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ABSTRACT
Nearly as soon as the first shot is fired in a mass shooting, the news media already are rushing to break coverage, the likes of which typically last days or, in the more extreme cases, weeks. Though mass shootings are rare in occurrence, the disproportionate amount of coverage they receive in the media leads the public to believe that they occur at a much more regular frequency than they do. In order to understand how the public comes to understand mass shooting events, however, one first must understand how the stories are constructed by the media. The present study takes this important step by examining The New York Times coverage of 91 shootings occurring between 2000 and 2012. Using Best’s (1987, 2006) three-stage model for the creation of social problems, this study considers the naming or defining of the issue, the incorporation of examples, and the use of statistics. The findings indicate that the coverage (a) overemphasized the shooters, (b) highlighted the most extreme examples for comparison, including Columbine and the Oklahoma City bombing, and (c) relied heavily on the use of statistics, particularly victim counts, while omitting any national data that could ground these events in the larger discourse of violence in the nation. Thus, the disproportional coverage of mass shootings, both individually and as a collective phenomenon, serves to solidify these events as a social problem in the US. Directions for future research, as well as potential policy implications for the coverage, also are discussed.

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INTRODUCTION

On December 14, 2012, the town of Newtown, Connecticut, was disrupted when a 20-year-old forcefully entered Sandy Hook Elementary School and opened fire (Barron, 2012). In his wake, 20 first grade students and six faculty and staff members, including the school’s principal, lay dead (Barron, 2012). The gunman then committed suicide as authorities entered the school (Barron, 2012). A later investigation of his residence revealed that, prior to his rampage, he also had shot and killed his mother as she slept in their home (Barron, 2012). Within minutes of the shooting, the story had taken hold of the nation’s focus with little foreseeable chance of letting go.

In a Washington Post-ABC News poll (n.d.) conducted immediately after Sandy Hook, respondents indicated that the shooting was a reflection of broader problems in American society (see also Elsass, Schildkraut, & Stafford, 2014; Schildkraut, Elsass, & Stafford, 2015). Similar sentiments had been echoed after the 1999 Columbine High School shooting, in which 12 students and one teacher were killed by a pair of gunmen. In fact, several researchers (e.g., Burns & Crawford, 1999; Springhall, 1999) have examined Columbine in the context of a moral panic, suggesting that the rarity of school shootings and the continual decline of juvenile crime often are ignored when fear of such violence takes over. These beliefs, however, are not solely linked to mass shootings in schools. Other events, including shootings at a movie theater in Aurora, Colorado; a political speaking engagement in Tucson, Arizona; college campuses including Virginia Tech and Northern Illinois University (NIU); the military base Fort Hood in Texas; malls in Salt Lake City, Utah, and Omaha, Nebraska; places of worship in Oak Creek, Wisconsin, and Colorado Springs, Colorado; and an immigration center in Binghamton, New York, among other locations, also have generated heightened concern amongst the populace. The disparity between public perceptions about mass shootings and their reality of occurrence have far-reaching implications beyond fear of crime, including inciting demands for action that can result in feel-good legislation that rarely gets passed (e.g., Schildkraut & Hernandez, 2014; Soraghan, 2000).

A contributing factor to these perceptions is the amount of media attention that such cases have garnered. Mass shooting events each have become, albeit at varying intensities, what Kellner (2003, 2008a, 2008b) calls a “media spectacle,” whereby media outlets will cover every facet of a story in an effort to win the ratings war. Through local, national, and even international media, these stories permeate television screens, especially on 24-hour news stations, such as CNN, Fox News, and MSNBC. Sensational headlines about these events fill daily newspapers, and the transition of these papers to digital news via the Internet allows even faster and more frequent story generation. These spectacles essentially take relatively uncommon events, sensationalize them, and make the events appear far more commonplace than they actually are (Kellner, 2008a; Surette, 1992). Thus, understanding
the ways in which these events are presented in the news is particularly important, given that the media act as the main source of information for up to 95% of the general public (Grabber, 1980; Surette, 1992). As most people never will experience a mass shooting directly, beliefs about these events as a social problem likely are influenced by the media coverage and manner in which the content is presented.

While previous research has examined school shootings (e.g., Chyi & McCombs, 2004; Hawdon, Agnich, & Ryan, 2014; Muschert & Carr, 2006; Schildkraut, 2012; Schildkraut & Muschert, 2014) and, more recently, mass shootings more broadly (Schildkraut, 2014; Schildkraut & Muschert, 2015) in the context of media framing, these studies leave two important gaps in the literature. First, these studies often examine a single event, such as Columbine (e.g., Chyi & McCombs, 2004; Muschert & Carr, 2006), Virginia Tech (e.g., Hawdon et al., 2014; Schildkraut, 2012), or Sandy Hook (e.g., Schildkraut & Muschert, 2014), rather than considering the phenomenon of mass shootings as a whole (see, generally, Harris & Harris, 2012, who call for such an analysis). Second, these studies typically examine frame changing across time and space to see how the focus of stories shift, but fail to consider how the social problem about these events is created through the media discourse.

The present study seeks to simultaneously address both of these literature gaps by examining the media-constructed social problem of mass shootings. Specifically, 91 mass shootings occurring between 2000 and 2012 are examined using qualitative media analysis (Altheide & Schneider, 2013). Employing Best’s (1987, 2006) three-stage model, this study examines how the social problem of mass shootings is defined, how examples are used to substantiate the issue, and how statistics can be used to underscore the seriousness of the problem. The results then can be considered in terms of their broader implication for media practices, public perceptions, and political responses to these events.

THEORETICAL ORIENTATION

Agenda Setting and Claims Making

The mass media play an important role in the social construction of reality as they define and shape issues and events rather than just reflect what is occurring in society (Barak, 1994; Gans, 1979; Tuchman, 1978). In his commentary on how the media contribute to the social construction of crime, Sacco (1995) notes that

The ways in which the news media collect, sort, and contextualize crime reports help to shape public consciousness regarding which conditions need to be seen as urgent problems, what kinds of problems they represent, and, by implication, how they should be resolved. (p. 141)
This process, known as agenda setting, enables the mass media to highlight particular attributes of a story that call attention to and lend support for claims made by the primary group (Entman, 2007; McCombs, 1997; McCombs & Shaw, 1972; Weaver, 2007). Primary claims makers are those who have some sort of exclusive or intimate knowledge about the problem (Best, 1989; Ogle, Eckman, & Leslie, 2003; O’Neal, 1997). This group may include victims, witnesses, or experts in a particular area who call attention to a particular issue and offer potential solutions or simply bring awareness to the problem (Best, 1989; Ogle et al., 2003). Secondary claims makers, on the other hand, are further removed from the issue and simply interpret or disseminate the claims made by the primary claims makers (Best, 1989; Ogle et al., 2003; O’Neal, 1997). Despite often reinterpreting claims made by the primary group, the media are considered to be secondary claims makers (Best, 1989; see also Ogle et al., 2003; O’Neal, 1997).

According to McCombs (1997), one of the main goals of agenda setting is to achieve consensus among the public about the importance a particular topic or issue, and the news media are instrumental in generating this consensus. By highlighting certain stories or issues as important (or, perhaps more accurately, as more important than others), news producers call attention to issues that either may directly or indirectly affect a particular community (Barak, 1994; Entman, 2007; McCombs, 1997; Reese, 2007). Over time, as more coverage is allocated to a particular issue, the saliency of that issue for the public is likely to increase, and eventually the issue becomes a priority for the public’s agenda (Entman, 2007; McCombs, 1997; Reese, 2007). As the saliency increases, policies aimed at addressing the issue also can be pushed as part of the agenda (Entman, 2007). As Cohen (1963) has noted, the media “may not be successful much of the time in telling people what to think, but it is stunningly successful in telling people what to think about” (p. 13).

Rarely, however, does the news or public agenda focus on more than a few key issues at a time (McCombs, 1997). This limited focus stems from the fact that very few issues are able to command the consensus needed to maintain saliency (McCombs, 1997). Most often, the media focus on those issues that are the most serious or atypical in nature (Barak, 1994; Sacco, 1995) or those that threaten society’s perceived stability (Gans, 1979). At the same time, the limited focus on only a few key issues allows for a more complete, full-bodied discussion to take place in both the public and media discourses. When an issue is of perceived importance, the media agenda is impacted as the demand for more information increases (Scheufele & Tewksbury, 2007). Accordingly, how the mass media portray such issues also impacts the way in which the public perceives and understands them (Barak, 1994; Scheufele & Tewksbury, 2007).

How the agenda is set in the media is largely dependent on the organizational constraints of each news agency (Berkowitz, 1987). Most often, the
mass media rely on public or political officials (including members of the law enforcement community) as their sources of information, and, by extension, these groups serve to become the primary claims makers. Given the media’s heavy reliance on these “official sources,” the information that news consumers receive is shaped largely by primary claims makers through the media as secondary claims makers (Berkowitz, 1987). The media, however, do not necessarily play the same type of passive role as other secondary claims makers. By consciously deciding which aspects of a story to highlight or what sources to incorporate, the media play an active role in the construction of reality (Barak, 1994; Gans, 1979; Tuchman, 1978; Weaver & Elliott, 1985). At the same time, however, the shaping of the public agenda, and the creation of social problems by extension, may not always be so deliberate but rather an unintended outcome of reporting the news (McCombs, 1997).

