2

The Patterns and Prevalence of Mass Public Shootings in the United States, 1915–2013

Grant Duwe

The 1960s marked the onset of a crime wave in the United States that did not begin to subside until the 1990s. The property crime rate nearly tripled in size from 1960 to 1990, while the violent crime rate in 1990 was roughly five times higher than it was 30 years earlier (Federal Bureau of Investigation, 1960, 1990). Over the past 20 years, however, crime has been on the decline. Perhaps most notably, the homicide rate in 2011 was about half of what it was in 1991 (Federal Bureau of Investigation, 1991, 2011).

Mass murder is an extreme form of violence that is, in some ways, an outlier within the broader context of crime. It may be tempting, therefore, to assume that mass killings not only defy explanation, especially from mainstream criminological theories, but also bear few similarities with crime in general. But the evidence shows that, similar to homicide and crime in general, the 1960s also marked the onset of a mass murder wave in the United States (Duwe, 2004, 2007). This wave was not unprecedented, however, as mass murder rates were just as high during the 1920s and 1930s (Duwe, 2004, 2007). And, once again, consistent with trends in homicide and crime in general, mass murder rates have generally been on the decline since the 1990s (Duwe, 2012).

Existing research on mass murder suggests the two waves during the twentieth century were qualitatively different (Duwe, 2004, 2007). The first one during the 1920s and 1930s was comprised mainly of familicides and felony-related massacres, which, then as now, are less likely to receive widespread news coverage. In contrast, the second mass murder wave contained a greater number of mass public shootings, which have long attracted intense interest and concern (Duwe, 2000, 2004).

There has been substantial debate about how to define mass public shootings, including factors such as the motivation behind the event and the number of casualties. In this chapter, I define mass public shootings as incidents that

occur in the absence of other criminal activity (e.g., robberies, drug deals, gang "turf wars") in which a gun was used to kill four or more victims at a public location (Duwe, Kovandzic, & Moody, 2002). Prior to 1965, there had been relatively few mass public shootings in the United States. The frequency with which these incidents occurred, however, accelerated rapidly during the last third of the twentieth century (Duwe, 2007). The number of mass public shootings per decade grew from 13 during the 1970s to 30 in the 1980s, peaking with 37 in the 1990s. From 2000 to 2013, there were 53 mass public shootings in the United States.

In this chapter, I trace the history of mass public shootings in the United States by examining 160 cases that occurred between 1915 and 2013. Given that there has been increasing discussion of whether mass public shootings have recently been on the rise, I begin by delineating trends in their prevalence. Next, I focus on the patterns of mass public shootings by reporting incident, victim, and offender characteristics. But before describing the prevalence and patterns of mass public shootings in the United States, I provide a brief description of the dataset I used for this chapter.

Mass Public Shooting Dataset

Much of the data on the 160 cases are drawn from my previous research on mass killings that occurred in the United States between 1900 and 1999 (Duwe, 2004, 2007). In this research, I used the FBI's Supplementary Homicide Reports (SHR) to anchor my search for data on mass murders. It is important to acknowledge that the SHR data have flaws. As I have noted previously (e.g., Duwe, 2000, 2004), there is an underreporting problem with the SHR since it is a voluntary program involving law enforcement agencies across the country. Moreover, the SHR data contain a number of coding errors. Nevertheless, because the SHR contains incident, victim, and offender information on most murders committed in the United States since 1976, it is an invaluable source of data on homicides, mass murders, and, more narrowly, mass public shootings.

Still, the information provided by the SHR is limited. For example, the SHR does not record whether the homicide occurred in a public location or the number of wounded victims. Therefore, I have also relied on news accounts as a source of data on mass killings. More specifically, after using the SHR to identify when and where mass murders have occurred, I have searched online newspaper databases to collect additional information not included within the SHR. In using this triangulated data collection approach, I have been able to not only identify cases not reported to the SHR but also to correct errors in the SHR data.

