

*POLICY BRIEF*

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# DECONSTRUCTING MASS PUBLIC SHOOTINGS

*Exploring Opportunities for Intervention*

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#### ABOUT THE AUTHORS

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# DECONSTRUCTING MASS PUBLIC SHOOTINGS

## ABSTRACT

When it comes to mass shootings, the United States is tragically in a class of its own. There are more mass public shootings in the US than in any other country in the world.<sup>1</sup> By some estimates the United States has experienced 318 mass public shootings between 1966 and 2017.<sup>2</sup> These attacks resulted in 1,167 dead and 1,777 injured victims. Unfortunately, mass public shootings show no signs of slowing down. Most research indicates that the rate of mass public shootings has been accelerating over time. For example, Joel Capellan finds that in the 1970s a mass shooting occurred, on average, every 608 days.<sup>3</sup> By the current decade, a mass public shooting occurred, on average, every 20 days. Due to their reoccurring and devastating nature, mass public shootings are starting to be considered a major public health hazard.<sup>4</sup>

Research on mass public shootings has focused almost exclusively on either the characteristics of offenders or the causes leading to these massacres. Although this research is invaluable to our theoretical understanding of the sociological and psychological factors that lead to mass public shootings, it has yet to provide an actionable understanding of how to prevent or mitigate the lethality of these massacres. In this policy report, we argue that prevention requires us to refocus our attention from *why* to *how* mass public shootings happen. To this end, we deconstruct mass public shootings into a series of stages and decisions and explore various opportunities for intervention. We analyze the motivations, preparatory behaviors, execution, and conclusion of 318 mass public shootings in the United States between 1966 and 2017. Furthermore, we offer some potential policy solutions to exploit these opportunities for intervention.

## What Is a Mass Public Shooting?

Mass shootings are generally defined as the killing of four or more individuals in one or more closely related locations within a 24-hour period.<sup>5</sup> “Mass shootings” is an umbrella concept encompassing three different types of incidents: familicide mass shootings, felony-related mass shootings, and mass public shootings.<sup>6</sup> For an event to be classified as a familicide mass shooting, the majority of the victims must be members of the offender’s immediate or extended family. Familicide mass shootings generally take place in private residences, far away from public view. Felony-related mass shootings are done in conjunction with other criminal activity. These include mass shootings related to gang activity, drug trafficking, and property crime. Mass public shootings differ in that the offender purposefully chooses a public stage (e.g., school, church, workplace) to conduct their attack. The attack is against the public itself.

Although familicide, felony-related, and mass public shootings are qualitatively part of the same phenomenon, they are characterized by different patterns, motivations, explanations, and situational contexts. Consequently, effective prevention strategies will be those to target a specific type of mass shooting. For that reason, we only focus on mass public shootings.

## The Current Research on Mass Public Shootings

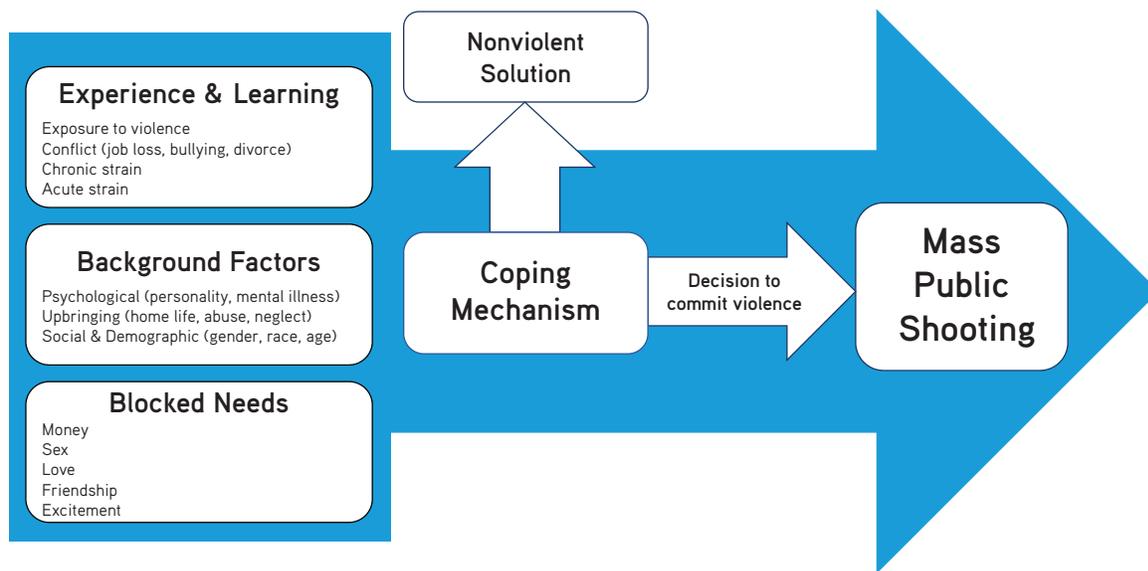
Empirical research has provided us with great insights into the prevalence, types, patterns, and risk factors of mass public shootings.<sup>7</sup> While this research has provided valuable insights into the sociological and psychological factors that lead to mass public shootings, it is yet to provide an actionable understanding of how to prevent or mitigate the lethality of mass public shootings. A theoretical understanding of the causal pathways to violence does not always translate into the development of policies and crime prevention strategies. As experts continue to search for the etiology of this phenomenon, busting myths and clarifying misconceptions, first responders are left to deal with the destruction of what seems to be a never-ending cycle of mass public shootings. Empirical research on mass public shootings needs to refocus its attention from the *why* to the *how*. It needs to produce information that can be used by local governments, law enforcement agencies, and schools, among various other entities, to help foil and mitigate the lethality of future mass public shootings.

We use the situational crime prevention framework to disaggregate mass public shootings into a series of stages and decisions and explore various opportunities for intervention. Situational crime prevention is defined as “opportunity-reducing measures that are (1) directed at highly specific forms of crime (2) that involve the management, design or manipulation of the immediate environment in a systematic and permanent way as possible (3) so as to increase the effort and risks of crime and reduce the rewards as perceived by a wide range of offenders.”<sup>8</sup> By emphasizing the immediate environment or the situational determinants of crime, our police and schools may be able to manage and manipulate these factors to reduce crime.<sup>9</sup>

# Deconstructing Mass Public Shootings

Mass public shootings have been traditionally examined as a single unitary phenomenon where crime event decisions are subsumed under criminal involvement.<sup>10</sup> In other words, researchers have assumed that the decision to become a mass public shooter and the series of decisions leading to the criminal event are the same. Treating these as one has led researchers to overemphasize and, therefore, focus almost exclusively on traditional criminological factors, such as psychological, sociological, and demographic characteristics, to explain how distant causes of crime interact with more immediate influences to produce a mass public shooting (see [Figure 1](#)). Focusing exclusively on criminological factors that influence the decision to commit a crime neglects the actual decisions involved in the commission of a crime.