**The Creation of Social Problems**

To understand the processes of claims making, one must begin with an understanding of what the claims are about—social problems (either actual or perceived). Claims makers have the ability to influence public perception and policy with relation to social problems (Best, 1987). According to Spector and Kitsuse (1977), social problems are “the activities of individuals or groups making assertions of grievances or claims with respect to some putative conditions” (p. 75). Essentially, then, “social problems” are a product of those with the power or resources to define them as such and typically reflect the interests of those who are making the claims. Once claims makers have convinced others of a problem, they then offer solutions to the problem or policies aimed at deriving such a solution (Best, 1987). There are three key components to making claims about social problems: the naming or defining of the issue, the incorporation of examples, and the use of statistics (Best, 1987, 2006).

**Give the problem a name.** When a name is given to identify some type of phenomenon, it essentially is defined by claims makers as some type of social problem (Best, 1987, 2006). By defining the problem, the claims maker can identify its domain—that is, whether the problem is new or whether it has been in existence but not present in the forefront (Best, 1987). In each case, the defining of the problem allows claims makers to create an appearance of originality that will entice constituents to be concerned about the problem (Best, 1987). One technique that claims makers use in defining the problem is vagueness, or, perhaps more accurately, the absence of a precise definition (Best, 1987). This also may signify some element of originality for the problem, even if it is a recurrent issue (Best, 1987).

One way in which the media incorporate this element is to report stories in generalities, even when hard-and-fast facts are available to present to the audience. By writing in generalities rather than specifics, the media can add a level of sensationalism or mystery that entices readers not only to keep
reading the initial piece, but to seek additional information. For example, the definition of the term "terrorism" has undergone many permutations, particularly after 9/11. Claims makers even have likened the Columbine High School shooting to an act of terrorism (Frymer, 2009).

Similarly, definitions of "mass shootings" also remain vague (Schildkraut & Elsass, 2016). While there is yet to be an agreed-upon definition for mass shootings, one commonly used description proposed by Congress identifies such events as

Incidents occurring in relatively public places, involving four or more deaths—not including the shooter(s)—and gunmen who select victims somewhat indiscriminately. The violence in these cases is not a means to an end—the gunmen do not pursue criminal profit or kill in the name of terrorist ideologies, for example. (Bjelopera, Bagalman, Caldwell, Finklea, & McCallion, 2013, p. 1)

Similar definitions have been proposed in the context of mass killings by the FBI (Morton & Hilts, 2006). These explanations, however, are problematic in that they require at least four fatalities as opposed even to just injuries. This condition then excludes a number of mass shooting incidents that should be included in datasets, such as the 1998 Thurston High School shooting in Springfield, Oregon, in which 2 people were killed and 27 others injured. It could be argued that such an event should be included in the data as the actions and motivations were in line with other similar incidents with higher death tolls.

Accordingly, for the present study, the definition proposed by Schildkraut and Elsass (2016) is used to identify incidents of mass shootings:

A mass shooting is an incident of targeted violence carried out by one or more shooters at one or more public or populated locations. Multiple victims (both injuries and fatalities) are associated with the attack, and both the victims and location(s) are chosen either at random or for their symbolic value. The event occurs within a single 24-hour period, though most attacks typically last only a few minutes. The motivation of the shooting must not correlate with gang violence or targeted militant or terroristic activity. (p. 36)

This definition draws upon previously accepted definitions of school shootings (see Newman, Fox, Harding, Mehta, & Roth, 2004) while broadening its scope to address mass shootings. Further, it not only addresses the issue of the four fatality requirement, but also helps to differentiate mass shootings from spree killings.

**Use examples.** The second component in the claims-making process is the use of examples (Best, 1987, 2006). Examples often are used throughout
the discourse of the problem, but claims makers typically rely on an extreme case as an initial example to underscore their perceived seriousness of the problem (Best, 1987; see also Barak, 1994). For example, President George W. Bush heavily relied on 9/11 as his example for terrorism in his campaign to engage in war. In addition to furthering their views, these types of examples also are easily identified by and relatable to people whom the claims makers are trying to convince of the social problem (Best, 1987).

When it comes to public mass shootings, regardless of whether they take place in or out of schools, the 1999 shooting at Columbine High School has become the archetypal case to which all other events are compared (Altheide, 2009b; Kalish & Kimmel, 2010; Larkin, 2007, 2009; Muschert, 2007; Muschert & Larkin, 2007). Often perceived to be the first of its kind, Columbine routinely is referenced by claims makers when campaigning for safer schools and gun control following other incidents of school shootings. More recently, attacks occurring outside of schools quickly have been identified as a “Columbine at” that particular type of location, including airports (the 2013 LAX shooting), malls (Columbia, Maryland in 2014), and movie theaters (Aurora, Colorado in 2012). Despite the fact that some mass shootings have been more deadly than Columbine (e.g., Sandy Hook and Virginia Tech), no single incident has surpassed it in terms of the amount of media coverage garnered (see, generally, Muschert & Carr, 2006; Schildkraut, 2012, 2014; Schildkraut & Muschert, 2014).

**Use statistics.** Claims makers also attempt to determine the magnitude of the social problem by discussing numeric estimates (Best, 1987, 2006; see also Barak, 1994; Sacco, 1995). By using these figures, claims makers essentially are able to offer some sort of context within which the social problem exists (Best, 1987). The larger the number, the greater the problem, and, by extension, the more attention it will receive (Best, 1987). Following incidents of mass murder, regardless of the type (e.g., school shooting or terrorism), claims makers regularly include numeric figures to put the issue into context. After 9/11, it was emphasized repeatedly that the attacks killed 2,977 people (excluding the hijackers). As the deadliest attack on U.S. soil, this figure often is used to emphasize the seriousness of the problem of terrorism. Statistics also are used in constructing school shootings as a problem. Claims makers often refer to the 13 killed at Columbine, but that is used as a point of reference for how important these events are. By comparison, the 1998 shooting at Westside Middle School in Jonesboro, Arkansas, claimed five lives, but the 2012 shooting at Sandy Hook Elementary School claimed 26. Not only do these figures emphasize the importance of the problem, they also offer a continuum upon which one can rank perceived importance of the event in the domain of the problem.

Similarly, statistics may be used to justify the stance of a claims maker on a particular issue or policy resulting from the social problem. For instance, the organization Everytown for Gun Safety (n.d.) routinely circulates an in-
fographic claiming the number of school shootings that have occurred since Sandy Hook, regularly updating it as a new event occurs. The statistics purported on their website are used to justify their particular stance on gun control, arguing that tighter restrictions could have prevented the various attacks (tying back to Best's earlier note about how issues are given a name). The number reported, however, is problematic in that it is based on a definition that is poorly constructed and overly vague, thereby inflating the statistics. Specifically, shootings are included if "a firearm was discharged inside a school building or on school or campus grounds, as documented by the press or confirmed through further inquiries with law enforcement" (Everytown for Gun Safety, n.d.). The American Academy of Child & Adolescent Psychiatry (2008) has estimated that over one million children, on average, bring a gun into schools each year; therefore, it is not unreasonable to assume that there are accidental discharges of these weapons while they are on school grounds. In fact, Everytown for Gun Safety (2014) notes that approximately 20% of their events involve incidents where a gun discharged on school property without a single injury or fatality, with six discharges being classified as accidental. Therefore, the number of events they are purporting to have occurred is at odds with statistics based on Bjelopera and colleagues' (2013) or Schildkraut and Elsass' (2016) definitions of mass shootings.

Further, an additional problem of claims making is that often these problems are not put into context, but instead blown out of proportion (Best, 1987). Yet, given the standing of the claims maker, these claims often are taken as accurate (Best, 2006), as illustrated with the example of Everytown for Gun Safety. Claims making can make atypical problems seem typical, and typical problems seem atypical (Best, 1987). Not only does claims making shape public perceptions of these social problems, but the broader reach extends to policy implementation, including policies aimed at increasing social control, prevention, and awareness (Barak, 1994; Best, 1987; Sacco, 1995). These inconsistencies are furthered through the language that is used by claims makers to propagate their agendas, and ultimately affect the social construction of social problems. As Jones, McFalls, and Gallagher (1989) have noted, claims makers have the ability to make “objective molehills” out of “subjective mountains” and vice versa (p. 341).

**METHODOLOGY**

The present study was guided by the question: *How is the discourse on the phenomenon of mass shootings as a social problem constructed in the media?* Using Best's (1987, 2006) model, three issues are examined. First, consideration is given to how the problem is given a name, or more specifically, defined. Next, attention is paid to the way in which examples are used to draw parallels between different mass tragedy events. Finally, use of statistical references to quantify or highlight the magnitude of the problem of mass shootings is examined.
While a broad range of methodologies exist to examine the media, Best's (1987, 2006) provides a unique opportunity to specifically analyze the manner by which social problems are created. As he notes, the process of claims-making is more often the focus than the claims makers themselves (Best, 1987). A key emphasis is the rhetoric used to support the claims, which helps to examine the values used to substantiate a particular social problem (Best, 1987). This further enables researchers to examine the process of creating social problems, as this study seeks to do in the context of public mass shootings, rather than just considering the content offered to validate the issue.

