

DEVELOPING EMERGENCY OPERATIONS PLANS

A Guide for Businesses

Practical advice on how to collaboratively develop and update plans and procedures to ensure the safety and security of stakeholders, personnel, and customers.

Includes best practices on preparing for and responding to active shooter incidents.

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Introduction and Purpose

Families and individuals out shopping and running errands may give little thought to what they might do in the case of an emergency. That is all the more reason that business owners consider what they can do to protect not only their employees but the customers in their care. Violent acts, earthquakes, and severe weather, including tornadoes, fire, floods, hurricanes, winter weather, and man-made violence can occur with little to no warning. In preparation, many businesses are developing and updating plans and procedures to ensure the safety and security of the business stakeholders and transient personnel.

In collaboration with business stakeholders, other businesses, and community partners (that is, governmental entities that have a responsibility in the plan, including first responders, public health officials, and mental health officials), businesses can take steps to plan for these potential emergencies through the creation of an emergency operations plan (EOP).

It is recommended that planning teams responsible for developing and revising a business's EOP use this document to guide their efforts. Users should read the entire document prior to initiating their planning efforts and refer back to it throughout the planning process. The guide is organized into three sections:

- Planning Principles
- The Planning Process
- Active Shooter/Targeted Violence and Other Mass Casualty Situations

This guide, developed by the Federal Bureau of Investigation (FBI) and consistent with guidance from the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) and other federal agencies, is designed to be scalable depending on corporate size and to help businesses anticipate concerns and solutions. Used in its entirety, the guide provides information on the fundamentals of planning and their application. (Citations and links for additional resource materials are included in the endnotes section.) At a minimum, businesses are encouraged to complete the planning process and develop a basic plan. This guide does not impose any new federal requirements. While some federal requirements may apply to businesses that receive federal funding, they are not addressed in this document.

Emergency planning efforts work best when they are aligned with emergency planning practices at the local, state, and national levels. Recent developments have put a new emphasis on the process for developing EOPs. National preparedness efforts, including planning, are informed by *Presidential Policy Directive/PPD-8: National Preparedness*, which was signed on March 30, 2011. PPD-8 represents an evolution in our collective understanding of national preparedness, based on the lessons learned from criminal activities, hurricanes, and other natural disasters.

PPD-8 defines preparedness around five mission areas: Prevention, Protection, Mitigation, Response, and Recovery.

- Prevention, for the purposes of this guide, means the capabilities necessary to avoid, deter, or stop an imminent crime or a threatened or actual mass casualty incident.
 Prevention is the action businesses take to prevent a threatened or actual incident from occurring.
- Protection means the capabilities to secure businesses against acts of terrorism and man-made or natural disasters. Protection focuses on ongoing actions that protect people, networks, and property from a threat or hazard.
- Mitigation means the capabilities necessary to eliminate or reduce the loss of life and property damage by lessening the impact of an incident. In this guide, mitigation also means reducing the likelihood that threats and hazards will happen.
- **Response** means the capabilities necessary to stabilize an incident once it has already happened or is certain to happen in an unpreventable way, establish a safe and secure environment, save lives and property, and facilitate the transition to recovery.
- **Recovery** means the capabilities necessary to assist businesses affected by an incident in restoring their environment.

Emergency management officials and emergency responders engaging with businesses are familiar with this terminology. These mission areas generally align with the three time frames associated with an incident: before, during, and after. The majority of Prevention, Protection, and Mitigation activities generally occur before an incident, although these three mission areas do have ongoing activities that can occur throughout the incident. Response activities occur during an incident and Recovery activities can begin during an incident and occur after an incident. To help avoid confusion over terms and allow for ease of reference, this guide uses the terms *before*, *during*, and *after*.

As businesses plan for and execute response and recovery activities through the EOP, they should consider using the concepts and principles of the National Incident Management System (NIMS). NIMS provides everyone involved with a common language and common understanding of roles and responsibilities during a response to incidents. Businesses may also find NIMS suitable for managing other large-scale, non-emergency events, such as fairs or festivals. One component of NIMS is the Incident Command System (ICS), which provides a standardized approach for incident management, regardless of cause, size, location, or complexity. By using ICS during an incident, businesses will be able to work more effectively with the responders in their community.³

While some of the vocabulary, processes, and approaches discussed in this guide may be new to some businesses' stakeholders, they are critical to the creation of emergency management practices and plans that are integrated with the efforts of first responders (for example, fire, law enforcement, emergency medical services [EMS]) and other key stakeholders. If a business has an existing plan, revising and adapting that plan using the principles and processes described in this guide will help ensure alignment with the

terminology and approaches used across the Nation, including the first responders the business will need to collaborate with before, during, and after an incident.

Planning Principles

The following principles are key to developing a business EOP that addresses a range of threats and hazards:

- Planning should be supported by leadership. The leadership of the business should initiate and support planning efforts to ensure engagement, participation, and outreach to all business stakeholders. Regardless of the size of the business, one or more persons should lead emergency planning efforts.
- Planning considers all threats and hazards. The planning process should take into account a wide range of possible threats and hazards that may affect the business. Emergency operations planning should consider all threats and hazards throughout the planning process, addressing safety needs before, during, and after an incident.
- Planning considers all settings and all times. It is important to remember that threats and hazards can affect a business at nonstandard times (for example, when facilities are shut down for the evening), as well as off-site (for example, a nearby emergency that may block roads or access to the business).
- Planning provides for the access and functional needs of the entire business community. The entire business community includes regular employees of the business; patrons, including those with disabilities and others with access and functional needs; individuals from racially and ethnically diverse backgrounds; and people with limited English language proficiency.
- A model EOP is created by following a collaborative process. The guide provides a process, plan format, and content guidance that is flexible enough for use by all business emergency planning teams. If the planning team also uses templates, it should take steps to first evaluate their usefulness to ensure the tools do not undermine the collaborative initiative and collectively shared plan. There are some jurisdictions that provide templates and these will reflect local and state mandates, as applicable.

The Planning Process

There are many ways to develop a plan. The planning process discussed in this section is flexible and can be adapted to accommodate a business's unique characteristics and situation. Effective emergency operation planning is not done in isolation. It is critical that businesses work with their local emergency management agency and community partners, including first responders, during the planning process, as an effective business EOP is integrated with community, regional, and state plans. This collaboration makes more resources available and helps to ensure the seamless integration of all responders.

Figure 1 depicts the six steps in the planning process.⁴ At each step in the planning process, businesses should consider the impact of their decisions on ongoing activities such as training and exercises, as well as on equipment and resources.

