death from several concealed positions within Montgomery County, MD, and Washington, DC. For the purpose of this report, the murders on October 3, 2002, are considered a single mass public shooting. Out of 66 mass public shootings from 1999 to 2013, in addition to the April 20, 1999, Columbine, CO, mass shooting, the October 3, 2002, Washington, DC, area sniper (mass) shooting was the only other incident that involved more than one offender.


35 For example, one researcher defined a “mass public shooting” to be any incident that “occurred in a public place and involved two or more people either killed or injured by the shooting.” See John R. Lott, Jr., More Guns, Less Crime: Understanding Crime and Gun Control Laws (University of Chicago Press, 2000), p. 100. Other researchers defined “mass shooting” to include any incident where three or more people are killed or injured. See Brady Campaign to
Nevertheless, the four-victim threshold and other elements of the above definitions reflect a synthesis arguably of the most conclusive, academically rigorous research available on “mass murder.” That research is discussed immediately below.

**Mass Murder Counts Based on FBI Supplementary Homicide Reports**

Despite the public trauma and outcry generated by mass public shootings, there is a dearth of comprehensive, authoritative data on multiple-victim homicide incidents, either committed wholly or partially with firearms. A handful of criminologists, statisticians, sociologists, and other researchers have analyzed the principal source of national homicide statistics that is compiled by the Department of Justice (DOJ) annually, as part of the FBI’s Uniform Crime Reports and Supplementary Homicide Reports (UCR-SHR). From their analyses, the following observations and extrapolations can be made:

- DOJ’s Bureau of Justice Statistics (BJS) estimated that there were 987 four or more victim homicide incidents from 1980 to 2011, or an average 31 per year. However, while the bulk of those incidents were mass murders, it is probable that some of those incidents were serial murders committed over extended time periods, or spree murders that lasted longer than roughly 24 hours. For that 31-year period, four or more victim homicides incidents accounted for 0.19% of all murders and nonnegligent manslaughter incidents and 0.87% of all victims who perished in those incidents.

- James Alan Fox and Jack Levin estimated that there were 927 mass murders, resulting in the deaths of four or more victims, from 1976 to 2011, or an average of 26 incidents per year, involving 4,330 victims.

- Grant Duwe found that there were at least 649 mass murders, resulting in the deaths of four or more victims, from 1976 to 1999, or an average of 27 per year.

(...)continued


38 Some researchers have chosen to categorize spree murders that occur within a 24-hour window as “mass murders,” or “mass/spree murders.” See Hannah Scott and Katie Fleming, “The Female Family Annihilator: An Exploratory Study,” *Homicide Studies*, vol. 18(1), 2013, p. 63.

39 Ibid.

and 5.22 murder victims per incident.\textsuperscript{41} Of those mass murders, firearms were used in 69\% of the incidents, from which it could be extrapolated that about 448 of the 649 mass murder incidents were mass public shootings, or an average per year of 18.7 mass shootings. Duwe not only analyzed the FBI SHR data, but he \textit{verified} that all the homicidal incidents reported to the FBI were recorded properly by state and local law enforcement agencies on the SHR form as multiple victim homicides.\textsuperscript{42} He also supplemented his dataset with incidents not reported to the FBI, but reported in the press. In January 2013, Duwe provided the \textit{Washington Post} with updated and slightly revised estimates of mass public shootings. On average annually, Duwe’s data show that there were:

- 1.3 mass public shootings per year in the 1970s,
- 3.2 per year in the 1980s, and
- 4.2 per year in the 1990s.\textsuperscript{43}

- According to \textit{USA Today}, offenders committed roughly 242 mass murders, resulting in the deaths of four or more victims, from 2006 to 2013, or an average of 30.3 incidents per year, and 4.98 victims per incident. Mass shootings accounted for 21.5 incidents per year with 5.1 victims per incident. Another 1.25 mass murder incidents per year involved at least some firearms and resulted in 4.8 victims per incident. The remaining 7.5 mass murder incidents per year resulted in 4.3 victims per incident and did not involve firearms (for a small percentage of incidents (2.1\%), the murder weapons were unknown).\textsuperscript{44}

In the homicide incidents mentioned above, which resulted in the deaths of four or more victims, BJS, Fox and Levin, Duwe, and \textit{USA Today} found that offenders used firearms to kill victims more often than any other means to murder people. A more detailed summation of their findings can be found in \textit{Appendix A}.

**CRS Methodology and Patterns of Mass Murder and Mass Shootings**

For this report, CRS has gathered and analyzed data on mass shootings for the 15-year period 1999 to 2013. Drawing on the work of James Alan Fox and Jack Levin, Grant Duwe, and Meghan Hoyer (and colleagues at \textit{USA Today}), CRS took the following steps:

- analyzed the FBI SHR data, the nation’s primary data source on murder and nonnegligent manslaughter in the United States;


\textsuperscript{42} In some instances, several individual homicides were misreported on the same SHR form as multiple victim homicides. In other instances, wounded victims are reported as murdered, making double and triple homicides appear to be quadruple or greater homicides.


• verified the mass murders reported to the FBI by checking press accounts and, when needed, consulted with the reporting police agencies themselves;

• cross-referenced this data with mass murders with firearms lists compiled by advocacy groups, media outlets, and law enforcement agencies;

• supplemented the SHR data with mass shootings reported in the press, but not reported to the FBI or previously compiled by other researchers;

• evaluated every incident based on victim-offender relationships, incident locations, and other pertinent event characteristics and circumstances; and

• found three broad patterns of mass shootings that could provide policymakers with improved vantage points from which to evaluate gun control proposals.

When it comes to mass murder with firearms, mass shootings in public places have dominated the national dialogue about gun violence, partly due to several mass public shootings in recent years (2007, 2009, and 2012) that resulted in double-digit victim counts. While others have used the term, Grant Duwe first conceptualized the idea of a mass public shooting as a “pattern” or “form” of mass murder in his book, Mass Murder in the United States: A History (2007) as it is most commonly understood today. Duwe observed:

> The mass murders that often capture the public’s imagination are those in which an offender publically guns down victims for no apparent rhyme or reason. Of the 250 incidents that took place from 1900 through 1999, 191 involved offenders who used firearms. Excluding those that occurred in connection with criminal activity such as robbery, drug dealing, and organized crime, there were 116 mass public shootings during the twentieth century.  

Duwe defined mass public shooting as “any incident in which four or more victims are killed publicly in a workplace, school, restaurant, or other public place with guns and within 24 hours.”

As noted above, according to the Crime Classification Manual, there are two basic types, or categories, of mass murder. There are “classic mass murders” and “family mass murders.” A “classic mass murder” is generally thought to involve one person operating in one location during one period of time, which could be minutes, hours, or even days. “The classic mass murder prototype is a mentally disordered individual whose problems have increased to the point that he acts out against groups of people who are unrelated to him or his problems.” This profile sometimes, but not always, fits the profile of offenders involved in mass public shootings.

A “familicide” mass murder is generally agreed to involve an offender who kills four or more family members, most commonly a spouse or intimate partner and children. In this report, mass shootings involving the murder of family members by non-family members are not characterized as familicides. As demonstrated below, offenders in mass public shootings and familicide mass shootings often share some of the same attributes. For example, in mass public shootings and

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46 Ibid.
49 Ibid.
familicide mass shootings, nearly all the offenders were lone assailants. Over half of the offenders in either type of mass murder committed suicide or were killed by responding police, when they resisted arrest. In many cases, the offenders had little or no practical expectation of escape.

When data on mass shootings were disaggregated, however, some mass shootings did not fit cleanly into either the classic mass murder or family mass murder pattern. A large percentage of these mass murders included gangland executions, drug-related home invasions and robberies, botched holdups, and other crimes. Others were arguments, romantic triangles, or barroom brawls that escalated into shootouts. In other words, some, but not all, of the mass shootings could be attributed to some other underlying felonious criminal activity or commonplace circumstance. These mass shooting incidents more frequently involved multiple offenders. While these offenders might not have considered the long-term implications of their crimes, they usually held out at least some expectation that they would not be discovered, arrested, and held accountable for their crimes.

Based on FBI guidance in part, Duwe, and others, CRS adopted the following parallel definitions for patterns of “mass murder” committed entirely with firearms:

- “mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and in one or more locations in close geographical proximity;

- “mass public shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and at least some of the murders occurred in a public location or locations in close geographical proximity (e.g., a workplace, school, restaurant, or other public settings), and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (armed robbery, criminal competition, insurance fraud, argument, or romantic triangle);

- “familicide mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and a majority of the victims were members of the offender’s immediate or extended family, the majority of whom were murdered in one or more private residences or secluded, sparsely populated settings in close geographical proximity, and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle); and

- “other felony mass shooting” means a multiple victim homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, in one or more locations in close geographical proximity, and the murders are attributable to some other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

For the purposes of this report, CRS has chosen not to include any timeframe parameter for the mass shooting definitions discussed above, but it is noteworthy that most mass shootings typically lasted little more than several minutes. However, several prominent researchers,
including Duwe as seen above, have defined either “mass murder” or “mass public shooting” with a timeframe parameter of “24 hours.”\textsuperscript{50}

As also noted above, the FBI has traditionally viewed “mass murders” as four or more murder victim multicides that occur in a single event or incident and single location, but a “single location” could be construed as a neighborhood, or even a distinct geographical area that might be situated in different but adjoining states. To address this possibility, the FBI reportedly changed its definition of “mass murder” to account for “murderous events” that occur in multiple locations that are geographically near one another.\textsuperscript{51}

Along these lines, CRS has crafted its definition of mass public shooting with a scope wide enough to capture incidents that occurred in multiple locations (that is, incidents that occurred in both public and private locations), or neighborhood spree killings that involved several private residences in the same neighborhood, but belonging to different family units, yet might still be considered “public,” and a single event that occurred in one general location. Five of 66 mass public shootings in the CRS dataset could be characterized as four or more victim spree murders, or mass/spree murderers.

In addition, CRS has also crafted its definition of mass public shooting narrowly enough to exclude mass shootings that occurred in remote or secluded, sparsely populated “public” places (e.g., parks, national forests, and rural back roads), where the likelihood of police intervention was low. In summation, CRS has generally characterized any mass murder with firearms as a mass public shooting, if four victims were shot to death and the incidents occurred wholly or partially in public spaces, except for those incidents that occurred in public, but comparatively secluded and sparsely populated locations.\textsuperscript{52}

It is noteworthy that there is a number of mass public shootings in the CRS dataset—about one-fifth—that were possibly triggered by a domestic dispute, but either all or a majority of the victims were not related to the offender(s). Four other incidents, which were characterized as mass public shootings, could have also been characterized as familicides, in that the offender was a spouse or former intimate partner of one of the victims and the other victims were all, or nearly all, family members. These incidents were characterized as mass public shootings because they occurred in a roller rink, day spa, and two houses of worship.

In addition, family units were annihilated with firearms in some of the incidents included in the other felony mass shooting dataset; however, the offenders were generally rival drug dealers or gang members, or both, and were not related to the victims by blood, marriage, or other form of domestic union. Nearly all of the mass murders characterized as familicide mass shooting incidents in this report occurred in private residences or remote locations, and involved lone offenders who were either a family member or a former intimate partner of a family member. Notwithstanding the potential for overlap, it follows that there are conceptually at least three


\textsuperscript{52} For example, CRS categorized a November 1973 Sioux Falls, SD, mass shooting as an other felony mass shooting even though it occurred in Gitchie Manitou State Preserve. Although the preserve is a public place, it is also a remote and sparsely populated setting. In this case, there were three offenders, who were brothers. They murdered two couples, raping both females, before shooting all four victims to death.
broad patterns of mass murder and, by extension, mass shootings: mass public shootings, familicide mass shootings, and other felony mass shootings.

