EMERGENCY RESPONSE
IMPROVEMENTS - BUILDING ACCESS & LOCKDOWN CONTROLS

2016 Supplemental Capital Budget Request
October 5, 2015

The Honorable Jay Inslee
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

Dear Governor Inslee:

Western Washington University is seeking supplemental Capital Budget funding for Emergency Response Improvements – Building Access and Lockdown Controls.

Active shooter incidents are increasing at an alarming rate, with university and college campuses being some of the most vulnerable locations for such tragedies to occur. Western Washington University requests funding to ensure exterior doors of all academic facilities are equipped with electronically controlled hardware featuring remotely triggered lockdown capabilities. The vast majority of exterior doors on campus are traditional brass keying systems without remote access capabilities, leaving students and faculty who occupy those buildings at risk should Western experience an active shooter on campus. Western has financed many emergency response improvements within existing resources, but current funding is insufficient to address this critical need for immediate system upgrades. Western proposes to improve its emergency response system through replacement of its existing electronic access control system and expansion of the system in order to enable immediate lockdown of occupied buildings during campus emergencies.

Our request stresses the critically urgent nature of keeping the University’s students, faculty, staff and visitors and surrounding residential areas safe and secure. The news is full of stories of shootings on campuses and we need to be ready to successfully deal with such a situation should it occur on Western’s campus.

This project aligns with your Results Washington goal of

- **Healthy and Safe Communities** – This project expands Western’s capacity for dealing with an active shooter or similar event and serves to protect the health and well-being of students, faculty, staff and visitors at Western Washington University campus.

Now is the time to significantly improve Western’s emergency response system to protect and ensure the safety of the university’s campus.

Thank you and we look forward to opportunities to discuss this critical project with you and your staff.

Sincerely,

Bruce Shepard
President
380 - Western Washington University
Capital Project Request
2015-17 Biennium

Version: SF 2016 Supplemental Budget Request
Report Number: CBS002
Date Run: 9/30/2015 4:55PM

Project Number: 30000761
Project Title: Emergency Response Improvements - Bldg Access & Lockdown Controls
Project Class: Program

Description

Starting Fiscal Year: 2017
Agency Priority: 1

Project Summary

Active shooter incidents are increasing at an alarming rate, with university and college campuses being some of the most vulnerable locations for such tragedies to occur. Western Washington University requests funding to ensure exterior doors of all academic facilities are equipped with electronically controlled hardware featuring remotely triggered lockdown capabilities. The vast majority of exterior doors on campus are traditional brass keying systems without remote access capabilities, leaving students and faculty who occupy those buildings at risk should Western experience an active shooter on campus. Western has financed many emergency response improvements within existing resources, but current funding is insufficient to address this critical need for immediate system upgrades. Western proposes to improve its emergency response system through replacement of its existing electronic access control system and expansion of the system in order to enable immediate lockdown of occupied buildings during campus emergencies.

Project Description

1) What is the proposed project? What opportunity or problem is driving this request?

Western Washington University is requesting $4.85 million to provide all exterior doors to academic facilities with electronically controlled hardware featuring remotely triggered lockdown capabilities.

Western’s Emergency Response Preparedness team has recently determined the highest return on investment for mitigating risk and protecting over 15,000 students, faculty and staff on campus related to an Active Shooter incident is to have the ability to electronically lock down all the buildings on campus as efficiently and quickly as possible. The University has determined that the ability to electronically lock down campus is a high priority and needs to be put in place as soon as possible.

· The FBI's September 16, 2013 “Study of Active Shooter Incidents in the United States Between 2000 and 2013” (see attached) highlights that there were 160 total active shooter incidents. Of those incidents, an average of 11.4 occurs annually with an increasing trend.
· The second largest grouping (approximately 24.4%) occurred in educational settings of which 7.5% were institutions of higher education.
· Nationally, educational facilities account for some of the higher casualty counts. For example, the 2007 incident at Virginia Polytechnic Institute and State University in Blacksburg, Virginia (Virginia Tech) resulted in 32 killed and 17 wounded. Another incident occurred in 2008 at Northern Illinois University in DeKalb, Illinois. That incident resulted in 5 killed and 16 wounded.
· Locally, in June 2014, a shooting at Seattle Pacific University in Seattle resulted in one student killed and three injured.

Western’s existing electronic access control system does not provide sufficient functionality to facilitate appropriate response capabilities in the event of a campus emergency. The proposed access controls conversion and upgrade shall provide for campus-wide lockdown capability of both academic and non-academic (funded from other sources) buildings to be initiated by Public Safety.

Students, faculty, and staff will immediately see an improvement to the overall campus security. Individual safety and security will be improved as well as the safety and security of all campus buildings.

Roughly two-thirds of campus exterior doors have no electronic access functionality, meaning access is via traditional brass keys. Traditional brass keying systems have inherent vulnerabilities and administrative challenges that can be reduced or eliminated with electronic access. When brass keys are lost, stolen, or simply not returned to the University, the most effective security response is to replace all locks which can be opened with that particular key – a very high cost activity for both materials and labor. With electronic access, the corrective action entails simple and inexpensive key strokes within the software.
With active shooter incidents on campuses occurring at an increasing rate, failure to fund this critical project puts a significant liability on the institution and the State.

2) How does the project support agency and statewide results?

A safe, secure, and welcoming campus is critical to the success of Western Washington University. In order to provide the opportunity for Washington’s residents to complete a post-secondary education program (Results Washington Goal 1), we must first provide a learning environment that is attractive to prospective students and parents, conducive to learning once those students are on campus, and always provide a sense of personal well-being and safety (Results Washington Goal 4) to everyone on campus.

3) What are specific benefits of this project?

There are several clear benefits to this project:

   a) Improved safety and security of campus personnel through use of current access control technology.
   b) Enhanced ability for campus to respond to emergencies requiring immediate lock down of all or parts of campus buildings.
   c) Improved stewardship of campus resources and state properties.
   d) A demonstrably safe and more secure campus will support recruiting efforts.

4) How will students be affected and services change if this project is funded?

Students and their families will find Western Washington University to be a safer, more secure environment for the pursuit of an education. Response time in lockdown situations will be much faster. General security on campus will be enhanced by the ability to remotely lockdown buildings. Human error can be avoided by eliminating manual locking of buildings on campus. It is expected that existing staffing will be able to support the new application through increased overall efficiencies.

5) The impact on other state programs or other units of government:

The campus auxiliary programs will share in the implementation and costs relating to this project to ensure the entire campus is covered and secure. There should be no impact on other state programs or units of government.

6) The relationship, if any, to the University operating budget:

As stated previously, any changes to maintenance and operating requirements are anticipated to be offset by efficiencies.

7) Discussion of alternatives explored by the University. Why is this option the best alternative in comparison to other alternatives studied?

Given the clear need to enhance campus safety and security as well as improve our ability to respond to campus emergencies, the best alternative is the addition of electronic access functionality to all exterior doors on Western's campus. This will allow immediate response and the ability to lockdown the whole campus with a single keystroke. It will also ensure that all doors are locked, human error would not be an issue when determining whether every single door is locked.

Other alternatives that were considered:

   a) Status Quo – Not viable. Roughly two-thirds of the campus exterior doors have no electronic functionality and rely on brass keys for locking and unlocking. Response time is slow and cumbersome in an emergency. Doors can be missed and left unlocked.
b) Increase staffing - Not feasible. From a budgeting, timing and practicality standpoint this is not a good solution. As noted in the attached FBI study, short timeframe is an issue. Additional staffing would help increase presence throughout campus but would not make a significant difference when trying to lockdown the whole campus quickly. Every non-electronic door would still need to be manually locked. Doors could still be missed and left unlocked.

8) What is the agency’s proposed funding strategy for the project?

Western is asking for State bond funding for this project. Western’s Institutional local funding has been stretched thin this biennium to help support the Carver Academic Renovation, Preventative Facility Maintenance & Repairs, and Minor Works Preservation projects. The $4,850,000 requested will allow Western to add electronically controlled hardware to all academic facilities on the Bellingham campus. Western’s Housing and Residential Services Auxiliary will finance their part of this project to ensure the entire campus is secure and protected.

Location
City: Bellingham
County: Whatcom
Legislative District: 040

Project Type
Intermediate

Growth Management impacts
none

New Facility: No

Funding

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<th>Expenditures</th>
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Future Fiscal Periods

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Schedule and Statistics

Start Date  End Date
### Schedule and Statistics

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<th>Start Date</th>
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<td>Predesign</td>
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<tr>
<td>Design</td>
<td>9/1/2016</td>
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<tr>
<td>Construction</td>
<td>7/1/2017</td>
<td>9/1/2018</td>
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</table>

**Total**

- Gross Square Feet: 1
- Usable Square Feet: 0
- Efficiency: 0.0%
- Escalated MACC Cost per Sq. Ft.: 3,120,690

**Construction Type:** Other Schedule B Projects

- Is this a remodel? Yes
- A/E Fee Class: B
- A/E Fee Percentage: 12.24%

### Cost Summary

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<tr>
<td>Consultant Services</td>
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<tr>
<td>Pre-Schematic Design Services</td>
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<td>Construction Documents</td>
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<tr>
<td>Extra Services</td>
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### Equipment

- Equipment: 0 (0.0%)
- Non Taxable Items: 0 (0.0%)
Cost Summary

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<td>Sales Tax</td>
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<tr>
<td>Art Work Total</td>
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<td>Rounded Grand Total Escalated Costs</td>
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Operating Impacts

No Operating Impact

Narrative

Estimated increased efficiencies will offset any increased costs.
Cost Estimate Number: 298
Cost Estimate Title: Emergency Access Control Improvements
Version: SF 2016 Supplemental Budget Request
Project Number: 30000761
Project Title: Emergency Response Improvements - Bldg Access & Lockdown Controls
Contact Info
Contact Name: Rick Benner
Contact Number: 360.650.3550
Statistics
- Gross Sq. Ft.: 1
- Usable Sq. Ft.: 0
- Space Efficiency: 0%
- MACC Cost per Sq. Ft.: 2,900,000
- Escalated MACC Cost per Sq. Ft.: 3,120,690
- Remodel?: Yes
- Construction Type: Other Schedule B Projects
- A/E Fee Class: B
- A/E Fee Percentage: 12.24%
Schedule
- Predesign: 00-2016 06-2017
- Design: 07-2017 09-2018
- Duration of Construction (Months): 14
Cost Summary Escalated
Acquisition Costs Total
- Pre-Schematic Design Services: 0
- Construction Documents: 289,866
- Extra Services: 117,814
- Other Services: 134,414
- Design Services Contingency: 54,177
- Consultant Services Total: 583,135
- Site work: 0
- Related Project Costs: 0
- Facility Construction: 3,120,690
- Construction Contingencies: 312,069
- Non Taxable Items: 0
- Sales Tax: 298,650
Construction Contracts Total
- Maximum Allowable Construction Cost(MACC): 3,120,690
- Equipment: 0
- Non Taxable Items: 0
- Sales Tax: 0
- Equipment Total: 0
- Art Work Total: 0
- Other Costs Total: 307,645
- Project Management Total: 227,513
- Grand Total Escalated Costs: 4,849,702
- Rounded Grand Total Escalated Costs: 4,850,000
Additional Details
- Alternative Public Works Project: No
Cost Estimate Number: 298
Cost Estimate Title: Emergency Access Control Improvements
Version: SF 2016 Supplemental Budget Request
Project Number: 3000761
Project Title: Emergency Response Improvements - Bldg Access & Lockdown Controls
Contact Info
Contact Name: Rick Benner
Contact Number: 360.650.3550

<table>
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<th>Additional Details</th>
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<td>Project Administration By:</td>
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Cost Estimate Number: 298
Cost Estimate Title: Emergency Access Control Improvements
Detail Title: Emergency Response Improvements - Bldg Access/Lock
Project Number: 3000761
Project Title: Emergency Response Improvements - Bldg Access & Lockdown Controls
Project Phase Title: Location:

Contact Info Contact Name: Rick Benner Contact Number: 360.650.3550

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<td>Construction Documents</td>
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1. Will any portion of the project or asset ever be owned by any entity other than the state or one of its agencies or departments? ☐ Yes ☒ No

2. Will any portion of the project or asset ever be leased to any entity other than the state or one of its agencies or departments? ☐ Yes ☒ No

3. Will any portion of the project or asset ever be managed or operated by any entity other than the state or one of its agencies or departments? ☐ Yes ☒ No

4. Does the project involve a public/private venture, or will any entity other than the state or one of its agencies or departments ever have a special priority or other right to use any portion of the project or asset to purchase or otherwise acquire any output of the project or asset such as electric power or water supply? ☐ Yes ☒ No

5. Will any portion of the Bond/COP proceeds be granted or transferred to nongovernmental entities or granted or transferred to other governmental entities which will use the grant for nongovernmental* purposes? ☐ Yes ☒ No

6. If you have answered "Yes" to any of the questions above, will your agency or any other state agency receive any payments from any entity, other than the state or one of its agencies or departments or any local government units, for the use of, or in connection with, the project or assets? ☐ Yes ☒ No

7. Will any portion of the project or asset, or rights to any portion of the project or asset, ever be sold to any entity other than the state or one of its agencies or departments? ☐ Yes ☒ No

8. Will any portion of the Bond/COP proceeds be loaned to nongovernmental entities or loaned to other governmental entities that will use the loan for nongovernmental purposes? ☐ Yes ☒ No

9. Will any portion of the project or asset be used to perform sponsored research under an agreement with a nongovernmental person, such as a business corporation or the federal government, including any federal department or agency? ☐ Yes ☒ No

*Nongovernmental purposes is defined in the Glossary and examples provided in Section 4.3 of the Capital Budget Instructions.