Data Collection

The present study analyzes the newspaper coverage of 91 mass shootings that occurred between 2000 and 2012. Altheide (2009a) notes that the newspaper format in particular is more compatible than television news with framing in terms of specific audience effects, because it offers a wider variation in views. Attention was paid to the national coverage these events received, and The New York Times was selected as the main news source for the project. Previous researchers (Altheide, 2009b; Leavy & Maloney, 2009; Muschert, 2002; Schildkraut, 2012; Schildkraut & Muschert, 2014; Wigley & Fontenot, 2009) have identified The Times as the national standard for print news, and many newspapers around the country often reprint articles from this source. The Times also has an impressive reach, with a circulation of over 1.15 million readers weekly and nearly 1.65 million readers with its Sunday edition (Edmonds, Guskin, Rosenstiel, & Mitchell, 2012). While The Times’ weekday readership is exceeded by The Wall Street Journal (WSJ) and USA Today, with 2.07 and 1.78 million daily readers respectively (Edmonds et al., 2012), the news formats of these papers depart from the intention of the present study. The WSJ focuses more heavily on business and economic news, while USA Today utilizes a more infotainment approach (Muschert, 2002).

Articles were retrieved using the Lexis-Nexis database, which archives over 300 newspapers nationally, including The Times (Weaver & Bimber, 2008). The database has been credited as one of the leading media archives (Deacon, 2007) and also one of the most widely used in the social sciences (Deacon, 2007; Weaver & Bimber, 2008). Researchers (e.g., Altheide & Schneider, 2013; Deacon, 2007; Snider & Janda, 1998; Soothill & Grover, 1997; Weaver & Bimber, 2008) have noted several benefits to utilizing online media archives, such as LexisNexis, for content analysis. With advances in computer technology, searches through a larger number of news sources can now be conducted quickly, reliably, and remotely (Deacon, 2007; Snider & Janda, 1998; Soothill & Grover, 1997). Deacon (2007), for instance, notes that the computerized searches of media archives actually can increase study validity and reliability as they limit human error (see also Snider & Janda, 1998). Soothill & Grover (1997) further highlight the importance of using carefully constructed search terms to yield the best results.
False positives and false negatives are important considerations when constructing search terms (Deacon, 2007; Soothill & Grover, 1997). False positives occur when a search term has multiple meanings, thus resulting in more results than are intended (Deacon, 2007; Soothill & Grover, 1997). Alternately, false negatives can occur when the search term is so limited that articles are omitted because they do not meet the entered criteria (Deacon, 2007; Soothill & Grover, 1997). In order to maintain consistency between the searches in the present study, the same parameters were used to access articles about each individual event. The city or institution name was utilized as the primary search term rather than the shooters’ names, which likely would lead to increased false negatives and missing data. Institution names were used when the shooting took place at a school, as it is more common for the media to report this aspect. When the shooting did not occur at a school, the name of the city was used. Previous studies examining school shootings similarly have relied on full-text keyword searches using the names of the school and city in which it was located (see Chyi & McCombs, 2004; Muschert & Carr, 2006; Schildkraut & Muschert, 2014).

Data were collected on each of the 91 events for the 30 days including and following the day of the shooting. A study by Chyi and McCombs (2004) examining the media coverage of the Columbine High School shooting found the life span of the story to be limited to one month, despite the fact that other research (e.g., McCombs & Zhu, 1995) has suggested that media coverage of other public issues, such as politics, can last up to 18.5 months. Additional studies examining the coverage of school shootings in the media (e.g., Muschert, 2002, 2007; Schildkraut, 2012, 2014; Schildkraut & Muschert, 2014) also have utilized the 30-day coverage period. Once the articles were downloaded and organized by case, they then were reviewed and culled to be consistent with these previous studies’ parameters. The final dataset for each event included only news stories and editorials; letters to the editors, opinion pieces, blogs, and sports articles (e.g., containing the word “shooting”) were removed.

The final dataset contained a total of 564 articles across the 91 events. This totaled 489,638 printed words. It is important to note, however, that not all events received equal coverage in The Times. Specifically, 21 cases (23.1%) received no coverage in print. Of the remaining 70 cases, five shootings dominated the coverage, representing 57% of the total articles and 62% of the total words published on these events (see Table 1). The remaining 65 events received between one and 19 articles, with a mean of 3.7 articles and 2,881 words per shooting.
### TABLE 1: Most Prominent Cases by Coverage

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Articles</th>
<th>Total Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandy Hook Elementary School</td>
<td>12/14/2012</td>
<td>130 (23.0)</td>
<td>118,354 (24.2)</td>
</tr>
<tr>
<td>Tucson / Gabrielle Giffords</td>
<td>01/08/2011</td>
<td>89 (15.8)</td>
<td>91,715 (18.7)</td>
</tr>
<tr>
<td>Fort Hood Military Base</td>
<td>11/05/2009</td>
<td>36 (6.4)</td>
<td>35,097 (7.2)</td>
</tr>
<tr>
<td>Virginia Tech Shootings</td>
<td>04/16/2007</td>
<td>36 (6.4)</td>
<td>33,473 (6.8)</td>
</tr>
<tr>
<td>Aurora, CO Movie Theater</td>
<td>07/20/2012</td>
<td>31 (5.5)</td>
<td>23,715 (4.8)</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td>322 (57.1)</td>
<td>302,354 (61.8)</td>
</tr>
</tbody>
</table>

Note: For both article and total words, results are presented as counts with percentage of total data set (N = 564 articles / 489,638 words) in parentheses.

Data Analysis

To understand how the social problem of mass shootings is constructed in the media, qualitative content analysis (Altheide & Schneider, 2013) was used as the primary analytic tool. For scholars in communications and other disciplines, content analysis provides the opportunity to critically analyze texts and language that are put forth by news makers (Bell, 1991; Berg, 2007; Riffe, Lacy, & Fico, 1998). The process of content analysis tends to be both systematic and reliable (Berg, 2007; Muschert, 2002; Riffe et al., 1998). In a broad sense, content analysis allows researchers to categorize media content of various forms (Riffe et al., 1998). Qualitative content analysis, in particular, seeks to identify patterns and themes from which researchers can draw meaning (Altheide & Schneider, 2013; Berg, 2007). Perhaps most importantly, content analysis is unobtrusive and nonreactive (Bell, 1991; Berg, 2007; Riffe et al., 1998). This means that the researcher has no effect on the news product or its creators, as these objects (news stories) are examined after the production has been completed (Bell, 1991; Riffe et al., 1998).

The NVivo 10 software package was used both as an organizational and analytic tool in the present study. Once the articles were loaded, an initial read through was conducted on all of the articles. During a second read through, memos and notes were made regarding recurrent themes, from which a codebook was created (see Appendix A). Each article then was read and coded by the unit of analysis, which, in the present study, was individual sentences. Coding full sentences is useful because it provides an element of context when coding for an existent theme (Berg, 2007). When coding for single words, the context or meaning behind the word is lost, as it is nearly impossible to tell without the surrounding words what the actual meaning is meant to be (Berg, 2007). At the same time, using a larger unit of analysis, such as a paragraph, also would not be useful because it is too broad and
conveys too many ideas in a single unit, creating a sense of research "clutter" for the coder (Berg, 2007).

Upon the completion of coding, a sample of 55 articles, representing approximately 10% of the total articles in the study, was drawn from the five most salient cases, each of which can be considered as an example of media-defined issues. In a separate analysis examining frame changing, for example, these five cases were found to mirror the coverage patterns for the phenomenon of mass shootings as a whole (see Schildkraut & Muschert, 2015); therefore, it was expected that the coding would be representative of the full dataset. It should be noted, however, that a potential drawback of relying on the most salient cases is that shootings of lesser interest (or lesser coverage) may not be structured the same way (e.g., in terms of how the headline is organized), which could result in coverage bias, with these cases being omitted from analysis.

A second coder, independent of the project, was given the codebook and asked to code these articles. Once complete, NVivo was used to calculate a Kappa coefficient for each of the themes. Initially, three of the six themes had a Kappa coefficient below 0.6, which is the rule of thumb for acceptable reliability agreement (Landis & Koch, 1977). The researchers met to discuss possible issues within the codebook, and made alterations as needed to the guide. The independent researcher then re-coded the articles and re-ran the reliability check; all Kappa coefficients were found to exceed the 0.6 benchmark.

**ANALYSIS**

*Give the Problem a Name*

In the present study, the "name" of the problem was conceptualized as the headline of each story. The headline, or lead, of a story is the first chance that the newspaper has to capture the audience's attention. As such, how the leads are framed likely will influence whether or not someone reads the story. Those headlines that are more sensational are more likely to peak a reader's interest. Further, how the media structure the headline in terms of word organization also can provide insight into the focus or direction of the article. As such, the coding of the headline into categories was based upon the first main word of the headline. Headlines were coded into one of three categories—shooter, victim(s), or event—based on the focus of the headline. Coding of the headlines was discrete, meaning that they could be categorized into only one of these themes, though not all headlines fell into any.