After pioneering this methodology in my prior research on mass killings (Duwe, 2000, 2004, 2007; Duwe et al., 2002), others have since adopted the

same approach in their own data collection efforts. For example, reporters from *USA Today* relied on the SHR and news reports as sources of data in the series of articles they published on mass killings (Overberg, Upton, & Hoyer, 2013). More recently, the Congressional Research Service (CRS; 2014) used the same process to collect data on mass shootings.[1]

For the cases that occurred between 1976 and 2013, I used the triangulated SHR-news report data collection strategy. Further, for cases occurring within this timeframe, but especially those that have taken place since 2000, I also relied on data collected by the CRS (2014). As a result, the dataset I used for this chapter is more accurate and complete than the datasets I have used in prior publications on mass public shootings (Duwe, 2012, 2013, 2014). Overall, during the 1976–2013 period, a little more than 1,000 mass murders occurred in the United States. Of these, 125 were mass public shootings.

Because the SHR did not become a valuable source of data until it underwent a major revision in 1976 (Riedel, 1999), I relied on the *New York Times* index to locate news accounts on mass murders that occurred between 1900 and 1975 (Duwe, 2000, 2004). During this 76-year period, I found news reports on 260 mass killings (Duwe, 2004). Of these incidents, 35 were mass public shootings, which brings the total to 160 for the 1900–2013 period.

Mass Public Shootings in Context

It is worth emphasizing that mass public shootings are a rare type of mass murder, which is itself a rare form of violence. In my previous work, I have defined mass killings as incidents in which four or more victims are murdered within a 24-hour period (Duwe, 2000, 2004, 2007). Since 1900, there have been more than 1,300 mass murders in the United States. But since 1976, when more complete data have been available, there have been a little more than 1,000, which amounts to an average of 28 mass murders each year. During the same period of time in the United States, there have been, on average, approximately 14,200 homicides per year. As a result, mass murders make up a mere 0.2% of all homicide incidents. But due to the greater number of victims per incident, mass killings account for roughly 1% of all homicide victims each year (Duwe, 2007).

As noted above, there were 125 mass public shootings in the United States from 1976 to 2013. Given that there were more than 1,000 mass murders during this same 34-year period, mass public shootings account for a little more than 12% of all mass killings. Familicides are by far the most common form of mass murder, making up nearly 45% of all mass killings since 1976. Familicides most often involve a male head of the household killing his partner (i.e., spouse, ex-spouse, fiancée), their children, relatives, or some combination of these. Felony-related massacres are the second most common type of mass murder,

comprising roughly one quarter of all mass killings since 1976. These incidents typically involve a small group of young men who commit mass murder during a robbery.

The Prominence of Mass Public Shootings in the Social Construction of Mass Murder

Although rare, even within the context of mass killings, mass public shootings are often thought to define the essence of mass murder. As I noted above, mass public shootings generally capture extensive attention from the news media, and this has been true since the beginning of the twentieth century (see Chapters 7–10 for more on the role of the media following mass shootings). In a previous study, I examined the factors that predicted greater news coverage for 495 mass murders that took place in the United States between 1976 and 1996 (Duwe, 2000). The "body count," both in terms of wounded and killed victims, had the greatest impact on the extent to which the news media reported a mass murder. As shown later, the 160 mass public shootings had, on average, more than six fatal victims and nearly five wounded victims per incident, which are both greater in comparison to mass murders in general.

But the larger number of victims killed and wounded is not the only reason mass public shootings are the most newsworthy mass killings. Mass public shootings are also more likely to involve stranger victims than other mass murders. As I indicated in the 2000 study:

> massacres were even more tragic when strangers were killed. These incidents conjure up images of random violence because the slaughter of strangers connotes an indiscriminate selection of victims. As a result, a sharp distinction is drawn between victims and offenders: Victims are depicted as blameless or virtuous, whereas offenders are characterized as evil, crazy, and less than human. Moreover, the seemingly random selection of victims broadens the news interest by conveying the impression that anyone could be a victim of a mass killing. (Duwe, 2000, p. 391)

Mass public shootings are also, by their very definition, highly visible acts of violence. The results from my 2000 study showed, for example, that publicly occurring mass killings were significantly more newsworthy than those which took place in a residential setting. Again, I note that publicly occurring mass murders

> usually involved a number of people who witnessed and survived the attack, which gave the news media the means to deliver a fascinating firsthand account to the audience, allowing them to vicariously experience the horror of the event.