- If the answer to any one of questions 1 through 5 is yes and answers to 6, 7, and 8 are no, request tax exempt funding.
- If the answer to any one of questions 1 through 5 is yes and 6 is yes, request taxable funding from Fund 355.
- If the answer to all of questions 1 through 6 are no and the answer to either question 7 or 8 is yes, request taxable funding from Fund 355.
- If the answer to question 9 is yes, please provide a detailed explanation of the terms of any and all of such sponsored research agreements.
Attachment

A Study of Active Shooter Incidents, 2000 – 2013
Texas State University and Federal Bureau of Investigation,
U.S. Department of Justice, Washington D.C. 2014
A Study of Active Shooter Incidents in the United States Between 2000 and 2013
Acknowledgments

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A Study of Active Shooter Incidents in the United States between 2000 and 2013

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(U.S. Navy photo by Mass Communication Specialist 2nd Class Pedro A. Rodriguez/Released)
Introduction

In 2013, the president signed into law the Investigative Assistance for Violent Crimes Act of 2012, which granted the attorney general the authority to assist in the investigation of “violent acts and shootings occurring in a place of public use” and in the investigation of “mass killings and attempted mass killings at the request of an appropriate law enforcement official of a state or political subdivision.”

To provide further clarity on these threats, the Federal Bureau of Investigation (FBI) in 2014 initiated a study of “active shooter” incidents. The goal of the FBI study is to provide federal, state, and local law enforcement with data so they can better understand how to prevent, prepare for, respond to, and recover from these incidents.

Active shooter is a term used by law enforcement to describe a situation in which a shooting is in progress and an aspect of the crime may affect the protocols used in responding to and reacting at the scene of the incident. Unlike a defined crime, such as a murder or mass killing, the active aspect inherently implies that both law enforcement personnel and citizens have the potential to affect the outcome of the event based upon their responses.

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2 The FBI’s Uniform Crime Reporting system does not capture data specific to active shooters but rather is data derived from more than 18,000 city, university/college, country, state, tribal, and federal law enforcement agencies that voluntarily report monthly on criminal activity in their jurisdictions.
The agreed-upon definition of an active shooter by U.S. government agencies—including the White House, U.S. Department of Justice/FBI, U.S. Department of Education, and U.S. Department of Homeland Security/Federal Emergency Management Agency—is “an individual actively engaged in killing or attempting to kill people in a confined and populated area.” Implicit in this definition is that the subject’s criminal actions involve the use of firearms.

For purposes of its study, the FBI extended this definition to include individuals, because some incidents involved two or more shooters. Though the federal definition includes the word “confined,” the FBI excluded this word in its study, as the term confined could omit incidents that occurred outside a building.

Whether inside or out, these incidents still posed a threat to both law enforcement and the citizens they seek to protect.

This is not a study of mass killings or mass shootings, but rather a study of a specific type of shooting situation law enforcement and the public may face. Incidents identified in this study do not encompass all gun-related situations; therefore caution should be taken when using this information without placing it in context. Specifically, shootings that resulted from gang or drug violence—pervasive, long-tracked, criminal acts that could also affect the public—were not included in this study. In addition, other gun-related shootings were not included when those incidents appeared generally not to have put others in peril (e.g., the accidental discharge of a firearm in a school building or a person who chose to publicly commit suicide in a parking lot). The study does not encompass all mass killings or shootings in public places and therefore is limited in its scope. Nonetheless, it was undertaken to provide clarity and data of value to both law enforcement and citizens as they seek to stop these threats and save lives during active shooter incidents.

As a result, the FBI identified 160 active shooter incidents that occurred in the United States between 2000 and 2013. Though additional active shooter incidents may have occurred during this time period, the FBI is confident this research captured the vast majority of incidents falling within the search criteria. To gather information for this study, researchers relied on official police records (where available), FBI records, and open sources. The time span researched was intended to provide substantive results to aid in preparedness and response efforts. This study is not intended to explore all facets of active shooter incidents, but rather is intended to provide a baseline to guide federal, state, tribal, and campus law enforcement along with other first responders, corporations, educators, and the general public to a better understanding of active shooter incidents.

4  Incidents involving only knives, vehicles, and other weapons were not part of this study.
5  See Appendix B for the full methodology used to select incidents.
7  Limited details on the shooters are included in this study. In 2015, the FBI Behavioral Threat Assessment Center will research shooter pre-attack behavioral indicators with a focus on findings that will enhance prevention methods.
8  See Appendix A for a summary of incidents examined in this study.
9  Researchers relied on 104 police department records, after action reports, shooting commission reports, open sources, and FBI resources.
Snapshot

The following characteristics of the 160 active shooter incidents identified between 2000 and 2013 are noted:

- **160** incidents occurred between 2000 and 2013.
- An average of **11.4** incidents occurred annually, with an increasing trend from 2000 to 2013.
- **486** were killed in 160 incidents.
- **557** were wounded* in 160 incidents.
- **1,043** Casualties, including killed and wounded (shooters were not included in this total).

**INCIDENTS**

- An average of 11.4 incidents occurred annually.
- An average of 6.4 incidents occurred in the first 7 years studied, and an average of 16.4 occurred in the last 7 years.
- 70.0% of the incidents occurred in either a commerce/business or educational environment.  
  
  10
- Shootings occurred in 40 of 50 states and the District of Columbia.
- 60.0% of the incidents ended before police arrived.

*A handful of those identified as "wounded" were not injured by gunfire but rather suffered injuries incidental to the event, such as being hit by flying objects/shattered glass or falling while running. This does not account for all those wounded in this fashion or any mental or emotional trauma that resulted in potential medical treatment.

10 All percentages are rounded to the nearest tenth
CASUALTIES

- Casualties (victims killed and wounded) totaled 1,043. The individual shooters are not included in this total.
- A total of 486 individuals were killed.
- A total of 557 individuals were wounded.\(^{11}\)
- In 64 incidents (40.0\%), the crime would have fallen within the federal definition of “mass killing”—defined as “three or more” killed—under the new federal statute.

INCIDENTS WITH THE HIGHEST CASUALTY COUNTS:

- Cinemark Century 16 Theater in Aurora, Colorado:
  70 (12 killed, 58 wounded), July 20, 2012.
- Virginia Polytechnic Institute and State University in Blacksburg, Virginia:
  49 (32 killed, 17 wounded), April 16, 2007.\(^{12}\)
- Ft. Hood Soldier Readiness Processing Center in Ft. Hood, Texas:
  45 (13 killed, 32 wounded), November 5, 2009.
- Sandy Hook Elementary School and a residence in Newtown, Connecticut:
  29 (27 killed, 2 wounded), December 14, 2012.

SHOOTERS

- All but 2 incidents involved a single shooter.\(^{13}\)
- In at least 9 incidents, the shooter first shot and killed a family member(s) in a residence before moving to a more public location to continue shooting.\(^{14}\)
- In at least 6 incidents, the shooters were female.\(^{15}\)
- In 64 incidents (40.0\%), the shooters committed suicide; 54 shooters did so at the scene of the crime.
- At least 5 shooters from 4 incidents remain at large.\(^{16}\)

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\(^{11}\) A handful of those counted as wounded were not injured by gunfire but rather suffered injuries incidental to the event, such as being hit by flying objects/shattered glass, or falling while running. These were included in the casualty count when research may not have easily allowed for the type of injury to be discerned. This does not account for all those wounded in this fashion, to include those suffering any mental or emotional trauma that resulted in potential medical treatment.

\(^{12}\) Six additional students were injured after they climbed out of a second floor window in Norris Hall but are not included in the study’s tally of those wounded because they could be easily discerned from those wounded by the shooter.

\(^{13}\) House Party in South Jamaica, New York, August 27, 2011; Streets of Tulsa, Oklahoma, April 6, 2012. (See Appendix A).

\(^{14}\) Amko Trading Store, January 9, 2001; Red Lake High School, March 21, 2005; Orange High School and Residence, August 30 2006; Residence, Latah County Courthouse, and First Presbyterian Church, May 19, 2007; Coffee and Geneva Counties, Alabama, March 10, 2009; Gainesville, Florida, October 4, 2010; Sandy Hook Elementary School and Residence, December 14, 2012; Jacksonville, North Carolina, and Brady, Texas, May 26, 2013; Santa Monica College and Residence, June 7, 2013.

\(^{15}\) Laidlaw Transit Services Maintenance Yard, April 23, 2001; Santa Barbara U.S. Postal Processing and Distribution Center, January 30, 2006; Louisiana Technical College, February 8, 2008; Shelby Center, University of Alabama, February 12, 2010; Publix Super Market, March 30, 2010; Kraft Foods Factory, September 9, 2010.

Findings
In this study, the FBI identified 160 active shooter incidents, noting they occurred in small and large towns, in urban and rural areas, and in 40 of 50 states and the District of Columbia. Though incidents occurred primarily in commerce and educational environments (70.0%), they also occurred on city streets, on military and other government properties, and in private residences, health care facilities, and houses of worship. The shooters victimized young and old, male and female, family members, and people of all races, cultures, and religions.

The findings establish an increasing frequency of incidents annually. During the first 7 years included in the study, an average of 6.4 incidents occurred annually. In the last 7 years of the study, that average increased to 16.4 incidents annually. This trend reinforces the need to remain vigilant regarding prevention efforts and for law enforcement to aggressively train to better respond to—and help communities recover from—active shooter incidents.

The findings also reflect the damage that can occur in a matter of minutes. In 64 incidents where the duration of the incident could be ascertained, 44 (69.0%) of 64 incidents ended in 5 minutes or less, with 23 ending in 2 minutes or less. Even when law enforcement was present or able to respond within minutes, civilians often had to make life and death decisions, and, therefore, should be engaged in training and discussions on decisions they may face.\textsuperscript{17}

\textsuperscript{17} In 6 incidents (and, in addition, at least 4 schools), officers were on the scene when the shooting began.

A Study of 160 Active Shooter Incidents in the United States Between 2000 - 2013: Incidents Annually
As expected, therefore, many incidents ended before police arrived. Of the 160 incidents, at least 107 (66.9%) ended before police arrived and could engage the shooter, either because a citizen intervened, the shooter fled, or the shooter committed suicide or was killed by someone at the scene.

Casualties

A total of 1,043 casualties occurred during the incidents included in this study (486 killed, 557 wounded). If a shooter died as a result of the incident, that individual was not included in the casualty totals. In addition, a small number of those identified as wounded were not injured by gunfire but rather suffered injuries incidental to the event, such as being hit by flying objects/shattered glass or falling while running. For the purposes of this study, the FBI did not seek to isolate the exact number of individuals that fell into this category, when research did not allow for that type of injury to be easily discerned.

The median number of individuals killed in each incident was 2, and the median number of individuals wounded in each incident was 2.

The FBI found that 64 incidents (40.0%) would have been categorized as falling within the new federal definition of “mass killing,” which is defined as “three or more killings in a single incident.”

A Study of 160 Active Shooter Incidents in the United States Between 2000 - 2013: Annual Totals of 1,043 Casualties

18 According to the 2007 National Crime Victimization Survey, 53.4% of the time, law enforcement was able to respond to a reported violent crime in less than 10 minutes. Bureau of Justice, National Crime Victimization Survey, Criminal Victimization in the United States, 2007 Statistical Tables, February 2010.

At least 25 (15.6%) of the 160 incidents involved shootings at more than one location. Several casualties involved family members or individuals who had a close personal relationship with the shooter. In at least 15 (9.4%) of the 160 incidents, the shooters targeted family members, resulting in the deaths of 20 and the wounding of 1. In 9 of these incidents, or about half, the shooters then moved on to another location and continued shooting.

Of note, male shooters also acted violently against women with whom they had or once had a romantic relationship. In 16 (10.0%) of the 160 incidents, the shooters targeted current, estranged, or former wives as well as current or former girlfriends. In 12 incidents, the women were killed; in 3 incidents, the women sustained significant injuries but survived; and in 1 incident, the shooter could not find the woman. While perpetrating this violence, an additional 42 people were killed and another 28 were wounded.

20 Amko Trading Store, January 9, 2001; Gold Leaf Nurseries, July 28, 2003; Red Lake High School, March 21, 2005; Orange High School and Residence, August 30 2006; Residence, Latah County Courthouse, and First Presbyterian Church, May 19, 2007; Coffee and Geneva Counties, Alabama, March 10, 2009; Family Dental Care, July 1, 2009; Legacy Metrolab, November 10, 2009; Residence in Brooksville, Florida, January 14, 2010; Yoyito Café, June 6, 2010; Gainesville, Florida, October 4, 2010; Azana Day Salon, October 21, 2012; Sandy Hook Elementary School and Residence, December 14, 2012; Jacksonville, North Carolina, and Brady, Texas, May 26, 2013; Santa Monica College and Residence, June 7, 2013. (See Appendix A).

21 Amko Trading Store, January 9, 2001; Gold Leaf Nurseries, July 28, 2003; Parking Lots in Philadelphia, Pennsylvania, October 7, 2005; Residence, Latah County Courthouse, and First Presbyterian Church, May 19, 2007; Residence in Cuyahoga County, Ohio, October 7, 2007; Family Dental Care, July 1, 2009; Legacy Metrolab, November 10, 2009; Yoyito Café, June 6, 2010; Salon Meritage, October 12, 2011; Azana Day Salon, October 21, 2012; Pinewood Village Apartments, April 21, 2013; Jacksonville, North Carolina, and Brady, Texas, May 26, 2013.

22 Emcore Corporation, July 12, 2010; Copley Township Neighborhood, Ohio, August 7, 2011; Las Dominicanas M&M Hair Salon, October 18, 2012.

23 Essex Elementary School, August 24, 2006.
Resolutions
The majority of the 160 incidents (90 [56.3%]) ended on the shooter’s initiative—sometimes when the shooter committed suicide or stopped shooting, and other times when the shooter fled the scene.

There were at least 25 incidents where the shooter fled the scene before police arrived. In 4 additional incidents, at least 5 shooters fled the scene and were still at large at the time the study results were released.