CRS assigned individual incidents to only one of these three patterns after evaluating the specific location(s), offender-victim relationships, and other pertinent circumstances. Hence, the data subsets are mutually exclusive in this report. Other analysts and researchers could take the same datasets and make different distinctions, judgments, and findings. However, CRS categorized the incidents in this report based largely on the findings of other researchers with the objective of establishing as much comparability among studies as possible. While a handful of cases could possibly be placed in more than one category, like the four familicides in the mass public shooting category, most of the incidents fell within one of the three patterns outlined above.

Mass Shootings Findings

As shown in Figure 1, CRS analysis of the FBI SHR and other data sources indicate that offenders committed at least 317 mass shooting incidents in the United States, murdering 1,554 victims and non-fatally wounding another 441 victims from 1999 through 2013.53 During that 15-year period, there were on average 21 mass shooting incidents per year, with an average of 104 total murder victims and 29 wounded victims per year resulting from those incidents. As shown in Table 1, based on five-year averages, there was an uptick in mass shooting incidents and casualties during the last five years of the 15-year period. The annual incident and casualty counts shown in Figure 1 and underlying Table 1 are provided in Table B-1.

Figure 1. Mass Shootings
(1999-2013)

![Mass Shootings Chart]

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

53 Like BJS, Fox, and Duwe, CRS initiated its research by analyzing FBI SHR data. Like Duwe, CRS verified that quadruple and greater homicide incidents reported to the FBI were recorded properly by state and local law enforcement agencies on the SHR form and, then, supplemented the dataset with incidents not reported to the FBI.
Notes: “Mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and in one or more locations in close geographical proximity.

Table 1. Mass Shootings: Five-Year Annual Averages

<table>
<thead>
<tr>
<th></th>
<th>Incidents</th>
<th>Victims Killed</th>
<th>Victims Wounded</th>
<th>Total Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2003</td>
<td>20.8</td>
<td>95.8</td>
<td>22.4</td>
<td>118.2</td>
</tr>
<tr>
<td>2004-2008</td>
<td>20.2</td>
<td>99.0</td>
<td>19.4</td>
<td>118.4</td>
</tr>
<tr>
<td>2009-2013</td>
<td>22.4</td>
<td>116.0</td>
<td>46.4</td>
<td>162.4</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and in one or more locations in close geographical proximity.

In addition to providing overall data on “mass shootings,” this report builds on the work of noted criminologists and others, and provides statistical breakouts and further analysis for three broad patterns of mass shootings. In summary, those 21 mass shootings annually on average fall into the following broad patterns:

- **four (4.4)** were “mass public shootings” in which four or more victims were shot to death in one or more public locations, such as a workplace, school, restaurant, house of worship, or neighborhood, and the murders **were not** attributable to any underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle);

- **eight (8.5)** mass shootings were “familicides” in which a parent, former intimate partner, or less often a child (progeny), shot four or more victims to death, and a majority of those victims were murdered in private residences or secluded, sparsely populated settings, and the murders **were not** attributable to any underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle); and

- **eight (8.3)** mass shootings could be characterized as “other felony mass murders” in which victims were shot to death, and the murders **were** attributable to an underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

The 15-year dataset compiled by CRS indicates that the prevalence and deadliness of mass shootings overall fluctuated sporadically from year to year. As discussed below, based on five-year averages, the data show that mass shootings increased slightly during the five-year period (2009-2013) compared to earlier five-year periods (1999-2003 and 2004-2008), suggesting an uptick in these incidents in recent years. Mass public shootings and familicide mass shootings also increased slightly, while other felony mass shooting incident and casualty counts decreased.

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54 One study found that for the 36-year period 1976-2011 that the prevalence of mass shootings overall also varied considerably from year to year, but largely held steady at about 20 incidents per year on average over that time period. See James Alan Fox and Monica J. DeLateur, “Mass Shootings in America: Moving Beyond Newtown,” *Homicide Studies*, February 2014, p. 129, http://dropbox.curry.com/ShowNotesArchive/2013/12/NA-576-2013-12-22/Assets/War%20on%20Crazy/Homicide%20Studies-2013.pdf.
slightly, suggesting that the composition of mass shootings has possibly changed over that 15-year timespan (1999-2013). **Figure 2** shows the actual victim and casualty counts for public, familicide, and other felony mass shootings. Familicide and other felony mass shootings occurred twice as frequently as mass public shootings. Compared to familicide (4.8) and other felony mass shootings (4.9), public mass shootings accounted for twice the number of victims (killed and wounded) per incident (11.7).

![Figure 2. Mass Public, Familicide, and Other Felony Mass Shootings](Incidents and Victims, 1999-2013)

In consultation with Grant Duwe, CRS has re-evaluated his data on “mass public shootings” for the 1970s, 1980s, and 1990s. For example, CRS eliminated some of the Duwe-reported mass public shootings, because upon further examination some of those incidents could be characterized as other felony mass shootings.55 Based on the CRS definition of “mass public shootings,” the data show there were on average:

- one (1.1) incident per year during the 1970s (5.5 victims murdered, 2.0 wounded per incident),
- nearly three (2.7) incidents per year during the 1980s (6.1 victims murdered, 5.3 wounded per incident),
- four (4.0) incidents per year during the 1990s (5.6 victims murdered, 5.5 wounded per incident),
- four (4.1) incidents per year during the 2000s (6.4 victims murdered, 4.0 wounded per incident), and

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55 For example, CRS categorized an unsolved September 1984, Detroit, MI, mass shooting involving a disputed dice game, and a January 1993 Palantine, IL, mass shooting (Brown’s Chicken and Pasta) that started out as a robbery, as other felony mass shootings.
• four (4.5) incidents per year from 2010 through 2013 (7.4 victims murdered, 6.3 wounded per incident).

These decade-long averages indicate that the prevalence, if not the deadliness, of mass public shootings has increased, but whether these increases constituted an “epidemic,” as some have argued, would be a matter of perspective. As the data show, the United States saw about four mass public shootings per year on average in the 1990s and 2000s. The first four years of this decade saw an uptick in both the prevalence and deadliness of those incidents.

In terms of deadliness, over the past half century, there have been 13 mass public shootings that resulted in comparatively high casualty counts in terms of double-digit (greater than nine) murder victim counts. Seven of those high-casualty mass public shooting incidents occurred in the past seven years, and resulted in over half of the murder victims and nearly half of the wounded associated with those 13 incidents. Two of those mass public shootings, the December 2012 Newtown, CT, and the April 2007 Blacksburg, VA (Virginia Polytechnic Institute and State University, or VA Tech) mass shootings, resulted in the highest death tolls on record.

Mass Public Shootings

As shown in Figure 3, offenders committed 66 mass public shootings, murdering 446 victims and non-fatally wounding another 329 victims from 1999 through 2013. As with mass shootings generally for that 15-year period, the number of mass public shooting incidents (4.4 per year on average) increased and decreased with considerable variation from year to year. Meanwhile, the casualty counts in terms of killed and/or wounded per year increased for 1999, 2007, 2009, and 2012, due to several incidents that resulted in 10 or more victims killed and sometimes several times more wounded. The average and median age of victims killed was 39 years of age. Notably, the mode was 6 years of age, demonstrating the singularity of Newtown.

As shown in Table 2, five-year averages for both incident and victim counts were higher for the last five years than the preceding 10-year period (1999-2008). However, those increases were largely driven by a few incidents in 2012. If 2012 were excluded, the averages would actually have been lower than the preceding five-year period (2004-2008). The annual incident and casualty counts shown in Figure 3 and underlying Table 2 are provided in Table B-2.

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56 On December 14, 2012, in Newtown, CT, a 20-year-old male entered Sandy Hook Elementary School and shot 20 first graders and 6 adult staff members to death. He also shot his mother to death. For further information, see Report of the State’s Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012, November 25, 2013, 116 pp.

Figure 3. Mass Public Shootings at Workplace, Schools, Restaurants, and Other Public Places
(1999-2013)

![Graph showing number of incidents, victims killed, and wounded over time]

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Mass public shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and at least some of the murders occurred in a public location or locations in close geographical proximity (e.g., a workplace, school, restaurant, or other public settings), and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Table 2. Mass Public Shootings: Five-Year Annual Averages

<table>
<thead>
<tr>
<th>Year</th>
<th>Incidents</th>
<th>Victims Killed</th>
<th>Victims Wounded</th>
<th>Total Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2003</td>
<td>4.2</td>
<td>23.6</td>
<td>15.2</td>
<td>38.8</td>
</tr>
<tr>
<td>2004-2008</td>
<td>4.2</td>
<td>28.6</td>
<td>17.2</td>
<td>45.8</td>
</tr>
<tr>
<td>2009-2013</td>
<td>4.8</td>
<td>37.0</td>
<td>33.4</td>
<td>70.4</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Mass public shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and at least some of the murders occurred in a public location or locations in close geographical proximity (e.g., a workplace, school, restaurant, or other public settings), and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Offenders used firearms that could be characterized as “assault weapons” in 18 of 66 incidents (27.3%), in that they carried rifles or pistols capable of accepting detachable magazines that might have previously fallen under the 10-year, now-expired federal assault weapons ban (1994-2004). In one of those incidents, the assault weapon had been illegally converted into a machine gun. In another case, an off-duty police officer used a legally registered machine gun that had

58 Under the 1934 National Firearms Act (NFA), the term “machine gun” is defined as any weapon which shoots, is (continued...)
been issued to him by his department.\textsuperscript{59} In 38 incidents, the offender carried a single firearm. In 28 out of 66 incidents (42.4\%), offender or offenders carried multiple firearms. At least seven offenders held concealed carry permits according to the Violence Policy Center.\textsuperscript{60} None of the mass public shootings remained unsolved, unlike other felony mass shootings.

A domestic dispute of some type was allegedly a precipitating factor in roughly a fifth (21.2\%) of “mass public shootings,” or at least 14 of the 66 incidents. Four other mass public shooting incidents could also be characterized as familicides, in that a spouse or former intimate partner murdered four or more family members, but in a public space. CRS categorized these incidents as mass public shootings for two reasons: they did not occur in secluded, sparsely populated locations, and other researchers had categorized these incidents as mass public shootings.\textsuperscript{61} One mass public shooting could be characterized as terrorist attack: the November 5, 2009, Fort Hood, TX, mass shooting. Four other mass public shooting incidents included some element of racial or ethnic animus: those incidents occurred in a trailer park, work place, outdoors, and house of worship. The latter incident was the August 5, 2012, Oak Creek, WI, Sikh Temple mass shooting. In total, six out of 66 mass public shootings (9.1\%) occurred in a house of worship. Seven

\textsuperscript{59} On April 9, 2002, a 42-year old male offender and off-duty police officer used his department-issued MP5 machine gun in a Toms River, NJ, neighborhood shooting spree, or “mass public shooting,” in which he shot five people to death, before committing suicide. See Jean Mikle, “Killer Cop’s Victims’ Kin Get $5.7M,” Asbury Park Press (New Jersey), August 1, 2007.

\textsuperscript{60} Violence Policy Center, Concealed Carry Killers, https://www.vpc.org/ccwkillers.htm.


In this report, CRS took an inclusive approach towards categorizing mass public shootings and categorized these incidents as Mother Jones did, with idea of establishing an initial dataset that could be as widely agreed upon as possible as a starting point for further analysis and debate about the nature of these incidents. CRS found two incidents that were very similar to these incidents, which are also included in this report’s mass public shootings dataset. They included a May 2006 Baton Rouge, LA, church shooting and a July 2011 Grand Prairie, TX, roller rink shooting.
incidents (10.6%) occurred in schools or universities. Eighteen incidents (27.3%) occurred in workplaces.

