

# AN ANALYSIS OF US SCHOOL SHOOTING DATA (1840 – 2015)

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This paper describes the construction and descriptive analysis of a data set of United States school shooting events. Three hundred forty-three shooting events are included, spanning 175 years of United States educational history. All levels of US educational institution are included. Events are included when a firearm is discharged, regardless of whether an injury occurs. The analysis defines a mass shooting as an event in which four or more persons, excluding the shooter, are injured or killed. It defines a mass murder as an event in which four or more persons, excluding the shooter, are killed. The data reveals that US high schools are where most shooting events occur. Relatively speaking, there have been few mass murder events in US campuses, but they have occurred with much greater frequency in the last 50 years. In most cases, shootings are premeditated. No prescription related to firearms at educational institutions is made.

**Keywords:** school shooting, mass shooting, mass murder, shooter, firearms on campus, campus carry

## Introduction

On January 9, 2011, police were called to a fraternity house at Florida State University at 1:16 AM to respond to an accidental shooting report. A student was showing his rifle to friends when the rifle accidentally discharged. The bullet went through the chest of one student, killing her, and hit a second student in the wrist. On November 19, 2014, on the same campus, a mentally ill former student went on a shooting rampage at the library, injuring three students, including one who is permanently paralyzed. Police responded within minutes, killing the shooter.

Advocates against allowing firearms on college campuses point to the 2011 event, and others like it, as evidence enough that allowing firearms on a college campus is a bad policy. They argue that alcohol and youthful recklessness mix together to form a deadly combination that leads to tragedy. Advocates in favor of allowing firearms on

college campuses point to the 2014 event, and others like it, as examples of situations that could have been ended faster if citizens were allowed to carry firearms on campus.

The National Conference of State Legislatures maintains information on concealed carry weapon laws and college campuses (<http://www.ncsl.org/research/education/guns-on-campus-overview.aspx>), but policy in this area is particularly difficult to construct because emotions run high on this issue. On the one hand, proponents of “campus carry” laws point to the Second Amendment as confirming a right to bear arms. On the other hand, faculty, administration, and police opposition to allowing firearms to be carried on some campuses has been significant. On the one hand, accidental shootings only occur when guns are present. On the other hand, a person who is properly trained in firearm use can only use a firearm for protection from a shooter when allowed to carry the firearm.

A wide range of scholarly articles have been published on topics related to school shooting events. The legal aspects of firearm possession on campus, school zones and the Second Amendment (Arnold, 2015) and historical perspectives that review American university policies in the 1700's and 1800's (Cramer, 2014) have been examined. Asmussen and Creswell (1995) have studied how a campus reacts to a shooting event, and Weiler and Armenta (2014) surveyed school principals to assess their feelings about arming school personnel. Neuman et al. (2015) present a way to profile school shooters using automatic text-based analysis of their writing. Towers et al. (2015) found statistically significant results that indicate high profile school shootings lead to more of the same.

Some scholarly articles focus on the most violent events (see Kalish and Kimmel, 2010), which certainly warrant study, but they do not describe the most common type of shooting event that occurs at an educational institution. Some scholarly articles read more like opinion pieces, containing unsupported statements such as this:

*Most mass shooters are young men or occasionally women – usually teens – who are emotionally unstable and want to exact revenge on society for some harm that they have suffered (real or imaginary), commit suicide in a blaze of gun fire, and get national media attention for their last act. (Nedzel, 2014)*

In fact, the data do not support most of the implicit assertions in this excerpt. Most shooters are men, but only in high schools are most of the shooters teens. Few have been diagnosed as emotionally unstable; most shooters are just angry about something. Twice as many mass shooters are arrested at or near the scene of the shooting as complete suicide. When asked why they did what they did, they rarely mention a desire for media attention.

The quote above exposes another problem. What is a “mass shooting”? The terms “mass shootings”, “mass killings”, and “mass murders” are used almost interchangeably and the definitions vary.

In their study of school shooter offender and offense characteristics, Gerard et al. (2016) defined a school shooting event as an attack by someone against two or more victims with at least one firearm on school grounds. They went on to write:

*This broad definition will be adopted in order to include as many cases as possible in the sample; because of the rare nature of school shooting incidents, few cases are available.*

This is a European-based study, but these researchers included US data (79% of their events occurred in the US). They were able to find only 28 cases of shooting events between 1988 and 2009 that met their criteria. By comparison, the data set in this study contains 48 events that meet their criteria. All of them are US events. This discrepancy highlights the lack of a systematic review of these events.