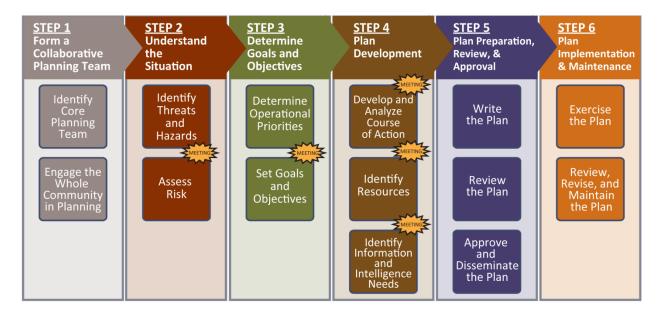


Figure 1: Steps in the Planning Process

Step 1: Form a Collaborative Planning Team

Experience and lessons learned indicate that operational planning is best performed by a team. Case studies reinforce this concept by pointing out that the common thread found in successful operations is that participating organizations have understood and accepted their roles. Close collaboration between businesses and surrounding community partners, including first responders, ensures the coordination of efforts and the integration of plans. Businesses may consider joining or collaborating with other nearby businesses to form joint emergency planning teams. This may be particularly valuable and necessary when the business is part of a broader indoor or outdoor complex of contiguous stores (for example, a strip-mall, outlet shopping center, and indoor mall). In addition, first responders and emergency managers may want to work with multiple businesses to address common goals and objectives.

Identify Core Planning Team

The core planning team should include representatives from across the business organization, as well as first responders and other stakeholders who may have roles and responsibilities in the business's emergency management before, during, and after an incident. Some businesses may have current or former first responders or others with special emergency planning expertise within their organization. Their expertise can help inform the development, implementation, and refinement of the business's plan. Where possible, consider including representatives from the surrounding community that may be called on for assistance during or after an emergency. The planning team should be small enough to permit close collaboration, yet large enough to be representative of the business, its stakeholders, and its surrounding community partners. It should also be large enough that it does not place an undue burden on any single person.

The planning team may include but not be limited to the following:

- Business Components
 - Corporate
 - Operations
 - Facilities
 - Customer Service
 - Corporate Security
 - Emergency Preparedness
 - Store Managers
 - Information Technology
 - Legal
 - External Affairs
 - Media Relations
- Public Safety
 - Police Department/Agency
 - Fire Department/Rescue
 - Emergency Medical Services
 - FBI
 - FBI Joint Terrorism Task Force (JTTF)
 - State and Major Urban Area Fusion Centers
- External and Mutual Aid Partners
 - Additional Stakeholders (for example, frequent vendors)
 - Nearby businesses/public facilities
 - Community Services
 - Hospitals

Connecting the Planning Team to Local or State, Tribal, Regional, and Federal Emergency Planning

Businesses undertake emergency operations planning within the context of local or state, tribal, regional, and federal agency emergency planning. In order to promote coordination among these entities, the planning team is strongly encouraged to include a local or regional emergency planning representative. Similarly, representatives from the planning team should participate on their partners' teams.

In addition, the planning team should be aware from the onset of any local, state, or federal requirements that may apply to the business EOP.

Form a Common Framework

All team members should consider taking time to learn each other's vocabulary, command structure, and culture in order to facilitate effective planning.

Define and Assign Roles and Responsibilities

Each person involved in the development and refinement of the plan should know his or her role and responsibility in the planning process, as well as generally understand others' roles so he or she knows with whom to speak regarding particular issues and questions that might arise during the planning process.

Determine a Regular Schedule of Meetings

Regularly scheduled planning meetings reinforce the ongoing planning effort. Establishing a flexible but regular schedule of meeting times will facilitate greater collaboration, coordination, and communication among team members and will help solidify crucial relationships.

Step 1 Outcome

After completing Step 1, the business will have formed a planning team with representation from all necessary stakeholders. The planning team will have taken initial steps to form a common framework, define and assign roles and responsibilities in the planning process, and set a schedule of planning meetings.



Step 2: Understand the Situation

In Step 2, the planning team identifies possible threats and hazards and assesses the risks and vulnerabilities posed by those threats and hazards. Effective emergency planning depends on an analysis and comparison of the threats and hazards a particular business faces. This is typically performed through a threat and hazard identification and risk assessment process that collects information about threats and hazards and assigns values to risk for the purposes of deciding which threats and hazards the plan should prioritize and subsequently address.

Identify Threats and Hazards

The planning team first needs to understand and anticipate the threats and hazards faced by the business and the surrounding community. The planning team can draw upon a wealth of existing information to identify the range of threats and hazards that may be faced by the business. First, the planning team members should share their own knowledge and expertise of threats and hazards the business and surrounding community has faced in the past or may face in the future. Businesses should work with their local

emergency management agency to obtain a copy of the local, state, tribal, or federal risk assessments. These assessments contain information regarding the potential threats and hazards in the community that may also affect the business.

Assess the Risk Posed by Identified Threats and Hazards

Once an initial set of threats and hazards has been identified through the process described above, the planning team should select suitable assessment tools to evaluate the risk posed by the identified threats and hazards. Evaluating risk involves understanding the probability that the specific threat or hazard will occur and the effects the threat or hazard will likely have, including the severity, the time the business will have to warn occupants about the threat or hazard, and how long the threat or hazard may last.

The locale's investigative and intelligence community, which is made up of local, state, tribal, and federal partners and associated emergency management agencies, should be able to provide information on the threats and hazards identified for the surrounding community. The FBI's JTTF and state and major urban area fusion centers, in particular, are valuable sources of intelligence. This enables the planning team to focus its assessment efforts on threats and hazards unique to the business, as well as the particular vulnerabilities of a business elsewhere within the same business sector. ⁶ Assessing risk and vulnerability enables the planning team to focus its efforts on prioritized threats and hazards

A site assessment examines the safety, accessibility, and emergency preparedness of the business's buildings and grounds. This assessment includes, but is not limited to, a review of the interior of the business and building access, visibility around the exterior of the building or buildings, structural integrity of the building or buildings, perimeters, and emergency vehicle access and compliance with applicable architectural standards for individuals with disabilities and others with access and functional needs. The planning team also may identify additional threats and hazards through the site assessment process.

After conducting threat and hazard identification, the planning team should organize the information into a format that is useful for comparing the risks posed by the identified threats and hazards. This information will then be used to assess and compare the threats and hazards and their likely consequences, commonly referred to as a risk assessment. One effective method for organizing information is to create a table with information about each possible threat and hazard, including any new threats or hazards identified through the assessment process. The table should include:

- The probability or frequency of occurrence (that is, how often it may occur).
- The magnitude (that is, the extent of expected damage).
- The time available to warn occupants.
- The duration (that is, how long the threat or hazard will be occurring).
- The follow-on effects.

Prioritize Threats and Hazards

The planning team should use the information it has organized to compare and prioritize risks posed by the threats and hazards. This will allow the team to decide which threats or hazards it will directly address in the plan. The team should consider multiple factors in order to develop an indicator of risk. One option is a mathematical approach, which assigns index numbers (for example, a 1 to 4 scale) for different categories of information used in the ranking scheme. Using this approach, the planning team can categorize threats and hazards as posing a relatively high, medium, or low risk. Table 1 provides an example risk assessment worksheet for comparing and prioritizing threats and hazards.