Out of 68 offenders, 39 offenders committed suicide (57.4%), 8 were killed by police, 2 were wounded and then arrested, and the remaining 18 were arrested. One offender was female. All but two of these incidents involved single offenders. Those two incidents included the April 20, 1999, Columbine, CO, high school shooting and the October 3, 2002, Washington, DC, area sniper attacks. The average and median age of offenders was 36 years old, the mode was 42. Three offenders were juveniles (less than 18 years old), including the two co-conspirators in the Columbine, CO, and DC-area shootings.

Familicide Mass Shootings

As shown in Figure 4, offenders committed 127 familicide mass shootings, murdering 576 victims and nonfatally wounding another 37 victims from 1999 through 2013. During that 15-year period, familicide mass shootings (8.47 incidents per year on average) occurred twice as frequently as mass public shootings. The average age of victims killed was 27 years old; median, 30; and mode, 1 or less than 1.

![Figure 4. Familicide Mass Shootings (1999-2013)](image)

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Familicide mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and a majority of the victims were members of the offender’s immediate or extended family, the majority of whom were murdered in one or more private residences or secluded, sparsely populated settings in close geographical proximity, and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

As shown in Table 3, based on five-year averages, there was an increase in familicide mass shooting incidents and casualties during the last five years of the 15-year period. The annual incident and casualty counts shown in Figure 4 and underlying Table 3 are provided in Table B-3.
### Table 3. Familicide Mass Shootings: Five-Year Annual Averages

<table>
<thead>
<tr>
<th></th>
<th>Incidents</th>
<th>Victims Killed</th>
<th>Victims Wounded</th>
<th>Total Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2003</td>
<td>7.6</td>
<td>33.6</td>
<td>1.6</td>
<td>35.2</td>
</tr>
<tr>
<td>2004-2008</td>
<td>7.4</td>
<td>34.0</td>
<td>1.0</td>
<td>35.0</td>
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<tr>
<td>2009-2013</td>
<td>10.4</td>
<td>47.6</td>
<td>4.8</td>
<td>52.4</td>
</tr>
</tbody>
</table>

**Source:** CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

**Notes:** “Familicide mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and a majority of the victims were members of the offender’s immediate or extended family, the majority of whom were murdered in one or more private residences or secluded, sparsely populated settings in close geographical proximity, and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Out of 129 offenders, 72 offenders committed suicide (55.8%), five were killed by police, and 57 were arrested. Five offenders were female. Two incidents involved multiple (two) offenders. The average age of the offenders was 35.5 years, the median 35, and the mode 27. In one case, an offender used a firearm that could be characterized as an “assault weapon,” with which he murdered a single victim, his father. He was 16 years old. In familicide mass shootings, most offenders (86.9%) carried and used a single firearm. Like mass public shootings, but unlike other felony mass shootings, none of the familicide mass shootings remained unsolved.

Most familicide mass shooting offenders were male heads of household or former domestic intimate partners. In a few cases, the offenders were progeny (sons), ex-boyfriends of daughters, or boyfriends with progeny co-conspirators (daughters). These incidents tended to occur late at night or in the early morning hours in private households. In such cases, there is arguably little expectation that the police will be able to intervene to prevent or end such shootings without greater loss of life. On the other hand, there have been cases where domestic violence restraining orders and the longevity of those restraining orders were an issue.

### Other Felony Mass Shootings

As shown in Figure 5, offenders committed 124 other felony mass shootings, murdering 532 victims and non-fatally wounding another 75 victims from 1999 through 2013. During that 15-year period, like familicide mass shootings, other felony mass shootings (8.27 incidents per year

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62 On January 18 and 19, 2013, a 15-year-old male offender murdered four of his family members with a .22 caliber rifle and another, his father, with a semiautomatic AR-15-type rifle in Albuquerque, NM. According to documents charging the offender with murder and child abuse, the offender was “haunted by homicidal and suicidal thoughts that included fantasies of killing his girlfriend’s parents and gunning down random people at a Wal-Mart.” See Matt Pearce, “Nehemiah Griego’s Father Came Home to Family Massacre in New Mexico,” *Los Angeles Times*, January 23, 2013; and Susan Montoya Bryan and Jeri Clausing, “NM Teen Spent Day at Church After Family Slain,” *Associated Press Online*, January 24, 2013.

on average) occurred about twice as frequently as mass public shootings. The average age of the victims killed was 30 years; median, 26; and mode, 23.

**Figure 5. Other Felony Mass Shootings**
(1999-2013)

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Other felony mass shooting” means a multiple victim homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, in one or more locations in close geographical proximity, and the murders are attributable to some other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Unlike either mass public shootings or familicide mass shootings, as shown in Table 4, based on five-year averages, other felony mass shooting incidents and casualty counts generally decreased, with the exception of the wounded counts. The annual incident and casualty counts shown in Figure 5 and underlying Table 4 are provided in Table B-4.

**Table 4. Other Felony Mass Shootings: Five-Year Annual Averages**

<table>
<thead>
<tr>
<th></th>
<th>Incidents</th>
<th>Victims Killed</th>
<th>Victims Wounded</th>
<th>Total Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2003</td>
<td>9.0</td>
<td>38.6</td>
<td>5.6</td>
<td>44.2</td>
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<tr>
<td>2004-2008</td>
<td>8.6</td>
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<td>1.2</td>
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<tr>
<td>2009-2013</td>
<td>7.2</td>
<td>31.4</td>
<td>8.2</td>
<td>39.6</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Other felony mass shooting” means a multiple victim homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, in one or more locations in close geographical proximity, and the murders are attributable to some other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).
The average age of the offenders was 27.4 years, the median 26, and the mode 24. Seventy-seven of these 124 incidents (62.1%) were drug- or gang-related, and of those incidents, 31 were reportedly home invasions (25.0%). Fifteen were robberies (12.1%). Nine were classic revenge killings (7.3%). The rest ranged from a barroom shootout to courthouse escape. Out of 184 known or suspected offenders, three committed suicide, one was killed in an altercation with the police, and the rest were arrested. Most of those arrested were charged and convicted of murder or lesser crimes for being co-conspirators or accessories. Of these incidents, 40 involved single offenders; 30, two; 15, three; 9 four; 2, five; 1, six; and 1, eleven. Twelve offenders were female (all of them were co-conspirators). In 12 cases, offenders carried and/or used firearms that could be characterized as “assault weapons.” Based on available press accounts, 27 of these incidents remain unsolved.

Comparative Summary Data and Figures

As shown in Figure 6 and Figure 7, mass public shootings had the highest casualty rates whether killed or wounded per incident or per offender, when compared to familicides and other felony mass shootings. For those cases in which the offenders were identified, approximately half of other felony mass shooting incidents involved multiple offenders. As a result, the casualty rates per offender(s) were lower for other felony mass shootings than for either mass public shootings or familicides. All of the data used to construct the Figure 6 and Figure 7 are provided in Table B-5.

**Figure 6. Victims per Pattern of Mass Shooting Incident**

(317 incidents, 1,544 Murdered and 441 Nonfatally Wounded victims)

<table>
<thead>
<tr>
<th>Pattern of Mass Shooting</th>
<th>Victims Killed per Incident</th>
<th>Victims Wounded per Incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public (66 incidents)</td>
<td>6.76</td>
<td>4.98</td>
</tr>
<tr>
<td>Familicide (127 incidents)</td>
<td>4.54</td>
<td>0.29</td>
</tr>
<tr>
<td>Other &quot;Felony&quot; (124 incidents)</td>
<td>4.29</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.
Prevalence and Deadliness of Mass Public Shootings

Over the past 48 years, as shown in Table 5, there have been 13 mass public shooting incidents that resulted in comparatively high casualty rates, or double-digit death tolls (more than nine). Seven of those high-casualty mass shooting incidents occurred in the past seven years, and resulted in over half of the murder victims and nearly half of the wounded associated with those 13 incidents.

Table 5. Mass Public Shootings with Double-Digit (>9) Death Tolls
(Killed/Nonfatally Wounded)

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Washington Navy Yard (12/3)—workplace</td>
<td>1999 Littleton, CO (13/24)—high school</td>
</tr>
<tr>
<td>2012 Newtown, CT (27/2)—elementary school</td>
<td>1991 Killeen, TX (23/27)—other public space</td>
</tr>
<tr>
<td>2012 Aurora, CO (12/58)—other public space</td>
<td>1990 Jacksonville, FL (10/17)—public place</td>
</tr>
<tr>
<td>2009 Ft. Hood, TX (13/32)—workplace</td>
<td>1986 Edmond, OK (14/6)—workplace</td>
</tr>
<tr>
<td>2009 Binghamton, NY (13/4)—other public space</td>
<td>1984 San Ysidro, CA (21/19)—other public space</td>
</tr>
<tr>
<td>2009 Geneva County, AL (10/6)—private home and other public spaces (spree killing)</td>
<td>1966 Austin, TX (14/30)—university</td>
</tr>
<tr>
<td>2007 Blacksburg, VA (VA Tech) (32/17)—state university</td>
<td></td>
</tr>
<tr>
<td>Total: Seven Years/Seven Incidents: 119 killed, 122 wounded</td>
<td>Total: Thirty-Four Years/Six Incidents: 95 killed, 123 wounded</td>
</tr>
</tbody>
</table>

Notes: Victim counts only include shooting victims. In some cases, additional victims were killed or wounded by means other than a firearm.

Two of those mass public shootings, the December 2012 Newtown, CT, and the April 2007 Blacksburg, VA (Virginia Polytechnic Institute and State University, or VA Tech) mass shootings, resulted in the two highest death tolls in the past half century. By comparison, for the earlier seven-year period (2000-2006), the United States did not suffer any mass shootings resulting in double-digit death tolls. And, over the 34-year period (1966-1999), there were six mass shooting incidents resulting in double-digit death tolls, and those incidents occurred less frequently.

As noted above, the current public understanding generally of what constitutes a mass public shooting was conceptualized arguably by Grant Duwe in his book, Mass Murder in the United States: A History (2007), although the term has been defined differently by several researchers. Building upon Duwe’s data and analysis, CRS compiled a 44-year dataset of firearms-related mass murders that could arguably be characterized as “mass public shootings.” As shown in Figure 8, the days between incidents have become fewer over those years and the incidents have become more prevalent. From 2010 through 2013, for example, there were on average 74 days between mass public shooting incidents. For the 2000s, there were 88 days between incidents; for the 1990s, 94 days; for the 1980s, 152 days; and the 1970s, 282 days.

Figure 8. Days Between Mass Public Shootings (1970-2013)

Source: CRS analysis of data provided by Grant Duwe for 1970-1998 on mass public shootings, as well as analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups. This analysis is nearly identical to that which first appeared in Amy P. Cohen, Deborah Azrael, and Matthew Miller, “Rate of Mass Shootings Has Tripled Since 2011, Harvard Research

As shown in Figure 9, the overall firearms-related murder victim rate increased in the 1970s, 1980s, and peaked in 1993. Since then, that murder rate has decreased, fluctuated moderately, or held steady for about the past two decades. From 1993 to 2013, the estimated firearms-related homicide victim rate per one hundred thousand of the population decreased from 6.62 to 3.10. By comparison, it was 5.07 per hundred thousand of the population in 1970 (see the left y-axis for scale). For the same years, the mass public shooting murder victim rate per ten million of the population has trended upward, notwithstanding annual sporadic fluctuations in those murder counts (see the right y-axis for scale). The mass shooting victim rates spiked in several years. For example, it spiked at one victim per 10 million of the population in 1977. It spiked at about one and three-quarter victims per 10 million of the population in 1984, 1991, 1999, 2007, and 2009, largely due to the high casualty incidents listed in Table 5. It spiked at over two per ten million of the population in 2012, a rate that principally reflects the victims of the Aurora, CO, and Newtown, CT, mass shootings.