In addition, the audience is generally more apt to identify with the victims of these incidents, for they were killed simply because they were in the wrong place at the wrong time. (Duwe, 2000, p. 391)

More so than other mass murders, mass public shootings tend to be exceptionally newsworthy because they are "riveting, emotionally evocative incidents" that epitomize "news as theater – a morality play involving pure, innocent victims and offenders who seemingly went 'berserk' in a public setting" (Duwe, 2000, p. 391).

The extensive news coverage given to mass public shootings, especially in relation to other mass killings, has helped influence perceptions about the typical mass murder (Duwe, 2005). Because mass public shootings may involve, as we shall see later, individuals with mental health difficulties who use guns to carry out an attack at a public location, such as a school or the workplace, mass murder has been constructed as a problem involving gun control, workplace violence, school shooting, and, most recently, mental health. Given that perceptions help shape policy recommendations in the aftermath of such events, proposals to reduce mass killings have often focused on gun laws, school and workplace policies, and mental health reform.

Trends in the Prevalence of Mass Public Shootings

Amid the wave of publicity, interest, and concern following a mass public shooting, there are often attempts to promote better understanding by explaining and interpreting the incident within a broader context. To that end, the news media frequently interview "experts," who offer their views about the type of individual who commits this type of violence (i.e., a "profile" of a mass murderer), whether mass murders or, more narrowly, mass public shootings are on the rise, and what can be done in the future to prevent their occurrence. In a later section, I will describe the incident, victims, and offender characteristics of the 160 mass public shootings examined in this chapter. In the present section, however, I will present data on trends in the prevalence of mass public shootings.

Whether mass public shootings have recently been on the rise has been a matter of some debate. Often relying on the list of cases compiled by Mother Jones, some have argued that mass public shootings have become more frequent in the past 5–10 years (Follman, 2013). Others, including myself, have claimed that mass public shootings have not been on the rise. As I recently wrote, however, the truth is a little more complicated (Duwe, 2014).

But before delving more fully into this debate, it is worth first taking a look at long-term trends in the prevalence of mass public shootings. In my research on mass murder, which examines cases from 1900 to the present, the first mass

public shooting in the twentieth century likely occurred in 1915 in Brunswick, Georgia in which a real estate dealer and prominent businessman used a shotgun to kill 6 and wound 32 more.[2] The offender had recently become involved in litigation in the local courts after losing a considerable amount of money in real estate transactions. He had had a number of dealings with Harry Dunwoody, a prominent attorney and local politician, who had been mayor of Brunswick at one time and had served in the Georgia legislature as a representative and as a senator.

Blaming Dunwoody for his financial losses, the offender began his attack at noon by killing Dunwoody in his office. He then went into the street and began to shoot at the crowd that gathered in response to the initial shotgun blasts. A few people were hit with stray bullets a couple of blocks away. After getting shot once, E. C. Butts, an attorney, went to a hardware store, grabbed a pistol, and started firing at the offender. Nearly 30 minutes after the offender had started his rampage, Butts hit him with a lethal shot ("Kills five," 1915).

Following this case, there was an additional mass public shooting in 1918 and two more in the late 1920s. During the 1930s, there were at least nine mass public shootings in the United States. One of these occurred on December 16, 1935, in Los Angeles, California when a 44-year-old male killed six coworkers and wounded one more. The offender had been employed by the Works Progress Administration (WPA), a New Deal initiative launched by Franklin Delano Roosevelt to help provide work for the unemployed during the Great Depression. He had been employed by the WPA for about a year to work on a project aimed at constructing a large sewer. Fired several days before the attack due to his inability to handle the water buckets, the offender returned to exact revenge on those he held responsible.