In other incidents, it was a combination of actions by citizens and/or law enforcement that ended the shootings. In at least 65 (40.6%) of the 160 incidents, citizen engagement or the shooter committing suicide ended the shooting at the scene before law enforcement arrived. Of those:

- In 37 incidents (23.1%), the shooter committed suicide at the scene before police arrived.
- In 21 incidents (13.1%), the situation ended after unarmed citizens safely and successfully restrained the shooter. In 2 of those incidents, 3 off-duty law enforcement officers were present and assisted.
  - Of note, 11 of the incidents involved unarmed principals, teachers, other school staff and students who confronted shooters to end the threat (9 of those shooters were students).
- In 5 incidents (3.1%), the shooting ended after armed individuals who were not law enforcement personnel exchanged gunfire with the shooters. In these incidents, 3 shooters were killed, 1 was wounded, and 1 committed suicide.
  - The individuals involved in these shootings included a citizen with a valid firearms permit and armed security guards at a church, an airline counter, a federally managed museum, and a school board meeting.
- In 2 incidents (1.3%), 2 armed, off-duty police officers engaged the shooters, resulting in the death of the shooters. In 1 of those incidents, the off-duty officer assisted a responding officer to end the threat.

Even when law enforcement arrived quickly, many times the shooter still chose to end his life. In 17 (10.6%) of the 160 incidents, the shooter committed suicide at the scene after law enforcement arrived but before officers could act.

In 45 (28.1%) of the 160 incidents, law enforcement and the shooter exchanged gunfire. Of those 45 incidents, the shooter was killed at the scene in 21, killed at another location in 4, wounded in 9, committed suicide in 9, and surrendered in 2.

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24 Santana High School, March 5, 2001; Appalachian School of Law, January 16, 2002. (See Appendix I).
25 Player’s Bar and Grill, May 25, 2006; Tom Bradley International Terminal at Los Angeles International Airport, July 4, 2002; Youth with a Mission Training Center/New Life Church, December 9, 2007; United States Holocaust Memorial Museum, June 10, 2009; Panama City School Board Meeting, December 14, 2010, Shooter wounded.
Law Enforcement/Security Personnel Casualties

Law enforcement suffered casualties in 21 (46.7%) of the 45 incidents where they engaged the shooter to end the threat. This resulted in 9 officers killed (4 of whom were ambushed in a shooting) and 28 wounded.

In 3 (1.9%) of the 160 incidents, armed, non-sworn security personnel were killed. In 2 additional incidents, 2 unarmed security officers were killed and 2 were wounded.

Shooter Outcomes

In all, 64 (40.0%) of the shooters ultimately committed suicide. Most shooters were males acting alone. Only 2 (1.3%) of the 160 incidents had more than 1 shooter and only 6 (3.8%) involved a female shooter. Of note, 2 of the 12 shootings at institutions of higher education (IHEs) were perpetrated by females. At least 5 shooters were at large at the time of the publication of this study.

Results showed 3 shooters carried improvised explosive devices (IEDs); 1 shooter used the device (a Molotov cocktail). And, 1 shooter booby-trapped his residence with IEDs. At least 6 shooters wore or were carrying body armor.

Locations

The FBI identified 11 separate incident location categories when seeking to identify the primary locations where the public was most at risk during an incident. These location categories include commercial areas (divided into malls, businesses open to pedestrian traffic, and businesses closed to pedestrian traffic), educational environments (divided into schools [pre-kindergarten through 12th grade] and IHEs), open spaces, government properties (divided into military and other government properties), residences, houses of worship, and health care facilities.

When an incident occurred in two or more locations, the FBI sought to identify where the public was most at risk. For example, in instances where casualties occurred inside a private residence before a shooter moved to a public area, those incidents were categorized at the location where the public was more at risk. In addition, some specialized business locations (i.e., malls and health care facilities) were identified separately to provide added transparency.

In all, 24 (15.0%) of the 160 incidents involved shootings at more than one location. This supports the value in quickly assessing the circumstances where the first shooting occurs and may aid law enforcement’s ability to predict other potential targets.

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28 Red Lake High School, March 21, 2005; Los Angeles International Airport, November 1, 2013.

29 Arapahoe High School, December 13, 2013.


31 See Appendix C for a summary of location definitions.
The study results identified 73 (45.6%) of 160 incidents that occurred in areas of commerce. These included businesses open to pedestrian traffic (44 [27.5%]), businesses closed to pedestrian traffic (23 [14.3%]), and malls (6 [3.8%]). These distinctions were made in order to determine whether the public was more at risk in areas where pedestrian traffic was likely.

Educational environments were identified as the second-largest location grouping (39 [24.4%]). These were further broken down as those occurring in schools (27 [16.9%], including two school board meetings) and IHEs (12 [7.5%]).

Other incidents, in descending order, were located in:
- Open spaces (15 [9.4%]);
- Government properties (16 [10.0%]);
  - Other (non-military) government properties (11 [6.9%])
  - Military properties (5 [3.1%])
- Residences (7 [4.4%]);
- Houses of worship (6 [3.8%]); and
- Health care facilities (4 [2.5%]).
Breakdown by location:

**COMMERCE AREAS**

**Businesses Open to Pedestrian Traffic**
The 44 incidents that occurred in business environments generally open to pedestrian traffic resulted in 124 people killed (including 2 company co-owners in 1 incident) and 181 people wounded (including 1 manager). The most incidents occurred on Tuesdays (10), with others occurring on Fridays (9), Mondays (6), Wednesdays (6), Thursdays (5), Sundays (5), and Saturdays (3).

The majority of the shooters in these incidents were not employed at the location. Specifically:
- 30 shooters (68.2%) were not employed by the businesses, though 7 had a relationship with at least 1 current employee;
- 12 shooters (27.3%), including 1 woman, were employed or previously employed by the businesses (8 current employees [2 possibly facing termination, 1 terminated the day of the shooting] and 4 former employees); and
- 2 or more shooters from 2 incidents fled the scene and remain at large, so their connection to the incident location is unknown.

These incidents ended when:
- 19 shooters committed suicide (11 did so at the scene before police arrived, 3 did so at the scene after police arrived, and 5 shooters fled the scene and committed suicide at another location);
- 9 shooters were apprehended at the scene (1 after being restrained by a citizen);
- 8 shooters fled and were apprehended by law enforcement at another location;
- 4 shooters were killed by law enforcement (2 at the scene);
- 2 shooters fled and were not apprehended;
- 1 shooter was killed by an off-duty law enforcement officer at the scene; and
- 1 shooter was killed at the scene by a citizen with a valid firearms permit.

**Businesses Closed to Pedestrian Traffic**
The 23 incidents that occurred in business environments generally closed to pedestrian traffic resulted in 69 individuals killed and 73 wounded. In 12 incidents, supervisors/managers and owners of companies were killed (10) or wounded (5). The most incidents occurred on Wednesdays (7), with others occurring on Tuesdays (5), Thursdays (4), Mondays (3), Fridays (2), and a Sunday (1).

These incidents almost exclusively involved employees. In all, 22 of the 23 shooters, including 2 females, were employed or previously employed at the business. The sole shooter not employed by a business had a relationship with a current employee. The 22 shooters who were employees included:
- 14 current employees;
- 4 employees fired the day of the shooting;
- 3 former employees; and
- 1 suspended employee.
These incidents ended when:
- 16 shooters committed suicide (13 did so at the scene before police arrived, 1 did so at the scene after police arrived, and 2 shooters fled the scene and committed suicide at another location);
- 3 shooters were apprehended at the scene (2 after being restrained by citizens);
- 3 shooters were killed by police (2 at the scene and 1 elsewhere); and
- 1 shooter fled and was apprehended by police at another location.

**Malls**
The 6 incidents that occurred in malls resulted in 17 killed and 18 wounded. It appeared the shooters were neither employed by businesses in the affected malls nor had relationships with mall employees. The most incidents occurred on Sundays (2), with others occurring on a Monday (1), a Tuesday (1), and Wednesday (1), and a Thursday (1).

These incidents ended when:
- 3 shooters committed suicide at the scene before law enforcement arrived;
- 2 shooters were apprehended by law enforcement at the scene (1 after being restrained by a citizen); and
- 1 shooter was killed by law enforcement during an exchange of gunfire with responding officers, including an off-duty officer at the mall at the time.

**EDUCATION ENVIRONMENTS**
The 39 incidents that occurred in educational environments (27 schools, 12 IHEs) resulted in 117 individuals killed and 120 wounded. Note that in this study, schools are defined as pre-kindergarten through 12th grade (PreK-12) educational facilities; incidents that occurred at school-related facilities such as school administration buildings are also included in this category.

Incidents in educational facilities account for some of the higher casualty counts. For example, the highest death tolls among the 160 incidents occurred at Virginia Polytechnic Institute and State University in Blacksburg, Virginia (32 killed, 17 wounded) and Sandy Hook Elementary School in Newtown, Connecticut (26 killed, 2 wounded [1 additional death at a residence]). Other high casualty counts occurred during the shootings at Northern Illinois University in DeKalb, Illinois (5 killed, 16 wounded) and Santana High School in Santee, California (2 killed, 13 wounded).

No law enforcement officers were killed or wounded in school incidents, and no officers were killed in incidents at IHEs. One officer was wounded in 1 incident at an IHE, however, it occurred at a medical facility on the campus and not in a campus residence or classroom.
IHEs

The 12 IHE shootings resulted in 60 individuals killed and 60 individuals wounded. The shooters, 2 of whom were female, ranged in age from 18 to 62. The shooters included 5 former students, 4 current students, 2 employees, and 1 patient visiting a medical center. The most incidents occurred on Fridays (5) with others occurring on Mondays (2), Thursdays (2), a Sunday (1), a Tuesday (1), and a Wednesday (1).

These incidents ended when:

- 5 shooters were apprehended by police at the scene (1 after 2 off-duty officers and a citizen restrained him, and 1 after a being restrained by an off-duty mall security officer);
- 4 shooters committed suicide at the scene (3 before police arrived, 1 after);
- 2 shooters were killed by police at the scene; and
- 1 shooter fled the scene and was apprehended by police at another location.

Schools

The 27 school incidents resulted in 57 individuals killed and 60 individuals wounded. In 2 of the incidents, an adult fired on school board members during a board meeting. Of the remaining 25 incidents, 14 occurred in a high school (HS), 6 occurred in a middle school or junior high school (MS), 4 occurred in an elementary school (ES), and 1 occurred at a school including grades PreK-12.

Where shootings occurred inside buildings, 14 (51.9%) took place in school classrooms and hallways (9 HS, 3 MS, 1 ES, 1 PreK-12), 3 in the school cafeteria (2 HS, 1 MS), 2 in school administrative offices, 2 in school board meeting rooms, and 2 in the school when no classes were in session. An additional 4 incidents were initiated outside (1 HS, 2 MS, 1 ES), including 2 where the shooters were in vehicles.

In addition to the many student victims, the casualties included school employees, resulting in at least 14 killed (6 teachers, 5 five principals or assistant principals, and 3 other staff members) and another 16 wounded (9 teachers, 5 administrators, and 2 staff members).

In a majority of HS and MS incidents, the shooter was a student at the school; this was the case in 12 of 14 HS shootings and 5 of 6 MS shootings. Incidents at elementary schools did not involve the actions of a student.

School Board Meetings

The 2 incidents at school board meetings resulted in 1 individual wounded. The shooters were 56- and 58-year-old males. One shooter committed suicide after an exchange of gunfire with the school district’s armed security guard, and the other shooter was arrested by police after other school administrators wrestled him to the ground.
High Schools
The 14 HS incidents resulted in 21 killed (including 5 school employees) and 40 wounded (including 11 school employees). The shooters ages ranged from 14 to 19. All but 2 shooters were current students at the affected school; one was a former student and the other was a high school student at another school. The most incidents occurred on Mondays (5), followed by Wednesdays (4), Thursdays (2), Fridays (2), and a Tuesday (1).

These incidents ended when:
- 10 shooters were apprehended at the scene (2 by responding police officers, 7 after being initially restrained by school employees [including 1 incident where students assisted], and 1 by an off-duty police officer);
- 3 shooters committed suicide at the scene (1 before police arrived, 2 after); and
- 1 shooter fled and committed suicide at another location.

Middle Schools
The 6 MS incidents resulted in 2 killed (2 school employees) and 6 wounded. The 5 MS shooters, who were students at the affected school, ranged in age from 12 to 15; the other shooter was 32. The incidents occurred on Mondays (3), Tuesdays (2) and a Thursday (1).

These incidents ended when:
- 3 shooters were apprehended by police after being restrained by school employees;
- 2 shooters committed suicide at the scene before police arrived; and
- 1 shooter was apprehended by police at the scene.

Elementary Schools
The 4 ES incidents resulted in 29 killed (7 school employees) and 8 wounded (5 school employees). The shooters ranged in age from 20 to 48. None of the shooters worked at the schools, though 1 was a former teacher and 1 had a relationship with an individual at 1 of the schools. The shootings occurred on Fridays (2), a Wednesday (1), and a Thursday (1).

These incidents ended when:
- 3 shooters were apprehended at the scene (1 after being restrained by citizens); and
- 1 shooter committed suicide at the scene after police arrived.

Pre-K Through 12th Grade School
A single incident occurred at a PreK-12 school resulting in 5 killed and 5 wounded. The incident, which occurred on a Monday, involved a 32-year-old shooter who committed suicide while law enforcement was on the scene.
OPEN SPACES
The 15 incidents that occurred in open spaces resulted in 45 people killed, including 1 law enforcement officer, and 54 people wounded (including 10 law enforcement officers). The shooters ranged in age from 17 to 72. Only 1 incident had 2 shooters. Most incidents occurred on Fridays (6) with the rest occurring on Saturdays (3), Sundays (3), Tuesdays (2), and a Monday (1). In all, 4 shooters committed suicide (2 at the scene and 2 at another location). Police killed 4 shooters (3 at the scene and 1 at another location) and apprehended 7 shooters (4 at another location, 2 at the scene, and 1 after the shooter was restrained by a citizen). In the 15 incidents, 11 of the shooters were in vehicles during a portion of the incident.