Hazard **Probability** Magnitude **Duration Risk Priority** Warning 4. Highly Likely 4. Catastrophic 4. Minimal 4. 12+ Hrs. □ High 3. Likely 3. Critical 3. 6-12 Hrs. 3. 6-12 Hrs. □ Medium Fire 2. Limited 2. 12-24 Hrs. 2. 3-6 Hrs. 2. Possible □ Low 1. Unlikely 1. Negligible 1. 24+ Hrs. 1. <3 Hrs. 4. Highly Likely 4. Catastrophic 4. Minimal 4. 12+ Hrs. □ High 3. Likely 3. Critical 3. 6-12 Hrs. 3. 6-12 Hrs. □ Medium Active Shooter 2. Possible 2. Limited 2. 12-24 Hrs. 2. 3-6 Hrs. □ Low 1. Unlikely 1. Negligible 1. 24+ Hrs. 1. <3 Hrs.

Table 1: Sample Risk Assessment Worksheet

Step 2 Outcome

After completing Step 2, the planning team will have a prioritized (for example, high, medium, or low risk) list of threats and hazards based on results of the threat and hazard identification and risk assessment.



Step 3: Determine Goals and Objectives

In Step 3, the planning team decides which of the threats and hazards identified in Step 2 will be addressed in the business's plan. The planning team may decide to address only those threats and hazards that were classified as high risk, or to include some of the threats and hazards that were classified as medium risk as well. This is a critical decision point in the planning process. It is recommended that the planning team address more than only the high-risk threats and hazards.

Develop Goals and Objectives

Once the planning team has determined the threats and hazards that will be addressed in the plan, it should develop goals and objectives for each threat or hazard.

Goals are broad, general statements that indicate the desired outcome in response to a threat or hazard. Goals are what personnel and other resources are supposed to achieve. Goals also help identify when major activities are complete and what defines a successful outcome.

The planning team should develop at least three goals for addressing each threat or hazard (although the planning team may want to identify more). Those three goals should indicate the desired outcome for before, during, and after the threat or hazard.

Example: Goals for a Fire Hazard

Three possible goals for a fire hazard include:

- Goal 1 (Before): Prevent a fire from occurring on business property.
- Goal 2 (During): Protect all persons and property from injury by the fire.
- Goal 3 (After): Provide necessary medical attention to those in need.

Objectives are specific, measurable actions that are necessary to achieve the goals. Often, planners will need to identify multiple objectives in support of a single goal.

After the planning team has developed the objectives for each goal, it will find that certain critical functions or activities apply to more than one threat or hazard. Examples of these cross-cutting functions include evacuation, sheltering-in-place, and lockdown. After identifying these functions, the planning team should develop three goals for each function. As with goals already identified for threats and hazards, the three goals should indicate the desired outcome for before, during, and after the function has been executed. These commonly occurring functions will be contained in functional annexes to the plan. More details on these functions are included in the **Plan Content** section of this guide, including issues to consider as goals and objectives are developed for these functions. Once the goals for a function are identified, possible supporting objectives can then be identified.

Step 3 Outcome

After completing Step 3, the planning team will have at least three goals for each threat or hazard and function, as well as objectives for each goal.



Step 4: Plan Development (Identifying Courses of Action)

In Step 4, the planning team develops courses of action for accomplishing each of the objectives identified in Step 3 (for threats, hazards, and functions). Courses of action address the who/what/when/where/why/how questions for each threat or

hazard and function. The planning team should examine each course of action to determine whether it is feasible and whether it is acceptable to the stakeholders necessary to implement it. For additional considerations for developing courses of action, please see the **Plan Content** section of this guide.

Courses of action include criteria for determining when and how each response will be implemented under a variety of circumstances. Subsequently, the planning team develops response protocols and procedures to support these efforts. Possible courses of action typically:

- **Depict the scenario.** Create a potential scenario based on the threats and hazards identified earlier in the planning process.
- Determine the amount of time available to respond. This will vary based on the type of threat or hazard and the particular scenario. For example, in the case of a hurricane, the business might have days or hours to respond before the storm makes landfall, while the business will have to respond in minutes to an active shooter.
- Identify decision points. Decision points indicate the place in time, as threats or hazards unfold, when leaders anticipate making decisions about a course of action. Walking through each scenario in detail will help identify the relevant decision points for each scenario, such as whether to evacuate, shelter-in-place, or go into lockdown.
- Develop courses of action. Planners develop courses of action to achieve their goals and objectives by answering the following questions:
 - What is the action?
 - Who is responsible for the action?
 - When does the action take place?
 - Where does the action take place?
 - How long should the action take and how much time is available?
 - What has to happen before the action?
 - What happens after the action?
 - What resources and skills are needed to perform the action?
 - How will this action affect specific populations, such as children, seniors, and individuals with disabilities and others with access and functional needs?
- Select courses of action. After developing courses of action, planners compare the costs and benefits of each proposed course of action against the goals and objectives. Based on this comparison, planners select the preferred course to move forward in the planning process. Plans often include multiple courses of action for a given scenario to reflect the different ways it could unfold.

After selecting courses of action, the planning team should identify the resources necessary to accomplish each course of action without regard to resource availability. Once the planning team identifies all of the resource requirements, they begin matching available resources to the requirements. This step provides planners with an opportunity to identify resource gaps or shortfalls that should be taken into account.

Step 4 Outcome

After completing Step 4, the planning team will have identified goals, objectives, and courses of action before, during, and after threats or hazards and functions. Goals, objectives, and courses of action for threats and hazards will be contained in the threat- and hazard-specific annexes of this plan. Goals, objectives, and courses of action for functions will be contained in the functional annexes of this plan.



Step 5: Plan Preparation, Review, and Approval

In Step 5, the planning team develops a draft of the EOP using the courses of action developed in Step 4. In addition, the team reviews the plan, obtains official approval, and shares the plan with surrounding community partners and other stakeholders.

Format the Plan

An effective plan is presented in a way that makes it easy for users to find information that is compatible with local and state plans. This may include the use of plain language, providing pictures or visual cues for key action steps. This guide presents a traditional format that can be tailored to meet individual business needs. This format has three major sections: the basic plan, functional annexes, and threat- and hazard-specific annexes.3.

The basic plan provides an overview of the business's approach to emergency operations. Although the basic plan guides the development of the more operationally oriented annexes, its primary audience consists of the business stakeholders, local emergency management officials, and the surrounding community (as appropriate). The elements listed in this section should meet the needs of this audience while providing a solid foundation for the development of supporting annexes.

The functional annexes detail the goals, objectives, and courses of action of functions (for example, evacuation, lockdown, and recovery) that apply across

multiple threats or hazards. Functional annexes discuss how the business manages specific aspects of an emergency before, during, and after an incident.

The threat- and hazard-specific annexes specify the goals, objectives, and courses of action that a business will follow to address a particular type of threat or hazard (for example, a hurricane or active shooter). Threat- and hazard-specific annexes, like the functional annexes, discuss how the business manages a threat or hazard before, during, and after an incident.

The following functional format can be used for the functional annexes as well as the threat- and hazard-specific annexes. Using the following format and the work the planning team did in Step 4, each function, threat, and hazard will have at least three goals, with one or more objectives for each goal and a course of action for each objective.