Workplace mass murderers are often paranoid and blame others for their employment problems. Indeed, when he was apprehended by the police after the shootings, the offender said, "I told those fellows last Friday I was coming to get them, and I did. They have been persecuting me for a year and that foreman wouldn't let me work on that job. But I fixed them up all right. If you only understood the whole thing, you wouldn't blame me for what I did. I know them all and I was going to clean them out" ("Slays 4 WPA men," 1935).

Following eight mass public shootings during the 1940s, there were only three cases that occurred in the United States between 1950 and 1965. As Fox and Levin (2011) have observed, 1966 marked the beginning of a mass murder wave, for that was the year in which massacres were committed weeks apart from each other in Chicago and Austin, and each was dubbed the "Crime of the Century" (Duwe, 2007). Killing 16 and wounding 30 more at the University of Texas, the attack in Austin was, at that time, the worst mass public shooting in American history. The Austin case proved to be a bellwether for the overall increase in mass public shootings over the past 50 years. In the

50 years prior to the Austin mass murder, there had been 24 mass public shootings. In the 50 years since that time, there have been 135.

When we look at trends in the prevalence of mass public shootings, particularly since the 1960s, a few points are worth making. First, although catastrophic, mass public shootings are, fortunately, very rare. Even when we focus on the past 50 years, wherein mass public shootings have been more common, we see an average of fewer than three cases per year. The average increases to four per year when we focus on the past 25 years, but the point remains that mass public shootings occur infrequently.

Second, when we assess prevalence trends over time, it is necessary to account for changes in the size of the population. When we try to determine whether crime (or certain types of crime such as murder) is up or down, we generally rely on a per capita measure (e.g., rate per 100,000 residents) that adjusts for population growth. In 2011, the number of murders in the United States (14,612 murders) was roughly the same as it was in 1969 (14,760 murders). Yet, given there were about 110 million more people living in the United States in 2011 (approximately 311 million) than in 1969 (approximately 201 million), the 2011 murder rate (4.7 per 100,000) is more than 35% lower than the 1969 rate (7.3 per 100,000).

Perhaps because mass public shootings are such a rare phenomenon, public debate over whether they have increased has seldom taken population growth into account. But in addition to looking at the total number of cases each year (or each month, decade, etc.), it is critical that we adjust for changes in the size of the U.S. population when assessing trends in the prevalence of mass public shootings. Due to the infrequency with which mass public shootings occur, I calculated the annual rate per 100 million of the U.S. population, as opposed to the rate per 100,000 commonly used to measure crime trends, for the 1960–2013 period (see Figure 2.1).

In addition to the annual rates per 100 million depicted in Figure 2.1, I present data on the total number of cases and the average rate per decade. As I indicated earlier in this chapter, the number of cases per decade steadily increased over the last four decades of the twentieth century, peaking at 37 during the 1990s. While the number of cases dropped slightly to 35 during the 2000s, 18 mass public shootings have already occurred during the first 4 years of the 2010s.

When we look at the rate data, we also see that rates climbed consistently from the 1960s through the 1990s. Even though more cases occurred during the 2000s than during the 1980s, the latter has a higher rate (1.27 vs. 1.18) due to a smaller U.S. population. The average annual rate for the first 4 years of the 2010s (1.44), is similar in size to, albeit a little higher than, the rate for the 1990s (1.41).