MILITARY AND OTHER GOVERNMENT PROPERTIES
The 11 incidents that occurred on non-military government properties resulted in 24 killed (including 3 law enforcement officers) and 14 wounded (including 4 law enforcement officers). The ages of the shooters, 1 of whom was female, ranged from 23 to 88. One unknown shooter remains at large. Most incidents occurred on Mondays (3) and Wednesdays (3) with the rest occurring on Thursdays (2), a Tuesday (1), a Friday (1), and a Saturday (1). In all, 4 shooters were killed by police at the scene, 1 shooter was killed by an airport security guard, 3 shooters were apprehended by police at the scene (1 after the shooter was restrained by a citizen), 2 shooters committed suicide at the scene (1 before and 1 after police arrived), and 1 shooter fled and is still at large.
The 5 incidents that occurred on military property resulted in 27 killed and 43 wounded (including 5 law enforcement officers). The shooters ranged in age from 23 to 63. Most incidents occurred on Mondays (3) with the rest occurring on Thursdays (2). In all, police killed 3 shooters at the scene and apprehended 2 shooters at the scene. Two shooters had prior military service, 2 shooters had no military experience, and 1 shooter was an active duty member of the military.

**RESIDENCES**
The 7 incidents that occurred solely at a residence resulted in 32 people killed (including 1 law enforcement officer) and 17 wounded. The ages of the shooters ranged from 20 to 55, excluding 2 additional unidentified shooters who remain at large. Most incidents occurred on Sundays (3) and Saturdays (2), with the rest occurring on a Thursday (1) and a Friday (1). In all, 3 shooters were killed by police, 2 committed suicide after police arrived, and 2 were apprehended. One incident involved 3 shooters, and 2 of those shooters remain at large.  

**HOUSES OF WORSHIP**
The 6 incidents in houses of worship resulted in 21 people killed and 27 wounded (including 1 law enforcement officer). The ages of the shooters ranged from 24 to 69. Most incidents occurred on Sundays (3), with the rest occurring on a Tuesday (1), a Friday (1), and a Saturday (1). In all, 3 shooters were apprehended (2 of whom were restrained by citizens until police arrived) and 3 committed suicide at the scene (2 before police arrived and 1 after).

**HEALTH CARE FACILITIES**
The 4 incidents in health care facilities resulted in 10 killed and 10 wounded (including 2 law enforcement officers). The ages of the shooters ranged from 38 to 51. All incidents occurred on different days of the week: a Monday (1), a Tuesday (1), a Saturday (1), and a Sunday (1). In all, 2 shooters committed suicide at the scene (1 before police arrived, and 1 after), 1 was apprehended at the scene, and 1 was killed by police at the scene.

32 An additional 7 shootings took place at a residence before the shooter moved on to another more public location. In those instances, a shooter killed a close friend or family member before driving to the location where the majority of the casualties occurred. These incidents, therefore, were coded as having occurred within the other locations (e.g. businesses open to pedestrian traffic, schools, houses of worship).
Conclusion
The FBI initiated this study to add to the resources available to law enforcement and others who must consider their best course of action to prepare for, respond to, and recover from active shooter incidents. Using the same criteria over a 14-year span, the FBI sought to determine whether the number of active shooter incidents had changed, concluding the trend over the study period showed a steady rise. In the first half of the years studied, the average annual number of incidents was 6.4, but that average rose in the second half of the study to 16.4, an average of more than one incident per month.

Of the 160 incidents studied, 64 (40.0%) would have met the criteria to fall under the federal statute passed in 2012 which defines mass killing as three or more killed in a single incident. Of the 64, 39 of these mass killings occurred within the final 7 years studied.

Study results also indicate that, of the 11 defined location categories, the majority of incidents—45.6% of the 160—occurred in an environment related to commerce. The second most common incident locations were in educational environments (24.4%), and the study results established that some of these incidents involved some of the highest casualty numbers.

Study results provided added clarity on instances where law enforcement appeared to be most at risk when responding to the scene. For example, though law enforcement responded to a large number of school incidents, no law enforcement officers were killed or wounded when responding to a school incident. However, in 45 of the 160 incidents where law enforcement did engage a shooter, law enforcement suffered casualties in 21 (46.7%) of the incidents, resulting in 9 officers killed and 28 wounded.

Significantly, 10 of the officers were wounded in gunfights categorized as occurring in open spaces where the shooters were moving through streets and between buildings. In addition, 3 of the officers were wounded on military property, and another 3 were killed and 9 wounded in gunfights on other government properties. Based on these study results, therefore, the FBI will no longer use the term “confined” as part of the “active shooter” definition.

Though this study did not focus on the motivation of the shooters, the study did identify some shooter characteristics. In all but 2 of the incidents, the shooter chose to act alone. Only 6 female shooters were identified. Shooter ages as a whole showed no pattern. However, some patterns were seen in incident sub-groups. For example, 12 of 14 shooters in high school shootings were students at the schools, and 5 of the 6 shooters at middle schools were students at the schools.

In addition, research results identified some location categories where victim targets were more readily identifiable, in part because of the shooters’ connections to the locations. For example, in businesses generally closed to pedestrian traffic, 22 of the 23 shooters were employees or former employees of the involved company. In other instances, the location category appeared less significant than the victims targeted. For example, in 15 (9.3%) of the 160 incidents, the shooter targeted family members. And in 15 (9.3%) of the 160 incidents, the shooter targeted his current, estranged, or former spouse or his current or former girlfriend.
This study helps clarify the environment with regard to both the level of risk citizens face and the speed with which active shooter incidents occur. A majority of the 160 incidents (90 [56.3%]) ended on the shooter’s initiative before the police arrived—sometimes when the shooter committed suicide or stopped shooting, and other times when the shooter fled the scene. In 64 incidents where the duration of the incident could be ascertained, 44 (69.0%) of 64 incidents ended in 5 minutes or less, with 23 ending in 2 minutes or less.

The study identified 21 (13.1%) of 160 incidents where unarmed citizens made the selfless and deeply personal choices to face the danger of an active shooter. In those instances, the citizens safely and successfully disrupted the shootings. In 11 of those 21 incidents, unarmed principals, teachers, other school staff and students confronted the shooters to end the threat. In 10 incidents, citizens, working or shopping when the shootings began, successfully restrained shooters until police could arrive. And in 6 other incidents, armed off-duty police officers, citizens, and security guards risked their lives to successfully end the threat. These actions likely saved the lives of students and others present.

Recognizing the increased active shooter threat and the swiftness with which active shooter incidents unfold, these study results support the importance of training and exercises—not only for law enforcement but also for citizens. It is important, too, that training and exercises include not only an understanding of the threats faced but also the risks and options available in active shooter incidents.

Finally, the FBI recognizes that seeking to avoid these tragedies is clearly the best result. The FBI remains dedicated to supporting prevention efforts within all communities affected by these tragedies. As the FBI continues to study the active shooter phenomenon, the Bureau remains committed to assist state, local, tribal, and campus law enforcement in developing better prevention, response, and recovery practices involving active shooter incidents.
Appendix A:
The following is a list of 160 active shooter incidents that occurred in the United States between 2000 and 2013 and were identified as part of a study conducted in 2014 by the Federal Bureau of Investigation*.

**Edgewater Technology, Inc.**
On December 26, 2000, at 11:15 a.m., Michael M. McDermott, 42, armed with a rifle, a shotgun, and a handgun, began shooting co-workers in the Edgewater Technology Inc. building in Wakefield, Massachusetts. Seven people were killed; no one was wounded. The shooter was apprehended when police arrived and found him sitting in a conference room.

**Amko Trading Store**
On January 9, 2001, at 12:00 p.m., Ki Yung Park, 54, fatally shot his estranged wife at a convenience store they owned in Houston, Texas. Armed with two handguns, he then drove to the nearby Amko Trading Store and continued shooting. Four people were killed; no one was wounded. The shooter committed suicide when police arrived after being flagged down by a citizen.

**Navistar International Corporation Factory**
On February 5, 2001, at 9:40 a.m., William Daniel Baker, 57, armed with two rifles, a handgun, and a shotgun, began shooting co-workers in the Navistar International Corporation factory in Melrose Park, Illinois. He was to have reported to prison the next day for stealing from Navistar. Four people were killed; four were wounded. The shooter committed suicide before police arrived.

**Santana High School**
On March 5, 2001, at 9:20 a.m., Charles Andrew Williams Jr., 15, armed with a handgun, began shooting in Santana High School in Santee, California. Two people were killed; 13 were wounded. The shooter was apprehended by an off-duty officer who heard gunshots.

**Granite Hills High School**
On March 22, 2001, at 12:55 p.m., Jason Anthony Hoffman, 18, armed with a shotgun and a handgun, began shooting in Granite Hills High School in El Cajon, California. No one was killed; five were wounded. The shooter was shot by police. He committed suicide in jail one week before sentencing.

**Laidlaw Transit Services Maintenance Yard**
On April 23, 2001 at 6:00 a.m., Cathline Repunte (female), 36, armed with a handgun, began shooting in the Laidlaw Transit Services maintenance yard in San Jose, California. One person was killed; three were wounded. The shooter was restrained by a co-worker until police arrived and took her into custody.

**Nu-Wood Decorative Millwork Plant**
On December 6, 2001 at 2:31 p.m., Robert L. Wissman, 36, armed with a shotgun, began shooting in the Nu-Wood Decorative Millwork plant in Goshen, Indiana. He had been fired from his job that morning and returned in the afternoon to begin shooting. One person was killed; six were wounded. The shooter committed suicide before police arrived.

*Some litigation was incomplete at the time of the study's release.*
Appalachian School of Law
On January 16, 2002, at 1:15 p.m., Peter Odighizuma, 43, armed with a handgun, began shooting in the Appalachian School of Law located in Grundy, Virginia. Three people were killed; three were wounded. Three students—two of whom were off-duty police officers—tackled and restrained the shooter until police arrived and took him into custody.

Bertrand Products, Inc.
On March 22, 2002, at 8:15 a.m., William Lockey, 54, armed with a rifle and a shotgun, began shooting co-workers in the Bertrand Products, Inc. facility in South Bend, Indiana. As he attempted to flee the scene in a stolen company van, he exchanged gunfire with police, eventually committing suicide. Four people were killed; five were wounded, including three police officers.

Tom Bradley International Terminal at Los Angeles International Airport
On July 4, 2002, at 11:30 a.m., Hesham Mohamed Ali Hadayet, 43 (41, using an alias DOB), entered Los Angeles International Airport (LAX) in Los Angeles, California, armed with two handguns. He began shooting while standing in line at the EL AL Israel Airlines ticket counter in the Tom Bradley International Terminal of LAX. Two people were killed; two were wounded, including one knife injury. An EL AL security official killed the shooter.

18 Miles of U.S. Route 64 from Sallisaw to Roland, Oklahoma
On October 26, 2002, at 5:00 p.m., Daniel Hawke Fears, 18, armed with a shotgun, began shooting from his vehicle at pedestrians and drivers in Sallisaw, Oklahoma, after a pedestrian accused him of reckless driving. He continued to drive and shoot at victims for 90 minutes until he crashed into a police blockade in Roland and was taken into custody. Two people were killed; eight were wounded.

Labor Ready, Inc.
On February 25, 2003, at 6:25 a.m., Emanuel Burl Patterson, 23, armed with a handgun, began shooting in the lobby of Labor Ready Inc., in Huntsville, Alabama, after arguing with others about a CD player. He then fled the scene. Four people were killed; one was wounded. The shooter surrendered after police surrounded his apartment eight hours later.

Red Lion Junior High School
On April 24, 2003, at 7:34 a.m., James Sheets, 14, armed with three handguns, shot and killed the school principal in the cafeteria at Red Lion Junior High School in Red Lion, Pennsylvania. Though others were present at the scene, the shooter committed suicide after killing the principal, before police arrived.

Case Western Reserve University, Weatherhead School of Management
On May 9, 2003, at 3:55 p.m., Biswanath A. Halder, 62, armed with a rifle and a handgun, began shooting in the Weatherhead School of Management building at Case Western Reserve University in Cleveland, Ohio. One person was killed; two were wounded. The shooter was wounded during an exchange of gunfire with police.

Modine Manufacturing Company
On July 1, 2003, at 10:28 p.m., Jonathon W. Russell, 25, armed with a handgun, began shooting co-workers in the Modine Manufacturing Company building in Jefferson City, Missouri. Three people were killed; five were wounded. The shooter fled the premises and then committed suicide during an exchange of gunfire with police.
**Lockheed Martin Subassembly Plant**
On July 8, 2003, at 9:30 a.m., Douglas Paul Williams, 48, armed with a shotgun and a rifle, began shooting in the Lockheed Martin subassembly plant in Meridian, Mississippi. Six people were killed; eight were wounded. The shooter committed suicide before police arrived.

**Kanawha County Board of Education**
On July 17, 2003, at 7:00 p.m., Richard Dean Bright, 58, armed with two rifles and two handguns, began shooting during a Kanawha County Board of Education meeting in Charleston, West Virginia. He attempted to light a board member on fire and fired one round at board members before three administrators wrestled the gun away from him. No one was killed; one was wounded.

**Gold Leaf Nursery**
On July 28, 2003, at 11:40 a.m., Agustin Casarubias-Dominguez, 45, aka Andres Casarrubias, 47, armed with a handgun, began shooting in the Gold Leaf Nursery facility in Boynton Beach, Florida, where his estranged wife and the man he believed to be her boyfriend were employed. Three people, including his estranged wife, were killed; no one was wounded. The shooter was restrained by a citizen while attempting to reload his gun and was taken into custody by police.

**Andover Industries**
On August 19, 2003, at 8:20 a.m., Richard Wayne Shadle, 32, armed with four handguns, began shooting in the Andover Industries facility in Andover, Ohio, after his boss threatened to fire him. One person was killed; two were wounded. The shooter committed suicide before police arrived.

**Windy City Core Supply, Inc.**
On August 27, 2003, at 8:30 a.m., Salvador Tapia Solis, 36, armed with a handgun, began shooting in Windy City Core Supply, Inc. in Chicago, Illinois, a business from which he had been fired six months prior. Six people were killed; no one was wounded. After a two-hour standoff, the shooter was killed by police.