Sample Annex Format

- Title (Function, Threat, or Hazard)
- Goal(s)
- Objective(s)
- Course(s) of Action (i.e., describe the courses of action developed in Step 4 in the sequence in which they will occur)

Figure 2 outlines the different components of each of these three sections.

The **Plan Content** section of this guide discusses content for each of these components. The format presented in this guide can be used for both the basic plan and annexes. Each function, threat, or hazard will have at least three goals, with one or more objectives for each goal, and a course of action for each of the objectives. Each annex should specify the title of the annex and list the goals, objectives, and courses of action (in the sequence in which they would occur).

Basic Plan

- 1. Introductory Material
 - 1.1. Promulgation Document/Signatures
 - 1.2. Approval and Implementation
 - 1.3. Record of Changes
 - 1.4. Record of Distribution
 - 1.5. Table of Contents
- 2. Purpose and Situation Overview
 - 2.1. Purpose
 - 2.2. Situation Overview
- 3. Concept of Operations
- 4. Organization and Assignment of Responsibilities
- 5. Direction, Control, and Coordination
- 6. Information Collection, Analysis, and Dissemination
- 7. Training and Exercises

Functional Annexes

(Note: This is a not a complete list; however, it is recommended that all plans include these functional annexes.)

- 1. Evacuation
- 2. Lockdown
- 3. Shelter-in-Place
- 4. Recovery
- 5. Security

Hazard-, Threat-, or Incident- Specific Annexes

(Note: This is not a complete list. Each business's annexes will vary based on their threat and hazard identification and risk assessment.)

- 1. Severe Storm
- Earthquake

8.	Administration, Finance, and Logistics	3.	Tornado
9.	Plan Development and Maintenance	4.	Active Shooter
10	. Authorities and References		

Figure 2: Traditional Functional EOP Format

Write the Plan

As the planning team works through successive drafts of the plan, the members add necessary tables, charts, and other supporting graphics. The planning team prepares and circulates a draft plan to obtain the comments of stakeholders who have responsibilities for implementing the plan. Successful plans reflect these simple rules:

- Use clear and simple writing with plain language.
- Summarize important information with checklists and visual aids, such as maps and flowcharts.
- Avoid using jargon and minimize the use of abbreviations.
- Use short sentences and the active voice. Qualifiers and vague wording create confusion.
- Use a logical, consistent structure that makes it easy for readers to understand the rationale for the sequence of information and to find the information they need.
- Provide enough detail to convey an easily understood plan that is actionable. Organize the contents in a way that helps users quickly identify solutions and options. Plans should provide guidance for carrying out common courses of action, through the functional- and threat- and hazard-specific annexes, but "stay out of the weeds."
- Develop accessible tools and documents. Use appropriate auxiliary aids and services necessary for effective communication, such as accessible Web sites; convert digital text to audio or Braille; use text equivalents for images; and caption audio of video content.

Review the Plan

Planners should check the written plan for compliance with applicable laws and for its usefulness in practice. Commonly used criteria can help determine the effectiveness and efficiency of the plan. The following measures can help determine if a plan is high quality.

- A plan is **adequate** if the plan identifies and addresses critical courses of action effectively, the plan can accomplish the assigned function, and the plan's assumptions are valid and reasonable.
- A plan is **feasible** if the business can accomplish the assigned critical courses of action by using available resources within the time contemplated by the plan.

- A plan is **acceptable** if it meets the requirements driven by a threat or hazard, meets costs and time limitations, and is consistent with the law.
- A plan is complete if it:
 - Incorporates all courses of action to be accomplished for all selected threats and hazards and identified functions.
 - Integrates the needs of the entire business population.
 - Provides a complete picture of what should happen, when, and at whose direction.
 - Makes time estimates for achieving objectives, with safety remaining the utmost priority.
 - Identifies success criteria and a desired end-state.
 - Is developed with the planning principles described in this guide.
- The plan should **comply** with the applicable local and state requirements as they provide a baseline that facilitates both planning and execution.

The planning team does not have to provide all of the resources needed to execute a course of action or meet a requirement established during the planning effort. However, the plan should explain where or how the business would obtain the resources to support those requirements.

Approve and Share the Plan

After finalizing the plan, the planning team should present the plan to the appropriate leadership and obtain official approval of the plan. Once approval is granted, the planning team should share the plan with local emergency management officials and surrounding community partners that have a role in the plan. The planning team should maintain a record of the people and partners that receive a copy of the plan.

Step 5 Outcome

After completing Step 5, the planning team will have a final EOP for the business.



Step 6: Plan Implementation and Maintenance

Train Business Stakeholders on the Plan and Their Roles

Everyone involved in the plan (for example, employees, frequent vendors, customer service, and facilities) needs to know his or her roles and responsibilities in the phases before, during, and after an incident. Key training components include:

- Holding a meeting. At least once a year, hold a meeting or series of meetings to educate all parties on the plan. Go through the plan in order to familiarize business stakeholders.
- Visiting evacuation sites. Show involved parties not only where evacuation sites are located, but also where specific areas, such as reunification areas, media areas, and triage areas, will be located.
- Giving business stakeholders appropriate and relevant literature on the plan, policies, and procedures. It may also be helpful to provide them with quick reference guides that remind them of key courses of action.
- Posting key information throughout the business. It is important that business stakeholders are familiar with and have easy access to information such as evacuation routes and shelter-in-place procedures and locations. Ensure information concerning evacuation routes and shelter-in-place procedures and locations is communicated effectively to business stakeholders with disabilities and others with access and functional needs. Clear signage should be posted for business patrons, including evacuation routes and shelter-in-place locations.
- Familiarizing business stakeholders with the plan and the role of community partners. Bringing law enforcement, fire, EMS personnel, and community partners who have a role in the plan into the business to talk about the plan will make stakeholders and others more comfortable working with these partners.
- Training business stakeholders on the skills necessary to fulfill their roles. Persons will be assigned specific roles in the plan that will require special skills, such as first aid, how to use ICS, and the provision of services for children, seniors, and individuals with disabilities and others with access and functional needs.

Exercise the Plan

The more a plan is practiced and business stakeholders are trained on the plan, the more effectively they will be able to act before, during, and after an incident to lessen the impact on life and property. Exercises provide opportunities to practice with local emergency management officials and community partners, as well as to identify gaps and weaknesses in the plan. The following exercises require increasing amounts of planning, time, and resources. Ideally, businesses will create an exercise program, building from a tabletop exercise to a more advanced exercise, like a functional exercise.

■ **Tabletop exercises** are small group discussions that walk through a scenario and the courses of action a business will need to take before, during, and after an incident. This activity helps assess the plan and resources and facilitates an understanding of emergency management and planning concepts.

- Drills allow local emergency management officials, community partners, and relevant business stakeholders to use the actual business grounds and buildings to practice responding to a scenario.
- Functional exercises are similar to drills, but involve multiple partners. Participants react to realistic simulated events (for example, a bomb threat or an active shooter) and implement the plan and procedures using ICS.
- Full-scale exercises are the most time-consuming activity in the exercise continuum and are multiagency, multijurisdictional efforts in which resources are deployed. This type of exercise tests collaboration among the agencies and participants, the business stakeholders, public information systems, communications systems, and equipment. An emergency operations center is established (usually by the local emergency management agency) and ICS is activated.