In slightly less than 27% of articles \((n = 151)\), the headline either led with the shooter, the victim(s), or the event itself. As illustrated in Table 2, the shooter was the most common reference within these leads, accounting for 57% of story headlines. There were nearly half as many references to the victims (27.8%), and only about one-fifth (15.2%) were references to the event itself.
TABLE 2: Article Headlines by Main Themes and Qualifiers

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shooter(s)</td>
<td>86</td>
<td>57.0</td>
</tr>
<tr>
<td><strong>Gunman</strong></td>
<td>38</td>
<td>44.2</td>
</tr>
<tr>
<td><strong>Suspect</strong></td>
<td>19</td>
<td>22.1</td>
</tr>
<tr>
<td><strong>Job Title</strong>¹</td>
<td>12</td>
<td>14.0</td>
</tr>
<tr>
<td><strong>Gender</strong>²</td>
<td>8</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Killer</strong></td>
<td>2</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>7</td>
<td>8.1</td>
</tr>
<tr>
<td>**Victim(s)**³</td>
<td>42</td>
<td>27.8</td>
</tr>
<tr>
<td><strong>Numeric (# Killed)</strong></td>
<td>19</td>
<td>45.2</td>
</tr>
<tr>
<td><strong>Job Title</strong>³</td>
<td>12</td>
<td>28.6</td>
</tr>
<tr>
<td><strong>Victim</strong></td>
<td>3</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Survivor</strong></td>
<td>3</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td><strong>Event</strong></td>
<td>23</td>
<td>15.2</td>
</tr>
<tr>
<td><strong>Shooting</strong></td>
<td>13</td>
<td>56.5</td>
</tr>
<tr>
<td><strong>Rampage</strong></td>
<td>5</td>
<td>21.7</td>
</tr>
<tr>
<td><strong>Bloodshed</strong></td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Massacre</strong></td>
<td>1</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>2</td>
<td>8.7</td>
</tr>
</tbody>
</table>

² NOTE: Variable percentage for victim(s) subthemes may not total to 100.0% due to rounding error.
³ Ex: Professor, student, ex-factory worker
⁴ Ex: Man, boy, girl
⁵ Ex: Professor, student, officer, mother

The shooters. Disaggregating these main themes into subthemes also provides a number of interesting findings. With respect to the shooters, the most common qualifier (44.2%) used was “gunman.” This particular qualifier was used indiscriminately, meaning it was utilized regardless of whether the shooter committed suicide or not. Conversely, the qualifier of “suspect,” appearing in 22% of the shooter headlines, was used only for those individuals who did not commit suicide.

Whether or not the shooter was referred to as “gunman” appears to be a function of their age. Specifically, younger shooters, particularly if their attacks took place at a school, rarely were referred to as “gunman.” In fact, in 10 article leads about juveniles, the qualifier of “gunman” was used only once...
(Purdum, 2001). Despite that this event took place at school, however, the suspect was 18 at the time of the shooting. For the remaining articles, qualifiers highlighting the youthful nature of the offenders were more common, as illustrated by the following examples:

- *Teenager Is Charged In Killing of 3 at a School* (Tavernise, 2012)
- *Student Shoots Two Others, One Fatally* (“Student Shoots,” 2012)
- *Middle School Boy Shoots His Principal, Then Kills Himself* (“Middle School Boy,” 2003)

Further, in a majority of the headlines (51.2% or \( n = 44 \)), the shooter is discussed in conjunction with the victim. More specifically, these 35 headlines were structured in some permutation of “shooter kills X number of victims.” Offsetting a single shooter against multiple victims highlights the disproportional violence and heightens the newsworthiness of the event (Cerulo, 1998; Sorenson, Manz, & Berk, 1998).

**The victims.** How the victims are framed in story headlines also provides insight into the way in which mass shootings are defined. Emphasizing the victim, rather than the shooter or the event, provides a different frame of reference for the audience, typically one that is more relatable (Cerulo, 1998). Moreover, highlighting the victims also underscores the unspeakable and horrendous nature of the shooting (Cerulo, 1998).

The most common description of victims (45.2%) is in terms of the number killed or wounded in the event. This is particularly noteworthy because it reduces the individuals to a single number, such as in the following cases:

- **12 killed, 31 wounded** in rampage at army post; officer is suspect (McFadden, 2009)
- **8 People Are Killed in Shooting at a Nursing Home in North Carolina** (Sulzberger & Binker, 2009)
- **6 Wounded** in Mall Shooting; Gunman Surrenders (Associated Press, 2005)

By reporting the number as an aggregate, rather than offering specific names or characteristics of the individuals, *The Times* again is highlighting the egregious nature of the event. This also can provide an outlet for the reader to perceive a greater chance of becoming one of the victims within the number, particularly with higher counts (see also Cerulo, 1998; Mayr & Machin, 2012).

The next most common way that the victims were described was by their occupation, thus emphasizing what they did, rather than who they were as individuals in nearly 29% of the references. This includes emphasizing whether the victim was an educator, a student, or even a mother:

- **Professor’s Violent Death Came Where He Sought Peace** (Moynihan, 2007)
A Mother, a Gun Enthusiast and the First Victim (Flegenheimer & Somaiya, 2012)

Security Guard Is Killed in Shooting At Holocaust Museum in Washington (Stout, 2009)

Reducing the victims to occupational roles again provides a way in which the reader can relate to the victim (see also Cerulo, 1998). The use of such roles can suggest that people in similar capacities also may be at heightened risk of becoming victims of the same fate.

A victim was directly referenced by name in only two article leads (4.9%). Not surprisingly, this was Congresswoman Gabrielle Giffords, who was wounded (but survived) in the 2011 Tucson shooting. Still, in another article, despite her high profile status, she was referred to simply as “Congresswoman.” In sum, the use of the occupation of the victims within the headline allows the writer to convey more information to the audience, as in most instances (Congresswoman Giffords being the notable exception) the reader would not be familiar with the victim by name. Still, the majority of the framing of the victims in the story headlines, regardless of age, gender, or race, is done in a vague and ambiguous manner that further may perpetuate the sensationalism of these events.

The event. Finally, how the event itself is described in the story headlines also warrants inspection. As outlined in Table 2, qualifying the event simply as a “shooting” is most common, occurring in more than half (56.5%) of the headlines leading with the event. It is the remainder of the headlines, however, that warrant closer scrutiny. In nearly all of the remaining headlines, the articles substitute “shooting” with exaggerated qualifiers of the event—bloodshed, rampage, massacre, and attack—to evoke fear and shock (see also Mayr & Machin, 2012). These qualifiers overemphasize the dramatic nature of the events, particularly when the event is situated opposite discussion of the victim:

Rampage ‘Took the Lives of a ‘Trouper’ and of ‘the Nicest Guy in the World’ (Nieves, 2001a)

Shooting Rampage by Student Leaves 10 Dead on Reservation (Wilgoren, 2005a)

In six of the headlines (26.1%), including the lead quoted above from a story about the Red Lake school shooting (Wilgoren, 2005a), the qualifier of the event is juxtaposed with the number of victims. In the majority of these headlines, the victim count was offset against the term “shooting”; for only one lead was it situated against the qualifier “rampage.” Thus, even when trying to “normalize” the event as a shooting, the countering with statistics can serve to connote the disproportionality of these events.
Use Examples

Another way in which a social problem may be highlighted is through the use of examples (Best, 1987, 2006; Mayr & Machin, 2012). The use of examples provides a point of constant comparison through which the topic or event at hand may be measured (Barak, 1994; Best, 1987). In many instances, these examples are the most extreme cases, which serve to reinforce the seriousness not only of the issue at hand, but also of the example itself. In the case of mass shootings, the use of examples allows readers to contextualize the event at hand, and compare death tolls or major issues, such as gun control or mental health, to other well-known events. References to other events were coded non-discretely, meaning that a sentence could contain reference to more than one event. Further, references to either the event name or location (e.g., Columbine, Oklahoma City bombing) or the perpetrators (e.g., Eric Harris, Dylan Klebold, Timothy McVeigh, Terry Nichols) were coded as other events. Table 3 presents the references to other mass casualty events, as well as the frequency of reference to each.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbine High School (1999)</td>
<td>164</td>
<td>50.8</td>
</tr>
<tr>
<td>Virginia Tech (2007)*</td>
<td>61</td>
<td>18.9</td>
</tr>
<tr>
<td>Aurora, CO Movie Theater (2012)*</td>
<td>27</td>
<td>8.4</td>
</tr>
<tr>
<td>Oklahoma City Bombing (1995)</td>
<td>16</td>
<td>5.0</td>
</tr>
<tr>
<td>Tucson / Gabrielle Giffords (2011)*</td>
<td>14</td>
<td>4.3</td>
</tr>
<tr>
<td>Santana High School (2001)*</td>
<td>12</td>
<td>3.7</td>
</tr>
<tr>
<td>Long Island Railroad Shooting (1993)</td>
<td>11</td>
<td>3.4</td>
</tr>
<tr>
<td>September 11th Terrorist Attacks (2001)</td>
<td>8</td>
<td>2.5</td>
</tr>
<tr>
<td>Dunblane, Scotland Primary School (1996)</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>Thurston High School (1998)</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>323</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

NOTE: Only events with five or more references reported in this table. Those shootings included in the present study’s data are denoted with an asterisk (*).