Figure 9. Firearm Murder and Mass Public Shooting Victim Rates
(1970-2013)

Source: CRS analysis of data provided by Grant Duwe for 1970-1998 on mass public shootings, as well as analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.
Possible Issues and Options for Congress

Mass shootings are arguably one of the worst manifestations of gun violence. Public perception of mass public shootings is largely shaped by media accounts. Those accounts often depict mass public shootings as “random” incidents, in which victims are “gunned down indiscriminately.” Leading criminologists, however, have long disputed such characterizations of mass murders as overly simplistic, and have done so in the wake of the Newtown, CT, tragedy. Those criminologists contend strongly that most mass murderers who kill with firearms carefully plan their attacks well in advance, know at least some of their victims, and often select their victims methodically. Those criminologists contend further that while mass murderers are often afflicted with some form of severe emotional duress and mental instability and, consequently, are sometimes delusional, they are rarely psychotic and hallucinatory, and are seldom found to be criminally insane or otherwise unfit to stand trial. In many cases, their mental conditions did not rise to a level such that they would have previously had significant encounters with either the mental health or law enforcement communities. Criminologists have noted, moreover, that after a short period of “moral panic” the national attention that is generated by mass public shootings subsides and the affected communities return to normalcy.

“Familicides,” by comparison, arguably do not garner the same level of media attention or public concern, even though those incidents occur twice as frequently as “mass public shootings.” Advocates for domestic abuse victims have observed that there is often a societal stigma attached to familicides, because the victims are sometimes seen to be indirectly to blame. Instead of the fear, “It could be me,” as is the case in mass public shootings, there appears to be a counter-rationalization, “It would never happen to me.” In some cases, media coverage of familicides is sparse, maybe an article or two in a local paper, often with little or no statewide or national coverage. In addition, there is often little or no opportunity for law enforcement officers to intervene in the actual shootings, because these murders are typically committed late in the night or in the early morning hours in private residences or remote, isolated areas. As discussed below, however, several states have enacted laws to intervene proactively, by taking arguably more concrete steps to remove firearms from the homes of persons with histories of domestic violence.

67 Ibid.
69 Ibid.
By comparison, “other felony mass shootings” generally generate media coverage initially following their discovery, but that attention usually wanes over time, especially when the offenders are not quickly apprehended, arrested, and brought to trial. As described above, a significant percentage of those incidents are drug- or gang-related, or involve persons engaged in other risk-laden, illegal activities. Because of this, there is sometimes little collective sympathy in afflicted communities for the victims. As with “familicides,” there is also often little opportunity for police to intervene in the actual shootings as they occur. Other mass shooting incidents appear to pose a challenge for law enforcement and the judicial system in some communities, as indicated by the possibly 27 unsolved “other felony mass shootings” in the 15-year CRS dataset.

In addition, following any mass shooting, questions are often raised by the media, gun control advocates, and gun rights defenders, but seldom answered definitively and officially. Among those questions, the six most frequently asked include

- How did the offenders get their guns, legally or illegally?
- Did the offenders have a history of violence and/or mental illness?
- How many and what types of guns were carried and used?
- Did the gun types lead to higher victim counts in terms of both killed and wounded?
- Did the offenders hold valid, state-issued concealed carry permits and, if so, was concealed carry a factor in shootings?
- Did the shootings occur in designated “gun free zones”?

Questions such as these, if answered comprehensively and in a longitudinal fashion, could arguably inform the policymaking process, as well as provide first responders with valuable criminal intelligence. Toward those ends, several gun control issues related to mass shootings are discussed below.

**Mass Killings, Mass Murder, Mass Shooting, and Related Definitions**

Following the Newtown, CT, mass shooting, Congress passed legislation that statutorily defines the term “mass killings” as “3 or more killings in a single incident.”73 This act essentially authorizes the Attorney General and FBI Director, at the request of a state or local law enforcement official, to assist in the investigation of violent acts, including mass killings and attempted mass killings in schools, malls, or other public places and non-federal office buildings. The term “mass killings” as defined in this act with its three-victim threshold differs with previous FBI guidance on homicide types, and with the prior general practice of enumerating what constitutes “mass murder.” As discussed previously, a mass murder has been defined generally as a multiple homicide incident in which four or more victims are murdered—not including the offender(s)—within one event, and in one or more geographical locations relatively near one another.

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Given its definition of “mass killings” in P.L. 112-265, and as one step towards establishing a comprehensive statistical baseline in the future, Congress might want to consider whether it would be beneficial for the FBI or other governmental agency to provide a consistent, complementary set of definitions for terms like “mass murder,” “mass shooting,” and “mass public shooting,” so that such terminology is not conflated with terms like “active shooter,” “mass killing,” or “mass casualty event.” Several researchers have called for the development of a consensus definition for mass shootings, as one step towards stimulating and funding “epidemiologic research on this phenomenon.”

Federal Statistics and Mass Shootings

So far, with the exception of BJS, no federal agency has systematically analyzed multiple victim homicide incidents involving firearms in a comprehensive, authoritative manner. Yet the FBI-compiled Uniform Crime Reports (UCR) and its complementary Supplementary Homicide Reports (SHR) program provide the single, authoritative source of data on multiple victim homicides from which valid, academically peer-reviewed statistical baselines can, and have been, established by a handful of researchers. Nonetheless, the UCR-SHR data are fraught with several serious shortcomings, which could be alleviated if state and local law enforcement agencies reported data more regularly, and the FBI took additional steps to ensure the data were collected with greater accuracy. (See Appendix A, footnote 95.)

In addition to the FBI's UCR-SHR program, the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) also maintain a database on mortality and morbidity in the United States, including firearms-related homicides, suicides, and accidents. However, the CDC datasets are not published on as timely a basis as the UCR-SHR datasets; for any given year, the CDC data releases usually lag behind the FBI UCR-SHR data releases by a couple of years. Furthermore, the CDC datasets only include data on multiple victim homicides for those incidents that the FBI investigates as “international terrorist incidents.”

In short, to provide an improved statistical baseline on mass murder and gun violence, Congress could examine possibilities of future improvements to both the CDC and FBI datasets, as a means of making both datasets more comprehensive, compatible, and complementary.

Legal or Illegal Firearms Acquisition

Following any firearms-related multiple homicide, one of the questions that nearly always arises is, “How did the offender acquire his gun(s), legally or illegally?” This is a question that sometimes can be answered by federal authorities. The DOJ’s Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) administers a regulatory framework of recordkeeping under both the Gun Control Act of 1968 (18 U.S.C. Chapter 44, §921 et seq.) and the National Firearms Act of 1934 (26 U.S.C. §5801 et seq.) that often allows federal agents to trace a firearm from a federally licensed manufacturer or importer of that firearm to the first retail purchaser, and

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possibly to the offender. In this way, the legality of the transfers in a firearm’s chain of commerce can sometimes be established.

The release of raw, unfiltered firearms trace data to the public, however, is fraught with controversy, especially when the identities of federally licensed gun dealers who might not have broken any law are released. On the other hand, knowing whether the offenders acquired their firearms legally or illegally would arguably inform the gun control debate. For example, if a majority of offenders who kill with firearms acquired those weapons legally, then a stronger argument possibly could be made for better recordkeeping on persons who are legally disqualified from being transferred a firearm for reasons of domestic violence or other documented violent behavior, among other possible changes in federal and state law. According to some assessments, however, it appears that some mass murders had little or no prior interaction with the mental health community, nor did they always have criminal history records. While this could be said for some mass public shooting offenders, this observation is probably less valid for other felony and familicide mass shooting offenders.

Similarly, if a significant percentage of those offenders acquired those firearms from unlicensed persons, a stronger argument could be made for requiring “universal background checks,” a proposal under which all firearms transfers would have to be made through a federally licensed gun dealer to ensure that a federal name-based background check would be conducted on all potential unlicensed firearms buyers, no matter whether the seller was a licensed dealer or unlicensed, private person. Opponents of universal background checks would possibly counter that offenders would manage to acquire a firearm through a “straw purchase” or some other illegal avenue.

Nevertheless, such data on legality of such transfers, if collected comprehensively and without bias, could be released by ATF without compromising the identities of federally licensed gun dealers, who might have simply had the misfortune to transfer a firearm according to the law, but to a murderer. If a federally licensed gun dealer or unlicensed, private person transferred a firearm to a mass shooter illegally, it is likely he would be prosecuted to the fullest extent of the law.

Along these lines, Congress could consider requiring ATF to reach out affirmatively to offer assistance to any state or local law enforcement agency investigating any multiple victim

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76 For FY2004 and every year thereafter, Congress has included a proviso in the ATF salaries and expenses appropriations language that is known for its original sponsor, Representative Todd Tiahrt. This proviso prohibits ATF from using appropriated funding to make unfiltered trace data available to any parties other than domestic and foreign law enforcement (with greater restrictions in the latter case) and national security agencies. The language of the proviso exempts trace reports, which ATF has traditionally produced for statistical purposes and firearms trafficking trend analysis. For FY2012, Congress included “futurity language” (“in the current fiscal year and in each fiscal year thereafter”) in this rider, which appears to be intended to make it permanent law. See Consolidated and Further Continuing Appropriations Act, 2012; P.L. 112-55; November 18, 2011, 125 Stat. 552, 609-610; 18 U.S.C. 923 note.


78 A “straw purchase” occurs when an individual poses as the actual transferee, but he is actually acquiring the firearm for another person. In effect, he serves as an illegal middleman. As part of any firearms transfer from a federally licensed gun dealer to a private person, the GCA requires them to fill out jointly an ATF Form 4473. In addition, the gun dealer is required to verify the purchaser’s name, address, date of birth, and other information by examining a government-issued piece of identification, most often a driver’s license. Among other things, the purchaser attests on the ATF Form 4473 that he is not a prohibited person, and that he is the “actual transferee/buyer.” Hence, straw purchases are known as “lying and buying for the other guy.” Straw purchases are illegal under two provisions of the GCA (18 U.S.C. §§ 922(a)(2) and 924(a)(1)(D)).
homicide, no matter the circumstances, by offering to trace any firearms used in those incidents. Based on that assistance, Congress could also consider directing BJS and ATF to report formally to Congress about the frequency and deadliness of multiple victim homicides, and how the offenders acquired those firearms used in those incidents, especially for mass murders. ATF would arguably also be well positioned to report to Congress on arson- and explosives-related mass murders.

**Types of Firearms Used in Mass Shootings**

Many observers agree that a rash of “mass public shootings” in the 1980s and early 1990s was a contributing factor that led to the enactment of a 10-year (1994-2004) federal ban on “semiautomatic assault weapons” that placed restrictions on certain “military style” firearms capable of accepting “detachable magazines,” a capability that arguably allows some firearms to be re-loaded more rapidly and fired more rapidly. As noted above between 1999 and 2013:

- In “mass public shootings,” offenders used firearms that could be characterized as “assault weapons” in 18 of 66 incidents (27.3%).
- In one “familicide mass shooting,” an offender used a firearm that could be characterized as an “assault weapon,” with which he murdered one of his four victims, his father.
- In 12 “other felony mass shootings,” offenders carried and/or used firearms that could be characterized as “assault weapons” (9.7%).

In summation, out of 317 “mass shootings,” offenders used firearms that could be characterized as “assault weapons” in 31 incidents (9.78%), or roughly 1 out of 10 incidents. In some, but not all, of these incidents, the capabilities of these firearms arguably led to higher victim counts in terms of both killed and wounded. In other incidents, however, like the familicide described above, the fact that the firearm used to kill one of the victims could be characterized as an “assault weapon,” does not arguably inform the gun control debate a great deal, because the offender did not fire multiple rounds with that firearm to murder multiple victims, nor did he reload.