So, have mass public shootings recently been on the rise? The claims about a recent increase are valid, but only if we restrict our focus to the period of time
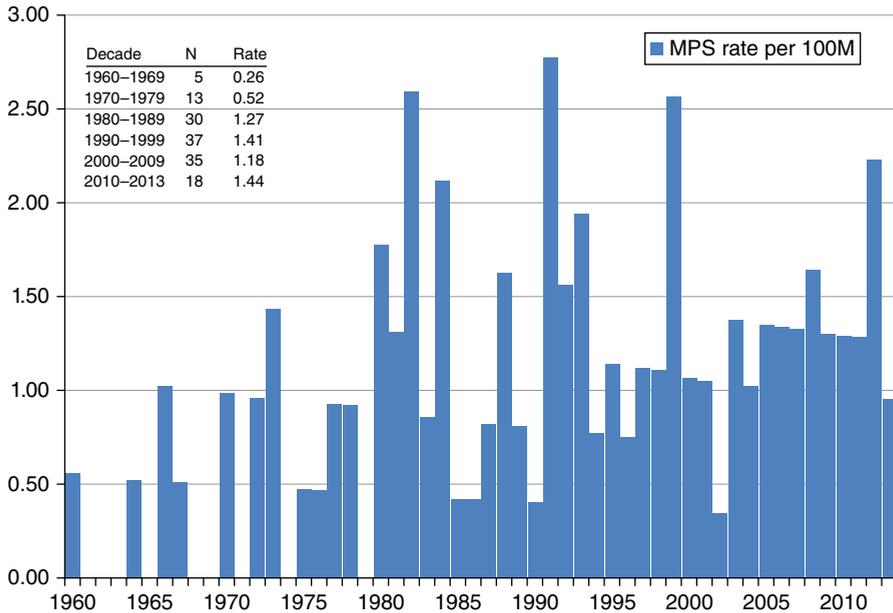
Figure 2.1   Mass public shooting rate per 100 million, 1960–2013.

since the mid-1990s. As rates of crime and violence began to fall in the latter half of the 1990s, mass public shootings rates also decreased. From 1994 to 2004, the average annual rate was 1.12. For the 2005–2013 period, however, the rate was 1.41, which represents a 26% increase.

But when we go farther back in time, rates for either the 2010–2013 or 2005–2013 periods look less remarkable. For example, the average annual rate for the 1988–1993 period was 1.52, which is similar to the rate observed for the 2007–2012 period (1.51). If we look at the 9-year time period from 1985 to 1993, we see an average rate of 1.20, which is less than the 1.41 rate for the 2005–2013 period. Yet, if we examine rates from 1980 to 1993, the annual average was 1.39, which is greater than the 1.26 average for the 2000–2013 period.

Compared to the dip in the mass public shooting rate from 1994 to 2004, there has been an uptick since 2005. But within the broader context, rates since 2005 have been similar to what we observed during the 1980s and early 1990s. It is worth remembering, however, that the increased frequency of mass public shootings during the late 1980s and early 1990s was a major catalyst in securing passage of the 1994 Federal Assault Weapons Ban (Duwe, 2005), which ultimately expired in 2004.

Although overall rates for the two periods are similar, there is at least one notable difference. Aside from 2012, annual rates for the 2005–2013 period were relatively consistent. For example, with the exception of the 2.23 rate in

2012, annual rates hovered between 0.95 and 1.64 during this period. In contrast, the yearly peaks and valleys were much more pronounced during the 1980s and early 1990s. In fact, of the 5 years that had a rate higher than 2.00, 3 (1982, 1984, 1991) were in the 1980s and early 1990s. Moreover, of the 10 years with rates higher than 1.50, 7 were between 1980 and 1993. Conversely, while the rate was below 1.00 only once (2013) between 2005 and 2013, there were 6 years that had a sub-1.00 rate during the 1980–1993 period.

The spate of mass public shootings during 2012 galvanized much of the recent interest and concern. The year 2012 was notable for mass public shootings, but not necessarily for the rate. To be sure, the 2012 rate was relatively high, but there were other years (1982, 1991, and 1999) that had higher rates. Rather, due largely to the Aurora and Newtown tragedies, the number of victims killed and wounded in mass public shootings was greater in 2012 than in any previous year.