This analysis reveals a number of interesting patterns. Columbine was the most referenced event in stories about other shootings, despite the fact that several shootings in the dataset (e.g., Virginia Tech, Aurora, and Sandy
Hook) had higher total victim or fatality counts. Altogether, there were 164 references to the event, which equates to 1 reference in every 3.4 articles. Of 16 different events that referenced Columbine, six shootings—including the 2012 shooting at Aurora, which was repeatedly referred to as Colorado’s (but not the nation’s) worst mass shooting since Columbine—occurred in locations other than schools. Of the school shootings specifically referencing Columbine, two events—the 2001 Santana High School shooting and the 2005 Red Lake Senior High School shooting—draw much deeper parallels to their predecessor, yet do so in very different ways. When references are made to Columbine in the articles about the Santana shooting, the potential impact of the Santana High shooting was heightened by likening it to “another Columbine.” Specifically, writers made constant comparisons between the events, treating them almost as interchangeable:

After all, a school shooting in a white, middle-class suburb like Santee—or at Columbine High School near Littleton, Colo.—where crime is nearly nonexistent, and students’ worries are centered on who is or is not popular and which colleges will or will not accept them, may still provoke shock and disbelief. (Nieves, 2001b)

What happened in Santee or Columbine won’t happen here. (Nieves, 2001b)

Conversely, when the Red Lake shooting makes reference to Columbine, the discussion focused more on the shooters rather than the events themselves. In some instances, the differences between the two locales of the shootings were highlighted. Littleton is an affluent upper-middle-class suburb of Denver, while Red Lake is an impoverished Native American territory nearly five hours from Minneapolis.

Usually this happens in places like Columbine, white schools, always somewhere else. We never hear that in our community. (Wilgoren, 2005a)

While the Columbine killers came from stable families in a well-off suburb, Mr. Weise, who the authorities said was 16, lived on a reservation where 40 percent of the people are poor, and without his parents. (Wilgoren, 2005b)

Yet in other articles, The Times highlighted the shooter’s fascination with Eric Harris and Dylan Klebold. References to Columbine in the articles about Red Lake focused on warning signs exhibited by the shooter: class papers he had written on the earlier shooting, taking medications for depression, and even a suspected plan to carry out his attack a year earlier, on Columbine’s fifth anniversary. Some went even further, offering physical comparisons between the shooters:
Describing Mr. Weise’s black, spiky hair and black Goth clothes, Ashley Morrison, a fellow student at Red Lake High School, told The Associated Press, “He looks like one of those guys at the Littleton school.” (Wilgoren, 2005b)

He [Weise] aped his predecessors in Colorado by wearing a black trench coat.5 (Shriver, 2005)

Additionally, the shootings at both Santana High School and Red Lake were referred to as “the worst school shootings since Columbine,” up until the 2007 Virginia Tech shooting.

Despite whether the shooting occurred within or outside of a school, Columbine often served as a point of reference to which other shootings were compared. In 10 separate instances, people who had been involved directly with Columbine—students who had been at the school that day, parents who had lost their children, or first responders—were quoted to give their take on the present shooting and link it back to April 20, 1999. Some comparisons were made indirectly, by situating the event in a line of cases, with Columbine being just one of the events, if not the first. Still other events, such as the following excerpts, directly associated the current event with the Littleton shooting:

“I think this is a lot like Columbine,” said Jennifer Evans, who lives near Mr. Holmes’s apartment. (Frosch & Johnson, 2012)

That’s a Columbine candidate. (The New York Times, 2011)

“This is like a college Columbine,” he [an unnamed student at Virginia Tech] said on MSNBC. (Stanley, 2007)

The 2007 Virginia Tech shooting, which remains, to date, the deadliest mass casualty shooting in the US, with 32 killed and an additional 23 wounded, was the second most frequently referenced event. Highlighting the death toll was the most common use of the shooting as an example, particularly among coverage of other high casualty events, such as Fort Hood, Aurora, Sandy Hook, and the NIU shooting, which occurred in close temporal proximity (10 months later). Virginia Tech was mentioned in conjunction with Columbine 11 different times, furthering the creation of a pattern of events. Occurring nearly eight years to the day apart, however, the focus of the coverage of Virginia Tech had shifted away from preventative strategies, such as zero tolerance policies and metal detectors, and instead fixated on mental health, particularly as it intersected with gun control. The 2012 Aurora movie theater shooting was referenced 27 times (third highest), typically to help establish a pattern of events. What is most noticeable, however, is that the shooting occurred towards the end of the study, with only five other events occurring between Aurora and the end of the year. Three of these—the Sikh temple shooting two weeks after, the December shooting at the Clackamas, Oregon, mall, and Sandy Hook—referenced the earlier event.
All of the references to the 2001 shooting at Santana High School were made in conjunction with the shooting at Granite Hills High School, which occurred in the same school district nearly two weeks later. Articles about the Santana High shootings also referenced the 1998 shooting at Thurston High School in Springfield, Oregon, particularly in the context of warning signs and crisis prevention. The Santana and Granite Hills High shootings came at the tail end of the rash of school shootings focused around Columbine, while the Thurston High shooting was situated at the beginning of this cycle. Additionally, the Dunblane, Scotland, shooting was referenced multiple times across three articles for the 2012 Sandy Hook shooting. Both events occurred in schools and had high victim counts, the victims primarily were young children, and the attacks were perpetrated by outsiders.

Mass shootings are not the only frame of reference for other similar events. Incidents of domestic terrorism, such as the 1995 Oklahoma City bombing and the September 11, 2001, attacks on the World Trade Center and the Pentagon, also have been used as a point of comparison in the discussion about mass shootings. By comparing mass shootings with acts of domestic terrorism, however, The Times may substitute concern over one problem within concern over another (see, for example, Mayr & Machin, 2012). Thus, this does not help readers to understand the problem of mass shootings, but instead situates these events in a broader discourse of safety in the US. Additionally, comparing mass shootings to events with much higher death tolls may generate added fear and heightened perceptions that one could become the victim.

When more closely examining the use of the 1995 Oklahoma City bombing as a referent, only two events—the 2011 Tucson shooting and the 2012 shooting at Sandy Hook Elementary School—incorporated this into the discourse. Writers did so, however, twice as consistently as using the 2001 terrorist attacks, and most of these references (n = 13) were tied to the Tucson shooting. The main theme interwoven in the comparison of the Tucson shooting to the Oklahoma City bombing was the idea of extremist, anti-government views:

Not since the Oklahoma City bombing in 1995 has an event generated as much attention as to whether extremism, antigovernment sentiment and even simple political passion at both ends of the ideological spectrum have created a climate promoting violence. (Hulse & Zernike, 2011)

Timothy McVeigh and Terry Nichols, the perpetrators of the 1995 bombing, were purported to have carried out the acts as retaliation against the government’s handling of the Branch Davidian case in Waco, Texas. The Tucson shooter, whose motive has remained elusive, was found to have made a number of anti-government web postings in the weeks and months leading up to the shooting. Further, given that victims of both attacks were federal
employees, discussion also occurred as to whether the same precedents (e.g., the use of capital punishment, federal vs. state trials) would be used in his case.

Similar to the use of other examples, both the September 11 terrorist attacks and the Oklahoma City bombing were used to develop a line of cases upon which people could relate the current event at hand. In one instance, these two events were discussed in conjunction with one another. In others, they were placed amidst a line of mass shootings (e.g., Columbine and/or Virginia Tech) to help situate these events in the context of mass shootings, or, perhaps more aptly, to treat the mass shootings both in this study and prior to it as events in the longer narrative of domestic terrorism. Beyond just being one of many, these two events were used to draw specific comparisons to mass shootings to make sense of the shooting and subsequent loss of life:

"The only thing that I personally experienced that was similar to this moment was the Oklahoma City bombing, where another American killed scores of people," Mr. [David] Chipman said of his 25-year career. (Landler & Goode, 2012)

Speaking to reporters on Wednesday, he [Carson City sheriff Ken Furlong] likened the rampage to Sept. 11 and said his city of 55,000 would recover just as New York had. (McKinley, 2011)

Despite that one shooter’s Las Vegas restaurant rampage was classified by law enforcement as “random” (McKinley, 2011), its timing in relation to the tenth anniversary of 9/11, coupled with many of the victims being members of the National Guard, fueled these linkages between the events. Similarly, when the 2009 Fort Hood shooting referenced 9/11, it did so by highlighting violence among Muslims in the US.

Use Statistics

Numeric estimates or statistics can be used to offer additional context to the problem or event at hand (Best, 1987). This can occur in somewhat of a two-fold process. First, by utilizing statistics, claims makers can underscore the magnitude of a given social problem (Barak, 1994; Best, 1987, 2006; Mayr & Machin, 2012; Sacco, 1995). Additionally, having a numerical estimate attached to an event allows it to be compared to other events. Based on how high or low the statistic is, the event can be “ranked” in some type of order against other events. For example, if looking at death tolls, those that are higher typically are perceived to be more important or salient events. The higher the death toll, the more importance or emphasis is placed on that particular event. Table 4 presents the findings of how statistics are used by The Times in the context of the social problem of mass shootings.
TABLE 4: Use of Statistics by Major Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim Count of Actual Event</td>
<td>677</td>
<td>35.1</td>
</tr>
<tr>
<td>Community Statistics</td>
<td>139</td>
<td>7.2</td>
</tr>
<tr>
<td>Victim Count of Other Events</td>
<td>121</td>
<td>6.3</td>
</tr>
<tr>
<td>Rounds Fired</td>
<td>97</td>
<td>5.0</td>
</tr>
<tr>
<td>National Statistics</td>
<td>79</td>
<td>4.1</td>
</tr>
<tr>
<td>Spatial Proximity</td>
<td>66</td>
<td>3.4</td>
</tr>
<tr>
<td>Number of Weapons</td>
<td>38</td>
<td>2.0</td>
</tr>
<tr>
<td>Magazine Capacity</td>
<td>33</td>
<td>1.7</td>
</tr>
</tbody>
</table>

NOTE: A total of 1,930 statistical references were coded. Coding percentages are based on this total number of statistical references. The remaining categories accounted for less than 1% of coding and are not presented.