If an authoritative and comprehensive dataset of types of firearms used, numbers of shots fired, and reloads made in mass shooting incidents could be established, Congress and other policymakers would arguably have an improved basis from which to assess proposals regarding the capacity of detachable magazines and semiautomatic firearms capable of accepting those magazines.

**Domestic Violence and Mass Shootings**

A domestic dispute of some sort was allegedly a contributing factor in about a fifth of mass public shootings and arguably nearly all of the familicide mass shootings. In some cases, offenders were able to purchase a firearm, or allowed to keep firearms already in their possession, and commit mass murder, even though they had previously had domestic violence restraining orders filed against them, or had been convicted of misdemeanor domestic violence offenses, both prohibiting factors under federal law with regard to firearms possession and transfer. Such scenarios have
prompted some states to increase the longevity of domestic violence restraining orders.\textsuperscript{79} These scenarios have also prompted other states to require judges and magistrates issuing domestic violence restraining orders to communicate affirmatively to the subject of a restraining order that if he or she possesses any firearms, they are henceforward, for the life of that restraining order, in illegal possession of those firearms and in violation of federal law.\textsuperscript{80} Hence, they must at least temporarily surrender constructive possession of their firearms to a neutral third party. Other states require the subjects of those restraining orders to actually surrender any firearms that they possess to the authorities for the life of that restraining order. The laws in other states remain silent on such matters, according to a 2006 report.\textsuperscript{81} As several researchers underscored, the expectation that subjects of restraining orders voluntarily relinquish their firearms is a potentially problematic aspect of both federal and state law.\textsuperscript{82}

With regard to such matters, Congress could consider directing the Attorney General to establish guidelines for the handling of such matters at the state and local level. Congress might also want to consider revisiting the NICS Improvement Amendments Act of 2007 (P.L. 110-180) to explore possibilities to address the issues related to improving electronic information sharing on persons with documented histories of domestic violence with the FBI for the purposes of gun control.

**Mental Illness and Mass Shootings**

Most mass murderers arguably suffered from some form of mental instability, at least temporarily.\textsuperscript{83} Many offenders, however, who manage to shoot to death four or more victims are not psychotic or hallucinatory; consequently, they often have not had significant interaction with either the mental health or law enforcement community.\textsuperscript{84} Nonetheless, following mass shootings, policymakers often propose providing increased funding to bolster a federally maintained computer file in the National Instant Criminal History Background Check System, in which the FBI maintains records on persons who are considered “mentally defective,” or too “mentally incompetent” or “mentally unstable” to be trusted with firearms. Prior to the enactment of the Brady Handgun Violence Prevention Act (Brady Act, P.L. 103-159), however, the United States collectively saw no reason to establish a paper record system or electronic database of persons who were too “mentally incompetent” for gun control or any other purpose.

Conversely, prior to the Brady Act, the federal government and the states (largely facilitated by the FBI) had collectively built a federated system, which in the 1970s was computerized and


\textsuperscript{80} Ibid.


linked telephonically, to share mostly serious felony-level criminal history record information (“rap sheets”). This federated computer record system is the Interstate Identification Index (III). While the number and quality of records in the III needed to be improved substantially to meet the objectives of the Brady Act, without it, the Brady Act would have largely been unfeasible.

At the same time, the Brady Act created a statutory impetus to develop a parallel computer system and databases for persons who authorities considered to be too mentally unstable to be trusted with a firearm, as well as computer files on drug addicts and abusers. To implement this part of the Brady Act, federal authorities are dependent upon the state authorities to gather and provide those records electronically to the FBI. While some states that had required computerized, firearms-related background checks prior to the Brady Act had begun to establish such record systems, some states had not and still have not established such systems. Because the impetus was top-down and not bottom-up, or grass roots, the onus was arguably on the federal government to lead a nationwide dialogue and build a national consensus with regard to the scope, reach, and maintenance of such record systems.

At the federal level, such a dialogue was held administratively among federal agencies. In 1997, the ATF, in consultation with other federal agencies, established a regulatory definition of “adjudicated mental defective” as one step towards the implementation of the Brady Act, which required federal background checks on unlicensed persons seeking to acquire firearms from federally licensed firearms dealers. According to DOJ, however, some states have chosen not to provide the FBI with any records on persons who would fall under ATF’s definition of “adjudicated mental defective,” even when they have been:

- found to pose a danger to themselves or others following a court-ordered psychiatric evaluation;
- committed to a mental institution; or
- found to be criminally insane.

Before the Newtown, CT, mass shooting, federal courts did not provide records to the FBI on persons who had been found to be criminally insane, though those persons fell under the ATF definition of “adjudicated mental defective.” While this oversight has reportedly been addressed

85 Under 27 C.F.R. §478.11, the term “adjudicated as a mental defective” is defined to include a determination by a court, board, commission, or other lawful authority that a person, as a result of marked subnormal intelligence or a mental illness, incompetency, condition, or disease, (1) is a danger to himself or others, or (2) lacks the mental capacity to manage his own affairs. The term also includes (1) a finding of insanity by a court in a criminal case and (2) those persons found incompetent to stand trial or found not guilty by reason of lack of mental responsibility pursuant to articles 50a and 72b of the Uniform Code of Military Justice, 10 U.S.C. Sections 850a, 876(b). This definition was promulgated by an ATF final rule (Federal Register, vol. 62, no. 124, June 27, 1997, p. 34634).


by the Executive Office of the U.S. Attorneys and Administrative Office of the U.S. Courts, it may still warrant congressional attention.

On the other hand, since 1998, the Department of Veterans Affairs (VA) has transferred to the FBI electronic records on any VA beneficiary who is found to be too mentally incompetent to handle his or her day-to-day affairs, prompting Congress to create an administrative appeals process so that those VA beneficiaries can petition to have their gun rights restored. In addition, as a condition of federal aid under the NICS Improvement Amendments Act of 2007 (P.L. 110-180), Congress requires that states establish similar administrative appeals processes. In some cases, the costliness of these appeals processes has prompted some states to forgo applying for federal grants under the act. Meanwhile, Congress maintains a rider on the ATF annual appropriations, prohibiting that agency from considering any disabilities relief applications under federal statute from any other person ineligible to possess for any reason, because gun privileges had been restored to persons with criminal histories, some of whom later went on to commit subsequent crimes, and also for cost-saving purposes.

The range of “mentally incompetent” or “mentally unstable” persons who could potentially fall under the ATF definition of “adjudicated mental defective” is wide in scope and will likely be costly to realize. Congress has already provided state and local governments with hundreds of millions of dollars to improve the accuracy and electronic access to disqualifying records for the purposes of gun control. While the focus of those efforts initially was on felony-level criminal records, over the years resources have been increasingly devoted to determinations of mental incompetency, misdemeanor domestic violence convictions, and misdemeanor domestic violence restraining orders.

The maintenance of these records has considerable implications for the individuals who are the subjects of those records. It also has costs, not only to the federal government, but state and local governments, and possibly mental health care providers as well. To ensure that at some point in the future such funding is provided and expended in the most efficacious manner possible, Congress could consider the scope of the federal definition of “adjudicated mental defective” and

88 Phone conversation with Administrative Office of the United States Courts, Office of Legislative Affairs on February 15, 2015.
89 “The limited amount of NIAA grant funds appropriated so far may, in some cases, have caused states to abstain from pursuing a relief from disabilities program based upon a simple cost-benefit analysis.” U.S. Department of Justice, Report to Congress Pursuant to Requirements of the NICS Improvement Amendments Act of 2007 (P.L. 110-180), June 1, 2012, p. 14.
90 For FY1993 and every year thereafter, Congress has included a proviso in the ATF S&E appropriations language that prevents that agency from using appropriated funds to consider applications for disabilities relief (i.e., reinstatement of an applicant’s right to gun ownership under 18 U.S.C. §925(c)) from individuals who are otherwise ineligible to be transferred a firearm.
91 Under the National Criminal History Improvement Program (NCHIP), which was originally authorized under the Brady Act, Congress has appropriated nearly $563 million to provide states with grants to improve criminal history recordkeeping. Similarly, for programs authorized under the 2007 NICS Improvement Amendments Act (P.L. 110-180), Congress has appropriated nearly $64 million to provide states and tribal governments with grants to improve mental health and criminal history recordkeeping on persons who are deemed to be either “mentally defective” or committed to a mental institution, convicted of a domestic violence misdemeanor, or subject to a domestic violence restraining order.
what a national database of “mentally incompetent and unstable” individuals means to the United States for the purposes of gun control. The current definition of “mental defective” is wide enough in scope that it may be many years, or perhaps never at all, before a significant percentage of records on all the persons who potentially fall under the current definition of “adjudicated mental defective” are comprehensively collected and placed in a database for the purposes of federal gun control.93 Congress might also want to consider revisiting the NICS Improvement Amendments Act of 2007 (P.L. 110-180) to explore possibilities to address issues related to improving the electronic information sharing on persons with histories of mental illness and instability, as well as drug and alcohol abuse, with the FBI for the purposes of gun control.94

Other Felony Mass Shootings and Unsolved Mass Murder Cases

A significant percentage, more than a fifth, of “other felony mass shootings” appears to remain unsolved. As demonstrated above, for “other felony mass shootings,” 27 of 124 cases were unsolved according to available press accounts. While that represents a clearance rate of nearly four-fifths of those incidents (78.2%), it could be a source of concern for some policymakers that quadruple or greater homicides—particularly mass shootings—in any community in the United States could remain unsolved. As the data show, a large percentage of those incidents were drug- and/or gang-related and often occurred in communities blighted by high poverty and other social ills. As one of the worst manifestations of gun violence, Congress could explore the reasons why these “mass shootings” remain possibly unsolved. Is it a lack of resources and/or ineffective policing? Are witnesses and others with knowledge of these murders afraid to come forward, for fear that criminals will retaliate against them and their families? Are these unsolved “mass shootings” indicative of communities whose trust in the police has become so diminished over the years that those communities collectively show greater affinity with the murderers than the police? While there are no clear answers to these questions, multiple victim homicide rates and unsolved “mass shootings” could possibly be one factor that could help policymakers more effectively target federal law enforcement assistance and intervention into high-crime areas.

93 One observer stated: “If you focus on mental illness, all you get is a huge number of false positives.” See John Nicoletti, “Active Shooters See Themselves As Avengers, Acting Upon a Real or Perceived Injustice,” in Police Response to Active Shooter Incidents (Police Executive Research Forum, March 2014), p. 29.

94 For further information about proposals to expand firearms ineligibility criteria, see Consortium for Risk-Based Firearm Policy, Guns, Public Health, and Mental Illness: An Evidence-Based Approach for Federal Policy, December 11, 2013, 38 pp.
Appendix A. Review of Research on the Prevalence of Multiple Homicides, Mass Murder, and Patterns of Mass Murder

A handful of criminologists, statisticians, sociologists, and journalists have evaluated the single, most comprehensive source of homicide data in the United States as a means to gauge the frequency and deadliness of multiple victim homicides and “mass murder” committed with firearms and other weapons.