What has been missing is a comprehensive, data-driven analysis of what actually occurs in shooting events at educational institutions. The National School Safety Center (<http://www.schoolsafety.us/media-resources/school-associated-violent-deaths>) published a report summarizing school violence during the academic years from 1992-1993 to 2009-2010, but it is only a list of the events. The CDC has data on school associated student homicides from roughly the same period (1992-2006) and also produces other relevant reports on source of weapons and warning signs (<http://www.cdc.gov/violenceprevention/youthviolence/schoolviolence/savd.html>).

This study was undertaken to provide in one place a single accounting of school shooting events at educational institutions.

No prior analysis has focused on describing the shooting events at educational institutions that have occurred over a long period of time in a consistent manner.

### Method

Constructing a dataset that completely documents every shooting at an educational institution is an impossible task. There is simply no way to identify every such event that has occurred. When one searches for data related to “school shootings” or some similar term, one inevitably comes across one of the many variations of a list of school shooting events that begins with a 1764 Indian raid on a school house. Such data has been used, even when not explicitly referenced (see, for example, Duplechain and Morris, 2014). This study began with one of those variations, the list of shooting events that exists on Wikipedia’s “List of school shootings in the United States” entry. The earliest event described in this list occurred in 1764, but the rest of the events in the list occurred in or after 1840.

Entries in the Wikipedia list are not described in a consistent manner. Some entries contain detail about the event while other entries only indicate that the event occurred. However, most of the entries in the list contain a reference to an online data source. In most cases, that data source is a newspaper article. In order to construct the data used in this study, the author read all of the data sources connected to the Wikipedia entries. The author also read any other information (e.g., court documents) that could be located on older events. Recent events that are especially violent often result in hundreds of articles. No attempt was made to read all of the articles written about those events.

An event is included in the data set as long as a firearm was discharged in an educational institution or on its grounds, regardless of the number of people wounded or killed, with a few exceptions. Eleven of the events included

in the Wikipedia list were discarded because they described shootings by police (e.g., in response to a crime) or other authorities (e.g., the Kent State University shootings by National Guardsmen). Four events on the Wikipedia list were discarded because they occurred at school board meetings. Twenty-three shooting events were excluded because something in the information about them indicated they were not reasonably related to anything that would be considered normal educational campus-related activity or they did not actually occur on a campus. For example, the 1764 raid by Lanape Indians on a Pennsylvania schoolhouse was removed from the data set because it is not reasonably relevant to understanding shooting events at educational institutions. Similarly, an 1858 shooting “in the woods near the city” where a school celebration was occurring was removed (not on a campus), a 1910 shooting of two schoolboys who were sledding in a park was removed (not on a campus), a 1935 suicide by an administrator was removed (not related to educational activity and occurred outside school hours), the 1959 arrest of twenty-seven men and boys in gang-related activity was removed (no shots were fired), and the 2014 shooting death in the early morning hours of a 16-year-old boy in a middle school parking lot was removed (occurred in the middle of the night), among others.

Some events known to the author were researched and added to the data set. Other events were added as they were found, but there was no concentrated effort to identify all missing events. In the end, 343 events from November 12, 1840 through December 31, 2015 are included in the data set. Thirty of these events occurred before January 1, 1900. Table 1 contains descriptions of the data items that were sought for each event.

**Table 1. Data items**

<b>Item</b>	<b>Description</b>
Date	Date of the event
Month	Month part of date (for analysis)
Day of Week	Day part of date (for analysis)
Location	City, State where event occurred
State	State part of location (for analysis)
Institution	ES = Elementary School, MS = Middle School, HS = High School SH = School house (commonly used in 1800's news articles) U = University (includes all post-high school institutions)
Teachers Killed	Number of teachers killed in the event
Teachers Injured	Number of teachers injured in the event
Students Killed	Number of students killed in the event
Students Injured	Number of students injured in the event
Others Killed	Number of others killed in the event
Others Injured	Number of others injured in the event
Number of Shooters	Number of shooters
Shooter Gender	Male, Female, Unknown
Shooter Age	Age(s) of shooter(s)
Shooter Outcome	A range of values such as Arrested, Convicted, Suicide, Identified, Escaped, Killed, etc.
Related to Location	No = the shooter does not have some prior relationship to the educational institution Yes = the shooter has some prior relationship to the educational institution
Deaths	Total number of deaths from the event (excluding shooter)
Injuries	Total number of injuries from the event (excluding shooter)
Dead + Injured	Total number of deaths and injuries from the event (excluding shooter)
Type	Accident Premeditated = the shooter came to the institution with an intent to shoot Spontaneous = the shooter was armed, but did not come to the institution with an intent to shoot Unknown
Weapon	Handgun, rifle, shotgun, or unknown (combinations are possible)
Delay	Hours, Next Day, Days Later, or Unknown. If Type = Premeditated, this is how much time elapsed from the event that triggered the intent to shoot until the actual shooting event.
Category I	The primary reason for the shooting. Values include Accident, Anger, Dispute, Domestic, Fight, Gang, Self-Defense, etc.
Category II	A secondary reason for the shooting. For example, when Anger is the designation in Category I the values include Harassment, Dismissal, Discipline, Revenge, etc.
Comment	A brief description of the event
Sources	Links to sources