Before making a decision about how many and which types of exercises to implement, a business should consider the costs and benefits. Businesses also should consider having a representative(s) participate in larger community exercises to ensure that their efforts are synchronized with the entire community's efforts.

It is up to the planning team to decide how often exercises should be conducted. While frequent exercises are important, it is imperative that exercises are of high quality. To conduct an exercise effectively:

- Include local emergency management officials and community partners.
- Communicate information in advance to avoid confusion and concern.
- Exercise under different and nonideal conditions (for example, time of day [peak and nonpeak hours] and weather).
- Be consistent with common emergency management terminology.
- Debrief and develop an after-action report that evaluates results, identifies gaps or shortfalls, and documents lessons learned.
- Discuss how the plan and procedures will be modified, if needed, and specify who has the responsibility for modifying the plan.

Review, Revise, and Maintain the Plan

Planning is a continuous process that does not stop when the plan is published. Plans should evolve as lessons are learned, new information and insights are obtained, new threats or hazards emerge, and priorities are updated. Reviews should be a recurring activity. Planning teams should establish a process for reviewing and revising the plan. Plans should include elements of and be consistent with the security plans of a larger business interest of which they are merely a part, such as a mall. Many organizations review their plans on an annual basis. In no case should any part of the plan go more than two years without being reviewed and revised.

Some organizations have found it useful to review and revise portions instead of reviewing the entire plan at once. Certain events will provide new information that will be used to inform the plan. Businesses should consider reviewing and updating their plan after:

- Actual emergencies.
- Changes in policy, personnel, organizational structures, processes, facilities, equipment, or membership size.
- Formal updates of planning guidance or standards.
- Formal exercises.
- Threats or hazards changes or new threats or hazards emerge.
- Changes in the business's demographics (for example, changing language needs) or site assessment.

The planning team should ensure that all local emergency management officials and community partners have the most current version of the business's plan.

Plan Content

Step 5 of the planning process in this guide introduced a format with three sections for businesses to follow in developing an EOP. This section provides greater detail about what each of the three sections should include and provides some key considerations in developing the content.

Basic Plan

The basic plan provides an overview of the business's approach to operations before, during, and after an incident. This section addresses the overarching activities the business undertakes regardless of the function, threat, or hazard. The content in this section provides a solid foundation for the business's operations. The information in this section should not duplicate information contained in other sections of the plan. Almost all of the information contained in the basic plan should be able to come from the planning team. If the planning team finds that it has to go outside the planning team for a significant amount of information, it may be an indication that the planning team membership needs to be expanded.

Introductory Material

Introductory material can enhance accountability with local emergency management officials and community partners and make a plan easier to use. Typical introductory material includes:

- Cover Page. The cover page has the title of the plan. It should include a date and identify the business covered by the plan.
- **Promulgation Document/Signature Page.** This document/page is a signed statement formally recognizing and adopting the plan as the business's plan. It

gives both the authority and the responsibility to business leadership to perform their tasks before, during, and after an incident, and therefore should be signed by the business's senior leadership.

- Approval and Implementation Page. The approval and implementation page introduces the plan, outlines its applicability, and indicates that it supersedes all previous plans. It should include a delegation of authority statement that identifies the individual(s) who can make specific modifications to the plan without the signature of leadership. It should be dated and signed by the business's senior leadership.
- **Record of Changes.** Each update or change to the plan should be tracked. The record of changes, usually in a table format, contains, at a minimum, a change number, the date of the change, the name of the person who made the change, and a summary of the change.
- Record of Distribution. The record of distribution, usually in a table format, indicates the title and the name of the person receiving the plan and his or her organization, the date of delivery, and the number of copies delivered. Other relevant information could be considered. The record of distribution can be used to prove that tasked individuals and organizations have acknowledged their receipt, review, and/or acceptance of the plan.
- **Table of Contents.** The table of contents is a logically ordered and clearly identified layout of the major sections and subsections of the plan that will make finding information within the plan easier.

Purpose and Situation Overview

This section includes the following components:

- Purpose. The purpose sets the foundation of the rest of the plan. The basic plan's purpose is a general statement of what the plan is meant to do. The statement should be supported by a brief synopsis of the basic plan and annexes.
- **Situation Overview.** The situation overview explains why the plan is necessary. The situation overview covers a general discussion of:
 - The threats and hazards that pose a risk to the business and would result in a need to use the plan.
 - Dependencies on parties outside the business for critical resources.

Concept of Operations

This section explains in broad terms the decision maker's intent with regard to an operation. This section provides an overall impression of how the business will protect its occupants and should:

- Identify those with authority to activate the plan.
- Describe the process by which the business coordinates with all appropriate agencies within the jurisdiction.

- Describe how plans take into account the architectural, programmatic, and communication needs of children, seniors, and individuals with disabilities and others with access and functional needs (including their service animals).
- Identify other response/support agency plans that directly support the implementation of the plan (for example, a city, county, or state EOP).
- Explain that the primary purpose of actions taken before an incident is to prevent, protect against, and mitigate the impact on life, property, or business operations.
- Explain that the primary purpose of actions taken during an incident is to respond to the incident and minimize its impact on life, property, or business operations.
- Explain that the primary purpose of actions taken after an incident is to recover from its impact on life or property and to restore business operations.

Organization and Assignment of Responsibilities

This section provides an overview of the broad roles and responsibilities of business leadership and staff, local emergency management officials, and community partners as well as an overview of organizational functions during all incidents. This section should:

- Describe the roles and responsibilities of each individual/organization that apply during an incident (response), including, but not limited to, business leadership, staff, community leadership, stakeholders, and local departments and agencies (for example, fire, law enforcement, EMS, emergency management).
- Describe informal and formal agreements (for example, mutual aid agreements) in place for a quick activation and sharing of resources during an incident (for example, evacuation locations); agreements may be between the business and response organizations (for example, fire, law enforcement, and EMS) and between the business and other organizations and businesses.

Direction, Control, and Coordination

This section describes the framework for all direction, control, and coordination activities. This section should:

- Describe the chain of command and delineation of authority used by the business (for example, authority to close/reopen business operations).
- Describe the relationship between the business's plan and the surrounding community's emergency management system.
- Describe who has control of equipment, resources, and supplies needed to support the plan.

Information Collection, Analysis, and Dissemination

This section addresses the role of information in the successful implementation of activities that occur before, during, and after an incident. The section should:

- Identify the type of information in the successful implementation of the activities that occur before, during, and after an emergency, such as:
 - Weather reports, law enforcement alerts, intelligence, National Oceanic and Atmospheric Administration radio alerts, and crime reports for activities that occur before an incident.
 - Web sites and hotlines for mental health agencies, emergency management agencies, and relief agencies assisting in all aspects of recovery for activities that occur after an incident.
- Provide answers to the following questions for each of the identified types of information:
 - What is the source of the information?
 - Who analyzes and uses the information?
 - How is the information collected and shared?
 - What is the format for providing the information to those who will use it?
 - When should the information be collected and shared?