**Rocori High School**
On September 24, 2003, at 11:35 a.m., John Jason McLaughlin, 15, armed with a handgun, began shooting in Rocori High School in Cold Spring, Minnesota. A teacher at the school confronted the shooter and ordered him to place his gun on the ground. The shooter complied. Two people were killed; no one was wounded. Police took the shooter into custody.

**Watkins Motor Lines**
On November 6, 2003, at 9:57 a.m., Joseph John Eschenbrenner, III (aka Tom West), 50, armed with two handguns, began shooting in the offices of Watkins Motor Lines in West Chester, Ohio. He had been employed by the Atlanta, Georgia, office of Watkins Motor Lines until he resigned in 2001. Two people were killed; three were wounded. The shooter was apprehended by police in Indiana later that day.

**Columbia High School**
On February 9, 2004, at 10:30 a.m., Jon William Romano, 16, armed with a shotgun, began shooting while entering Columbia High School in East Greenbush, New York. No one was killed; one person was wounded. The shooter was restrained by administrators before police arrived and took him into custody.
ConAgra Plant
On July 2, 2004, at 5:00 p.m., Elijah J. Brown, 21, armed with a handgun, began shooting employees in the ConAgra plant in Kansas City, Kansas. He had been laid off due to a production slowdown but was rehired six weeks prior to the incident. Six people were killed; two were wounded. The shooter committed suicide before police arrived.

Radio Shack in Gateway Mall
On November 18, 2004, at 6:45 p.m., Justin Michael Cudar, 25, armed with a handgun, began shooting in the Radio Shack at the Gateway Mall in St. Petersburg, Florida. Two people were killed; one was wounded. The shooter committed suicide before police arrived.

Private Property near Meteor, Wisconsin
On November 21, 2004, at 12:00 p.m., Chai Soua Vang, 36, armed with a rifle, began shooting at hunters in a wooded area outside of Meteor, Wisconsin, after the hunters found him on their private land. Six people were killed; two were wounded. The shooter was apprehended by police.

DaimlerChrysler’s Toledo North Assembly Plant
On January 26, 2005, at 8:34 p.m., Myles Wesley Meyers, 54, armed with a shotgun, returned from his lunch break and began shooting in DaimlerChrysler’s Toledo North Assembly plant in Toledo, Ohio. He took a woman hostage before beginning to shoot at his co-workers. One person was killed; two were wounded. The shooter committed suicide before police arrived.

Best Buy in Hudson Valley Mall
On February 13, 2005, at 3:15 p.m., Robert Charles Bonelli Jr., 25, armed with a rifle, began shooting in the Best Buy at the Hudson Valley Mall in Kingston, New York. The shooter continued firing as he ran farther into the mall until he ran out of ammunition. No one was killed; two people were wounded. The shooter was restrained by two mall workers until police arrived and took him into custody.

Living Church of God
On March 12, 2005, at 12:51 p.m., Terry M. Ratzmann, 44, armed with a handgun, began shooting during a Living Church of God service at the Sheraton Hotel in Brookfield, Wisconsin. Seven people were killed; four were wounded. The shooter committed suicide before police arrived.

Red Lake High School and Residence
On March 21, 2005, at 2:49 p.m., Jeffery James Weise, 16, armed with a shotgun and two handguns, began shooting at Red Lake High School in Red Lake, Minnesota. Before the incident at the school, the shooter fatally shot his grandfather, who was a police officer, and another individual at their home. He then took his grandfather’s police equipment, including guns and body armor, to the school. A total of nine people were killed, including an unarmed security guard, a teacher, and five students; six students were wounded. The shooter committed suicide during an exchange of gunfire with police.

California Auto Specialist and Apartment Complex
On August 8, 2005, at 2:40 p.m., Louis Mitchell Jr., 35, armed with a handgun, began shooting in the California Auto Specialist facility in Colton, California. The shooter then fled to a nearby apartment complex and continued shooting. Three people were killed; three were wounded. The shooter was wounded by police as he was apprehended the next day.
Parking Lots in Philadelphia, Pennsylvania
On October 7, 2005, at 10:13 a.m., Alexander Elkin, 45, armed with a handgun, shot two people in different parking lots in Philadelphia, Pennsylvania. He shot his ex-wife and then drove with her body in the car to kill her friend at another location. An off-duty police officer witnessed the shooting and flagged down an on-duty police officer to pursue the shooter. After an exchange of gunfire with police, the shooter retreated to his car, where he committed suicide. Two people were killed; no one was wounded.

Campbell County Comprehensive High School
On November 8, 2005, at 2:14 p.m., Kenneth S. Bartley, 14, armed with a handgun, began shooting in Campbell County Comprehensive High School in Jacksboro, Tennessee. Before the shooting, he had been called to the office when administrators received a report that he had a gun. When confronted, he shot and killed an assistant principal and wounded the principal and another assistant principal. The shooter was restrained by students and administrators until police arrived and took him into custody.

Tacoma Mall
On November 20, 2005, at 12:00 p.m., Dominick Sergil Maldonado, 20, armed with a rifle and a handgun, began shooting at shoppers in the Tacoma Mall in Tacoma, Washington. After he stopped shooting, he barricaded himself and four hostages in a store. The shooter was apprehended by police after a three-hour standoff. No one was killed; six people were wounded.

Burger King and Huddle House
On November 22, 2005, at 6:10 a.m., an unidentified male armed with a rifle, began shooting in a Burger King in North Augusta, South Carolina, and then ran to a nearby Huddle House restaurant, where he continued shooting before fleeing. One person was killed; two were wounded. The suspect was still at large as of September 2014.

Santa Barbara U.S. Postal Processing and Distribution Center
On January 30, 2006, at 7:15 p.m., former postal worker Jennifer San Marco (female), 44, armed with a handgun, began shooting at her previous place of employment, the Santa Barbara U.S. Postal Processing and Distribution Center in Goleta, California. Six people were killed; no one was wounded. The shooter committed suicide before police arrived.

Pine Middle School
On March 14, 2006, at 9:00 a.m., James Scott Newman, 14, armed with a handgun, began shooting outside the cafeteria at Pine Middle School in Reno, Nevada. No one was killed; two were wounded. The shooter was restrained by a teacher until police arrived and took him into custody.

Residence in Capitol Hill Neighborhood, Seattle, Washington
On March 25, 2006, at 7:03 a.m., Kyle Aaron Huff, 28, armed with a handgun, a shotgun, and a rifle, began shooting at a rave after-party in the Capitol Hill neighborhood of Seattle, Washington. Six people were killed; two were wounded. The shooter committed suicide as police confronted him.
**Safeway Warehouse**
On June 25, 2006, at 3:03 p.m., Michael Julius Ford, 22, armed with a handgun, began shooting in a Safeway warehouse in Denver, Colorado, after having recently been passed over for a job promotion. After shooting at his co-workers, he began setting fires in the warehouse. One person was killed; five were wounded, including one police officer. The shooter was killed by police during an exchange of gunfire.

**Jewish Federation of Greater Seattle**
On July 28, 2006, at 4:00 p.m., Naveed Afzal Haq, 30, armed with two handguns, began shooting in the Jewish Federation of Greater Seattle in Seattle, Washington. He had forced his way in by holding a gun to a 13-year-old girl’s head. One person was killed; five were wounded. The shooter surrendered to police and was taken into custody.

**Essex Elementary School and Two Residences**
On August 24, 2006, at 1:55 p.m., Christopher Williams, 26, armed with a handgun, shot at various locations in Essex, Vermont. He began by fatally shooting his ex-girlfriend’s mother at her home and then drove to Essex Elementary School, where his ex-girlfriend was a teacher. He did not find her, but as he searched, he killed one teacher and wounded another. He then fled to a friend’s home, where he wounded one person. A total of two people were killed; two were wounded. The shooter also shot himself twice but survived and was apprehended when police arrived at the scene.

**Orange High School and Residence**
On August 30, 2006, at 1:00 p.m., Alvaro Castillo, 19, armed with two pipe bombs, two rifles, a shotgun, and a smoke grenade, began shooting a rifle from his vehicle at his former high school, Orange High School in Hillsborough, North Carolina. He had fatally shot his father in his home that morning. One person was killed; two were wounded. The shooter was apprehended by police.

**Weston High School**
On September 29, 2006, at 8:00 a.m., Eric Jordan Hainstock, 15, armed with a handgun and a rifle, began shooting in Weston High School in Cazenovia, Wisconsin. One person was killed; no one was wounded. The shooter was restrained by school employees until police arrived and took him into custody.

**West Nickel Mines School**
On October 2, 2006, at 10:30 a.m., Charles Carl Roberts, IV, 32, armed with a rifle, a shotgun, and a handgun, began shooting at the West Nickel Mines School in Bart Township, Pennsylvania. After the shooter entered the building, he ordered all males and adults out of the room. After a 20-minute standoff, he began firing. The shooter committed suicide as the police began to breach the school through a window. Five people were killed; five were wounded.

**Memorial Middle School**
On October 9, 2006, at 7:40 a.m., Thomas White, 13, armed with a rifle and a handgun, began shooting in Memorial Middle School in Joplin, Missouri. His rifle jammed after firing one shot. Hearing the shot, the school principal located the shooter, escorted him from the building, and turned him over to police. No one was killed or wounded.
Trolley Square Mall
On February 12, 2007, at 6:42 p.m., Sulejman Talovic, 18, armed with a shotgun and a handgun, began shooting as he entered the Trolley Square Mall in Salt Lake City, Utah. Five people were killed; four were wounded. The shooter was killed during an exchange of gunfire by responding officers, including an off-duty police officer who was in the mall at the time of the shooting.

ZigZag Net, Inc.
On February 12, 2007, at 8:00 p.m., Vincent Dortch, 44, armed with a rifle and a handgun, began shooting during a ZigZag Net, Inc. board meeting at the Naval Business Center in Philadelphia, Pennsylvania. The shooter had scheduled the board meeting to discuss a financial dispute with other board members. Three people were killed; one was wounded. The shooter committed suicide after firing at the police.

Kenyon Press
On March 5, 2007, at 9:00 a.m., Alonso Jose Mendez, 68, armed with a handgun, began shooting at his co-workers in the Kenyon Press facility in Signal Hill, California. No one was killed; three were wounded. The shooter committed suicide before police arrived.

Virginia Polytechnic Institute and State University
On April 16, 2007, at 7:15 a.m., Seung Hui Cho, 23, armed with two handguns, began shooting in a dormitory at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. Two-and-a-half hours later, he chained the doors shut in a classroom building and began shooting at the students and faculty inside. Thirty-two people were killed; 17 were wounded. In addition, six students were injured jumping from a second floor classroom and were not included in other reported injury totals. The shooter committed suicide as police entered the building.

Target Store
On April 29, 2007, at 3:25 p.m., David Wayne Logsdon, 51, armed with a rifle, shot an officer after being pulled over near a Target retail store in the Ward Parkway Shopping Center in Kansas City, Missouri. He drove into the Target parking lot and continued shooting as he ran into the building. Two people were killed; eight were wounded, including one police officer. The shooter was killed by police.

Residence, Latah County Courthouse, and First Presbyterian Church
On May 19, 2007, around 11:00 p.m., Jason Kenneth Hamilton, 36, armed with two rifles, began shooting outside the Latah County Courthouse in Moscow, Idaho, killing one police officer and wounding two people, including another police officer. He then fled to the First Presbyterian Church across the street and continued shooting, killing a citizen and wounding two people, including another police officer. Before driving to the courthouse, he had fatally shot his wife in their residence. A total of three people were killed; three were wounded. The shooter committed suicide after police arrived.

Liberty Transportation
On August 8, 2007, at 3:15 p.m., Calvin Coolidge Neyland Jr., 43, armed with at least two handguns and two rifles, began shooting at his co-workers in the Liberty Transportation facility in Perrysburg, Ohio. He had just been fired. Two people were killed; no one was wounded. The shooter fled the scene and was apprehended by police two hours later.
**Co-op City Apartment Building’s Leasing Office**
On August 30, 2007, at 7:50 a.m., Paulino Valenzuela, 44, armed with a handgun, began shooting in Co-op City’s leasing office in the Bronx, New York. He had recently lost his job as a janitor at Co-op City and had filed a lawsuit to get his job back. One person was killed; two were wounded. The shooter fled the scene and later surrendered to police and was taken into custody.

**Giordano and Giordano Law Office**
On October 4, 2007, at 2:00 p.m., John Chester Ashley, 63, armed with a handgun, began shooting in the Giordano and Giordano law office in Alexandria, Louisiana. Two people were killed; three were wounded. The shooter was killed by police after a 10-hour standoff.

**Residence in Crandon, Wisconsin**
On October 7, 2007, at 2:45 a.m., Tyler Peterson, 20, a sheriff’s deputy armed with a rifle, began shooting during a party at his ex-girlfriend’s house in Crandon, Wisconsin. Six people were killed, including his ex-girlfriend; one was wounded. The shooter later committed suicide during an exchange of gunfire with police.

**Am-Pac Tire Pros**
On October 8, 2007, at 7:30 a.m., Robert Becerra, 29, armed with a handgun, began shooting at customers and employees of Am-Pac Tire Pros in Simi Valley, California. One person was killed; two were wounded. The shooter committed suicide before police arrived.

**SuccessTech Academy**
On October 10, 2007, at 1:02 p.m., Asa Halley Coon, 14, armed with two handguns, began shooting in SuccessTech Academy in Cleveland, Ohio. No one was killed; four were wounded. The shooter committed suicide before police arrived.

**Von Maur in Westroads Mall**
On December 5, 2007, at 1:42 p.m., Robert Arthur Hawkins, 19, armed with a rifle, began shooting as he exited the elevator on the third floor of the Von Maur department store in the Westroads Mall in Omaha, Nebraska. Eight people were killed; four were wounded. The shooter committed suicide before police arrived.