Bureau of Justice Statistics Estimates of Multiple Victim Homicides

Based on its analysis of the FBI-SHR data, the DOJ Bureau of Justice Statistics (BJS) has provided CRS with data on the prevalence of multiple victim homicide incidents (by firearms and all other means) and associated murder victim counts for the years 1980 through 2011. To keep BJS data parallel with CRS data presented in this report, the BJS data presented and discussed in the next two tables (and figures) below are only for 1999 to 2011. It is significant to note that BJS statistically weighted its estimates to account for non-reporting and other known Supplementary Homicide Report (SHR) data limitations.95

<table>
<thead>
<tr>
<th>Year</th>
<th>All Homicide Incidents&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Single Victim</th>
<th>% of total</th>
<th>Double Victim</th>
<th>% of total</th>
<th>Triple Victim</th>
<th>% of total</th>
<th>Four or More Victim</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>14,682</td>
<td>14,022</td>
<td>95.51%</td>
<td>550</td>
<td>3.75%</td>
<td>72</td>
<td>0.49%</td>
<td>37</td>
<td>0.26%</td>
</tr>
<tr>
<td>2000</td>
<td>14,850</td>
<td>14,250</td>
<td>95.96%</td>
<td>504</td>
<td>3.39%</td>
<td>70</td>
<td>0.47%</td>
<td>26</td>
<td>0.18%</td>
</tr>
</tbody>
</table>

95 The SHR are beset with several significant data limitations with regard to multiple victim homicides. First and foremost, some states and localities do not participate, do not participate fully, or participate intermittently in the SHR program. Second, federal and tribal law enforcement agencies do not participate at all in the SHR program. Third, the FBI does not exercise direct control over how data are submitted. As a result, some potential difficulties in evaluating SHR data include

• Several single victim murder incidents might be reported on the same form; hence, they appear to be a multiple murder incident;

• A single multiple homicide incident might be reported as several incidents, one for each victim; or

• A single incident might be reported as a multiple homicide, because wounded were misreported as killed.

Fourth, incidents are reported by month and year, and not the actual day of occurrence. Consequently, the recorded month and year sometimes reflect when the incident was reported and not when it actually occurred. Fifth, in some, but not all, cases, the SHR data do not reflect the final disposition of the case, since the reports are based on the opening of an investigation and do not necessarily reflect the closing of an investigation and final legal action (e.g., trial and conviction).
<table>
<thead>
<tr>
<th>Year</th>
<th>All Homicide Incidents</th>
<th>Single Victim</th>
<th>% of total</th>
<th>Double Victim</th>
<th>% of total</th>
<th>Triple Victim</th>
<th>% of total</th>
<th>Four or More Victim</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>15,233</td>
<td>14,561</td>
<td>95.59%</td>
<td>571</td>
<td>3.75%</td>
<td>81</td>
<td>0.53%</td>
<td>20</td>
<td>0.13%</td>
</tr>
<tr>
<td>2002</td>
<td>15,340</td>
<td>14,630</td>
<td>95.38%</td>
<td>582</td>
<td>3.80%</td>
<td>93</td>
<td>0.60%</td>
<td>34</td>
<td>0.22%</td>
</tr>
<tr>
<td>2003</td>
<td>15,554</td>
<td>14,805</td>
<td>95.18%</td>
<td>612</td>
<td>3.94%</td>
<td>91</td>
<td>0.58%</td>
<td>46</td>
<td>0.30%</td>
</tr>
<tr>
<td>2004</td>
<td>15,331</td>
<td>14,666</td>
<td>95.66%</td>
<td>563</td>
<td>3.67%</td>
<td>72</td>
<td>0.47%</td>
<td>30</td>
<td>0.19%</td>
</tr>
<tr>
<td>2005</td>
<td>15,855</td>
<td>15,135</td>
<td>95.46%</td>
<td>596</td>
<td>3.76%</td>
<td>98</td>
<td>0.62%</td>
<td>26</td>
<td>0.17%</td>
</tr>
<tr>
<td>2006</td>
<td>16,384</td>
<td>15,656</td>
<td>95.56%</td>
<td>598</td>
<td>3.65%</td>
<td>89</td>
<td>0.54%</td>
<td>41</td>
<td>0.25%</td>
</tr>
<tr>
<td>2007</td>
<td>16,234</td>
<td>15,524</td>
<td>95.62%</td>
<td>596</td>
<td>3.67%</td>
<td>84</td>
<td>0.52%</td>
<td>30</td>
<td>0.19%</td>
</tr>
<tr>
<td>2008</td>
<td>15,577</td>
<td>14,872</td>
<td>95.47%</td>
<td>583</td>
<td>3.74%</td>
<td>86</td>
<td>0.55%</td>
<td>37</td>
<td>0.24%</td>
</tr>
<tr>
<td>2009</td>
<td>14,498</td>
<td>13,776</td>
<td>95.02%</td>
<td>613</td>
<td>4.23%</td>
<td>72</td>
<td>0.50%</td>
<td>37</td>
<td>0.25%</td>
</tr>
<tr>
<td>2010</td>
<td>13,910</td>
<td>13,250</td>
<td>95.25%</td>
<td>552</td>
<td>3.97%</td>
<td>80</td>
<td>0.58%</td>
<td>28</td>
<td>0.20%</td>
</tr>
<tr>
<td>2011</td>
<td>13,743</td>
<td>13,048</td>
<td>94.94%</td>
<td>564</td>
<td>4.10%</td>
<td>108</td>
<td>0.78%</td>
<td>24</td>
<td>0.17%</td>
</tr>
<tr>
<td>Totals</td>
<td>197,191</td>
<td>188,195</td>
<td>95.44%</td>
<td>7484</td>
<td>3.80%</td>
<td>1096</td>
<td>0.56%</td>
<td>416</td>
<td>0.21%</td>
</tr>
</tbody>
</table>

**Source:** U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

**Notes:** The figures in this table are not actual incident counts. They are statistical estimates based upon Bureau of Justice Statistics analysis of Federal Bureau of Investigation (FBI) Supplementary Homicide Reports.

a. “All homicide incidents” include “murders and nonnegligent manslaughter.”

b. Totals may differ from the sum of the components due to rounding.

As shown in Table A-1, for that decade, it can be extrapolated that there were on average approximately 32 four or more victim homicides per year from 1999 to 2011. Those four or more victim homicides accounted for about two-tenths of one percent (0.21%) of all incidents of murder and nonnegligent manslaughter for that decade.

### Table A-2. BJS-Estimated Single, Double, Triple, Four or More Homicide Victims

<table>
<thead>
<tr>
<th>Year</th>
<th>All Homicide Victims</th>
<th>Single Victim</th>
<th>% of total</th>
<th>Double Victim</th>
<th>% of total</th>
<th>Triple Victim</th>
<th>% of total</th>
<th>Four or More Victim</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>15,522</td>
<td>14,022</td>
<td>90.34%</td>
<td>1,100</td>
<td>7.09%</td>
<td>217</td>
<td>1.40%</td>
<td>183</td>
<td>1.18%</td>
</tr>
<tr>
<td>2000</td>
<td>15,586</td>
<td>14,250</td>
<td>91.43%</td>
<td>1,007</td>
<td>6.46%</td>
<td>209</td>
<td>1.34%</td>
<td>119</td>
<td>0.77%</td>
</tr>
<tr>
<td>Year</td>
<td>All Homicide Victimsa</td>
<td>Single Victim</td>
<td>% of total</td>
<td>Double Victim</td>
<td>% of total</td>
<td>Triple Victim</td>
<td>% of total</td>
<td>Four or More Victim</td>
<td>% of total</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------</td>
<td>---------------</td>
<td>------------</td>
<td>--------------</td>
<td>------------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
<td>------------</td>
</tr>
<tr>
<td>2001</td>
<td>16,037</td>
<td>14,561</td>
<td>90.79%</td>
<td>1,142</td>
<td>7.12%</td>
<td>244</td>
<td>1.52%</td>
<td>90</td>
<td>0.56%</td>
</tr>
<tr>
<td>2002</td>
<td>16,229</td>
<td>14,630</td>
<td>90.15%</td>
<td>1,165</td>
<td>7.18%</td>
<td>278</td>
<td>1.71%</td>
<td>156</td>
<td>0.96%</td>
</tr>
<tr>
<td>2003</td>
<td>16,528</td>
<td>14,805</td>
<td>89.57%</td>
<td>1,224</td>
<td>7.41%</td>
<td>272</td>
<td>1.65%</td>
<td>226</td>
<td>1.37%</td>
</tr>
<tr>
<td>2004</td>
<td>16,148</td>
<td>14,666</td>
<td>90.82%</td>
<td>1,127</td>
<td>6.98%</td>
<td>216</td>
<td>1.34%</td>
<td>140</td>
<td>0.87%</td>
</tr>
<tr>
<td>2005</td>
<td>16,740</td>
<td>15,135</td>
<td>90.41%</td>
<td>1,192</td>
<td>7.12%</td>
<td>294</td>
<td>1.75%</td>
<td>120</td>
<td>0.71%</td>
</tr>
<tr>
<td>2006</td>
<td>17,309</td>
<td>15,656</td>
<td>90.45%</td>
<td>1,195</td>
<td>6.90%</td>
<td>266</td>
<td>1.54%</td>
<td>191</td>
<td>1.10%</td>
</tr>
<tr>
<td>2007</td>
<td>17,128</td>
<td>15,524</td>
<td>90.63%</td>
<td>1,191</td>
<td>6.96%</td>
<td>253</td>
<td>1.48%</td>
<td>160</td>
<td>0.93%</td>
</tr>
<tr>
<td>2008</td>
<td>16,465</td>
<td>14,872</td>
<td>90.32%</td>
<td>1,165</td>
<td>7.08%</td>
<td>257</td>
<td>1.56%</td>
<td>171</td>
<td>1.04%</td>
</tr>
<tr>
<td>2009</td>
<td>15,399</td>
<td>13,776</td>
<td>89.46%</td>
<td>1,226</td>
<td>7.96%</td>
<td>217</td>
<td>1.41%</td>
<td>180</td>
<td>1.17%</td>
</tr>
<tr>
<td>2010</td>
<td>14,722</td>
<td>13,250</td>
<td>90.00%</td>
<td>1,105</td>
<td>7.50%</td>
<td>240</td>
<td>1.63%</td>
<td>127</td>
<td>0.86%</td>
</tr>
<tr>
<td>2011</td>
<td>14,612</td>
<td>13,048</td>
<td>89.30%</td>
<td>1,128</td>
<td>7.72%</td>
<td>323</td>
<td>2.21%</td>
<td>114</td>
<td>0.78%</td>
</tr>
<tr>
<td>Totalsb</td>
<td>208,425</td>
<td>188,195</td>
<td>90.29%</td>
<td>14,967</td>
<td>7.18%</td>
<td>3286</td>
<td>1.58%</td>
<td>1977</td>
<td>0.95%</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

Notes: The figures in this table are not actual victim counts. They are statistical estimates based upon Bureau of Justice Statistics analysis of Federal Bureau of Investigation (FBI) Supplementary Homicide Reports.

a. “All homicide victims” include victims of “murders and nonnegligent manslaughter.”

b. Totals may differ from the sum of the components due to rounding.

Correspondingly, as shown in Table A-2, for that 13-year period it can be extrapolated that there were on average approximately 152 murder victims per year associated with those four or more victim homicides, or about 4.75 victims per incident. Those victims accounted for 1.58% of all homicide victims for that 13-year period, which is an increase of less than one percent for the 32-year period (1980-2011). It is worth noting that, in addition to being mass murders, some of those four or more victim homicide incidents were “serial murders” and “spree murders” that extended past one event, or roughly 24 hours in the case of some spree murders.

For 2011, BJS estimated that about two-thirds (67.1%) of all homicides involved firearms, and about half (49.4%) of all homicides involved handguns. Consequently, about one-sixth (17.7%) of murders involved firearms other than handguns. In addition, the percentage of murders committed with firearms increased for multiple victim homicides over similar homicides committed by some other means (e.g., stabbing, strangulation, bludgeoning, or arson). For example, for 2011, BJS estimated that about two-thirds (66.5%) of single victim homicides, more than three-quarters (77.3%) of double victim homicides, more than four-fifths (82.3%) of triple victim homicides, and more than nine-tenths (90.8%) of four or more victim homicides (possibly mass murders) involved at least some firearms.