The most common use of statistics is to report the victim count for the event in the study—this occurs nearly five times as frequently as the next major theme. In 40.7% of articles (n = 166) referencing the victim counts, these statistics were used two or more times in a single article. In 13 articles (3.2%), victim counts were referenced five or more times, one even as high as seven references in a single article. Further, victim counts of other events (e.g., Columbine, the Long Island Rail Road shooting, etc.), including those within the study’s time frame referenced by other events, are reported in an additional 121 instances (6.3%).

Victim counts included the number dead (including number of funerals taking place, which can symbolize the number dead), the number wounded, and the number of people present during the shooting. Most commonly, victim counts are reported as aggregations—the total number dead or the total number wounded. Similar to the manner in which victims were characterized in story leads, presenting the victims as an aggregation removes their individuality and treats them as one in the same, a process that Mayr and Machin (2012) characterize as “genericization” (p. 70).

Further, victim counts can be considered as a persuasion technique to underscore just how horrific the event was. Take, for example, the following excerpts:

A 20-year-old man wearing combat gear and armed with semiautomatic pistols and a semiautomatic rifle killed 26
people—20 of them children—in an attack in an elementary school in central Connecticut on Friday. (Barron, 2012)

Mr. Roberts shot 10 girls—aged 6 to 13—killing 5 of them and then committing suicide. (Dewan, 2006)

Both shootings share a number of similarities—the victims were killed by outsiders, many of them were in the same age range, similar firearms were used in both events, and they all were killed in a school. Thus, holding these facts constant, and looking solely at the victim count, one could qualify the Sandy Hook Elementary School shooting as being “worse” than the Amish Schoolhouse shooting, particularly if ranking these events on a continuum of “worst school shootings.”

Consider, however, the following passage from a separate article about the 2012 Sandy Hook Elementary School shooting:

The fact that the Newtown massacre, with 26 killed at the school, along with the gunman, was the second deadliest school shooting in the country’s history—after the 32 people killed at Virginia Tech in 2007—once again made this process of examination urgent national business as details emerged from Sandy Hook Elementary School. (Glaberson, 2012)

When juxtaposing the Sandy Hook shooting against the Virginia Tech Shooting, again holding all case facts constant, the former is ranked below the latter. Interestingly, however, when comparing Sandy Hook and Virginia Tech, this often is done to reinforce how horrific the former is, while suggesting that with several more fatalities, it could have surpassed the latter as the nation’s deadliest school and mass shooting. Yet, in the same article, the Sandy Hook shooting also was compared to five other events in addition to Virginia Tech: Columbine (13 killed); the 1927 Bath, Michigan, schoolhouse massacre (44 killed); the Amish Schoolhouse shooting (5 killed); the 1997 Heath High School shooting in West Paducah, Kentucky (3 killed); and the 1996 Dunblane, Scotland, primary school shooting (17 killed). As such, Sandy Hook has become one of the worst school shootings on the continuum. Further, this not only supports Best’s (1987, 2006) social problems model in respect to using statistics to emphasize an issue, but also the use of examples.

The theme of “community statistics” also was used in accentuating the problem of mass shootings. This theme encapsulated both the population of the city or town where the event occurred, but also focused more specifically on how many people were present in the immediate vicinity of the shooting (e.g., how many people worked in a given company or attended a particular school or church). Again, by aggregating individuals, regardless of whether or not they were present on the day of the shooting, the use of community statistics implies that someone who falls within the parameters of the community also could have been a victim, such as in these examples:
At least 10,000 people were in the mall at the time of the shooting, the police said. (Schwirtz, 2012)

There were about 7,000 worshipers inside the church when the shooting erupted, a church official said. (McFadden, 2007)

The factory in Melrose Park, an industrial suburb about 18 miles west of downtown Chicago, employs 1,200 to 1,800 people on any given day, said a spokesman, Bob Carson. (Bel-luck, 2001)

In these examples, the use of community statistics suggests that in these churches, malls, and workplaces, the death toll could have been much higher because more targets were present. Further aggregation was presented by reporting the size of the full community, as opposed to just one fraction of it, and the distance of these shooting sites to larger, more metropolitan areas also was consistently reported to contextualize the “where” of the shootings.

Three other statistical themes were utilized to demonstrate how bad the shootings were or could have been—the number of rounds fired, the number of weapons present, and the capacity of magazines for the weapons. With respect to the number of rounds fired, this typically was discussed in the context of witness statements to how many shots they had heard or how many rounds had been found either in the victims or at the scene. In each event where there was more than one weapon present, the weapons consistently were reported as an aggregate number of firearms. This again creates a sense of collectivity yet ambiguity, just as consistently reporting the total number of weapons present, as compared to the actual number of weapons used, contributes to the idea that the victim count or damages could have been greater. For example, in the 2012 Sandy Hook Elementary School shooting, articles continually reported that the shooter had four guns, despite the fact that all of his victims were shot with only one of the weapons.

Additionally, while both the total number of rounds present and the number fired were both reported, though not typically in conjunction with one another, the former was presented more consistently, suggesting a potentially greater tragedy loomed:

A 9-millimeter semiautomatic Glock was used in the shooting, Chief Dolan said, and investigators found another gun and packaging for 10,000 rounds of ammunition in Mr. [Andrew] Engeldinger’s house. (Associated Press, 2012)

Although he was trained on an M-16 assault rifle in the military, he [Robert Flores, Jr.] was carrying five handguns and more than 200 rounds of ammunition when he walked into the nursing school and methodically killed three instructors. (Broder, 2012)
When compared to the number of fatalities in each event, reporting the number of rounds present may seem both excessive and superfluous. For example, Engeldinger, who had 10,000 rounds of ammunition on hand, killed five and wounded two. Despite having just 2% of the ammunition of Engeldinger, Flores killed three. In sum, while the death toll was deplorable in all cases, it was not necessarily to the proportion of rounds that could have been fired. Without properly contextualizing the 200, 1,000, or 10,000 rounds of ammunition in terms of the victim count or actual rounds fired, these statistics can generate a disproportional understanding of the events. Similar connotations were made when reporting the number of rounds in a magazine, but this statistic most commonly was referenced to further support the gun control position that magazine capacities should be limited. Despite that mental health has gained prominence in the discourse on causal factors since the Virginia Tech shooting in 2007, guns still remain the most heavily focused upon of these usual suspects (Schildkraut, 2014; Schildkraut, Elsass, & Muschert, 2016; Schildkraut & Muschert, 2013).

While the aforementioned statistics serve to amplify the heinous nature of mass shootings, there is one group of statistics that is noticeably absent from the discourse—national statistics. By situating the rare phenomenon of mass shooting in national statistics, such as violent crime rates for individual cities or even the nation at large, the unlikelihood of these events would be underscored. Instead, by omitting these much needed statistics, it serves to heighten the claim that these events are occurring rather commonly. National statistics were used quite infrequently, accounting for just over 4% of all statistics in the dataset. When these references are further disaggregated, as in Table 5, the disproportionality of these events is further heightened.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gun Ownership</td>
<td>15</td>
<td>19.0 (0.8)</td>
</tr>
<tr>
<td>Gun Deaths</td>
<td>13</td>
<td>16.5 (0.7)</td>
</tr>
<tr>
<td>Number of Guns in Circulation</td>
<td>12</td>
<td>15.2 (0.6)</td>
</tr>
<tr>
<td>Gun Sales</td>
<td>8</td>
<td>10.1 (0.4)</td>
</tr>
<tr>
<td>Mental Health</td>
<td>6</td>
<td>7.6 (0.3)</td>
</tr>
<tr>
<td>U.S. Violent Crime Rates</td>
<td>3</td>
<td>3.8 (0.2)</td>
</tr>
</tbody>
</table>

NOTE: Results for coding percentage are reported as percentage of national statistics coded (N = 79) with the proportion of references to total number of statistical references (N = 1,930) in parentheses. The remaining categories of national statistics accounted for less than 1% of coding and are not presented.
National violent crime rates, or more specifically the U.S. homicide rate, were only reported three times in 564 articles. Instead, when national statistics were reported, they typically emphasized guns—what percentage of people (including splits across various demographics) own firearms, how many deaths by firearms occur each year, how many guns are in circulation, and how many new guns are sold or are attempted to be purchased each year. When gun deaths are reported, they are reported in raw counts, rather than standardized rates to give an actual contextualization to the frequency of occurrence. In other cases, vague aggregations are reported, such as in this excerpt:

While he [Representative Mike Thompson] described Sandy Hook as “the worst gun tragedy” in his lifetime, he added that hundreds of Americans “have been killed with firearms” in the four weeks since the massacre. (Onishi, 2013)

The problem in reporting statistics in this ambiguous manner is that the audience cannot determine just how many people were killed in the month following Sandy Hook. Both 200 and 900 are multiple hundreds, but are vastly different when talking about the number of gun deaths. Ambiguity is not solely limited to these vague aggregates. Even when an actual number is reported, as in the following passage, it may be ambiguous:

Thirty-thousand Americans are killed by guns every year—on the job, walking to school, at the shopping mall. (“Lock and load,” 2008)

This selection is problematic in that it does not disaggregate the 30,000 into types of gun deaths for the reader to be able to properly contextualize. For example, in 2012 there were 14,827 people murdered in the US, just under 70% of which were killed by a firearm (Federal Bureau of Investigation, 2012). Therefore, nearly 20,000 gun deaths a year or two-thirds of those fatalities reported in the above quote (“Lock and Load,” 2008), on average, are the result of accidental shootings, suicides, or justifiable homicide, either by law enforcement or private citizens. Yet, by failing to report this breakdown, it may be inferred that all gun deaths are considered to be homicides.