**Youth with a Mission Training Center/New Life Church**
On December 9, 2007, at 12:29 a.m., Matthew John Murray, 24, armed with a rifle, two handguns, and smoke bombs, entered the Youth with a Mission Training Center in Arvada, Colorado, and began shooting. Two people were killed; two were wounded. He then walked seven miles overnight to the New Life Church in Colorado Springs, Colorado, and began shooting again. The shooter had been expelled from the training center three years prior to the incident. Two additional people were killed there; three more were wounded. The shooter committed suicide after being shot by church security. A total of four people were killed; five were wounded.

**Kirkwood City Hall**
On February 7, 2008, at 7:00 p.m., Charles Lee Thornton, 52, armed with two handguns, shot a police officer outside the Kirkwood City Hall in Kirkwood, Missouri. He then took the officer’s gun and continued shooting inside the Kirkwood City Council chambers. Six people were killed, including two police officers; no one was wounded. The shooter was killed by responding officers who came from the police department across the street.
**Louisiana Technical College**
On February 8, 2008, at 8:35 a.m., Latina Williams (female), 23, armed with a handgun, began shooting in a second-floor classroom at Louisiana Technical College in Baton Rouge, Louisiana. She fired six rounds, then reloaded and committed suicide before police arrived. Two people were killed; no one was wounded.

**Cole Hall Auditorium, Northern Illinois University**
On February 14, 2008, at 3:00 p.m., Steven Phillip Kazmierczak, 27, armed with a shotgun and three handguns, began shooting in the Cole Hall Auditorium at Northern Illinois University in DeKalb, Illinois. He had attended graduate school at the university. Five people were killed; 16 were wounded, including three who were injured as they fled. The shooter committed suicide before police arrived.

**Wendy’s Fast Food Restaurant**
On March 3, 2008, at 12:15 p.m., Alburn Edward Blake, 60, armed with a handgun, began shooting in a Wendy’s restaurant in West Palm Beach, Florida. One person was killed; four were wounded. The shooter committed suicide before police arrived.

**Player’s Bar and Grill**
On May 25, 2008, at 2:25 a.m., Ernesto Villagomez, 30, armed with a handgun, began firing inside Player’s Bar and Grill in Winnemucca, Nevada. Two people were killed; two were wounded. The shooter was killed by a citizen with a valid firearm permit before police arrived.

**Atlantis Plastics Factory**
On June 25, 2008, at 12:00 a.m., Wesley Neal Higdon, 25, armed with a handgun, began firing at his co-workers in the Atlantis Plastics factory in Henderson, Kentucky. Prior to the incident, he was reprimanded by a supervisor for having an argument with a co-worker and was escorted from the plant. He returned a short time later and began shooting. Five people were killed; one was wounded. The shooter committed suicide before police arrived.

**Tennessee Valley Unitarian Universalist Church**
On July 27, 2008, at 10:18 a.m., Jim David Adkisson, 58, armed with a shotgun, began shooting in the Tennessee Valley Unitarian Universalist Church in Knoxville, Tennessee. Two people were killed; seven were wounded. The shooter was restrained by citizens before police arrived and took him into custody.

**Interstate 5 in Skagit County, Washington**
On September 2, 2008, at 2:15 p.m., Isaac Lee Zamora, 28, armed with a rifle, shot a police officer at the shooter’s home and then drove down Interstate 5 near Alger in Skagit County, Washington, shooting drivers and another police officer. Six people were killed, including one police officer; four were wounded, including one police officer. The shooter drove to a police station and surrendered 40 minutes after the incident began.

**The Zone**
On January 24, 2009, at 10:37 p.m., Erik Salvador Ayala, 24, armed with a handgun, began shooting at a crowd outside of The Zone, an under-21 nightclub in Portland, Oregon, and then shot himself before police arrived. He died in the hospital two days later. Two people were killed; seven were wounded.
Coffee and Geneva Counties, Alabama
On March 10, 2009, at 4:00 p.m. Michael Kenneth McLendon, 28, armed with a rifle, killed five family members at various locations as he traveled through Coffee and Geneva Counties in southeast Alabama and continued shooting. A total of 10 people were killed; one police officer was wounded. During an exchange of gunfire with police, the shooter committed suicide.

Pinelake Health and Rehabilitation Center
On March 29, 2009, at 10:00 a.m., Robert Kenneth Stewart, 45, armed with a handgun, a shotgun, and a rifle, began shooting in the Pinelake Health and Rehabilitation Center in Carthage, North Carolina, where his estranged wife worked. He did not find her. Eight people were killed; three were wounded, including one police officer. The shooter was apprehended after being wounded during an exchange of gunfire with police.

American Civic Association Center
On April 3, 2009, at 10:31 a.m., Linh Phat Voong, aka Jiverly Wong, 41, armed with two handguns, began shooting in the American Civic Association Center in Binghamton, New York. He previously had taken classes at the center. The shooter blocked the back door of the building with his car and then entered through the front door. Thirteen people were killed; four were wounded. The shooter committed suicide before police arrived.

Kkottongnae Retreat Camp
On April 7, 2009 at 7:23 p.m., John Suchan Chong, 69, armed with a handgun, began shooting at residents in the Kkottongnae Retreat Camp in Temecula, California, where he was employed as a handyman. The shooter walked from cabin to cabin shooting residents until he was restrained by citizens. One person was killed; two were wounded.

Harkness Hall at Hampton University
On April 26, 2009, at 12:57 a.m., Odane Greg Maye, 18, armed with three handguns, began shooting in Harkness Hall, a residence hall at Hampton University in Hampton, Virginia, and then shot himself before police arrived. The shooter had briefly attended the university. A dormitory manager pulled the fire alarm when the shooting began, emptying the building. No one was killed; two were wounded. He was apprehended by police.

Larose-Cut Off Middle School
On May 18, 2009, at 9:00 a.m., Justin Doucet, 15, armed with a handgun, fired once at a teacher at Larose-Cut Off Middle School in Cut Off, Louisiana, then went to the bathroom and shot himself. He died a week later. No one was killed or wounded.

U.S. Army Recruiting Center
On June 1, 2009, at 10:19 a.m., Carlos Leon Bledsoe, aka Abdulhakim Mujahid Muhammad, 23, armed with two rifles and a handgun, drove up and began firing on soldiers outside the U.S. Army Recruiting Center in North Little Rock, Arkansas. One person was killed; one was wounded. The shooter was apprehended by police.

United States Holocaust Memorial Museum
On June 10, 2009, at 12:52 p.m., James Wenneker von Brunn, 88, armed with a rifle, began shooting in the United States Holocaust Memorial Museum in Washington, D.C. He shot the security guard who opened the door to the building and exchanged gunfire with other security guards. One person was killed; no one was wounded. The shooter was wounded and died in custody six months later.
**Family Dental Care**
On July 1, 2009, at 10:30 a.m., Jaime Paredes, 30, armed with a rifle, allegedly began shooting in his wife’s place of employment, Family Dental Care office in Simi Valley, California. She had recently filed for divorce. His wife was killed; four were wounded. The shooter was apprehended by police.

**Club LT Tranz**
On July 25, 2009, at 4:40 a.m., an unidentified shooter began shooting at employees of Club LT Tranz in Houston, Texas. One person was killed; two were wounded. The suspect was still at large as of September 2014.

**LA Fitness**
On August 4, 2009, at 7:56 p.m., George Sodini, 48, armed with three handguns, began shooting in a LA Fitness aerobics class at the Great Southern Shopping Center in Collier Township, Pennsylvania. He entered the gym, removed his guns from his gym bag, and began firing in the aerobics studio. Three people were killed; nine were wounded. The shooter committed suicide before police arrived.

**Multiple Locations in Owosso, Michigan**
On September 11, 2009, at 7:20 a.m., Harlan James Drake, 33, armed with three handguns, shot at people at two locations in Owosso, Michigan. He shot a protestor on the street and then drove to a gravel quarry, where he killed another person. Two people were killed; no one was wounded. The shooter surrendered to police a few hours later and was taken into custody.

**Fort Hood Soldier Readiness Processing Center**
On November 5, 2009, at 1:20 p.m., Nidal Malik Hasan, 39, armed with two handguns, began shooting inside the Fort Hood Soldier Readiness Processing Center in Fort Hood, Texas. Thirteen people were killed; 32 were wounded, including one police officer. During an exchange of gunfire, the shooter was wounded and taken into custody.

**Reynolds, Smith and Hills**
On November 6, 2009, at 11:44 a.m., Jason Samuel Rodriguez, 40, armed with a handgun, began shooting in the consulting firm of Reynolds, Smith and Hills in Orlando, Florida, his former workplace. One person was killed; five were wounded. The shooter surrendered to police a few hours later at a family member’s home.

**Sandbar Sports Grill**
On November 7, 2009, at 7:28 p.m., Richard Allan Moreau, 63, armed with a handgun, began shooting in the Sandbar Sports Grill in Vail, Colorado. Before the attack, Moreau had an argument inside the bar and was escorted out by security. One person was killed; three were wounded. The shooter was apprehended by responding police.

**Legacy Metrolab**
On November 10, 2009, at 11:49 a.m., Robert Beiser, 39, armed with a handgun, a rifle, and a shotgun, began firing in the Legacy Metrolab in Tualatin, Oregon, his wife’s place of employment. One week earlier, his wife had filed for divorce. His wife was killed; two were wounded. The shooter committed suicide before police arrived.
Forza Coffee Shop
On November 29, 2009, at 8:15 a.m., Maurice Clemmons, aka Dawson A. Carlisle, 37, armed with a handgun, began shooting in the Forza Coffee Shop in Pierce County, Washington, a regular gathering place for police officers. Four uniformed police officers were killed at the scene; no one was wounded. The shooter was killed during an exchange of gunfire with police after a two-day manhunt.

Grady Crawford Construction Company
On December 23, 2009, at 1:50 p.m., Richard Matthews, 53, armed with a handgun, allegedly began shooting in the Grady Crawford Construction facility in Baton Rouge, Louisiana. Two people were killed; one was wounded. The shooter was restrained by his co-workers until police arrived and took him into custody.

Lloyd D. George U.S. Courthouse and Federal Building
On January 4, 2010, at 8:02 a.m., Johnny Lee Wicks Jr., 66, armed with a shotgun, began firing inside the lobby of the Lloyd D. George Federal Building and U.S. Courthouse in Las Vegas, Nevada. He had recently filed a lawsuit against the Social Security Administration over a reduction in his benefits. One person was killed; one federal law enforcement officer was wounded. The shooter was killed by federal law enforcement officers as he fled the scene.

ABB Plant
On January 7, 2010, at 6:30 a.m., Timothy Hendron, 51, armed with two handguns, a shotgun, and a rifle, began shooting at his co-workers in the parking lot at the ABB Plant in St. Louis, Missouri, before moving into the building. He was a party in a pending lawsuit against his employer regarding the company’s retirement plan. Three people were killed; five were wounded. The shooter committed suicide before police arrived.

Penske Truck Rental
On January 12, 2010, at 2:00 p.m., Jesse James Warren, 60, armed with two handguns, allegedly began shooting in the Penske Truck Rental facility in Kennesaw, Georgia, from where he had recently been fired. He entered through the ground-level bay area where trucks were kept. Three people were killed; two were wounded. The shooter was apprehended by police.

Residence in Brooksville, Florida
On January 14, 2010, at 2:59 p.m., John William Kalisz, 55, armed with a handgun, began shooting in a residence in Brooksville, Florida, where family members ran a home-based business. He then fled to a gas station, where he exchanged gunfire with police. Three people were killed, including one police officer and one family member; two were wounded, including one family member. The shooter was shot and apprehended by police.

Farm King Store
On February 3, 2010, at 12:45 p.m., Jonathan Joseph Labbe, 19, armed with a rifle, began shooting inside a Farm King Store in Macomb, Illinois. Eight people barricaded themselves in the office and remained hidden until police arrived. No one was killed or wounded. The shooter committed suicide after police arrived.
**Inskip Elementary School**

On February 10, 2010, at 12:49 p.m., Mark Stephen Foster, 48, armed with a handgun, began shooting inside Inskip Elementary School in Knoxville, Tennessee. He had just been informed that his teaching contract would not be renewed. The shooting occurred after he left the office and returned with a gun. No one was killed; two members of the administration were wounded. The shooter was apprehended by responding police.

**Shelby Center, University of Alabama**

On February 12, 2010, at 4:00 p.m., Amy Bishop Anderson (female), 44, armed with a handgun, began shooting during a biology department meeting in the Shelby Center at the University of Alabama in Huntsville, Alabama. She sat in the meeting for 30 minutes, then stood up and began firing. Three people were killed; three were wounded. The shooter surrendered to responding police.

**Deer Creek Middle School**

On February 23, 2010, at 3:10 p.m., Bruco Strongeagle Eastwood, 32, armed with a rifle, began shooting in Deer Creek Middle School in Littleton, Colorado. No one was killed; two people were wounded. The shooter was restrained by teachers until police arrived and took him into custody.

**The Pentagon**

On March 4, 2010, at 6:36 p.m., John Patrick Bedell, 36, armed with a handgun, began shooting at Pentagon police officers as he approached the entrance to the security screening area at the Pentagon in Arlington, Virginia. No one was killed; two federal law enforcement officers were wounded. The shooter was killed by federal law enforcement officers.

**The Ohio State University, Maintenance Building**

On March 9, 2010, at 3:30 a.m., Nathaniel Alvin Brown, 50, armed with two handguns, began shooting in the maintenance building at The Ohio State University in Columbus, Ohio. He had just been fired for allegedly lying on his job application. One person was killed; one was wounded. The shooter committed suicide before police arrived.

**Publix Super Market**

On March 30, 2010, at 12:00 p.m., Arunya Rouch (female), 41, armed with a handgun, began shooting in the parking lot of a Publix Supermarket in Tarpon Springs, Florida, killing one person. She had just been fired from the store for threatening a co-worker. She continued shooting on her way into the store, passing customers on the way to her former supervisor’s office. Responding police officers intercepted her before she reached the office. After an exchange of gunfire, she was wounded. One person was killed; no one was wounded.