FIGURE 1. Unitary Model of Mass Public Shootings



SOURCE: Osborne and Capellan, "Examining active shooter events through the rational choice perspective and crime script analysis."

This policy report is based on the model that looks at a mass shooting as a series of events instead of a single event. By doing so, it is hoped that a new way of thinking about analyzing and intervening in each of the stages in the cycle will be opened up. After deciding to commit violence (i.e., criminal involvement), offenders make a series of crime-centered decisions leading to and during the execution of the attack, according to our data. [Figure 2](#) presents a series of decisions involved in the execution of a mass public shooting.

FIGURE 2. Deconstructing Mass Public Shootings



SOURCE: Osborne and Capellan, "Examining active shooter events through the rational choice perspective and crime script analysis."

## Target Selection

Typically, the first decision made by an offender is the target selection. This decision is heavily dependent on the motivation behind the attack. Offenders who are motivated by revenge have almost no flexibility in their target selection because they target individuals deemed to be responsible for their misfortunes. Compared to those seeking revenge, offenders who are motivated by ideological extremism have more flexibility, yet their target selection is confined by their ideological grievances. For instance, an offender who has a grievance against people of color will target people of color in the attack. However, ideologically motivated offenders have a considerable amount of flexibility on which victims they target in attack. Autogenic motivations are "self-generated" due to the offender's internal psychological processes and issues, such as paranoia, schizophrenia, bipolar disorder, among others.<sup>11</sup> Generally, autogenic motivations are not anchored in the external world. As a result, these offenders have the most flexibility in their target selection.

## Preparation

After selecting the target, offenders typically go through a range of preparatory behaviors, from acquiring firearms, surveying the target, training, going on dry runs, and acquiring logistical information for the attack. The underlying goal of the shooting influences the date and time of the shooting. Offenders who are targeting specific individuals will select a time and date when the specific victims are present. Conversely, offenders interested in targeting as many people as possible will select a date and time where the most potential victims will be present.

## Execution

Situational factors and underlying goals of the attack determine how offenders start the shooting. For instance, perpetrators who do not have access to enter the location may start the shooting to gain such access. Conversely, perpetrators who have access and are targeting specific individuals may use that access to enter and target specific victims inside the location. Once a mass public shooting starts, it is very chaotic. Victims are running, hiding, while others may attempt to fight back. If present, well-trained security and police officers will be seeking and trying to identify, isolate, and neutralize the perpetrator. The perpetrator's response to lethal and nonlethal resistance from potential victims, security, and police officers strongly influences the outcome of the attack. Some may fight back, while others may surrender, flee, or commit suicide. Officers and potential victims may be successful in stopping the perpetrator through lethal and nonlethal force. In addition to resistance, the offender may stop involuntarily by running out of ammunition or technical problems with the firearms. Others stop voluntarily once they have targeted a specific number of individuals. These situational elements have a significant impact on how the offender concludes the attack and raise the question, under what conditions are mass public shootings most likely to be stopped?

## Analyzing the Motivation, Preparation, and Execution of 318 Mass Public Shootings

Situational crime prevention seeks to identify the patterns across the decisions involved in the criminal act and to develop strategies that may interrupt the criminal act and mitigate the lethality or damage caused by criminal behavior. To that end, we analyze the motivations and patterns in preparation, execution, and conclusion of 318 mass public shootings that occurred in the United States between 1966 and 2017. Consistent with most of the literature, the mass public shooting database used in this study is built on an open-source data collection strategy both to identify and collect all available information on each incident. Open-source data are information that is open to the public; they often come in the shape of searchable electronic documents such as newspaper articles and government documents.<sup>12</sup>

To identify all relevant cases, specific search terms (e.g., mass shooting, mass public shooting, random shooting, deranged shooting, etc.) were employed in eight different search engines (Lexis-Nexis, ProQuest, Yahoo, Google, Copernic, NewsLibrary, Westlaw, and Google Scholar). This initial collection of incidents was then cross-referenced with over 50 mass-shooting lists and databases provided by peer-review journals, new organizations, school-sponsored reports, blogs, and online encyclopedias. Additional open-source materials, including media accounts, legal documents, blogs, videos, and government documents, were also used to piece together the most complete picture possible of each attack. This included information about the offender's motivation, pre-event behaviors, the location of each event, victim information, and how the attack was carried out and concluded.<sup>13</sup>

## Motivations and Preparatory Behaviors

Popular perception paints mass public shooters as “deranged” individuals who target random victims during the attack. This is not true in most cases. One hundred and fifty-four or 48 percent of mass public shootings were motivated by revenge against specific individuals. Thirty-seven percent of perpetrators were fueled by autogenic motivations. Lastly, 15 percent of all mass public shootings were executed in the name of an extremist ideology. Most attacks were not random. Fifty-one percent of mass public shootings could be traced back to a precipitating incident in an offender’s life, such as the loss of employment (35%) and change in the relationship status (6%), among others (35%).