Training and Exercises

This section describes the critical training and exercise activities the business will use in support of the plan. This includes the core training objectives and frequency to ensure that business stakeholders understand roles, responsibilities, and expectations. This section also establishes the expected frequency of exercises to be conducted by the business. Content may be informed by federal requirements, best practices, and local-level requirements.

Sharing Information with First Responders

The planning process is not complete until the business's EOP is shared with first responders. Planning should include preparing an up-to-date and well-documented site assessment first responders can rely on for assistance. These materials should include internal and external building schematics, to include information about entrance and exits, as well as locks and access controls, and photos of the schematics. Emergency responders also should have advance information on where individuals are likely to be sheltering or evacuating along accessible routes. Building strong partnerships with law enforcement, fire, and EMS includes ensuring they also know the location of available public address systems, two-way communications systems, security cameras, and alarm controls. Equally important is information on access to utility controls, medical supplies, and law enforcement equipment.

Providing detailed information to first responders allows them to rapidly move through the business's facilities and grounds, ensure areas are safe, and tend to those in need. It is critically important to share this information with law enforcement and other first responders before an emergency occurs so that they have immediate access to the information. Law enforcement agencies have secure Web sites where these items already are stored for many schools, businesses, public venues, and other locations. All of these can be provided to first responders and viewed during drills, exercises, and walk-throughs.

Technology and tools with the same information should be maintained in secured locations where designated staff for the business can immediately provide them to responding officials or where first responders can directly access them. The locations of these materials should be known by and accessible to a number of individuals to ensure ready access in an emergency. Every business should have more than one individual charged with meeting first responders to provide them with the site assessment, the EOP, and any other details about facility safety and concerns.¹⁰

Administration, Finance, and Logistics

This section covers general support requirements and the availability of services and support for all types of incidents, as well as general policies for managing resources. It should identify and reference policies and procedures that exist outside of the plan. This section should:

- Identify administrative controls and requirements that will be used to provide resource and expenditure accountability.
- Briefly describe how the business will maintain accurate logs of key activities.
- Briefly describe how vital records will be preserved.
- Identify sources for replacement of assets.
- Identify general policies for keeping financial records, tracking resource needs, monitoring the source and use of resources, acquiring ownership of resources, and other compensation concerns related to the response.

Plan Development and Maintenance

This section discusses the overall approach to planning and the assignment of plan development and maintenance responsibilities. The section should:

- Describe the planning process, participants in that process, and how development and revision of different sections of the plan (for example, basic plan and annexes) are coordinated prior to an incident.
- Assign responsibility for the overall planning and coordination to a specific position or person.
- Provide for a regular cycle of training, evaluating, reviewing, and updating the plan.

Authorities and References

This section provides the legal basis for emergency operations and includes:

- Lists of laws, statutes, ordinances, executive orders, regulations, and formal agreements relevant to emergencies in businesses.
- Provisions for the succession of decision-making authority and operational control to ensure that critical emergency functions can be performed in the absence of the business's senior leadership.

Functional Annexes

Functional annexes focus on critical operational functions and the courses of action developed to carry them out. This section describes functional annexes the business should develop as part of the plan. As the planning team assesses the business's needs, it may need to prepare additional or different annexes. Also included in this section are issues the planning team should consider as it develops goals, objectives, and courses of action for these functions. These are some of the most important issues, but this is not meant to be an exhaustive list.

Functions may occur consecutively or concurrently, depending on the incident. While functions build upon one another and overlap, it is not necessary to repeat a course of action in one functional annex if it appears in a second functional annex.

Evacuation Annex

This annex focuses on the courses of action that the business will execute to evacuate buildings and grounds. The evacuation plan should include public and employee-only areas, storage areas and, potentially, areas adjacent to the building. Business stakeholders should be familiar with designated evacuation routes. When developing goals, objectives, and courses of action, the planning team should consider the following:

- How to safely direct and move persons to designated safe assembly areas from buildings and outside areas, including curbs and roadways.
- How to evacuate when the primary evacuation route is unusable.
- How to evacuate children who are not with a parent or guardian.
- How to evacuate seniors and individuals with disabilities (along with service animals and assistive devices) and others with access and functional needs, including those with language, transportation, and medical needs.

Lockdown Annex

This annex focuses on the courses of action the business will execute to secure buildings, parking lots/ramps, roadways, and other grounds during incidents that pose an immediate threat of violence in or around the business. The primary objective of a lockdown is to ensure all persons are secured quickly in areas away

from immediate danger. When developing goals, objectives, and courses of action, the planning team should consider the following:

- How to lock appropriate exterior, interior, and gate doors and when it may or may not be safe to do so.
- How to secure the exterior perimeter.
- How to secure all modes of transportation in and out of the building.
- How particular building characteristics (for example, windows and storefront security grates) affect possible lockdown courses of action.
- What to do when a threat materializes inside or outside the building.
- When to use the different variations of a lockdown.

Shelter-in-Place Annex

Businesses provide unique environments where customers and other pedestrian traffic involve transient personnel who may not be familiar with the detailed physical layout of the business. Further complicating the business location is that security may require that potential shelter-in-place locations be inaccessible to the general public. In addition, many transient people may not speak fluent English, making communicating emergency actions even more challenging.

The shelter-in-place annex is extremely critical for a business. This annex focuses on courses of action when persons are required to remain indoors, perhaps for an extended period, because it is safer inside the business than outside. Depending on the threat or hazard, persons may be required to move to areas that can be sealed (such as in the event of a chemical or biological hazard) or that lack windows (such as in the event of an active shooter), or relocate to a weather shelter (such as in the event of a tornado). When developing goals, objectives, and courses of action, the planning team should determine:

- What locations are accessible to sheltering-in-place.
- The capacity of these locations as compared to the maximum business population; if population exceeds capacity, determine available options to safely exit to the outside.
- What supplies will be needed to seal the area and provide for personal needs (for example, water).
- How to communicate with potential non-English speaking victims.
- How sheltering in place can affect individuals with disabilities and others with access and functional needs, such as persons who require the regular administration of medication, those with durable medical equipment, and those with personal assistant services.
- How to move persons when the primary route is unusable.
- How to locate and move children who are not with a parent or guardian.

 How to locate and move seniors and individuals with disabilities (along with service animals and assistive devices) and others with access and functional needs, including those with language, transportation, and medical needs.

Continuity of Operations Annex

This annex describes how the business can develop a plan to continue essential operations after an emergency. The aim of this process is to enable the business to make an informed and intelligent judgment regarding the best option to take during disruption. The scope should, therefore, set a limit on the information required and identify the appropriate stakeholders who are needed to gather information. Business leadership should research and review any local, state, tribal, and federal standards that affect continuity of operations. Those standards may include the following:

- Ensuring the continuation of essential functions during emergencies until normal operations can be resumed and the capability to be fully operational at alternate sites
- Generating succession orders and preplanned devolution of authority.
- Safeguarding and providing access to vital resources, facilities, and records.
- Obtaining the resources necessary to continuity operations.
- Planning for redundancy in critical communications at alternative sites with stakeholders.
- Having the capability to reconstitute, recover, and resume normal operations after disruptions.
- Ensuring that capable personnel are assigned, trained, and prepared to manage operational relocation.