**Parkwest Medical Center**

On April 19, 2010, at 4:30 p.m., Abdo Ibssa, 38, armed with a handgun, began shooting in the Parkwest Medical Center in Knoxville, Tennessee. He had been distressed over the outcome of his recent surgery and was trying to find his doctor, who he believed had implanted a microchip in him. When he was unable to find the doctor, he moved to the emergency room and began shooting. One person was killed; two were wounded. The shooter committed suicide before police arrived.
Blue Sky Carnival
On May 7, 2010, at 10:22 p.m., Rasheed Cherry, 17, armed with a handgun, began shooting as he ran through the crowd at a carnival in Bloomfield, New Jersey operated by Blue Sky Amusements and Entertainment, Ltd. No one was killed; one person was wounded. The shooter was shot by responding police and died several days later.

Boulder Stove and Flooring
On May 17, 2010, at 11:05 a.m., Robert Phillip Montgomery, 53, armed with a handgun, began shooting at the owners in the back office of Boulder Stove and Flooring in Boulder, Colorado. Two people were killed; no one was wounded. The shooter committed suicide before police arrived.

AT&T Cellular
On May 27, 2010 at 1:00 p.m., Abraham Dickan, 79, armed with a handgun, began shooting in an AT&T Wireless Store in New York Mills, New York. He had recently been reported to the police by AT&T for harassing and threatening employees. No one was killed; one person was wounded. The shooter was killed by an off-duty police officer who was a customer in the store.

Yoyito Café
On June 6, 2010, at 10:00 p.m., Gerardo Regalado, 37, armed with a handgun, began shooting in Yoyito Café in Hialeah, Florida, where his estranged wife was employed. Four people were killed, including his estranged wife; three were wounded. The shooter fled the scene and committed suicide several blocks away.

Emcore Corporation
On July 12, 2010, at 9:30 a.m., Robert Reza, 37, armed with a handgun, began shooting in the Emcore Corporation building in Albuquerque, New Mexico, his girlfriend’s place of employment. After confronting her, he began shooting throughout the building. Two people were killed; four were wounded, including his girlfriend. The shooter committed suicide after corporate security arrived.

Hartford Beer Distribution Center
On August 3, 2010, at 7:00 a.m., Omar Sheriff Thornton, 34, armed with two handguns, began shooting at his co-workers in the Hartford Beer Distribution Center in Manchester, Connecticut. He had been asked to quit for stealing beer from the warehouse. Eight people were killed; two were wounded. The shooter committed suicide after police arrived.

Kraft Foods Factory
On September 9, 2010, at 8:35 p.m., Yvonne Hiller (female), 43, armed with a handgun, began shooting at her co-workers in the Kraft Foods Factory in Philadelphia, Pennsylvania. She had just been suspended from her job and escorted from the building, but then returned. Two people were killed; one was wounded. The shooter and police exchanged gunfire, and she was apprehended a short time later.

Fort Bliss Convenience Store
On September 20, 2010, at 3:00 p.m., Steven Jay Kropf, 63, armed with a handgun, began shooting in a convenience store at Fort Bliss in El Paso, Texas. One person was killed; one was wounded. The shooter was killed by police.
**AmeriCold Logistics**

On September 22, 2010, at 9:54 p.m., Akouch Kashoual, 26, armed with a handgun, began shooting at his co-workers in the break room of the AmeriCold Logistics plant in Crete, Nebraska. No one was killed; three were wounded. The shooter committed suicide before police arrived.

**Gainesville, Florida**

On October 4, 2010, at 4:00 p.m., Clifford Louis Miller Jr., 24, armed with a handgun, began shooting as he drove around Gainesville, Florida. One person—his father—was killed; five were wounded. The shooter committed suicide in a friend’s driveway 13 minutes after the shooting began.

**Kelly Elementary School**

On October 8, 2010, at 12:10 p.m., Brendan O’Rourke, aka Brandon O’Rourke, 41, armed with a handgun, began shooting at Kelly Elementary School in Carlsbad, California, after having jumped the school fence. No one was killed; two students were wounded. The shooter was tackled and restrained by nearby construction workers until police arrived and took him into custody.

**Washington, D.C. Department of Public Works**

On October 13, 2010, at 6:14 a.m., an unidentified shooter, armed with a handgun, entered a Department of Public Works fleet management center in Washington, D.C., and began shooting. One person was killed; one was wounded. The shooter escaped before police arrived. The suspect was still at large as of September 2014.

**Walmart**

On October 29, 2010, at 8:57 a.m., John Dennis Gillane, 45, armed with two handguns, began shooting at his co-workers in a Walmart store in Reno, Nevada. The shooter purchased ammunition for one of the handguns at the store before the shooting. No one was killed; three were wounded. The shooter surrendered to police after a standoff where he barricaded himself in an office.

**Panama City School Board Meeting**

On December 14, 2010, at 2:14 p.m., Clay Allen Duke, 56, armed with a handgun, began shooting during a school board meeting in the Nelson Administrative Building in Panama City, Florida. The shooter’s wife had previously been employed by the school district. After allowing several people to leave the room, the shooter fired in the direction of board members. No one was killed or wounded. The shooter committed suicide during an exchange of gunfire with the school district’s armed security.

**Millard South High School**

On January 5, 2011, at 12:44 p.m., Richard L. Butler Jr., 17, armed with a handgun, began shooting in Millard South High School in Omaha, Nebraska. Earlier that day, the assistant principal had suspended the shooter for allegedly driving his car onto the football field. The assistant principal was killed; the principal was wounded. The shooter committed suicide after fleeing the site of the shooting.
**Safeway Grocery**
On January 8, 2011, at 10:10 a.m., Jared Lee Loughner, 22, armed with a handgun, began shooting during a congressional town hall meeting sponsored by U.S. Representative Gabrielle Giffords outside a Safeway store in Tucson, Arizona. Six people were killed; 13 were wounded, including Rep. Giffords. The shooter was restrained by citizens before police arrived and took him into custody.

**Minaret Temple 174**
On April 8, 2011, at 11:27 p.m., Kanai Daniel Avery, 16, armed with a handgun, allegedly began shooting during a party at the Minaret Temple 174 in Chester, Pennsylvania. Two people were killed; eight were wounded. The shooter was apprehended by police.

**Copley Township Neighborhood, Ohio**
On August 7, 2011, at 10:55 a.m., Michael Edward Hance, 51, armed with two handguns, began shooting in a neighborhood in Copley Township, Ohio, where many of his girlfriend’s family members were present. Seven people were killed; his girlfriend was wounded. The shooter was killed by police.

**House Party in South Jamaica, New York**
On August 27, 2011, at 12:40 a.m., Tyrone Miller, 22, and an additional unidentified shooter(s), armed with handguns, allegedly began shooting at a house party in the Queens, New York, neighborhood of South Jamaica. Miller had left the party earlier that night after getting into an argument. He returned 10 minutes later and opened fire. No one was killed; 11 were wounded. The shooter(s) escaped, and Miller was arrested two years later in North Carolina. The unidentified suspect(s) was still at large as of September 2014.

**International House of Pancakes**
On September 6, 2011, at 8:58 a.m., Eduardo Sencion, aka Eduardo Perez-Gonzalez, 32, armed with a rifle, began shooting in an International House of Pancakes in Carson City, Nevada. Three members of the U.S. Air National Guard were killed, and two were wounded. In total, four people were killed; seven were wounded. The shooter committed suicide before police arrived.

**Crawford County Courthouse**
On September 13, 2011, at 3:37 p.m., Jesse Ray Palmer, 48, armed with three handguns and a rifle, entered the Crawford County Courthouse in Girard, Kansas. He inquired about the location of a specific judge, who was not in the building, and then shot and wounded the judge’s secretary. No one was killed; one person was wounded. The shooter was killed by police.

**Lehigh Southwest Cement Plant**
On October 5, 2011, at 4:15 a.m., Frank William Allman, aka Shareef Allman, 49, armed with two rifles, one shotgun, and one handgun, began shooting at his co-workers in the Lehigh Southwest Cement plant in Cupertino, California, after he had locked the door during a meeting with them. Three people were killed; seven were wounded. The shooter was killed by police after fleeing the scene.
Salon Meritage
On October 12, 2011, at 1:20 p.m., Scott Evans Dekraai, 41, armed with three handguns and wearing body armor, began shooting in Salon Meritage, in Seal Beach, California, his ex-wife’s place of employment. Seven people were killed, including his ex-wife; one was wounded. The shooter fled the scene and was later apprehended by police.

Southern California Edison Corporate Office Building
On December 16, 2011, at 1:30 p.m., Andre Turner, 51, armed with a handgun, began shooting his at his co-workers in a Southern California Edison corporate office building in Irwindale, California. Turner had just been told he would not receive a Christmas bonus and might be laid off. Two people were killed; two were wounded. The shooter committed suicide before police arrived.

McBride Lumber Company
On January 13, 2012, at 6:10 a.m., Ronald Dean Davis, 50, armed with a shotgun, began shooting at his co-workers in McBride Lumber Company in Star, North Carolina. Three people were killed; one was wounded. The shooter shot himself at another location and later died in the hospital.

Middletown City Court
On February 8, 2012, at 9:05 a.m., Timothy Patrick Mulqueen, 43, armed with a shotgun, began shooting as he entered the Middletown City Court in Middletown, New York. No one was killed; one police officer was wounded. The shooter was killed by police.

Chardon High School
On February 27, 2012, at 7:30 a.m., Thomas Michael Lane, III, 17, armed with a handgun, began shooting in the cafeteria at Chardon High School in Chardon, Ohio. The shooter was chased out of the building by a school coach. Three people were killed; three were wounded. The shooter was apprehended by police near the school.

University of Pittsburgh Medical Center, Western Psychiatric Institute and Clinic
On March 8, 2012, at 1:40 p.m., John Schick, 30, armed with two handguns, began shooting inside the lobby of the Western Psychiatric Institute and Clinic at the University of Pittsburgh Medical Center in Pittsburgh, Pennsylvania. One person was killed; seven were wounded, including one police officer. The shooter was killed by University of Pittsburgh police.

J.T. Tire
On March 23, 2012, at 3:02 p.m., O’Brian McNeil White, 24, armed with a handgun, began shooting in the J.T. Tire store in Durham, North Carolina. Two people were killed; two were wounded. The shooter fled but was arrested a week later.

Oikos University
On April 2, 2012, at 10:30 a.m., Su Nam Ko, aka One L. Goh, 43, armed with a handgun, began shooting inside Oikos University in Oakland, California. He then killed a woman to steal her car. Seven people were killed; three were wounded. The shooter was arrested by police later that day.

Streets of Tulsa, Oklahoma
On April 6, 2012, at 1:03 a.m., Jacob Carl England, 19, and Alvin Lee Watts, 32, each armed with a handgun, began shooting as they drove around the streets of Tulsa, Oklahoma. Three people were killed; two were wounded. The shooters were arrested by police the next day.
Café Racer
On May 30, 2012, at 10:52 a.m., Ian Lee Stawicki, 40, armed with two handguns, began shooting inside Café Racer in Seattle, Washington, where he had been banned from entering because of previous incidents. He then fled to a parking lot, where he killed a woman to steal her car. Five people were killed; no one was wounded. The shooter committed suicide at another location.

Copper Top Bar
On July 17, 2012, at 12:29 a.m., Nathan Van Wilkins, 44, armed with a rifle, allegedly began shooting in the Copper Top Bar in Tuscaloosa, Alabama. Prior to the shooting, he shot a person in a nearby subdivision. No one was killed; 18 people were wounded. The shooter was apprehended later by police.

Cinemark Century 16
On July 20, 2012, at 12:30 a.m., James Eagan Holmes, 24, armed with a rifle, a shotgun, and a handgun, allegedly began shooting after releasing tear gas canisters in a theater at the Cinemark Century 16 movie theaters in Aurora, Colorado. Twelve people were killed; 58 were wounded. The shooter, who was wearing body armor, was apprehended by police. Police later found the shooter’s apartment booby-trapped with explosives.

Sikh Temple of Wisconsin
On August 5, 2012, at 10:25 a.m., Wade Michael Page, 40, armed with a handgun, began shooting outside the Sikh Temple of Wisconsin in Oak Creek, Wisconsin and then moved inside and continued to shoot. The shooter exited the building and confronted the responding police officer, wounding him. He then fired on a second responding police officer, who returned fire and wounded the shooter. Six people were killed; four were wounded, including one police officer. The shooter committed suicide after being shot in the stomach by the second responding officer.

Perry Hall High School
On August 27, 2012, at 10:45 a.m., Robert Wayne Gladden Jr., 15, armed with a shotgun, shot a classmate in the cafeteria of Perry Hall High School in Baltimore, Maryland. The shooter had an altercation with another student before the shooting began. He left the cafeteria and returned with a gun. No one was killed; one person was wounded. The shooter was restrained by a guidance counselor before being taken into custody by the school’s resource officer.

Pathmark Supermarket
On August 31, 2012, at 4:00 a.m., Terence Tyler, 23, armed with a rifle and a handgun, began shooting at his co-workers in a Pathmark supermarket in Old Bridge, New Jersey. He returned after his shift dressed in military fatigues and carrying his weapons. He shot at a co-worker outside the store who ran inside and locked the door, warning other employees. The shooter gained entry to the store by shooting out the lock. Two people were killed; no one was wounded. The shooter committed suicide before police arrived.

Accent Signage Systems
On September 27, 2012, at 4:35 p.m., Andrew John Engeldinger, 36, armed with a handgun, began shooting in the Accent Signage Systems facility in Minneapolis, Minnesota. The shooter had just been fired from the company. Six people were killed; two were wounded. The shooter committed suicide before police arrived.
Las Dominicanas M&M Hair Salon
On October 18, 2012, at 11:04 a.m., Bradford Ramon Baumet, 36, armed with a handgun, began shooting in the Las Dominicanas M&M Hair Salon in Casselberry, Florida. The shooter had been served earlier that month with a domestic violence court order involving his ex-girlfriend, who managed the salon. Three people were killed; his ex-girlfriend was wounded. The shooter committed suicide at another location.