Many of the data items in the set are self-explanatory, but a few warrant additional information. For example, Shooter Outcome includes “Identified” as a possible value. In many of the early newspaper accounts (i.e., mid- to late 1800’s) a shooter would be identified (or would certainly be known to witnesses of the event) but no additional information about the event or shooter could be found. Here is a representative example from The Penny Press (Cincinnati, January 21, 1860):

*One School Boy Shoots Another Dead. – A son of Col. Elijah Sebree, of Todd County, Ky., was killed in the school-house, at Trenton, a few days since. The boys of the school had been practicing upon the credulity and fears of one of their number, by inducing him to believe young Sebree had been making threats against him, and intended to kill him, whereupon the lad armed himself and walked deliberately up to Sebree, in the school-house, and shot him dead.*

In this case, the witnesses to the event would have been able to identify the shooter. However, no other mention of the event could be found that contained more details. Whether the shooter was arrested or otherwise held accountable for his action is unknown.

This particular event demonstrates the value in studying the descriptions of the event when it happened. The paragraph above is the entire newspaper article about the event. Similar descriptions can be found in other archives. However, one can also find this unreferenced description on the web <https://skeptical78240.wordpress.com/2015/01/28/governors-acting-brilliantly-2/>:

*Todd County, Kentucky, A son of Col. Elijah Sebree was shot dead by another student. Young Sebree was threatening the other boy and intended to kill him.*

Notice that in this version the young Sebree was threatening the shooter, a vastly different scenario than the one described in greater detail in the newspaper at the time of the event.

The Type data item also warrants further description. The value Premeditated indicates the shooter brought the weapon to the school with a purposeful intent to shoot someone or something. The value Spontaneous indicates the shooter was carrying a weapon, but did not have a purpose for using it prior to some provocation immediately prior to the shooting event. Premeditated events are characterized by some prior event that leads up to the shooting. The choice to carry a weapon used at Spontaneous events is also typically motivated by some prior event or experience, but the shooter did not come to campus that day with an intent to shoot a specific person. In the spontaneous event, the shooter is responding to the occurrence of an event *in that moment*.

Two examples can illustrate the values. The following excerpt comes from a Premeditated event from 1960. In this event, 14-year-old Donna Dvorak shot 15-year-old Bobby Whitford who she believes has threatened a classmate. These statements come from the article (<https://news.google.com/newspapers?id=jthHAAAIAIAJ&sjid=Io-AMAAAIAIAJ&pg=3467,122520&dq=dvorak&hl=en>):

*Deputy Sheriff Bob Miller said that Donna Dvorak, 14, a petite blonde, stood up at her desk in the back of the room and fired at the Whitford boy, who sat in the front row about 25 feet away.*

*The chief deputy said that Kate McCoy, also 15, told him she had been threatened by Whitford. Miller said the girl’s mother quoted Whitford as vowing “If Kate won’t go out with me she won’t go out with anyone.”*

*Miller quoted Donna as saying she shot the youth because he had threatened Kate.*

The following excerpt comes from a 1968 shooting event that was classified as Spontaneous:

*A bullet struck down Linda Lipscomb, 16, in a corridor at Miami Jackson [High School]. Blanche Ward, also 16, was held for a juvenile hearing.*

*Detective Tony Fontana said Blanche told officers Linda threatened her with a razor during an argument over the fountain pen and her gun went off during a struggle.*

In addition, the following convention was maintained with respect to criminal activity. If a shooting occurred in the commission of a crime, an attempt was made to determine whether the perpetrator of the crime intended to shoot someone in committing the crime. One could argue that bringing a weapon to a crime is a premeditated action and any resultant shooting should also be considered premeditated. However, this analysis is an attempt to distinguish between purposeful shootings and other shootings. Thus, if a weapon was discharged while the shooter was fleeing (or attempting to flee) a crime scene, for example, the event was placed in the Spontaneous category. On the other hand, if a shooting occurs in the commission of the crime (e.g., an armed robbery), then the event is classified as a Premeditated shooting.