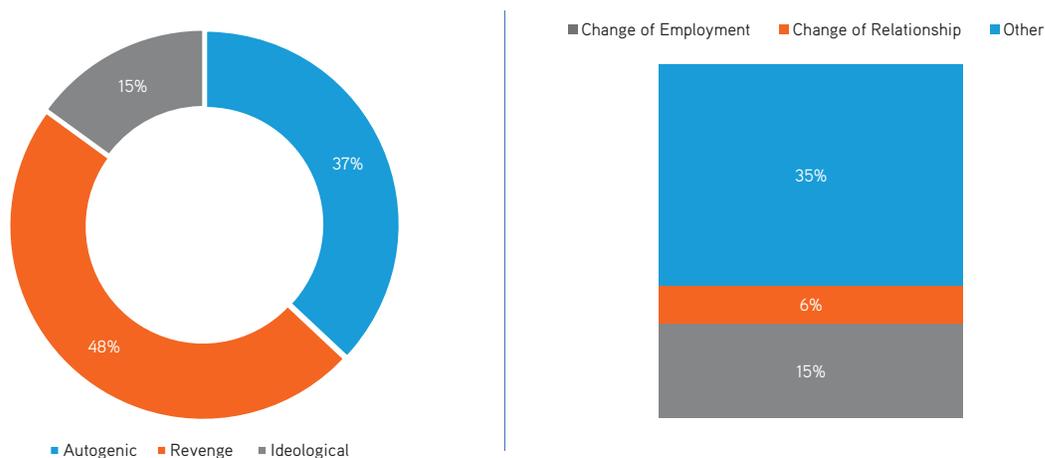
Mass public shooters engaged in a range of preparatory behaviors prior to the attack. Ten percent of offenders trained and acquired further tactical equipment (e.g., combat-wear, bulletproof vests, masks) before the shooting. Twenty percent of perpetrators acquired logistical and tactical information, 10 percent conducted surveillance on targets, and 2 percent simulated the shooting before the attack.

Eighty percent of mass public shooters had previous access to a firearm. They either owned, lived, or worked at a place where firearms were present and available for use. Despite access, 41 percent of offenders acquired additional firearms for the attack. On average, offenders acquired two firearms. However, some acquired as many as 27 firearms for the shooting.

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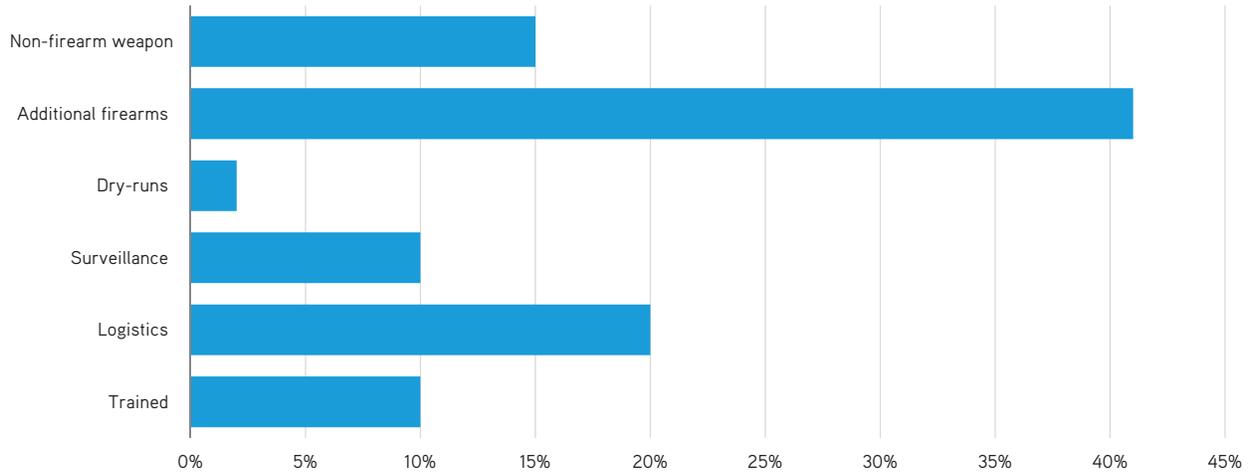
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FIGURE 3. Motivations and Precipitating Events



SOURCE: Authors’ analysis of 318 mass shootings between 1966 and 2017.

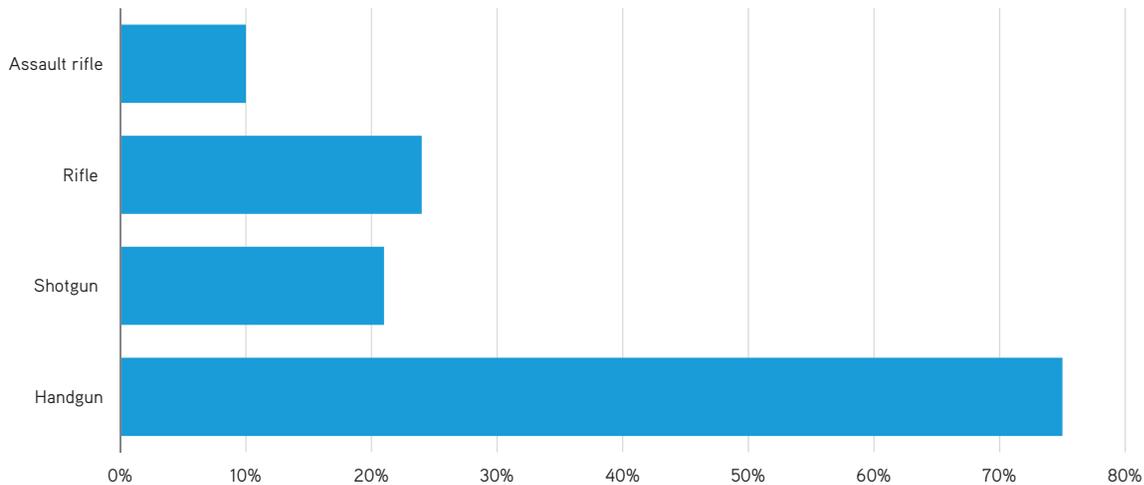
FIGURE 4. Preparatory Behaviors



SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

Handguns are the weapon of choice in mass public shootings. At least one handgun was used in 75 percent of mass public shootings. Handguns are followed by semiautomatic rifles (24%), shotguns (21%) and automatic or “assault” rifles (10%). In addition to firearms, 15 percent of perpetrators obtained non-firearm weapons such as Improvised Explosive Devices (IEDs), knives, and blunt objects, among others.