Azana Day Salon
On October 21, 2012, at 11:09 a.m., Radcliffe Franklin Haughton, 45, armed with a handgun, began shooting in the Azana Day Salon in Brookfield, Wisconsin, his estranged wife’s place of employment. Three were killed, including his estranged wife; four were wounded. The shooter committed suicide before police arrived.

Valley Protein
On November 6, 2012, at 8:15 a.m., Lawrence Jones, 42, armed with a handgun, began shooting at his co-workers in the Valley Protein processing plant in Fresno, California. The shooting took place midway through his shift. Two people were killed; two were wounded. The shooter committed suicide before police arrived.

Clackamas Town Center Mall
On December 11, 2012, at 3:25 p.m., Jacob Tyler Roberts, 22, armed with a rifle, began shooting at people waiting to see Santa Claus in the Clackamas Town Center Mall in Happy Valley, Oregon. Two people were killed; one was wounded. The shooter committed suicide before police arrived.

Sandy Hook Elementary School and Residence
On December 14, 2012, at 9:30 a.m., Adam Lanza, 20, armed with two handguns and a rifle, shot through the secured front door to enter Sandy Hook Elementary School in Newtown, Connecticut. He killed 20 students and six adults, and wounded two adults inside the school. Prior to the shooting, the shooter killed his mother at their home. In total, 27 people were killed; two were wounded. The shooter committed suicide after police arrived.

St. Vincent’s Hospital
On December 15, 2012, at 4:00 a.m., Jason Heath Letts, 38, armed with a handgun, began shooting in St. Vincent’s Hospital in Birmingham, Alabama. No one was killed; three were wounded, including one police officer. The shooter was killed by police.

Frankstown Township, Pennsylvania
On December 21, 2012, at 8:59 a.m., Jeffrey Lee Michael, 44, armed with two handguns, began shooting at citizens as he drove around Frankstown Township, Pennsylvania. Three people were killed; three police officers were wounded. The shooter was killed by police.

Taft Union High School
On January 10, 2013, at 8:59 a.m., Bryan Oliver, 16, armed with a shotgun, allegedly began shooting in a science class at Taft Union High School in Taft, California. No one was killed; two people were wounded. An administrator persuaded the shooter to put the gun down before police arrived and took him into custody.
Osborn Maledon Law Firm
On January 30, 2013, at 10:45 a.m., Arthur Douglas Harmon, III, 70, armed with a handgun, began shooting during a mediation session in the Osborn Maledon law firm in Phoenix, Arizona. Two people were killed; one was wounded. The shooter later committed suicide at another location.

John’s Barbershop and Gaffey’s Clean Car Center
On March 13, 2013, at 9:30 a.m., Kurt Myers, 64, armed with a shotgun, began shooting in John’s Barbershop in Mohawk, New York, then drove to Gaffey’s Clean Car Center in nearby Herkimer, New York, and continued shooting. The shooter then barricaded himself in an abandoned building in the vicinity. Four people were killed; two were wounded. The shooter was killed later by federal law enforcement officers.

New River Community College, Satellite Campus
On April 12, 2013, at 1:55 p.m., Neil Allen MacInnis, 22, armed with a shotgun, began shooting in the New River Community College satellite campus in the New River Valley Mall in Christiansburg, Virginia. No one was killed; two were wounded. The shooter was apprehended by police after being detained by an off-duty mall security officer as he attempted to flee.

Pinewood Village Apartments
On April 21, 2013, at 9:30 p.m., Dennis Clark III, 27, armed with a handgun and a shotgun, began shooting in the Pinewood Village Apartments in Federal Way, Washington. He shot his girlfriend in an apartment and then walked outside and continued shooting. Four people were killed, including his girlfriend; no one was wounded. The shooter was killed by police.

Brady, Texas and Jacksonville, North Carolina
On May 26, 2013, at 4:30 a.m., Esteban Jimenez Smith, 23, armed with a rifle and a handgun, began shooting from a moving vehicle as he drove down a road in Brady, Texas. He had earlier fatally shot his wife in Jacksonville, North Carolina. Two people were killed, including his wife; five were wounded, including one police officer. The shooter was killed by police.

Santa Monica College and Residence
On June 7, 2013, at 11:52 a.m., John Zawahri, 23, armed with a handgun, fatally shot his father and brother in their home in Santa Monica, California. He then carjacked a vehicle and forced the driver to take him to the Santa Monica College campus. He allowed the driver to leave her vehicle unharmed but continued shooting until he was killed in an exchange of gunfire with police. Five people were killed; four were wounded.

Parking Lots for Kellum Law Firm and Walmart
On June 21, 2013, at 11:44 a.m., Lakin Anthony Faust, 23, armed with a shotgun, began shooting outside the Kellum Law Firm in Greenville, North Carolina and then crossed the street and continued shooting at individuals in the Walmart parking lot. No one was killed; four were wounded. The shooter was wounded during an exchange of gunfire with police and then taken into custody.
Hialeah Apartment Building
On July 26, 2013, at 6:30 p.m., Pedro Alberto Vargas, 42, set his apartment complex on fire in Hialeah, Florida. Then, armed with a handgun, he began shooting outside the complex. Six people were killed; no one was wounded. The shooter barricaded himself and two hostages inside the apartment building. He was killed by police.

Pennsylvania Municipal Building
On August 5, 2013, at 7:19 p.m., Rockne Warren Newell, 59, armed with a rifle and a handgun, entered the Ross Township Municipal Building in Saylorsburg, Pennsylvania, during a Ross Township meeting. He allegedly shot through a wall into the meeting room and then entered the room and continued firing. Newell had a history of disputes with the township over permits for his home. Three people were killed; two were wounded. The shooter was restrained by citizens until police arrived and took him into custody.

Lake Butler, Florida
On August 24, 2013, at 9:20 a.m., Hubert Allen Jr., 72, armed with a rifle and a shotgun, began shooting at his co-workers from Pritchett Trucking, Inc., as he drove around Lake Butler, Florida. He then returned home, where he committed suicide. Two people were killed; two were wounded.

Washington Navy Yard Building 197
On September 16, 2013, at 8:16 a.m., Aaron Alexis, 34, armed with a shotgun, began shooting in Building 197 at the Washington Navy Yard in Washington, D.C. During the shootings, he shot a security officer and took the officer’s handgun, allowing him to continue shooting when he ran out of shotgun shells. Twelve people were killed; seven were wounded, including two police officers. The shooter was killed by police.

Sparks Middle School
On October 21, 2013, at 7:16 a.m., Jose Reyes, 12, armed with a handgun, began shooting outside Sparks Middle School in Sparks, Nevada. A teacher was killed when he confronted the shooter; two people were wounded. The shooter committed suicide before police arrived.

Albuquerque, New Mexico
On October 26, 2013, at 11:20 a.m., Christopher Thomas Chase, 35, armed with three handguns and two rifles, began shooting at police officers in Albuquerque, New Mexico. The shooter, who was wearing body armor, forced a citizen to call the police and then ambushed and shot at the two responding officers before fleeing in their vehicle. Other officers were shot at while pursuing the shooter. No one was killed; four police officers were wounded. The shooter was killed by police during the pursuit, which ended when the vehicle crashed into a gas station pump.

Los Angeles International Airport
On November 1, 2013, at 9:18 a.m., Paul Anthony Ciancia, 23, armed with a rifle, allegedly began shooting in Terminal 3 of Los Angeles International Airport in Los Angeles, California. He pulled the gun from his duffle bag as he approached a security checkpoint, firing as he moved further into the terminal. One unarmed Transportation Security Administration security officer was killed and two were wounded; one additional citizen was also wounded. The shooter was wounded and then apprehended by police.
Arapahoe High School
On December 13, 2013, at 12:30 p.m., Karl Halverson Pierson, 18, armed with a shotgun, machete, and three Molotov cocktails, began shooting in the hallways of Arapahoe High School in Centennial, Colorado. As he moved through the school and into the library, he fired one additional round and lit a Molotov cocktail, throwing it into a bookcase and causing minor damage. One person was killed; no one was wounded. The shooter committed suicide as a school resource officer approached him.

Renown Regional Medical Center
On December 17, 2013, at 2:00 p.m., Alan Oliver Frazier, 51, armed with a shotgun and two handguns, began shooting in the Renown Regional Medical Center in Reno, Nevada. One person was killed; two were wounded. The shooter committed suicide at the scene after police arrived.
Appendix B:

METHODOLOGY

The agreed upon definition of an active shooter by U.S. government agencies—including the White House, U.S. Department of Justice/FBI, U.S. Department of Education, and U.S. Department of Homeland Security/Federal Emergency Management Agency—is “an individual actively engaged in killing or attempting to kill people in a confined and populated area.” The FBI extends this definition to include individuals, because more than one shooter could be involved in some incidents. Implicit in the definition is that the subject’s criminal actions undertaken include the use of a firearm. Though the federal definition includes the word confined, the FBI excluded this word when considering active shooter incidents. This is because the term confined could be interpreted to omit incidents that occurred outside a building, when in actuality, many incidents originated outside or progressed from indoors to outdoors, or vice-versa, or occurred entirely along a route of travel or at various locations.

The FBI developed discriminating factors to further differentiate potential active shooter incidents, considering for inclusion:

- Shootings in public places;
- Shootings occurring at more than one location;
- Shootings where the shooters’ actions did not appear to be another criminal act;
- Shootings resulting in a mass killing;
- Shootings indicating an apparent spontaneity by the shooter;
- Shootings where the shooters appeared to methodically search for potential victims; or
- Shootings that appeared focused on injury to people, not buildings or objects.

Because the risk to civilians in active shooter incidents appears to do with the apparent randomness of so many victims, for purposes of this study, an event was excluded if research established it involved primarily the following factors:

- Conflicts arising from self-defense;
- Gang violence;
- Contained residential or domestic disputes;
- Controlled barricade/hostage situations;
- Crossfire as a byproduct of another ongoing criminal act; or
- Drug violence.

To evaluate appropriate incidents to include and exclude, the FBI reviewed published studies and research articles on actual shooting incidents or related research conducted by other government agencies, appointed gubernatorial panels, local advisory commissions, and other public and private entities. Using the federal definition of active shooter and the

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general list of exclusionary and inclusionary factors, the FBI identified shooting incidents that occurred during the 2000 to 2013 time span that might fit into this study. This set of incidents was gathered from FBI data as well as other previously published lists of shooting incidents, including a comprehensive list of incidents developed by the New York Police Department and one of the most comprehensive studies of shooting incidents in the United States to date—a study from 2000 to 2010 conducted by researchers from Texas State University (TXST) and its Advanced Law Enforcement Rapid Response Training (ALERRT) Center. The FBI collected further data from law enforcement reports and internal and open source information. A panel representing local law enforcement, the FBI, and TXST then used a deliberative process to identify the 160 active shooter incidents for this study. Researchers from TXST were consulted extensively throughout this analytical effort.

35 Raymond W. Kelly, Police Commissioner, Recommendations and Analysis for Risk Mitigation, New York City Police Department, 2010.
38 The review panel consisted of: the senior executive agent in charge of the FBI’s Active Shooter Initiative, a professional staff member from the FBI’s Criminal Investigative Division, an FBI intelligence analyst, a lieutenant commander of the California Highway Patrol, and two members of the faculty and staff from Texas State University.
Appendix C:

INCIDENT LOCATIONS
The FBI identified 11 incident location categories, seeking to identify the primary location where the public was most at risk during an incident. For example, in 9 incidents, casualties occurred inside a private residence before a shooter moved to a more public area. In those incidents, the public area was identified as the primary location. In addition, some specialized business locations (i.e., malls and health care facilities) were separately identified.

DEFINITIONS OF LOCATION CATEGORIES:
Malls—Types of businesses typically consisting of more than one anchor store and many smaller businesses under a single roof, though they may include some open spaces. Strip malls, which typically provide no indoor open spaces and are often arranged in a single row, are included in the business category.

Businesses Open to Pedestrian Traffic—Private properties with the primary function of making, buying, or selling goods or providing services in exchange for money where pedestrian traffic is anticipated on a daily basis. Examples include restaurants, bars, law firms, theaters, grocery stores, private civic organization spaces, and event venues. This category does not include locations otherwise defined more exclusively in another category, such as malls or health care facilities, and institutions of higher education.

Businesses Closed to Pedestrian Traffic—Private properties primarily functioning in commerce without daily pedestrian traffic. Examples include manufacturing centers, packaging and distribution facilities and factories, warehouses, assembly plants, and commercial vehicle maintenance, storage, and repair facilities.

Schools—Public and private properties used for educating students from pre-kindergarten to 12th grade, as well as school administrative functions such as board and staff meetings.

Institutions of Higher Education—Public or private properties used for post-high school studies.

Other (Non-Military) Government Properties—Public properties owned by local, state, federal, or tribal governmental entities. Examples include courthouses, administrative buildings, and town halls. This category does not include locations otherwise defined more exclusively in another category such as military property or schools.

Open Spaces—Public or private properties openly accessible to the public. Incidents are categorized as occurring in open space if they take place primarily in an open air location rather than beginning or ending inside a building. Examples include incidents where the shooter is inside a moving car and incidents where the shooter acts while walking or running through public streets, open parking lots, or parks.

Military Properties—Public properties owned by the U.S. government and primarily reserved for the use of the U.S. military. Examples include military bases, airfields, sea ports, and training ranges.
Health Care Facilities—Public or private facilities that provide primary or secondary health services. Examples include hospitals, clinics, and urgent care, hospice care, and retirement facilities.

Houses of Worship—Public or private facilities used for religiously-sponsored activities at the time of an incident. This includes commercial properties used as houses of worship at the time of the incident. Examples include churches, temples, synagogues, mosques, and related religious gathering and retreat facilities.

Residences—Public or private single or multi-family places of residence.