The data items Category I and Category II are used to document factors underlying the shooting event. With respect to these factors, the value "mental illness" was assigned only when documentation existed that a shooter had been, or was currently being, treated for mental illness; or when a shooter was found not guilty due to an insanity defense; or when a shooter was found incompetent to stand

trial. The value "mental illness" was assigned only in Category I. If there was some suggestion of mental illness, but not enough to meet the threshold just described, a secondary factor (Category II) of "mental issues" was assigned. The value "mental issues" was assigned only in Category II.

The final data set contains information on 343 shooting events. The majority of the shooting events occur in high schools (168 events), followed by university shooting events (77), middle school shooting events (25), and elementary school shooting events (18). Fifty-five shooting events occurred at a "school house," a commonly used term in the late 1800's and a term used to describe the location when a more accurate description is not possible (e.g., a location described originally as a boarding school or a prep school).

### Analysis

In many cases, the data for a specific event is incomplete. The information may provide great detail for some of the data items but have no information on other data items. Thus, the percentages given in the analysis are based on different underlying population sizes. The population size is given in parentheses in each case.

When all of the data is considered (n=343), there have been 22 shooting events (6%) in which no one was killed or injured. In 129 of the shooting events (38%) no one was killed. In these events where no one is killed, the shooter is arrested 79 times (61%), escapes 14 times (11%), and completes suicide twelve times (9%), attempts suicide two times and is killed at the scene two times. In these non-lethal events the shooter is identified nine times (7%) but no further determination can be made about the shooter from the available information (all of these events occurred in 1920 or earlier). In ten cases the shooter outcome is unknown; in three cases the shooter outcome was not determined due to other

circumstances (e.g., no injury or the shooter being extremely young).

In total (n=343), there have been 420 shooting deaths and 558 shooting injuries at educational institutions since 1840. Sixty-one percent (61%) of the shootings are classified as premeditated events. Nineteen percent (19%) are classified as spontaneous and 8% are accidental. The rest, 12%, could not be classified.

There are 277 events in which the weapon can be identified. Although the weapon in some events is almost certainly a handgun (e.g., the news account indicates the shooter “drew” a weapon), the weapon is classified as “unknown” in the cases where it is not adequately described for classification. In most events (n=207), only a handgun is used (75% of the events where a weapon is identified). In 11% of the events only a rifle is used and in 9% of the events only a shotgun is used. In the remaining cases, multiple weapons are used. For example, a handgun is used with another weapon in twelve shooting events, bringing (total) handgun use up to 79% of the events in which a weapon can be identified. Rifles are used in 16% of the shooting events and shotguns are used in 11% of the shooting events. All three of these weapons are used in only one event.

There is no commonly accepted definition of the term “mass shooting.” The Congressional Research Office defines a mass shooting as an event in which 4 or more people, excluding the shooter, are killed. This echoes the FBI definition for “mass murder.” Advocates for gun control argue that the term “mass shooting” should include all victims of a shooting event, not just the ones that are murdered.

This study excludes the shooter in all calculations related to deaths or injuries. In an effort to maintain impartiality (with respect to gun control advocacy), both “mass murder” and “mass shooting” analyses are made in this study. A “mass murder” event is defined

as an event in which at least four people died. A “mass shooting” event is defined in this study as a shooting event in which at least four people are injured (where “injury” can include death).

There are 20 mass murder events resulting in 180 deaths and 208 injuries in the data set. While the number of mass murder shooting events accounts for only 6% of the shooting events in the data set, they account for 43% of the deaths and 37% of the injuries. From 1840 until 1966, only three mass murder events occur at an educational institution (resulting in 14 deaths, 4 injuries). A turning point in mass murder shootings on educational campuses occurs in 1966, when Charles Whitman, an engineering student at the University of Texas, went on a shooting rampage killing 19 and injuring 28 before he was killed by responding police officers. Starting with that event and counting through the end of 2015, there are 17 mass murder events that result in 166 deaths and 204 injuries. Put another way, 85% of the mass murder shooting events have occurred since 1966, resulting in 92% of the mass murder-related deaths and 98% of the mass murder-related injuries.