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97 Ibid.
For 2011, BJS estimated further that the percentage of multiple victim homicide incidents committed with rifles\(^98\) or shotguns\(^99\) (long guns), as opposed to handguns,\(^100\) increased significantly as well. For that year, about one-quarter (25.3%) of double homicides, more than one-third (35.2%) of triple homicides, and nearly one-half (46.6%) of four or more victim homicides were committed with firearms other than a handgun.\(^101\)

According to BJS, multiple murders and nonnegligent manslaughter incidents, in which an offender or offenders killed four or more victims, are arguably statistically infrequent, notwithstanding the trauma inflicted on the victims, their families, and society as a whole. Over the 13-year period (1999-2011), there were 416 such incidents, in which 1,977 victims perished. In other words, those incidents accounted for about two-tenths of a percent (0.21%) of all BJS-reported murders and nonnegligent manslaughter incidents, or about 32.0 incidents per year on average.\(^102\) Murder victims in those incidents accounted for almost one percent (0.95%) of all BJS-reported murder and nonnegligent manslaughter victims, or 152 victims per year on average.\(^103\) Figure 1 demonstrates both the number of incidents and the number of victims attributable to multiple murder and nonnegligent manslaughter.

\(^98\) **Rifle** means a weapon designed to be fired from the shoulder that uses the energy of an explosive to fire only a single projectile through a rifled bore for each single pull of the trigger (18 U.S.C. §921(a)(7)).

\(^99\) **Shotgun** means a weapon designed to be fired from the shoulder that uses the energy of an explosive to fire through a smooth bore either a number of ball shot or a single projectile for each single pull of the trigger (18 U.S.C. §921(a)(5)).

\(^100\) **Handgun** means (a) any firearm that has a short stock and is designed to be held and fired by the use of a single hand; and (b) any combination of parts from which a handgun can be assembled (18 U.S.C. §921(a)(29)).

\(^101\) Ibid.


\(^103\) Ibid.
It is noteworthy that the BJS data includes all four or more victim murder and nonnegligent manslaughter incidents. Those four or more victim homicide incidents include both firearms and non-firearms-related homicides, although firearms were likely used in at least two-thirds and possibly as many as three-quarters of those incidents. Also, those BJS-reported incidents possibly include spree and serial murders, which are often, but not always, distinct from mass murders. On occasion, they could also include vehicular murders and manslaughters.

Mass shootings make up a smaller percentage of murder and nonnegligent manslaughter incidents. For the 13-year period (1999-2011), CRS data show that at least 272 (0.14%) of the BJS-reported 197,191 murder and nonnegligent manslaughter incidents were mass shootings, accounting for 1,316 (0.63%) of the 208,425 homicide victims in those incidents. CRS analysis shows further that those “mass shooting” incidents could be characterized as follows:

- “Mass public shootings” accounted for 54 incidents (0.03%) and 348 victims slain (0.17%);

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104 As discussed above, data provided to CRS by the Department of Justice’s Bureau of Justice Statistics suggest that there were about 32 four or more victim homicide incidents per year in the United States for the 13-year period (1999-2011). Based on the USA Today dataset, moreover, for the eight-year period (2006-2013), it can be surmised that on average annually for that timespan offenders committed 30.25 mass murders, of which 21.5 were mass shootings, 1.13 were mass murders that were partially related to firearms, meaning some, but not all of the victims were murdered with firearms. Another 7.63 mass murders involved no firearms. Based on both datasets, it can be extrapolated that the United States sees about 30 mass murders per year for the past 30 years. Of those mass murders, it can be postulated that about three-quarters are possibly firearms-related.
“Familicide mass shootings” accounted for 111 incidents (0.06%) and 507 victims slain (0.24%); and

“Other felony mass shootings” accounted for about 107 incidents (0.05%) and 461 victims slain (0.22%).

Of the 416 BJS-reported four or more victim murder and nonnegligent manslaughter incidents, CRS data show that at least 272 incidents (65.38%) were mass shootings, in which at least four victims were shot to death with a firearm in a single incident. Those mass shooting murder victims accounted for 1,316 (66.57%) of the 1,977 victims of BJS-reported four or more victim murder and nonnegligent manslaughter incidents.

In addition, based on BJS-reported triple and four or more victim murders and nonnegligent manslaughter incidents for the 13-year period (1999-2011), it can be extrapolated that a dataset of three or more victim homicides would include about 116 incidents per year on average, which would include approximately 84 triple homicide incidents and 32 four or more victim incidents on average per year. Similarly, it can be extrapolated that a 13-year (1999-2011) dataset would include about 80 three or more victim homicide incidents per year committed entirely with firearms, of which at least 21 would be four or more victim mass shootings.

Extreme Killing, by James Alan Fox and Jack Levin

Two criminologists, James Alan Fox and Jack Levin, also analyzed FBI-SHR data and established estimates of the frequency of mass murder in the United States. In 1985, Fox and Levin adopted the following definition: “mass murder consists of the slaughter of four or more victims by one or a few assailants within a single event, lasting anywhere from a few minutes to as long as several hours.” Like BJS, Fox and Levin statistically weighted their estimates to account for non-reporting and other known SHR data limitations. Their methodology has been professionally and academically peer-reviewed.

Based on their analysis of the FBI-SHR data, as well as Florida state homicide reports, Fox and Levin estimated that there were 927 incidents of mass murder in the United States from 1976 to 2011, resulting in the murders of 4,330 victims. Based on these estimates, it can be extrapolated that offenders committed 25.8 mass murders on average annually, killing about 4.7 murder victims per incident for that 36-year period. Of those mass murder incidents, an estimated 721 (77.8%) involved firearms. In other words, Fox and Levin estimated that firearms were the offender “weapon of choice” in approximately 20 out of 26 mass murder incidents annually over that 36-year time period.

Like the CRS 15-year dataset (1999-2013), however, the Fox and Levin 36-year dataset (1976-2011) indicated that the frequency of mass murders and mass shootings and their corresponding

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105 Fox was also instrumental in making those annual datasets available on the Internet through the University of Michigan’s Inter-University Consortium for Political and Social Research, http://www.icpsr.umich.edu/icpsrweb/landing.jsp.


107 Ibid, p. 163.


death tolls varied a good deal from year to year, but with no discernable, statistically significant tendency to increase or decrease over that time period, because the increases and decreases generally ranged within the error rate of roughly plus or minus five incidents.110

In their book *Extreme Killing*, Fox and Levin noted the challenges faced by researchers who had attempted to create mutually exclusive typologies or taxonomies of multiple murders or mass murderers based on factors like offender motive, incident location, or victim selection.111 While they discussed at length profiles of mass murderers, such as “family annihilators,” “problem workers,” and “disgruntled students,” they refrained from providing statistical breakouts based on those profiles. On the other hand, they provided data for other characteristics like offender-victim relationships and circumstances (felony, argument, other), which have traditionally been delimited as part of the UCR-SHR program.

**Mass Murder in the United States: A History, by Grant Duwe**

Criminologist Grant Duwe analyzed the FBI-SHR data for the years 1976 through 1999, and presented his findings in his 2007 book, *Mass Murder in the United States: A History*.112 For that 24-year period, Duwe counted at least 649 mass murders, for an average of 27 mass murders per year.113 Those mass murders on average resulted in an associated casualty rates of 5.2 murder victims and 4.31 wounded victims per incident.114 Duwe also estimated that about 69% of those mass murder incidents involved firearms.115 He estimated further that an “assault weapon” was used in about 3% or those 649 mass murder incidents.116

With regard to the FBI-SHR data, it is significant to note that Duwe identified 55 mass murders that were not reported to the FBI, but were reported in the press.117 From the SHR data, moreover, he eliminated 71 cases that were not mass murders, either because they were inaccurately recorded (64), or were spree murders that occurred over a 24-hour period or serial murders (7).118

Duwe postulated that mass shootings in public spaces likely increased from 1966 through 1999. He labeled such mass shootings, “mass public shootings.” While he did not specifically define this term in his 2007 book, he later told the *Washington Post* that he defined “mass public shooting” to mean “any incident in which four or more victims are killed publically in a workplace, school, restaurant, or other public place with guns and within 24 hours.”119 He postulated further that the frequency with which mass public shootings have occurred began to “accelerate” in the 1960s, and “accelerated rapidly” in the 1980s and 1990s.120 Based on press

110 Ibid, p. 163.
113 Ibid, p. 16.
114 Ibid, p. 17.
115 Ibid, p. 23.
116 Ibid.
117 Ibid, p. 189.
118 Ibid.
Based on FBI-SHR data and press accounts, he counted 95 “mass public shootings” from 1966 through 1999. Of those incidents, 60 had occurred during the 20-year period 1980 through 1999. Hence, for that 20-year period, there were roughly three mass public shootings per year.

According to the Washington Post, in January 2013, Duwe provided the newspaper with updated and slightly revised estimates of mass public shootings. According to Duwe, there were

- six incidents of mass public shootings in the 1960s (1960-1969),
- 13 in the 1970s,
- 32 in the 1980s,
- 42 in the 1990s, and
- 28 in the 2000s.

He reported further that there were 14 incidents from 2010 through 2012, but it was in his view too early to tell whether this trend would continue throughout the decade. The year 1991 was the worst year with eight incidents of mass public shootings. The years 1999 and 2012 were the second worst years with seven incidents per year.

In addition to mass public shootings, Duwe identified five other historical patterns of mass murder:

- “workplace violence,”
- “familicides,”
- “felony-related massacres,”
- “gang-related massacres,” and
- “drug-related massacres.”

It is significant to note that, for Duwe’s data collection and reporting, these patterns are not mutually exclusive. For example, firearms-related “workplace violence” incidents could be a subset of “mass public shootings.” Similarly, “drug- and gang-related massacres” could be a subset of “felony-related massacres.”

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121 Ibid.
122 Ibid.
124 Ibid. By comparison, the CRS mass shootings dataset indicates that there were at least 4.1 mass public shootings per year in the 2000s, and 4.5 per year so far in 2010s (through 2013). In consultation with Duwe, CRS also re-evaluated Duwe’s dataset for the 1970s, 1980s, and 1990s, and revised these decade-long averages slightly downward, by eliminating certain mass shootings, which upon further examination could be characterized as familicides or object-oriented other felony mass shootings.
125 Ibid. CRS analysis of the SHR data, supplemented with press accounts, indicates that there were at least five public mass shootings in 2013, the most of deadly of which was the September 16, 2013, Washington, DC, Navy Yard shooting.
126 Ibid.
127 Ibid.
“Mass Killings,” by USA Today

In December 2013, USA Today ran an article on mass killings by Meghan Hoyer,128 based on an eight-year dataset (2006-2013) that Hoyer had compiled and analyzed with her colleagues Mark Hannon, Paul Overburg, and Jodi Upton.129 Like Duwe, Hoyer and her colleagues also verified the mass murders reported to the FBI by checking press accounts and police reports. In addition, they supplemented their data with mass murders reported in the press, but not reported to the FBI. According to Hoyer and colleagues, offenders committed roughly 242 mass murders, resulting in the deaths of four or more victims, during the eight-year period (2006-2013), or an average of 30.3 incidents per year, and 4.98 victims per incident.130 Of those mass murders, on average annually:

- 21.5 incidents were “mass shootings” with 5.1 victims per incident,
- 1.25 incidents were “mass murders” with 4.8 victims per incident that involved at least some firearms, and
- 7.5 incidents were “mass murders” with 4.3 victims per incident and did not involve firearms (for a small percentage of incidents (2.1%), the murder weapons were unknown).131

130 Ibid.
131 Ibid.
Appendix B. CRS-Verified Mass Shootings, Mass Public Shootings, Familicides, and Other Felony Mass Shootings Data Tables

The tables B-1 through B-7 include the data represented in Figures 1-7 above in the body of this report.