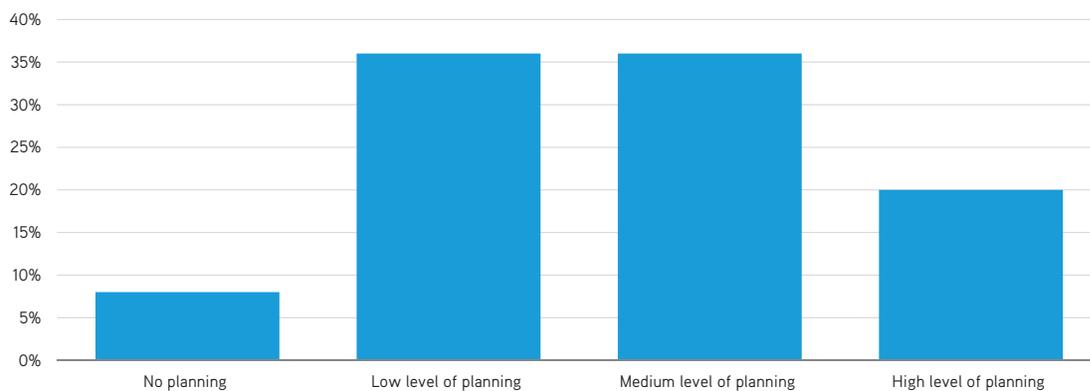
FIGURE 5. Firearms Used in the Shooting



SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

The preparatory behaviors noted above are indexed and categorized into four levels of planning. The lowest level of planning is “no planning.” This level includes offenders who had no time to plan for the attack and, therefore, did not engage in any preparatory behavior. These offenders generally react to a catalyst (e.g., being kicked out of a bar), retrieve a firearm, and minutes later start the shooting. “Low level of planning” involves offenders who had an hour or multiple hours pass between the catalyst and the attack. Generally, these individuals go back to their homes or cars to get firearms in order to carry out the shooting. These offenders did not use additional non-firearms weapons (i.e., knives and blunt objects) and additional gear. Offenders who employed multiple firearms and brought additional non-firearms weapons and gear (i.e., bulletproof jacket, ammunition, and tactical clothing.) were categorized as “medium level of planning.” In addition to the noted behaviors, offenders who engaged in “high levels of planning” also acquired tactical and logistical information through surveillance and online searches.

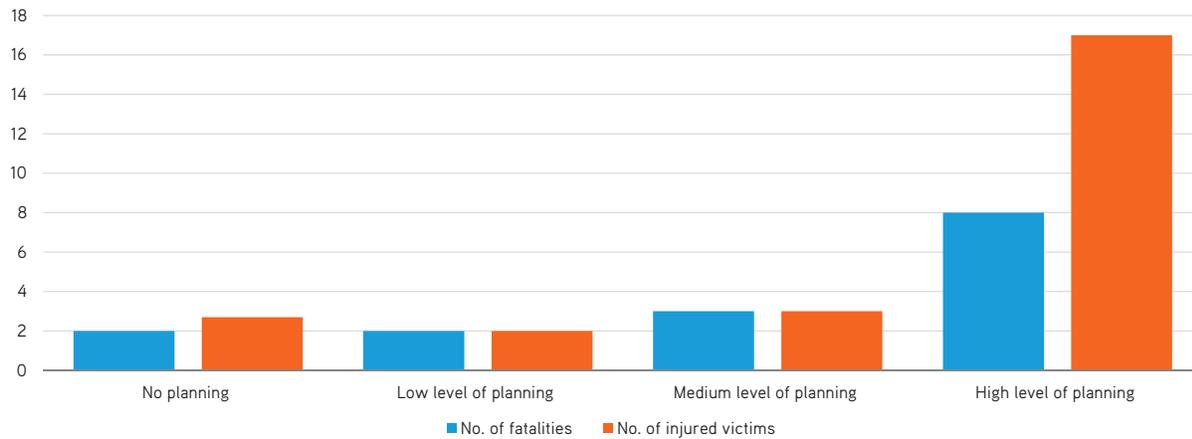
FIGURE 6. Level of Planning of Offender



SOURCE: Authors’ analysis of 318 mass shootings between 1966 and 2017.

Most offenders engaged in low (36%) and medium (36%) level of planning. Twenty percent of offenders engaged in a high level of planning. The level of planning seems to have a substantive impact on the lethality of the attack. [Figure 7](#) presents the average number of fatalities and injured victims by planning level. Offenders who have no and low-level of planning, on average, incur two fatalities and two injured victims. These figures increase to three for offenders with a medium level of planning. Offenders with a high level of planning, on average, killed eight and injured 17 victims.

FIGURE 7. Average Number of Fatalities and Injured Victims by Level of Planning



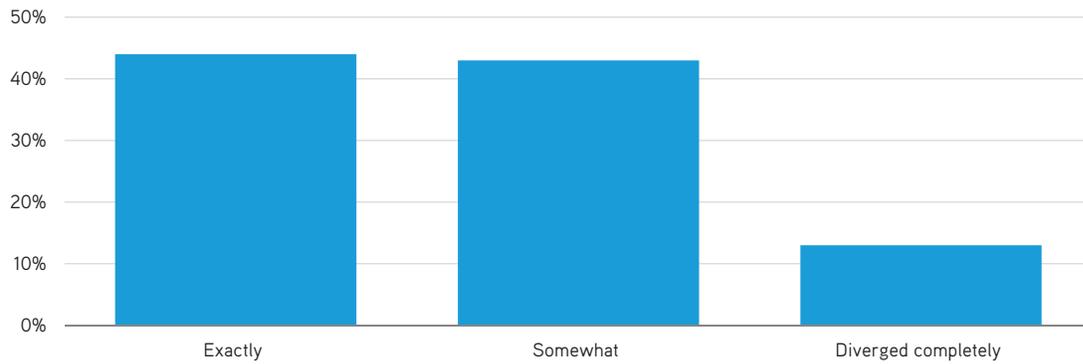
SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

### Threats as Foreshadowing Behavior

Threats have been considered by the U.S. Secret Service to be reliable and actionable intelligence as they often signal an impending violent act.<sup>14</sup> Approximately 40 percent of mass public shooters make threats prior to the attack. The majority of the threats (52%) were made verbally, followed by written (26%) and other forms (21%). For example, some offenders drew cartoons or made movies depicting mass public shootings. There are also significant differences to whom threats are directed. Forty-one percent of threats were directed towards potential victims. Unfortunately, a large portion of threats may have been ignored, as 40 percent of threats were made in front of family members and close friends, and 20 percent were made on social media platforms. Empirical research has consistently shown that an essential determinant of reporting of threats is the bystander's relationship with the offender. Threats made in the presence of friends and family are far less likely to be reported to the authorities.