Recovery Annex

This annex describes how the business will recover from an emergency. The four fundamental types of recovery include services, physical, fiscal, and psychological and emotional. When developing goals, objectives, and courses of action, the planning team should consider the following:

- Services Recovery
 - Who has the authority to close and reopen the business and when?
 - What temporary space(s) may be used if buildings or roadways cannot be immediately reopened?
 - Do alternate business services need to be provided if the business provides potentially essential services to the community (for example, prescription distribution, medical services, and groceries) in the event physical recovery cannot be restored?

Physical Recovery

- How will post-event damage assessments of facilities and equipment be documented, including physically accessible business facilities?
- Which personnel have expert knowledge of the assets and how and where will they access records to verify current assets after an emergency?
- How will the business work with utility and insurance companies before an emergency to support a faster recovery?

Fiscal Recovery

- How will staff receive timely and factual information regarding returning to work?
- What sources may the business access for emergency relief funding?
- Psychological and Emotional Recovery
 - Where will counseling and psychological first aid be provided?
 - How will business leadership create a calm and supportive environment for the business and share basic information about the incident?
 - Who will identify persons who may need crisis counseling and provide a trained counselor to address immediate-, short-, and long-term counseling needs?
 - How will commemorations, memorial activities, permanent markers and memorial structures (if allowed) be handled? What will happen to notes/tributes? How will business stakeholders be informed in advance?
 - How will memorial activities strike a balance among honoring the loss, resuming routines and schedules, and maintaining hope for the future?

Security Annex

This annex focuses on the courses of action that the business will implement on a routine, ongoing basis to secure the business from criminal threats, including efforts done in conjunction with law enforcement.

Crisis Communications Annex

Crisis communications are critical and complex. Business leadership should detail its plan as part of its EOP. The planning team should consider placing communications information and associated detailed checklists in the EOP annexes to allow for quicker reference in an emergency response. The following are just a few items to consider placing in the business EOP:

Public Affairs Plan

The public affairs plan should provide significant details on joint information processes that will be followed during an emergency. A coordinated joint approach will ensure timely, accurate, accessible, and consistent messaging across

multiple stakeholders, jurisdictions, and/or disciplines; minimize confusion; and dispel rumors quickly. A central clearinghouse will minimize duplication of effort and provide one location for public information users to find the best, most reliable and authoritative information regarding the event or incident.

During an emergency with a criminal or national security nexus, the lead law enforcement agency will coordinate public messaging and engagement with the media. The agency will likely designate a single spokesperson or public information officer and may establish a joint information center, either in a physical or virtual location, to track and maintain public affairs records and information.

Additional information pertaining to criminal—related emergencies is provided in the upcoming section titled *A Closer Look: Active Shooter/Targeted Violence and Other Mass Casualty Situations*.

Employee Communications Plan

The Crisis Communications Annex should also include a robust employee communications plan. The plan should provide detailed instructions for employees and their families to follow during an emergency. Consider tailoring instructions for various employees (for example, employees working near the front of the store, near communication systems, and in other building areas). Items to consider include:

- What instructions should various employees in the affected building follow?
- What instructions should employees not in the affected building follow?
- What instructions should employees not at work at the time of the incident follow?
- What crisis number can family members located in a different part of the country/world call to obtain information regarding their loved ones?
- Who will provide family information and counseling?
- In how many different languages should emergency instructions be provided?
- What alternatives to verbal communications are available?

Threat- and Hazard-Specific Annexes

The threat- and hazard-specific annexes describe the courses of action unique to particular threats and hazards. Courses of action already outlined in a functional annex need not be repeated in a threat- or hazard-specific annex. A business will develop these based on the prioritized lists of threats and hazards determined during the planning process. As planning teams develop courses of action for threats and hazards, they should consider the local, state, tribal, and federal regulations or mandates that often apply to a specific hazard. Table 2 provides example threats and hazards for which a business may need to plan.

Table 2: Example Threats and Hazards

Threat/Hazard Type	Examples
Natural Hazards	 Earthquakes Tornadoes Lightning Severe wind Hurricanes Floods Wildfires Extreme temperatures Landslides or mudslides Tsunamis Volcanic eruptions Winter precipitation
Technological Hazards	 Explosions or accidental releases from industrial plants Hazardous materials releases from major highways or railroads Radiological releases from nuclear power stations Dam failure Power failure Water failure
Adversarial and Human- Caused Threats	 Active shooter Arson Criminal or gang violence Violence related to domestic disputes Explosives Cyber attacks

If there is a functional annex that applies to one of the threat- or hazard-specific annexes, the threat- or hazard-specific annex will include it by reference.

A Closer Look: Active Shooter/Targeted Violence and Other Mass Casualty Situations

Police officers, firefighters, and EMS personnel (that is, first responders) who respond to 911 or other emergency calls involving gunfire face a daunting task. Though the objective of protecting lives remains the same, the threat associated with an active shooter incident is different from responding to a natural disaster or many other emergencies. In the same way, these emergencies are different for citizens.

The agreed-upon definition of an active shooter by U.S. Government agencies is "an individual actively engaged in killing or attempting to kill people in a confined and populated area." The FBI has extended this definition to include individuals since some incidents involve two or more shooters. In addition, the FBI omits the word *confined*, as the term could exclude incidents that occur outside a building.

Businesses are not immune to an active shooter tragedy. In *A Study of Active Shooter Incidents in the United States Between 2000 and 2013*¹², the FBI identified 160 active shooter incidents, of which nearly half, 73 (45.6 percent), occurred in a commercial environment.

Owners and/or managers of a business are faced with unique challenges that differentiate the business from other venues when a shooting occurs.

The sooner first responders and those working and visiting the business are able to discern these threats and react swiftly, the more lives may be saved. This is particularly true in an active shooter situation, where law enforcement has limited information from emergency notifications or emergency calls. Working with emergency management officials and community partners, businesses can develop a plan to better prepare their staff and stakeholders in prevention, reaction, and response to an active shooter incident.

Active shooter situations are dynamic and evolve quickly. Because of this, policies and procedures should include a consideration that individuals must be prepared to deal with an active shooter situation *before* law enforcement arrives on the scene. In the FBI's study of active shooter incidents, more than 60 percent of the incidents ended before police arrived on the scene.

Preparing for an Active Shooter

Though this guide is focused on preparing for and recovering from an emergency, in cases where an emergency is not brought on by a natural disaster, prevention is the ultimate goal. Because of that, before detailing unique planning considerations for an active shooter or intentional mass casualty, this guide will briefly address prevention strategies.

Knowing from where the threat may come is a valuable start. FBI research divided commerce into three distinct locations: malls, businesses open to pedestrian traffic, and businesses closed to pedestrian traffic. Of note, data on those businesses closed to pedestrian traffic identified 22 of 23 shooters as current or former employees of the business; four were fired the day of the shooting.