DISCUSSION

The present study sought to understand the way in which the narrative of the phenomenon of mass shootings as a social problem is constructed in the media. Coverage from The New York Times for 91 shootings occurring between 2000 and 2012 was examined using Best’s (1987, 2006) model for understanding the creation of social problems. Specifically, attention was paid to how the shootings were given a name, or defined, through the headlines of the articles. Additionally, consideration was given to how examples and statistics were used to highlight certain events within the broader phenomenon, or underscore the egregious nature of these shootings. The
analysis of these articles has led to a number of interesting considerations with regard to these events as a social problem, and has underscored the disproportional coverage these events have received, both individually and as a collective phenomenon.

As Best (1987) notes, the first step is to give the problem a name, which then makes the issue at hand relevant to audiences. In the present study, the most common way that the problem was defined was by the shooters themselves. Focusing more on the perpetrators than the victims or the events allow the media highlight the deviant nature of the crime (Cerulo, 1998). Such deviance is considered to be less acceptable to audiences, but may have the sensational elements needed to keep their attention or have a more vested interest in the problem. When the victims are discussed, they are reduced to a single number or an occupation, creating a level ambiguity about who they were, at least within the leads of the story. This can lead to a heightened belief that the reader has a similar chance of becoming a victim.

The tendency to report in ambiguous terms also is indicative of an absence of a precise definition (Best, 1987). As noted earlier, even a definition of “mass shooting” remains undetermined as there is no exact number of victims, motivations, or conditions that are universally accepted to identify the problem. As a result, this allows for more events to be categorized as mass shootings by claims makers, even when they do not fit what most would perceive to be such an event. At the same time, each time a new event occurs, it is treated as the discovery of a new problem (Best, 1987). The discourse on issues such as causal factors and policy responses is restarted, but no real progress is made to address the problem (e.g., Schildkraut & Hernandez, 2014; Soraghan, 2000).

The use of examples also is important to the creation of social problems as it creates the opportunity for people to identify with those also affected by the issue. As Best (1987) notes, “Selecting horrific examples gives the sense of a problem’s frightening, harmful dimensions” (p. 107), and these can become the referent for the problem more generally. Oftentimes, an introductory example is used as the quintessential case with which the problem is associated. In the case of mass shootings, this is no more evident than with Columbine, which also was the most referenced example in the present study. Although Columbine occurred at a school, other types of rampages, including those occurring at movie theaters, political rallies, immigration centers, and workplaces, also refer back to the shooting. This suggests that Columbine has transcended the discourse of school shootings and solidified its place in an even broader narrative about general rampage violence. Further, given the social reaction Columbine generated as the (perceived) “first of its kind,” continuing to reference this event, even more than 15 years after its occurrence, serves to reinforce the visceral reactions and fear felt as if it were April 20, 1999, all over again. Beyond Columbine, The Times also links
rampage shootings to acts of domestic terrorism, again casting a wider net to reference phenomena that generate the most fear (and readership).

Finally, the use of statistical estimates can assist the reader in assessing the magnitude of the problem in context. Best (1987) further disaggregates the type of estimates that may be used by claims makers. The first, incidence estimates, may be used to identify either the number of cases within a particular social problem or how many people are affected by it. In the present study, however, it is the use of community statistics that take this idea one step further and identify how many more people could have been impacted by a particular incident, such as those in workplaces or public spaces. Similarly, growth estimates allow people to determine whether a problem is getting worse. In the context of mass shootings, the continual reliance on reporting the number of victims allows the reader to determine if these attacks are becoming more lethal or are occurring more frequently.

At the same time, however, the absence of national statistics is problematic in that it does not situate the social problem of mass shootings in the context of crime within the US more generally. For example, within the data for the present study, there were 72 fatalities across 10 events in 2012. By comparison, there were 14,827 homicides reported nationally (Federal Bureau of Investigation [FBI], 2013), meaning that mass shooting victims account for just 0.5% of all homicide fatalities. Further, these same victims represent just 0.006% of violent crime victims known to law enforcement in the same year (FBI, 2013). While the loss of one life is one too many, failure to properly contextualize the occurrence of mass shootings gives audiences the misperception that these incidents are occurring more frequently and that their likelihood of becoming a victim of a similar event is high (see, generally, Elsass et al., 2014; Schildkraut et al., 2015).

Independently, these three components of the social problem each can create a heightened anxiety about a certain phenomenon. Yet when they converge, they create a perfect storm that can captivate audiences and provide credence to the existence of a social problem. In the instance of mass shootings, as constructed by The New York Times, this convergence has emerged as a disaster narrative, with each of the 91 events just a single part of a larger problem (Schildkraut & Muschert, 2014). The coverage, as depicted through the wording of the headlines, the use of examples, and the overemphasis on statistics, has solidified rampage shootings as a social problem in the US.

At the core of the social problem of mass shootings, as with other issues, are the range claims offered by claims makers. As Best (1987) notes, these range claims have the ability to make members of the audience feel as though they have a personal stake in finding a solution by showing them how they may be affected by the problem. In effect, the rhetoric used by claims makers to discuss the social problem of mass shootings may be useful in swaying audiences towards a specific resolution or policy, such as gun control or mental
health legislation. The end goal may be awareness and prevention of future events; however, the lack of context may create a roadblock for a meaningful discourse leading to effective solutions, with the result instead a barrage of "feel good legislation" that actually does not address the issue, though it may give the appearance that something is being done (Schildkraut et al., 2015; Schildkraut & Hernandez, 2014).

The present study is, of course, not without its limitations. These warrant acknowledgement not as fatal flaws, but as ways to improve the research moving forward. The first limitation is in the source of the data—newspaper articles. This does allow the researcher to examine the product that is being presented to the audience, and to do so while not influencing the data themselves. It fails, however, to account for the journalistic processes that lead up to the publishing of each article.

As the decision making process is not accounted for, it is impossible for the researcher to definitively say why 21 cases of rampage shootings at a national level received no coverage or why specific facets of the broader narrative are highlighted more than others. A cursory examination of cases receiving no coverage gives little understanding as to this outcome. One possible explanation that is refuted by this examination is that those cases excluded from the coverage had lower death tolls. While this was true for some, two of the cases had victim counts greater than 10, and 10 shootings in total had victim counts greater than five. Only three cases occurred within close temporal proximity (30 days) of other high profile shootings, and each varied in spatial distance from New York, where The Times is located. While further examination is needed to assess why these events were not highlighted by The Times, it is possible that this outcome is a function of coverage bias.

Similarly, coverage bias also should be considered in terms of the varying amount of articles each case received. While it is possible that the Sandy Hook shooting received considerably more coverage than any other event due to Newtown’s close proximity to New York, a more plausible explanation would be the newsworthiness of the victims. Sorenson and colleagues (1998) have found that those incidents involving at least one factor—“white, in the youngest and oldest age groups, women, of high socioeconomic status, killed by strangers”—are more newsworthy (p. 1514). Each of the Sandy Hook victims embodied several of these characteristics, as did Congresswoman Gabrielle Giffords, who was injured in the second most-covered story. By contrast, though the Virginia Tech shooting was more lethal than both, those killed in the attack were less aligned with this newsworthy victim profile.

Interestingly, not one case in this study received more attention than Columbine, despite that several events in the study were more lethal. One potential explanation for this is the precedent which Columbine set, as it was perceived to be the first of its kind or what Best (1987) refers to as an introductory example. Though other mass shootings had occurred prior to Columbine, this event became the platform upon which the social problem of mass
shootings, both in and out of schools, would be constructed. By comparison, as illustrated by the findings of this study, coverage of other shootings, including the more deadly attacks at Virginia Tech and Sandy Hook, rely on Columbine as a precedent and therefore do not require the distant speculation of what the event means for the future, but instead allows claims makers to emphasize what it means for the immediate aftermath (see also Schildkraut & Muschert, 2014). Thus, not only does Columbine serve as an introductory example, it also serves as a cultural referent for all mass shootings in the US.

An additional limitation which should be considered is the use of only The New York Times as a source of data. As previously noted, The Times has been validated in other research as an important source to use, due to its agenda-setting capacity (Altheide, 2009b; Leavy & Maloney, 2009; Muschert, 2002; Wigley & Fontenot, 2009). Conversely, by utilizing only one paper, in essence only one point of view is offered. Further, many consider the focus of The Times to be more liberal, and, as such, this may be reflected in what is covered, and how it is framed. One way in which to offset this concern would be to compare national coverage with local sources; yet, in order to conduct such analysis, a baseline must be achieved against which to analyze potential disparities. This study then provides such a point of comparison. Additionally, examining national coverage first is beneficial in that the concern over mass shootings, as with other social problems, has been constructed at the national level; thus, related analysis should be conducted within the same metric.