Our results also show that threats are credible sources of intelligence on the act, target, and method of execution of the impending attack (see [Figure 8](#)). Forty-four percent of threateners followed through with *every element identified* in their threat. Forty-three percent of mass public shooters deviated in some, but not all, elements identified in their threats. Finally, only 13 percent of mass public shooters deviated completely from elements identified in their threats.

FIGURE 8. Threat Follow-Through



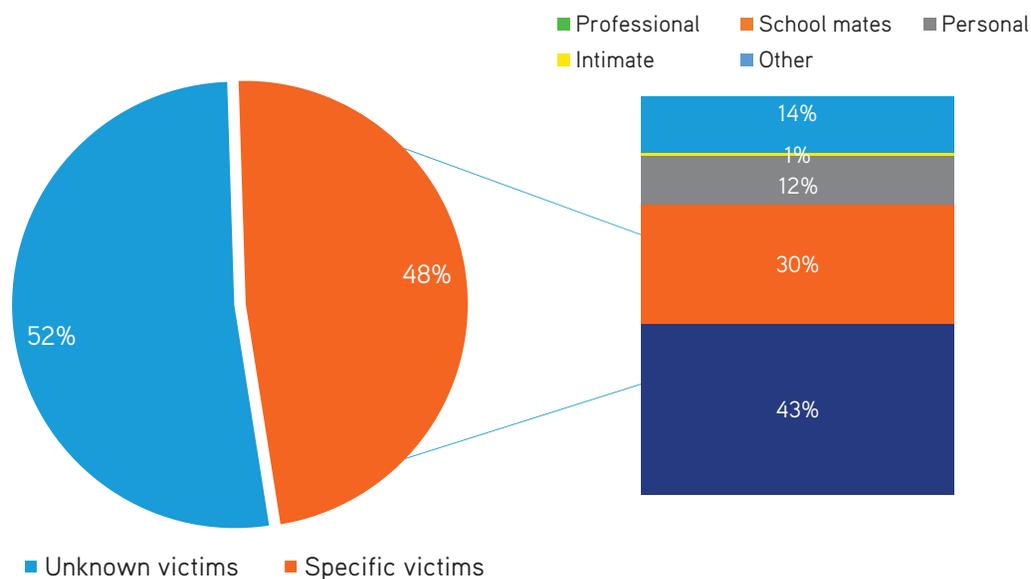
SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

## Execution: Incident-Level Behaviors

Mass public shooters target a wide range of locations including schools, workplaces, and government institutions, among others. Most mass public shootings occurred in businesses (37%), followed by schools (25%), government institutions (15%), and religious institutions (4%). Nineteen percent of attacks occurred in open spaces (e.g., streets, parks) and other types of locations.

Almost half (48%) of offenders went to those locations to target specific individuals. This is not surprising given that a large proportion of shooters are motivated by revenge and therefore have relationships with their victims.

FIGURE 9. Target Type and Relationship with the Main Targets



SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

Most commonly, offenders (43%) have a professional relationship with their victims. These often-called “disgruntled employees” tend to have grievances against their coworkers and managers stemming from disputes, suspension, or being fired. A significant percentage (30%) of mass public shootings could be classified as school shootings since it involves students targeting other students on school grounds. Similar to disgruntled employees, school shooters also have deep grievances that originate from bullying, social marginalization, and romantic failures. Mass public shooters also target individuals with which they had personal (12%) and romantic (1%) relationships. It is important to note that although these offenders target specific individuals, once the shooting begins, they extend the shooting to other unrelated victims that happen to be in the vicinity.

Mass public shooters could be categorized as “lone wolves” in the sense that they plan and execute these shootings on their own and in one location. Ninety-eight percent of shootings were executed by a lone actor who target a single location 84 percent of the time. These perpetrators generally do not have to use force to enter a location. Seventy-two percent of mass public shooters had authorized access to enter the location. Only 32 percent of locations had security officers present at the time of the shooting. Unfortunately, as [Table 1](#) shows, 71 percent of perpetrators had access to locations with security officers.

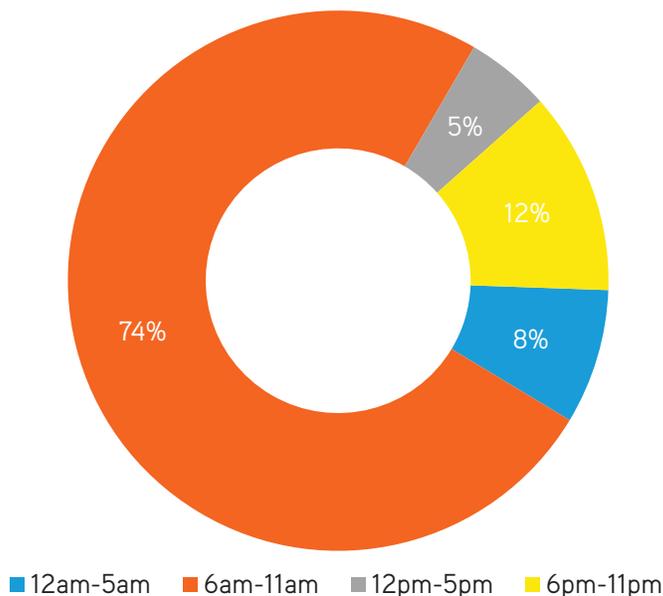
**TABLE 1. Cross-Tabulation between Security and Access**

	NO SECURITY	SECURITY
No Access	27%	29%
Access	72%	71%

*SOURCE:* Authors’ analysis of 318 mass shootings between 1966 and 2017.

Mass public shooters attack locations when they are open for business. The majority of perpetrators (74%) attacked in the morning (6 a.m. to 11 a.m.). Naturally, offenders targeting nightclubs, bars, or coworkers during the night shift at a 24-hour supermarket selected a time in the evening (6 p.m. to 11 p.m.) or early in the morning (12 a.m. to 5 a.m.).