The Patterns of Mass Public Shootings

In prior research, I reported that the average number of victims killed and wounded in 909 mass murders from 1900 to 1999 was 5.4 and 4.0, respectively (Duwe, 2007). As noted earlier, the carnage is, on average, greater for mass public shootings. In Table 2.1, which presents descriptive statistics on the 160 mass public shootings, the average number of victims killed was 6.5 and the average number wounded was 4.9.

The vast majority of mass public shooters act alone. Mass public shootings, like the one committed at Columbine, are relatively rare. Of the 160 cases, 153 (96%) were carried out by a lone offender.

School shootings have captured much of the recent attention focused on mass killings. As shown in Table 2.1, 14 of the cases (9%) could be classified as school shootings. Part of the reason for the relatively low percentage of school shootings among mass public shootings in general is due to the fact that very few occurred prior to the late 1990s. Historically, workplace shootings have been more prevalent, accounting for 31% of the cases. The remaining 60% fall into the "other" category, which includes cases such as the 2012 Aurora shooting or the 2011 attack carried out in Tucson, Arizona.

With the exception of one female offender, who committed a workplace shooting in California in 2006, all of the mass public shooters have been male. Nearly two thirds have been white, whereas roughly one fifth have been African-American. The average age among mass public shooters is 35. Nearly 80% were under the age of 45 at the time of the attack.

While not all mass public shooters have a history of mental illness, a little more than 60% had been either diagnosed with a mental disorder or demonstrated signs of serious mental illness prior to the attack. This rate is more than

Table 2.1 A description of mass public shootings.

Metrics		
Average number killed	6.47	
Average number wounded	4.89	
Number of offenders	*Number*	*Percentage*
Single offender	153	95.6
Multiple offenders	7	4.4
Type		
School	14	8.8
Workplace	50	31.2
Other	96	60
Gender		
Male	159	99.4
Female	1	0.6
Race/ethnicity		
White	101	63.1
African-American	30	19.6
American Indian	1	0.6
Asian	10	6.3
Hispanic	11	6.9
Missing	7	4.4
Age categories		
Younger than 25	37	23.1
25–34	40	25
35–44	46	28.8
45–54	15	9.4
55 and older	10	6.3
Missing	12	7.5
Mental illness		
Yes	97	60.6
Paranoid schizophrenia	61	59.8
Mood disorder (depression)	33	32.4
Other mental illness	8	7.8
Unknown	63	39.4
Precipitating event		
Yes	107	66.9
Unknown	53	33.1
Threats (verbal or written)		
Yes	49	30.6
No or unknown	111	69.4
Outcome		
Arrested	74	46.3
Suicide	60	37.5
Killed by police/civilians	26	16.1
Total	160	

three times higher than the 12-month prevalence rate of any mental illness among adults and about 15 times higher than that for serious mental illness (Substance Abuse and Mental Health Services Administration, 2013). Of these mentally ill mass public shooters, roughly one third sought or received mental health care prior to the attack. As shown in Table 2.1, paranoid schizophrenia has been the most common mental disorder, followed by depression.

Perhaps as a consequence of the relatively high rate of mental illness and, more narrowly, paranoid schizophrenia, mass public shooters often believe they have been persecuted. For the vast majority of mass public shooters, the attack is an act of vengeance against those whom the shooter holds responsible for his or her perceived mistreatment. Because mass public shooters generally feel as though others are out to get them, it is perhaps unsurprising that they are often distrustful and socially isolated, which may help explain why they are frequently characterized as "loners" (Duwe, 2007).

Contrary to popular perception that these offenders "just snap," mass public shootings are usually preceded by a great deal of planning and deliberation. As mass public shooters ruminate over the idea of exacting revenge and begin devising plans for their attack, they sometimes communicate threats either verbally or in writing. As shown in Table 2.1, at least 31% made some form of violent threats beforehand. Even though mass public shooters often spend weeks, months or years contemplating the attack, roughly two thirds experience a traumatic event – typically the loss of a job or an important relationship – that ultimately precipitates the violence.