There is a general perception that shooters involved in mass murder events complete suicide. The data tells us that in 11 shooting events the shooter completes suicide (55% of the events) and in one other shooting event the shooter attempted to complete suicide. In 4 of these cases (20%), the shooter is taken into custody by law enforcement. A common misconception, however, is that the shooters in these mass murder events want to die in some type of shoot-out with law enforcement. In fact, in only 2 of the mass murder events (10%) was the shooter killed by responders. There were 2 cases where the outcome of the shooter could not be determined. Both of these occurred in the 1890’s.

The data provides some insights into the factors underlying these mass murder events.

In seven of them (35%), the primary factor (Category I) is “anger.” In five of the events (25%) the factor is “mental illness”, in two events (10%) the factor is “attention”, in two (10%) it is “fight”, in three of them (15%) there is some indication of “domestic” issues, and one event (5%) was categorized as racially motivated.

Mass murder events are rare in elementary school environments. There have been two of them, resulting in 31 deaths and 34 injuries. The Sandy Hook shooting in 2012 accounts for 26 of the deaths. A 1989 event in California accounts for 32 of the injuries. There has been one mass murder event in a middle school (5 deaths, 10 injuries) and one in a school house (5 deaths, 5 injuries). Five mass murders have occurred in high schools (34 deaths, 54 injuries), with the Columbine shooting accounting for 13 of the deaths. Universities have witnessed nine mass murders (95 deaths, 103 injuries). The shooting at Virginia Tech in 2007 resulted in 32 deaths and 23 injuries and the shooting at the University of Texas in 1966 resulted in 19 deaths and 28 injuries. These two events account for most of the carnage on university campuses that occurred in a single event.

There are 54 mass *shooting* events (an increase of 170% over the mass murder total) resulting in 220 deaths (which is 40 more deaths added to the mass murder-related death count – a 22% increase) and 378 injuries (an additional 170 injuries added to the mass murder-related injury count – an 82% increase) in the data set. From 1840 until 1966, only five mass shooting events occur at an educational institution (15 deaths, 21 injuries). Considering the data from the time of the 1966 University of Texas shooting event forward, there are 49 mass shooting events. They result in 205 deaths and 357 injuries. Four mass shootings have occurred in elementary schools, five in school houses, four in middle schools, twenty-five in high schools, and sixteen in universities.

As a point of contrast, the shooting events that are not mass shooting events have the following characteristics. Using the 1966 University of Texas event as a reference point for consistency, there are 92 non-mass shooting events from 1840 until August, 1966 that result in 74 deaths and 37 injuries. From August, 1966 through the end of 2015, there are 197 non-mass shooting events that result in 126 deaths and 143 injuries.

High schools are where the most non-mass shooting events occur, with 143 of them (49% of all non-mass shooting events) occurring at those locations. Fourteen non-mass shooting events have occurred in elementary schools, twenty-one in middle schools, fifty in school houses, and sixty-one in universities.

Seventy-nine percent (79%) of the deaths related to shooting events at educational institutions have occurred since the University of Texas shooting event in August, 1966. Ninety percent (90%) of all injuries due to shooting events at educational institutions have occurred since that watershed event in 1966.

Where identifying information about the shooter’s relationship to the campus exists (n=305), in 91% of the events the shooter has some relationship to the campus. Where information about the shooter’s identity can be determined (n=318), 70% of the shooters are students or former students. Twenty-one percent (21%) of the shooters are some adult other than a teacher or parent. Five percent (5%) are teachers and 2% are parents. In 2% of the shooting events, the shooter is a youth who is otherwise unidentifiable as a student (e.g., gang-related activity).

Looking at students as shooters (n=223) further, in six events a student (or former student) was the shooter at an elementary school. The age of these shooters ranges from six to sixteen. A student was the shooter in seventeen shooting events at middle schools. At school houses, twenty-nine shooting events involved a student shooter. One hundred



thirty-five high school shooting events involve student shooters. Thirty-six university shooting events involve student shooters. Notably, students are shooters in only 50% of the shooting events at universities where the shooter could be classified. In 10% of those events, the shooter was a teacher; in 40 percent of the events the shooter is another adult.