*FIGURE 10. Time of Mass Public Shooting*



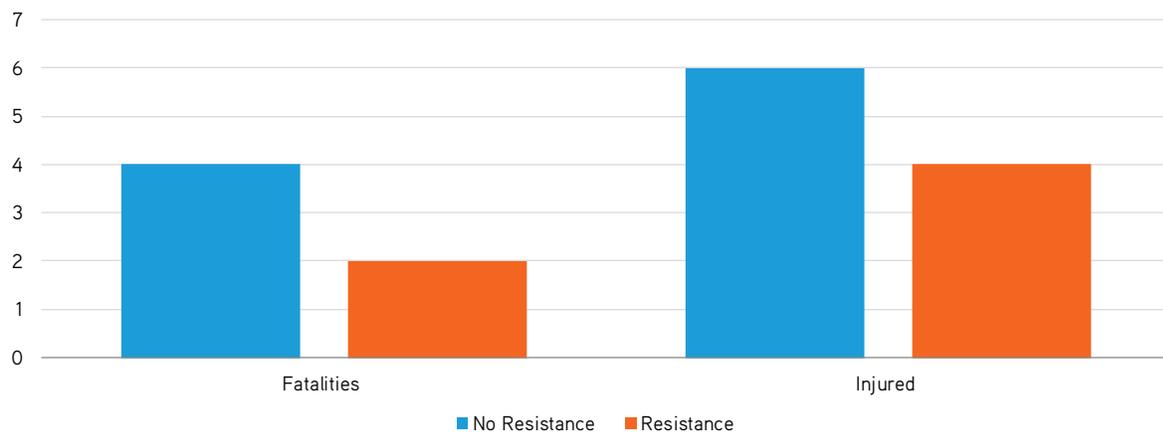
*SOURCE:* Authors’ analysis of 318 mass shootings between 1966 and 2017.

Mass public shootings are generally fast-paced, chaotic events. Seventy-three percent of mass public shootings end in 30 minutes or less. However, there are situational factors that may extend the incident to several hours. Some offenders, for instance, extend the attack to another location or flee and turn the shooting into a high-speed car chase. Others may hold hostages for several hours.

## Conclusion to the Shooting

Police officers arrived at an active shooter scene 45 percent of the time. The arrival of law enforcement officers marks a pivotal moment in a mass public shooting, as the offender is likely to encounter some form of resistance. Mass public shooters encountered lethal (e.g., gunfire) and nonlethal (e.g., tackles) forms of resistance in 31 percent and 22 percent of incidents, respectively. Effectively neutralizing the shooter seems to have an impact on the number of fatalities and injured victims. As illustrated in [Figure 11](#), the number of fatalities and injured victims decreases by an average of two when the offenders are met with resistance.

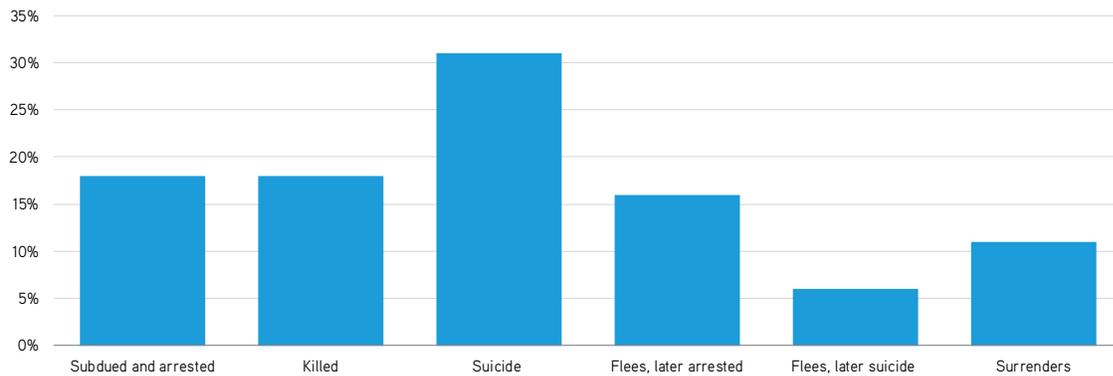
*FIGURE 11. Comparing Lethality across Offenders Who Were and Were Not Met with Resistance*



*SOURCE:* Authors' analysis of 318 mass shootings between 1966 and 2017.

There is great variation in how mass public shootings conclude. The most common occurrence is suicide. Thirty-one percent of offenders commit suicide at the location of the attack. Approximately 6 percent flee and then commit suicide. Eighteen percent of mass public shooters are subdued, either by nonlethal or lethal force and arrested. Sixteen percent of attackers flee and are later arrested by law enforcement officers. About 18 percent of offenders are killed during the attack and 11 percent surrender after ending their attack.

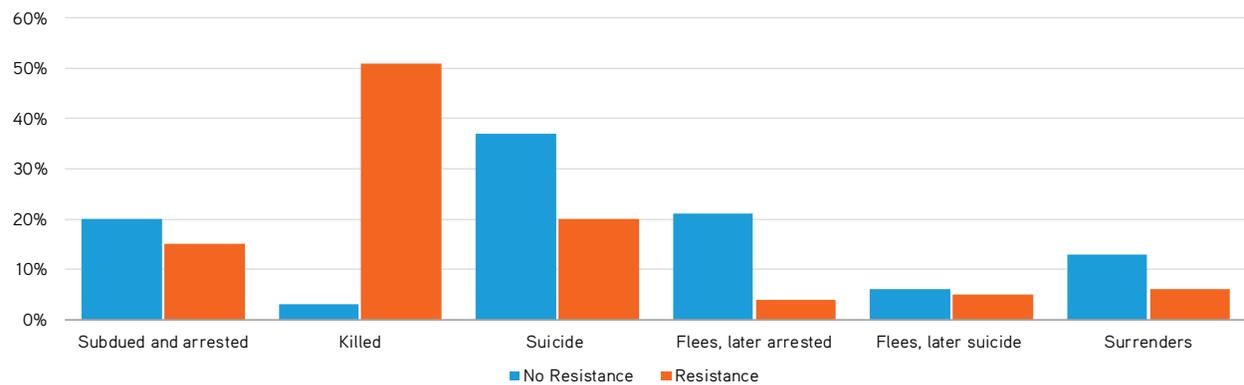
FIGURE 12. Conclusion of Mass Public Shootings



SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

The conclusion of a shooting is not only influenced by the underlying motivations and goals of the perpetrator, but also by the behaviors of victims and first responders, particularly the use of lethal force by police officers. Compared to offenders who were not met with resistance, mass public shooters who were met with resistance were more likely to be killed in the attack. Neutralizing the offender sooner may lead, on average, to lower fatality and injured victims, as illustrated in [Figure 13](#).

FIGURE 13. Comparing Outcomes across Offenders Who Were and Were Not Met with Resistance



SOURCE: Authors' analysis of 318 mass shootings between 1966 and 2017.