When mass public shooters carry out the attack, they are more likely to target strangers than other mass murderers (Duwe, 2007). After the shootings, more than half of mass public shooters commit suicide or force others (mostly police) to kill them. The rate of suicidal behavior among mass public shooters is nearly double the rate for other mass killers and more than 10 times higher than that observed for homicide offenders in general (Duwe, 2007).[3] The high suicide rate may be due to the fact that many mass public shooters are tormented individuals who want to put an end to their life of pain and misery, but only after evening the score with those who were, in their minds, the sources of that pain and misery.

Conclusion

In this chapter, I presented evidence that the incidence of mass public shootings began to increase in the mid-1960s. Following higher rates of mass public shootings during the 1980s and early 1990s, rates were lower from the mid-1990s to the mid-2000s. Since 2005, mass public shooting rates have been similar to what they were in the 1980s and early 1990s. Moreover, the data suggest that mass public shooters, on average, have a history of mental health

difficulties, are suicidal, and are socially isolated males who make violent threats and have suffered the loss of an important relationship or recently experienced failure at work or school.

Implicit to the debate over recent trends in the prevalence of mass public shootings is whether their incidence and/or severity can be reduced. This debate has, for the most part, focused on gun laws. Both sides of the gun control issue have argued that tightening or loosening firearms laws would reduce mass public shootings. The available evidence, however, suggests that neither approach would likely have much impact. For example, when the incidence of mass public shootings began to increase during the 1980s and 1990s, rates of gun ownership were relatively stable (Duwe, 2007). On the other hand, results from a previous study I coauthored indicate that right-to-carry-concealed firearms laws do not have a significant deterrent effect on mass public shootings (Duwe et al., 2002).

With the surge in mass public shootings, especially since the 1980s, school and workplace policies have gradually evolved to better address threats and manage risk. While violent threats directed at classmates or coworkers are generally taken more seriously now, that has not always been the case. For example, on September 1, 1989, a disgruntled employee committed a workplace shooting at the Standard Gravure plant in Louisville, Kentucky, killing 8 and wounding 12. When Standard Gravure's employees heard gunfire that morning, they knew the offender had returned to make good on the violent threats he had been expressing for months (Holmes & Holmes, 1992). Before an offender killed five of his former coworkers in Florida in 1996, he had repeatedly threatened them by promising, "If you mess with my job, I will take you out" ("Florida Killer," 1996).

Since the 1990s, particularly after the Columbine incident, many schools and workplaces have adopted a series of security measures to reduce the incidence or severity of shootings, including the implementation of procedures for reporting and assessing threats that arise. Over the past decade, a number of school and workplace shooting plots appear to have been thwarted because threats were promptly reported to authorities. While it is difficult to know with certainty whether these foiled plots would have resulted in mass murder had the threats been ignored, it is possible that the greater overall vigilance towards threats has reduced, at least to some degree, the incidence of mass public shootings.

Mental health reform is another area that has recently come to the fore in the debate over mass public shootings. As we have seen, mass public shooters have a relatively high rate of serious mental illness, when compared to the general population. Of these mentally ill mass public shooters, a little more than one third sought or received mental health care prior to the attack. To be sure, some may cite this as evidence of mental health treatment's ineffectiveness. After all, there are well-known examples in which mass public shooters had received treatment but nevertheless went on to commit mass murder. While improvements can almost certainly be made in the assessment of risk and treatment of those who

come to the attention of mental health care professionals, the rate of untreated serious mental illness points to what is perhaps a bigger problem – a high treatment gap among mass public shooters. Indeed, roughly two thirds of the mentally ill mass public shooters did not receive the care they needed. A gap of this magnitude, however, is merely consistent with research showing higher rates of untreated serious mental illness for males (who have committed nearly all of the mass public shootings in this country) compared to females (Pattyn, Verhaeghe, & Bracke, 2015) and, more broadly, for the United States relative to most other Western countries (Kohn, Saxena, Levav, & Saraceno, 2004).