The youngest shooter in the data set is 6 years old. This is Dedrick Owens, who found a .32 caliber handgun in his uncle's home, brought it to school, and shot classmate Kayla Rolland. She died that morning in a hospital. The oldest shooter is 70-year-old James Ferguson, who in 1891 fired a shotgun at a group of students in the playground of a parochial school in New York. He caused minor injuries to several of the students.

In 328 of the shooting events where the gender of the shooter can be determined (n=337), the shooter is male (97%). In the nine shooting events where the shooter is female, the ages vary from 14 to 46. One female shooter's age could not be determined, but she was an adult. In eight of the nine shooting events involving women shooters, the event was classified as a premeditated shooting event.

The primary factor for most shootings is "anger", "fight", and "dispute" (combined). This combination of values for Category I accounts for 185, or 61% of the shooting events where a factor can be identified (n=304). These types of events account for 54% of all the shooting events in the data set. A secondary factor (Category II) in these cases sheds more light on the situation. Twenty-five of these 185 shooting events are related to discipline (14%), nineteen to harassment (10%), eighteen to dismissal (or failure or a bad grade, 10%), fourteen to revenge (8%), seven to romance (4%) and four to some domestic issue (i.e., domestic abuse or some other domestic issue) (2%). In 39 of the 343 events (11%) a cause could not be identified. Eight

percent (8%, n=29) of the events are accidents. Seven percent (7%, n=25) are classified as mental illness cases. Six percent (n=12) of the shooting events are classified as criminal activity. Five percent (n=17) are classified as gang activity. The rest result from miscellaneous factors such as alcohol consumption, seeking attention, self-defense, and so forth.

When considering the "anger", "fight", and "dispute" factors further, one finds that 96 (or 52%) of the 185 events characterized this way occurred in high schools. Of those 96 shooting events, 17 are related to disciplinary measures (17%), 14 to harassment (15%), 7 to revenge (7%), 6 to romance (6%), and 4 to dismissal (or failure or a bad grade, 4%).

Mental illness is listed as a primary factor (Category I) in 25 of the 304 shooting events where a factor was identified, accounting for 8% of these events (or 7% of all shooting events in the data set). Domestic issues are the primary factor in 15 shooting events (5% of identifiable factor events; 4% of all events in the data set.

What happens to the shooter can be determined in 324 shooting events. In over half (56% or 193 events) of the shooting events, the shooter is taken into custody by law enforcement. In 33 shooting events (10%) the shooter escapes and typically is not ever known. In 30 events (9%) the shooter is identified, but one cannot determine from the information available whether the shooter is arrested. Most of these cases occur before 1920, but a few of them are more recent. In 45 shooting events (14%), the shooter completes a suicide.

In elementary school shooting events where the shooter completes suicide, the shooter is more likely to be an adult. In two middle school shooting events the shooter completed a suicide attempt and in both cases the shooter was a student. Shooter suicide is common in high school shooting events (n=15) and university shooting events (n=21). The high school shooters who complete

suicide are more likely to be students (n=13) than in other educational institutions. By comparison, there were 10 student shooters in universities who completed suicide (out of 21 shooters who completed suicide). In four more events (1%), the shooter attempts suicide. In eight events (2%) the shooter is killed at the scene of the shooting. The rest of the time the shooter outcome data item is “NA”, typically due to the event being accidental.

Accidental shootings have happened in almost every decade for 150 years. The first of the 29 events placed in the Accident Type category occurred in 1867. In this event, a 13-year-old boy brought a pistol to a New York City school to shoot a dog that the boy claimed had bitten him. While playing with the gun, he accidentally shot and injured a classmate. The last accident in the data set occurred in 2012, when a third-grade girl was shot. In that event, a fellow student had brought a handgun to school in his backpack. The gun discharged when the boy dropped the backpack. The young girl was treated for 6 weeks in a hospital after surgery to remove a bullet from her spine. Accidents account for 17 deaths and 16 injuries. Fourteen of the accidental shootings occurred in high schools; only one occurred at a university. In 19 of the 29 accidents, a handgun was involved.

### Conclusion

This study describes shooting events at educational institutions in an objective manner. The data was compiled from news accounts of the events, along with the use of court documents and other primary source materials when found. The study does not seek to advocate for or against a specific policy related to the possession of firearms at educational institutions. Instead, the author is hopeful that the study will inform decision makers and policy makers in a way that resources can be allocated wisely.

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