# Exploring Opportunities for Intervention

Deconstructing mass public shootings into a series of stages exposes a host of opportunities for intervention. These opportunities are found throughout the process from planning to the conclusion of the attack. Below, we list potential policy solutions that aim to disrupt the shooter’s planning, execution, and conclusion to the attack. It is important to note that these are strategies to consider. What works for any particular state, local government, or organization may be different from another state, local government, or organization. State and local governments as well as private and public organizations must examine their own vulnerabilities and decide which strategies meet their needs. Furthermore, our list of potential policy solutions are not specific to the states of New York or New Jersey. These could be applicable to any state and local governments.

## Preparation Stage

### *Limiting Access to Firearms*

Without firearms, there would be no mass public shootings. To reduce an offender’s ability to prepare for a mass public shooting, effort must first be in place to limit access to weapons. Our data indicate that 41 percent of offenders obtained at least one firearm for the attack. Below, we list possible policy actions that may reduce access to new guns.

- STRATEGY  
**1** Universal National Instant Criminal Background Check System (NICS) background checks for all gun buyers.
- STRATEGY  
**2** Universal background checks for ammunition buyers and limiting the amount of ammunition that can be purchased.
- STRATEGY  
**3** Banning sales of assault weapons and high-capacity magazines.  
These strategies on new gun purchase, of course, cannot prevent all ill-intentioned offenders from obtaining a gun. Our data indicate that 80 percent of offenders had access to firearms prior to the attack. This means they either owned a firearm or lived or worked at a place where firearms were present and available for use. While little can be done about individuals who either legally owns their firearms or already possess weapons through other means, policy can incentivize current gun owners to secure their guns and reduce the risk of these firearms falling in the wrong hands. Thus, policy is also needed to regulate existing firearms.

STRATEGY

4

Policy requiring guns to be stored in safes and making gun owners liable for gun crimes due to the unsafe keeping of their firearms.

STRATEGY

5

Policy outlawing the private sale or transfer of firearm to the mentally ill, convicted felons, and individuals under the age of 21.

STRATEGY

6

Policy requiring Universal NICS background checks for private sale or transfer between immediate family members through federally licensed gun dealers.

### *Identifying Potential Offenders*

Besides policy actions, law enforcement could play a significant role in reducing an offender's ability to prepare for a mass public shooting by identifying potential offenders early and taking appropriate actions to disrupt the preparation and neutralize the threat. One promising strategy in this regard is threat assessment.<sup>15</sup> Threat assessment is the process of identifying, assessing, and managing the threat that certain persons may pose. As conceptualized by the Secret Service,<sup>16</sup> threat assessment is predicated on communication from potential offenders that may signal an impending violent act (i.e., leakages and threats). Our results show that 40 percent of mass public shooters make threats prior to the attack. This means that effective threat assessment could potentially prevent 40 percent of mass public shootings. This, however, would require three interrelated undertakings. First, a state-level threat assessment agency needs to be established to help schools, businesses, and other organizations assess the risk posed by threats and threateners. Second, threat assessment must be applied correctly and systematically to ensure it work effectively. Third, threat assessment and related investigations must be conducted by trained professionals.

STRATEGY

7

State government establish a state-level threat assessment program within the state police.

Importantly, law enforcement should cultivate a more fertile environment for sharing resources and intelligence. Police agencies must continue to build relationships with other agencies, including fusion centers, in order to receive information that can help them better assess threats. For example, robust databases of threats and threateners that could be accessed by different agencies could lead to more accurate threat assessment.

## STRATEGY

8

State and county police should promote information sharing among law enforcement agencies for threat assessment purposes.

For threat assessment to work, threats must be reported. Our data indicate that 41 percent of threats are made around individuals least likely to report them (i.e., family members and/or close friends). To mitigate this obstacle, the government must create and maintain a public awareness campaign that emphasizes the importance of reporting such threats and provides information on how and where to report them. The results show that mass public shooters engage in several preparatory behaviors. Fifty-one percent of mass public shootings can be traced back to a precipitating event, such as divorce or being fired from work. Reporting threats and threatening behavior in the context of these conflicts is of utmost importance for prevention.

## STRATEGY

9

State and local police periodically carry out a public awareness campaign that emphasizes the importance of reporting threats and other warning signs.

Criminal justice agencies must be empowered to act when threats or threateners are deemed high risk. For this purpose, states could enact legislation, similar to New Jersey's Red Flag law, that allows police to confiscate a person's firearms if a judge determines that the person poses a significant risk of personal injury to themselves.

## STRATEGY

10

Policy that allows courts and law enforcement to confiscate firearms from high-risk threateners and, if their guns are legally owned, delicense such gun owners.

### *Execution Stage*

Execution involves target selection and carrying out a mass attack. Target selection is heavily dependent on the motivation for the attack. Offenders motivated by revenge against specific individuals have little flexibility in target selection — they will target those they perceived have wronged them. There is very little that can deter these offenders from choosing their targets. Conversely, ideological and autogenic-motivated shooters are not committed to specific victims/locations and can, therefore, be dissuaded from attacking specific locations through security measures. For instance, Burford O. Furrow considered attacking three Jewish institutions, prior to settling on the institution with the least security. Similarly, terrorism research has consistently found ideologically motivated offenders to be opportunists with a propensity for striking soft targets.<sup>17</sup>

Target hardening involves use of a wide range of measures to strengthen the security of a location for the purpose of crime prevention.<sup>18</sup> Burford O. Furrow exemplifies the importance of having comprehensive security measures. Our results indicate

that 52 percent of shooters have no relationship with the locations and victims they attack. Organizations, therefore, must establish security measures that keep outsiders from coming into the location. A case in point is Kevin Neal, who on November 14, 2017, began shooting at his neighbors on Rancho Tehama Reserve, Tehama County, California. After killing three neighbors, he stole a car and began firing randomly at vehicles. The shooter then drove into the gate of a nearby elementary school. He was prevented from entering the school due to a lockdown, so he fired at the windows and doors of the building, wounding five children. The school's decision and ability to go on a lockdown prevented the shooter from entering and many more children from being hurt. With our results and available evidence on target hardening, we provide the following policies for consideration.

STRATEGY  
11

Potential target locations should establish a defensible space design and/or establish lockout procedures.

STRATEGY  
12

Potential target locations should control access to facilities with metal detectors or other devices and locked doors that can be opened from the inside only.