While this research has taken an important first step in understanding the social construction of rampage shootings, it also has provided a number of avenues for future research that extend beyond the scope of this examination. One such opportunity would be to examine how the differences amongst the shooters lead to disparities in their coverage. As noted, the findings of this study indicated that adult male shooters are discussed fundamentally differently than both adolescent male shooters and also female shooters. Such considerations may have important implications for coverage of future events. In order to make such a determination, however, a more detailed examination of the role of gender differences and its bearing on newsworthiness and the content of related coverage is needed.

Additionally, and perhaps more importantly, the cultural relevance of this study needs to be more thoroughly considered. One way in which to do so is to situate the findings in the broader context of cultural criminology. Though the US is not the only country to experience rampage shootings, other countries, such as Germany, Finland, Canada, and Scotland, do not cover these events in the same way as the American media. In essence, these countries do not turn these shooters into folk devils (or, to those who aspire to carry out similar attacks, folk heroes). Thus, it begs the question of why our culture treats these events as media spectacles (see Kellner, 2003, 2008a,
and why many of these shooters achieve almost “rock star status” in relation to the amount of press attention they receive.

Further, the cultural relevance of this study must be more thoroughly considered, and additional examination is needed about the particular role of Columbine. As noted above, despite the higher death tolls, younger victims, and varied locations, none of the rampage shootings included in this study have garnered the same attention or reaction of Columbine. As the seventeenth anniversary of the shooting nears, it is important to consider the cultural legacy of Columbine. What is it, why is it still being talked about so many years later, and why has no other event eclipsed the legacy of Columbine? Such answers remain to be seen, and should be considered in future research.

Still, there are important policy implications to be drawn from the present study. This is not to suggest that the media should not report on these stories. The public has a right to know and the media have the responsibility to inform them. Yet, at the same time, the media should revisit the roots of journalistic practice—to fact check information before it goes out and to present verified facts rather than sensationalized hysteria. They should continue to focus on remembering the victims, particularly as individuals and not a number, rather than glorifying the perpetrators for the next would-be shooter to emulate. They should report these stories with restraint and proportionality, and with information the public can use to make informed judgments about rampage shootings and their occurrence, as infrequent as they are, within society.
APPENDIX A: CODEBOOK

Give the Problem a Name (Headline) – For this series of nodes, code only the headline of the story. Determination of category is based on the first main word of the headline. [Note: Not all headlines will fit this scheme, as some have a totally different focus]

- **Event** – The headline leads off with the event itself, using qualifiers such as shooting, massacre, rampage, etc.
- **Shooter** – The headline leads off with the killer as the main focus. There are some instances where it will appear that it is leading off with the event (e.g., “shooting suspect”), but here the shooting is an adjective and the focus is the shooter themselves. This may be explicit (e.g., shooter, killer, etc.) or more covert (e.g., man, boy, or specifically named).
  - **Given Name** – Code if the shooter is specifically referenced by name as the leading word(s) of the headline.
  - **Gunman** – Code if the leading word in the headline is gunman.
  - **Killer** – Code if the leading word in the headline is killer.
  - **Other** – Code if the leading word in the headline is any other qualifier than those listed here.
  - **Suspect** – Code if the leading word in the headline is suspect.
- **Victim(s)** – The headline leads off with one or more of the victims as the main focus. This may be explicit (e.g., victim, wounded etc.) or more covert (e.g., man, girl, or specifically named). Numerical identifiers (e.g., # dead) also may be used to highlight the victims.

Use Examples (Reference to Other Events)

- **Columbine** – code the sentence if there is a reference to Columbine High School, shooters Eric Harris and/or Dylan Klebold, any of the victims of the shooting, or the event itself (which typically is referred to by name or date – April 20, 1999).
- **Other Events** – code the sentence if there is a reference to any other mass casualty event besides Columbine. This may include other shootings (e.g., Virginia Tech, Aurora movie theater, etc.) including those that are not expressly listed in this dataset (e.g., the shooting of Webster, NY firemen or the shooting at the Empire State Building). It also may include references to bombing or terrorist events, such as September 11th or the Oklahoma City bombing, as well as events that occurred in other countries (e.g., the Dunblane, Scotland primary school shooting or the knifing in China on the same day as Sandy Hook). Events do not have to have occurred within the study period (2000-2012) to be coded.
- **Aurora** – Code the sentence if reference is made to James Holmes (perpetrator), Aurora, or movie theater [shooting]. This should only be coded as an example in coverage of other events (e.g., articles directly related to James Holmes should not be coded with him as an “other event” reference).

- **Dunblane** – Code the sentence if reference is made to Thomas Hamilton (perpetrator), Dunblane, or Scotland primary school shooting.

- **LIRR Massacre** – Code the sentence if reference is made to Colin Ferguson (perpetrator), Long Island, or railroad school shooting.

- **Oklahoma City Bombing** – Code the sentence if reference is made to Timothy McVeigh or Terry Nichols (perpetrators), Oklahoma City, or the Alfred P. Murrah federal building.

- **Santana High School (Santee)** – Code the sentence if reference is made to Charles Andy Williams (perpetrator), Santee, or Santana High School. This should only be coded as an example in coverage of other events (e.g., articles directly related to Andy Williams should not be coded with him as an “other event” reference).

- **September 11 Terrorist Attacks** – Code the sentence if reference is made to the hijackers (perpetrators), September 11th, or the World Trade Center.

- **Springfield (Thurston High School)** – Code the sentence if reference is made to Kip(land) Kinkel (perpetrator), Springfield, or Thurston High School.

- **Tucson (Giffords)** – Code the sentence if reference is made to Jared Loughner (perpetrator), Tucson, or the shooting of Congresswoman Giffords. This should only be coded as an example in coverage of other events (e.g., articles directly related to Jared Loughner should not be coded with him as an “other event” reference).

- **Virginia Tech** – Code the sentence if reference is made to Seung-Hui Cho (perpetrator), Blacksburg, or Virginia Tech. This should only be coded as an example in coverage of other events (e.g., articles directly related to Seung-Hui Cho should not be coded with him as an “other event” reference).

**Use Statistics** – For this node, code any use of numerical estimates (including the use of words, like “dozens” or “millions”). This may include, but not be limited to: victim count (both deceased and wounded), number of rounds fired, magazine capacity (how many rounds the gun holds), number of
weapons, size of community (e.g., town or city population, how many people attended the school, etc.), distance from a larger city (example of proximity), national crime statistics, how many minutes it took responders to arrive, etc.

- **Community Statistics** – Code this for references to statistics related to the community in discussion. This may be a school (e.g., total student enrollment), city/town, or state.

- **Magazine Capacity** – Code this for references to the number of bullets that magazines can hold.

- **National Statistics** – Code this for references to any statistics that pertain to larger, national figures (e.g., annual homicide totals, the number of mental health patients nationwide, etc.)

- **Number of Weapons** – Code this for any references to the number of weapons that the shooter of the event being coded is carrying. Codes should only be made for specific reference to a number of weapons, not general references (e.g., a weapon, multiple weapons). References either may be numeric or alphanumeric.

- **Rounds Fired** – Code this for references to the total number of rounds fired by the shooter(s), but not references to an individual shot. References either may be numeric or alphanumeric.

- **Spatial Proximity** – Code this for references made to how close the shooting site is from another major event or city (e.g., X miles from Y city).

- **Victim Count** – Code this for references to the number of victims (either all or in part, but not individual victims) in the current shooting.

- **Victim Count of Other Events** – Code this for references made to the number of victims in a different event (e.g., the 13 victims of Columbine).

ENDNOTES

1 The study originally examined 2000 to 2010, representing the “post-Columbine era,” during which journalistic practices of covering these events shifted. The study was expanded to include 2011 and 2012, after several high profile shootings, including the attempted assassination of Congresswoman Gabrielle Giffords in Tucson, AZ (2011); the Aurora, CO, movie theater shooting (2012); and the Sandy Hook Elementary School shooting (2012).

2 Circulation estimates as of September 2011.

3 For example, the majority of the coverage of the Virginia Tech shooting consistently references the name of the university rather than Blacksburg, Virginia, where the school is located.
For example, the July 20, 2012, movie theater shooting in Colorado is most commonly referenced as the Aurora shooting, rather than the shooting at the Century 21 movie theater.

Both Eric Harris and Dylan Klebold wore black trench coats on the day of the shooting.

The use of multiple statistical references to victim counts in a single article was most common amongst the highly salient cases: For Sandy Hook (2012), there were 84 references in 63 articles; for Aurora (2012) there were 41 references in 25 articles; for Tucson (2011), there were 84 references across 57 articles; for Fort Hood (2009), there were 44 references in 26 articles; and for Virginia Tech (2007), there were 41 references in 20 articles.

It is important to account for the number of survivors who directly witnessed the attack (e.g., people who were inside Sandy Hook Elementary School or the Aurora movie theater auditorium as it happened). This is a form of direct victimization, which is different than indirect victimization (e.g., people at other nearby schools or who were in other auditoriums at the movie theater or even just resided in one of these communities). The latter is coded as “community statistics,” through which context is offered about how many people could have been victimized, rather than how many actually were.

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**AUTHOR BIOGRAPHY**

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