**Table B-1. Mass Shootings**
(1999-2013)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Incidents</th>
<th>Killed</th>
<th>Wounded</th>
<th>Total Casualties</th>
<th>% Killed</th>
<th>% Wounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>21</td>
<td>113</td>
<td>58</td>
<td>171</td>
<td>66.1%</td>
<td>33.9%</td>
</tr>
<tr>
<td>2000</td>
<td>18</td>
<td>86</td>
<td>8</td>
<td>94</td>
<td>91.5%</td>
<td>8.5%</td>
</tr>
<tr>
<td>2001</td>
<td>13</td>
<td>53</td>
<td>7</td>
<td>60</td>
<td>88.3%</td>
<td>11.7%</td>
</tr>
<tr>
<td>2002</td>
<td>23</td>
<td>102</td>
<td>10</td>
<td>112</td>
<td>91.1%</td>
<td>8.9%</td>
</tr>
<tr>
<td>2003</td>
<td>29</td>
<td>125</td>
<td>29</td>
<td>154</td>
<td>81.2%</td>
<td>18.8%</td>
</tr>
<tr>
<td>2004</td>
<td>15</td>
<td>69</td>
<td>11</td>
<td>80</td>
<td>86.3%</td>
<td>13.8%</td>
</tr>
<tr>
<td>2005</td>
<td>18</td>
<td>84</td>
<td>14</td>
<td>98</td>
<td>85.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td>2006</td>
<td>22</td>
<td>103</td>
<td>9</td>
<td>112</td>
<td>92.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>2007</td>
<td>20</td>
<td>120</td>
<td>35</td>
<td>155</td>
<td>77.4%</td>
<td>22.6%</td>
</tr>
<tr>
<td>2008</td>
<td>26</td>
<td>119</td>
<td>28</td>
<td>147</td>
<td>81.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>2009</td>
<td>26</td>
<td>145</td>
<td>77</td>
<td>222</td>
<td>65.3%</td>
<td>34.7%</td>
</tr>
<tr>
<td>2010</td>
<td>17</td>
<td>82</td>
<td>19</td>
<td>101</td>
<td>81.2%</td>
<td>18.8%</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
<td>115</td>
<td>37</td>
<td>152</td>
<td>75.7%</td>
<td>24.3%</td>
</tr>
<tr>
<td>2012</td>
<td>20</td>
<td>122</td>
<td>73</td>
<td>195</td>
<td>62.6%</td>
<td>37.4%</td>
</tr>
<tr>
<td>2013</td>
<td>25</td>
<td>116</td>
<td>26</td>
<td>142</td>
<td>81.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>317</td>
<td>1554</td>
<td>441</td>
<td>1,995</td>
<td>77.9%</td>
<td>22.1%</td>
</tr>
</tbody>
</table>

**Source:** CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

**Notes:** “Mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and in one or more locations in close geographical proximity.
Table B-2. Mass Public Shootings at Workplace, Schools, Restaurants, and Other Public Places
(1999-2013)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Incidents</th>
<th>Killed</th>
<th>Wounded</th>
<th>Total Casualties</th>
<th>% Killed</th>
<th>% Wounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>7</td>
<td>51</td>
<td>53</td>
<td>104</td>
<td>49.0%</td>
<td>51.0%</td>
</tr>
<tr>
<td>2000</td>
<td>3</td>
<td>17</td>
<td>1</td>
<td>18</td>
<td>94.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>2001</td>
<td>3</td>
<td>12</td>
<td>7</td>
<td>19</td>
<td>63.2%</td>
<td>36.8%</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>18</td>
<td>6</td>
<td>24</td>
<td>75.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>2003</td>
<td>4</td>
<td>20</td>
<td>9</td>
<td>29</td>
<td>69.0%</td>
<td>31.0%</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
<td>15</td>
<td>11</td>
<td>26</td>
<td>57.7%</td>
<td>42.3%</td>
</tr>
<tr>
<td>2005</td>
<td>3</td>
<td>20</td>
<td>11</td>
<td>31</td>
<td>64.5%</td>
<td>35.5%</td>
</tr>
<tr>
<td>2006</td>
<td>5</td>
<td>27</td>
<td>9</td>
<td>36</td>
<td>75.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>2007</td>
<td>5</td>
<td>55</td>
<td>33</td>
<td>88</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
<td>26</td>
<td>22</td>
<td>48</td>
<td>54.2%</td>
<td>45.8%</td>
</tr>
<tr>
<td>2009</td>
<td>6</td>
<td>52</td>
<td>54</td>
<td>106</td>
<td>49.1%</td>
<td>50.9%</td>
</tr>
<tr>
<td>2010</td>
<td>2</td>
<td>12</td>
<td>5</td>
<td>17</td>
<td>70.6%</td>
<td>29.4%</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>23</td>
<td>25</td>
<td>48</td>
<td>47.9%</td>
<td>52.1%</td>
</tr>
<tr>
<td>2012</td>
<td>7</td>
<td>67</td>
<td>69</td>
<td>136</td>
<td>49.3%</td>
<td>50.7%</td>
</tr>
<tr>
<td>2013</td>
<td>5</td>
<td>31</td>
<td>14</td>
<td>45</td>
<td>68.9%</td>
<td>31.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66</td>
<td>446</td>
<td>329</td>
<td>775</td>
<td>57.5%</td>
<td>42.5%</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

Notes: “Mass public shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and at least some of the murders occurred in a public location or locations in close geographical proximity (e.g., a workplace, school, restaurant, or other public settings), and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Table B-3. Familicide Mass Shootings
(1999-2013)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Incidents</th>
<th>Killed</th>
<th>Wounded</th>
<th>Total Casualties</th>
<th>% Killed</th>
<th>% Wounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>7</td>
<td>32</td>
<td>2</td>
<td>34</td>
<td>94.1%</td>
<td>5.9%</td>
</tr>
<tr>
<td>2000</td>
<td>7</td>
<td>31</td>
<td>0</td>
<td>31</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2001</td>
<td>6</td>
<td>25</td>
<td>0</td>
<td>25</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2002</td>
<td>10</td>
<td>45</td>
<td>1</td>
<td>46</td>
<td>97.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>2003</td>
<td>8</td>
<td>35</td>
<td>5</td>
<td>40</td>
<td>87.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>2004</td>
<td>5</td>
<td>25</td>
<td>0</td>
<td>25</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2005</td>
<td>5</td>
<td>22</td>
<td>1</td>
<td>23</td>
<td>95.7%</td>
<td>4.3%</td>
</tr>
<tr>
<td>2006</td>
<td>6</td>
<td>28</td>
<td>0</td>
<td>28</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2007</td>
<td>9</td>
<td>41</td>
<td>1</td>
<td>42</td>
<td>97.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td>YEAR</td>
<td>Incidents</td>
<td>Killed</td>
<td>Wounded</td>
<td>Total Casualties</td>
<td>% Killed</td>
<td>% Wounded</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
<td>-----------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>2008</td>
<td>12</td>
<td>54</td>
<td>3</td>
<td>57</td>
<td>94.7%</td>
<td>5.3%</td>
</tr>
<tr>
<td>2009</td>
<td>13</td>
<td>57</td>
<td>2</td>
<td>59</td>
<td>96.6%</td>
<td>3.4%</td>
</tr>
<tr>
<td>2010</td>
<td>7</td>
<td>37</td>
<td>2</td>
<td>39</td>
<td>94.9%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2011</td>
<td>16</td>
<td>75</td>
<td>12</td>
<td>87</td>
<td>86.2%</td>
<td>13.8%</td>
</tr>
<tr>
<td>2012</td>
<td>7</td>
<td>29</td>
<td>4</td>
<td>33</td>
<td>87.9%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2013</td>
<td>9</td>
<td>40</td>
<td>4</td>
<td>44</td>
<td>90.9%</td>
<td>9.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>127</td>
<td>576</td>
<td>37</td>
<td>613</td>
<td>94.0%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

**Source:** CRS analysis of FBI Supplementary Homicide Reports, press accounts, and agency press releases, and other compilations by mass media and advocacy groups.

**Notes:** “Familicide mass shooting” means a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and a majority of the victims were members of the offender’s immediate or extended family, the majority of whom were murdered in one or more private residences or secluded, sparsely populated settings in close geographical proximity, and the murders are not attributable to any other underlying criminal activity or commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

### Table B-4. Other Felony Mass Shootings
(1999-2013)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Incidents</th>
<th>Killed</th>
<th>Wounded</th>
<th>Total Casualties</th>
<th>% Killed</th>
<th>% Wounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>7</td>
<td>30</td>
<td>3</td>
<td>33</td>
<td>90.9%</td>
<td>9.1%</td>
</tr>
<tr>
<td>2000</td>
<td>8</td>
<td>38</td>
<td>7</td>
<td>45</td>
<td>84.4%</td>
<td>15.6%</td>
</tr>
<tr>
<td>2001</td>
<td>4</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2002</td>
<td>9</td>
<td>39</td>
<td>3</td>
<td>42</td>
<td>92.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>2003</td>
<td>17</td>
<td>70</td>
<td>15</td>
<td>85</td>
<td>82.4%</td>
<td>17.6%</td>
</tr>
<tr>
<td>2004</td>
<td>7</td>
<td>29</td>
<td>0</td>
<td>29</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
<td>42</td>
<td>2</td>
<td>44</td>
<td>95.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>2006</td>
<td>11</td>
<td>48</td>
<td>0</td>
<td>48</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2007</td>
<td>6</td>
<td>24</td>
<td>1</td>
<td>25</td>
<td>96.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>2008</td>
<td>9</td>
<td>39</td>
<td>3</td>
<td>42</td>
<td>92.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>2009</td>
<td>7</td>
<td>36</td>
<td>21</td>
<td>57</td>
<td>63.2%</td>
<td>36.8%</td>
</tr>
<tr>
<td>2010</td>
<td>8</td>
<td>33</td>
<td>12</td>
<td>45</td>
<td>73.3%</td>
<td>26.7%</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>17</td>
<td>0</td>
<td>17</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2012</td>
<td>6</td>
<td>26</td>
<td>0</td>
<td>26</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2013</td>
<td>11</td>
<td>45</td>
<td>8</td>
<td>53</td>
<td>84.9%</td>
<td>15.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>124</td>
<td>532</td>
<td>75</td>
<td>607</td>
<td>87.6%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

**Source:** CRS analysis of FBI Supplementary Homicide Reports, press accounts, and agency press releases, and other compilations by mass media and advocacy groups.

**Notes:** “Other felony mass shooting” means a multiple victim homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, in one or more locations in close geographical proximity, and the murders are attributable to some other underlying criminal activity or
commonplace circumstance (e.g., armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).

Table B-5. Patterns of Mass Shootings and Associated Casualty Rates by Incident and Offender(s), 1999-2013

<table>
<thead>
<tr>
<th>Mass Shooting Categories</th>
<th>Incidents</th>
<th>Offenders</th>
<th>Killed</th>
<th>Wounded</th>
<th>Killed per Incident</th>
<th>Wounded per Incident</th>
<th>Killed per Offender(s)</th>
<th>Wounded per Offender(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>66</td>
<td>68</td>
<td>446</td>
<td>329</td>
<td>6.8</td>
<td>5.0</td>
<td>6.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Familicide</td>
<td>127</td>
<td>129</td>
<td>576</td>
<td>37</td>
<td>4.5</td>
<td>0.3</td>
<td>4.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Other &quot;Felony&quot;</td>
<td>124</td>
<td>235</td>
<td>532</td>
<td>75</td>
<td>4.3</td>
<td>0.6</td>
<td>2.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>317</td>
<td>432</td>
<td>1,554</td>
<td>441</td>
<td>4.9</td>
<td>1.4</td>
<td>3.6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: CRS analysis of FBI Supplementary Homicide Reports, press accounts, agency press releases, and other compilations by mass media and advocacy groups.

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