Police and security should take ownership of public target areas and locations. Research has found that police and security presence can significantly reduce crime, particularly when directed toward areas prone to violence. The research shows that the worse the public security is perceived in a certain area, the higher the chance of gun use or the more gun crimes the area tends to generate.<sup>19</sup> This research complements our data and other evidence mentioned earlier and suggests that the following recommendation should be adopted as an important strategy to dissuade an offender from carrying out a public mass shooting.

STRATEGY  
13

Potential target locations could hire and deploy well-trained security guards and/or police officers.

Target hardening must also protect from the threats within the location. Our results show that 48 percent of mass public shooters had a relationship with the locations and victims they attack. Many of these offenders were employed by or went to school in the locations they attacked. Businesses, schools, and government institutions, therefore, must establish security measures that protect them from within.

STRATEGY  
14

Potential target entities should conduct risk assessments on current employees or students involved in conflicts and establish mechanisms through which threats can be reported and incidents prevented.

STRATEGY

15

Potential target locations should establish protocols that allow them to remove access to employees or students who have been fired or dismissed.

Target hardening will only be successful if potential targets can identify their unique vulnerabilities and implement security measures in a manner consistent with best practices. This means that schools, government institutions, religious institutions, and businesses will need expert assistance in the identification of vulnerabilities and systematic implementation of security measures. State or local governments need to develop a target hardening and risk assessment program to consult, train, assess, and help guide the implementation of location-specific security measures. This program could be part of the threat assessment program at the state level we propose earlier. However structured, schools, businesses, churches, and others entities need help in identifying vulnerabilities and assessing the risk of potential offenders.

STRATEGY

16

State and local governments can create a target hardening and risk assessment program to consult, train, assess, and help guide the implementation of location-specific security measures.

*Conclusion to the Shooting*

Mass public shootings are dynamic and chaotic events. Seventy-three percent of mass public shootings ended in 30 minutes or less. Nevertheless, there remain opportunities for reducing casualties and injured victims. The data presented indicate that law enforcement and other first responders have a critical role in reducing the lethality of mass public shooters. For example, applying resistance (lethal and nonlethal) to the offender decreased the lethality of the shooting by an average of two fatalities and two injured victims. The consensus among law enforcement agencies dictates law enforcement officers arrive at the scene as quickly as possible and isolate and neutralize the shooter.

It is important to recognize, however, that the average local law enforcement department in the United States has about 10 full-time sworn-in officers on duty. Given their limited resources, local law enforcement agencies must strategize, pool resources, and create and practice an active shooter response protocol. A professional, coordinated, and standardized response to the shooting could have a major impact on the lethality of these attacks.

STRATEGY  
17

Local law enforcement agencies create and practice an active shooter response protocol either at the agency level or county level depending on the size of the police department.

Also, hospitals, Emergency Medical Teams, and other first responders should develop and implement an active shooter response protocol that examines preparedness, pools resources, and establishes a systematic response procedure to mass casualty events.

STRATEGY  
18

Hospitals and emergency medical teams and other first responders create and practice an active shooter response protocol.

In addition to first responders, victims can mitigate the casualties from these attacks. Individuals in targeted facilities, for example, are recommended to quickly evaluate the situation and determine the best way to protect their lives. Whenever possible, emphasis should be placed on evacuation from the facilities. If not possible, it is recommended that individuals find a place to hide and, if applicable, lock doors and stay silent. Only when life is in imminent danger should an individual attempt to disrupt or incapacitate the shooter. If these strategies are to be effective, employees and students must be aware of active shooter protocols and exits available to them. This requires an information campaign and mock training.

STRATEGY  
19

Potential targets, such as schools and businesses, engage professionals to design and implement an active shooter response training program and conduct mock training exercises.



## How Should Policymakers Proceed?

Although criminal justice agencies have little power over the social, demographic, and economic forces that shape the incidence and distribution of violence, the deconstruction of mass public shootings into a series of decision points exposed several opportunities for intervention. These opportunities can be exploited by state and local governments, law enforcement agencies, schools, businesses, religious organizations, and citizens to disrupt, prevent, and mitigate the lethality of mass public shootings. As our strategies illustrate, there are no silver bullets. Preventing and mitigating the lethality of mass public shootings will require a wide range of policies and strategies and self-protective behavior from ordinary citizens. It is the sum of these policies, strategies, and cautionary behaviors that will have an impact on the incidence of mass public shootings.

Policymakers, however, must proceed with caution. They must avoid the knee-jerk reactions that follow highly publicized massacres.

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Policymakers, however, must proceed with caution. They must avoid the knee-jerk reactions that follow highly publicized massacres. A recent media analysis found that 70 percent of the total news stories on mass public shootings printed by The New York Times were driven by only 15 events.<sup>20</sup> These 15 massacres are the most “extreme” and therefore the most atypical. However, due to the disproportionate news coverage, these 15 cases not only distorted the public’s understanding of the causes and possible solutions but also shaped the political discourse and subsequent legislative solutions to mass public shootings. Research suggests such knee-jerk policies are “feel-good legislation” with no measurable effect.<sup>21</sup>

Extreme cases make for bad policy because they are unique and very uncommon occurrences. Good public policy attempts to maximize its effect on the greatest number of possible positive outcomes. However, this cannot happen if policy discussions are informed by or based on outliers. Effective prevention measures must be data driven and be built on a broader understanding of this phenomenon.

Prevention strategies must be based on the analysis of specific problems and related data. As we have noted, “mass shooting” is an umbrella concept that encompasses different types of shootings that are characterized by different patterns, explanations, and, consequently, different solutions. Even within “mass public shootings” there is significant heterogeneity among perpetrators. For example, Capellan, Johnson, and Martin compared *disgruntled employee*, *school*, *ideologically-motivated*, and *rampage* mass public shooters in the United States and found significant differences in the background characteristics, motivations, pre-event and event-level behaviors.<sup>22</sup> Similarly, a recent investigation on mass public shooters who targeted government institutions or agents demonstrated that their motivations and methods of execution are distinct from shooters who direct their attack on other types of targets.<sup>23</sup> In both papers, the authors argue that for prevention strategies to be effective they must be

tailored to the specific type of shooters and targets (i.e., school, church, government institution). Their research highlights the importance of disaggregating mass public shootings into more specific problems and allowing the data to dictate how to develop prevention strategies



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