The calls for changes in gun laws, heightened security at schools and workplaces, and mental health reform have, to some extent, been rooted in the idea that mass public shootings have been on the rise. Because problems demand solutions, these proposals stand a better chance of being implemented when the problem – in this case, mass public shootings – is claimed to be increasing or getting worse. But the effort to call greater attention to the putatively growing threat of mass public shootings obscures evidence that may (or may not) be helpful in identifying ways to reduce this type of violence. That is, trying to understand why mass public shootings have recently increased, even if only modestly, may not be the best question to ask. Rather, what truly needs explaining is why the 1950–1965 period had fewer mass public shootings than any other time during the past 100 years. Similarly, why was the rate lower during the 1994–2004 period than at any other time during the past 40 years?

Determining why mass public shootings dropped during these two periods may shed light on whether it is possible to curb this type of violence in the future. The most recent dip in the mass public shooting rate started at about the same time that crime in general began to fall. The late 1990s and early 2000s also coincided with a bustling economy, a rising prison population, increases in the number of police, a fading crack cocaine epidemic, the aging of the baby boomers beyond their peak crime years and, perhaps most interestingly, a federal ban on assault weapons. As with crime in general, assault weapons are seldom used in mass killings or, even more specifically, mass public shootings (Duwe, 2007). Moreover, what little research exists on the assault weapons ban suggests it had a minimal short-term impact on gun violence (Koper & Roth, 2001, 2002). Nevertheless, the question of whether the assault weapons ban had an effect on the incidence and/or severity of mass public shootings has yet to be answered empirically.

As the public debate continues over whether mass public shootings have increased and what can be done to prevent their occurrence or reduce their severity, an important fact remains that bears repeating – mass public shootings are, fortunately, very rare. Emphasizing their rarity does not diminish the enormous impact they have on perceptions of public safety. Nor does it alter the fact that mass public shootings are rather costly to society. It has been estimated, for example, that one murder costs society somewhere between

$9 million and $17 million (Cohen & Piquero, 2009; DeLisi et al., 2010; McCollister, French, & Fang, 2010). When we consider that the average number of victims killed in a mass public shooting is 6.5, the average monetary cost to society is, at a minimum, anywhere between $59 and $111 million. Moreover, given that the average number of victims wounded – often very seriously – in mass public shootings is 5, the societal cost is likely millions more per incident. Thus, regardless of whether mass public shootings have been on the rise, they warrant attention and scrutiny simply due to the devastating impact one incident can have at the individual, local, and national levels.

Still, the infrequency with which they occur makes it very challenging to accurately predict who will commit a mass public shooting or to develop policies designed to reduce their incidence or severity (see Chapter 6 for more on the prediction of dangerousness). As Fox and DeLateur (2014) rightly point out, it is unrealistic to assume that any of the policy proposals that have been advanced would, individually or collectively, prevent a catastrophic shooting from ever taking place in the future. But these proposals, if implemented, could have a broader impact on crime, including violent offending. At the same time, it is worth remembering that long-term trends in the prevalence of mass murder tend to mirror those for crime and violence. The broad social forces or policies that are effective in reducing crime may thus have a similar, albeit less direct, effect on mass public shootings.

Notes

1   In both instances, I shared the mass murder dataset I had assembled as well as the methods I used in constructing the dataset with *USA Today* and CRS staff.
2   In my 2007 book, I briefly review some mass murders that took place prior to 1900 in the United States. In this admittedly superficial review, I did not identify any cases that fit the description of a mass public shooting. This is not to say that the 1915 Brunswick case is the nation's first mass public shooting, or even the first one in the twentieth century. Rather, the Brunswick case is simply the oldest mass public shooting I have been able to identify.
3   We also see a similarly high rate of suicidal behavior among mass murderers who kill their families. In contrast, the offenders in felony-related massacres seldom commit suicide or force others to kill them. The rate of suicidal behavior in felony-related mass killings is similar to that observed among homicides in general.

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