Preventing an Active Shooter Incident

Warning Signs

No profile exists for an active shooter; however, research and experience indicate there may be signs or indicators of potential violent intent. Businesses can collaborate with law enforcement to educate employees to signs of a potentially volatile situation and help proactively seek ways to prevent an active shooting.

By highlighting common pre-attack behaviors displayed by past offenders, federal researchers have sought to enhance the detection and prevention of tragic attacks of violence, including active shooter incidents. Several agencies within the federal government continue to explore incidents of targeted violence in an effort to identify these potential "warning signs."

Specialized entities in the federal government (such as the FBI's Behavioral Threat Assessment Center [BTAC]/Behavioral Analysis Unit [BAU] at Quantico, Virginia) continue to support behavior-based operational assessments of persons of concern in a variety of settings (for example, schools and workplaces) who appear to be on a trajectory toward a violent act.

A review of current research, threat assessment literature, and active shooter incidents, combined with the extensive case experience of the BTAC, suggests that there are observable pre-attack behaviors that, if recognized, could lead to the disruption of a planned attack. In 2002 the FBI's BAU published a monograph on workplace violence, including problematic behaviors of concern that may telegraph violent ideations and plans. In 2017 the FBI's BAU published a monograph on threat assessment and management. In it the authors discuss how law enforcement officers and others may identify, assess, and manage the risk of future, planned violence.

While checklists of various "warning signs" are often of limited use in isolation, and may include constitutionally protected activities, multiple behavioral indicators, taken together and viewed in the totality of circumstances presented, might prompt further exploration and attention from law enforcement and/or business officials. These behaviors may include:

- Contextually inappropriate and recent acquisitions of multiple weapons.
- Contextually inappropriate and recent escalation in target practice and weapons training.
- Contextually inappropriate and recent interest in explosives.
- Contextually inappropriate and intense interest or fascination with previous shootings or mass attacks.
- A significant real or perceived experience of personal loss in the weeks and/or months leading up to the attack, such as a death, breakup, divorce, or loss of a job.

These behaviors listed above may be useful in identifying some of the behaviors of individuals of potential concern.¹⁶

Threat Assessment Teams

As described in the previous section, research shows that perpetrators of targeted acts of violence engage in both covert and overt behaviors preceding their attacks. They consider, plan, prepare, and, in some cases, move on to action.

One way of evaluating persons who may pose a potential threat is through the use of threat assessment teams (TATs). TATs have been increasingly established in college and university settings, particularly following the 2007 shooting at Virginia Polytechnic Institute and State University (Virginia Tech) in Blacksburg, Virginia, where 32 individuals were killed. In some states, there has even been legislation to mandate that institutions of higher learning create and sustain TATs. Beyond colleges and universities, however, a growing number of corporations, government agencies, and schools are recognizing the value in using TATs to help mitigate potential acts of targeted violence before they occur.

Generally, a TAT serves as a central convening body with representation from a variety of community stakeholders with training in threat assessment and threat management. Having a centralized team minimizes the chance that problematic behaviors will be considered isolated incidents. A TAT can assist in recognizing patterns of concerning behaviors from persons who might otherwise "slip through the cracks." Using structured professional judgement, the TAT works to assess whether or not the person of concern truly poses a threat of violence and what steps can be taken by the host organization to mitigate the risk of harm. A TAT typically is most effective when staffed with a diverse array of stakeholders, such as health care professionals, corporate security personnel, human resource specialists, general counsel/legal, and other key representatives from with the corporate structure.

TATs review troubling or threatening behavior of persons via a holistic assessment and development of a management strategy that considers the many varied aspects of the person's life. More than focusing on warning signs or threats alone, a TAT assessment involves an overall analysis of dynamic and static behaviors, considering such areas as threats made, security concerns, stressors, conflicts, family issues, and work and relationship problems. After assessing the concerning behavior, a TAT can develop a course of action to mitigate the threat whether through law enforcement/security action, counseling, or other intervention. Guiding a person of concern away from violence does not typically rely upon a single solution, but instead involves strategic and collaborative interventions that are tailored for the individual within his or her particular life circumstances.

TATs should seek to establish communication with local, state, and federal law enforcement professionals who can help assess reported threats or troubling behavior and access additional resources to support violence reduction efforts. The FBI's behavioral experts in the BTAC are available to work with TATs and develop threat mitigation strategies for persons of concern. BTAC members rely upon extensive research and operational experience to assist in identifying, assessing, and managing persons of concern who may become violent. BTAC services can be accessed by contacting the BAU Coordinator in any of the FBI's 56 field offices located throughout the United States.

Law Enforcement Resources

Sometimes information on potential threats and employees is outside the scope of a business's expertise. Reliance on law enforcement resources can assist. For example, many state and major urban areas have fusion centers and FBI-led JTTFs. Fusion centers are owned and operated by local and state entities and are designed to empower front-line law enforcement, public safety, fire service, emergency response, public health, and private sector security personnel to lawfully gather and share threat-related information. The FBI coordinates and manages JTTFs, which primarily focus on terrorism-related investigations. Both fusion centers and JTTFs rely on expertise and information derived from all levels of government to support their efforts to gather information that may prevent a crime from occurring.

Collaborative efforts to prevent violence begin by identifying, assessing, and managing potential threats.

Planning for an Active Shooter Incident

As with any threat or hazard that is included in a business's EOP, the planning team will establish goals, objectives, and courses of action for an active shooter annex. These plans will be affected by the evaluations conducted at the outset of the planning process and updated as ongoing intelligence assessments occur. As courses of action are developed, the planning team should consider a number of issues, including, but not limited to:

- How to implement initial active shooter response plans and procedures.
- How to evacuate or lock down the business.
- How to address disability-related accessibility concerns when advising on shelter sites and evacuation routes.
- How to evacuate when the primary routes are unusable.
- How to select effective shelter-in-place locations (optimal locations have thick walls, solid doors with locks, minimal interior windows, first aid/emergency kits, communication devices, and duress alarms).
- How to notify that there is an active shooter incident underway by using a combination of familiar terms, sounds, lights, and electronic communications, such as

text messages or e-mails. Planners should consider how to communicate with those who have language barriers or need special accommodations, such as visual signals to communicate with hearing-impaired individuals. Planners should make sure this protocol is readily available and understood by those who may be responsible for sending out or broadcasting an announcement. Rapid notification of a threat can save lives by keeping people out of harm's way.

- How to alert everyone when buildings and grounds are safe.
- How to account for personnel.
- How operations will be restored.

The planning team may want to include functions in the active shooter annex that are also addressed in other functional annexes. For example, evacuation will likely be different during an active shooter situation than it would be for a fire.

Training

When an active shooter incident occurs, civilians will look to authority figures for guidance. They will not make a distinction between law enforcement officers or other uniformed personnel who are employees. All employees should receive basic training in civilian techniques on responding to active shooter events using the *Run. Hide. Fight.* model. When applicable, employees should know how to lead or direct the public to the nearest evacuation routes (run) and identified secure areas (hide).

Early identification of an active shooter event is critical to establishing an effective response. All employees should receive training in agreed upon methods of notification and common terminology.

Exercising the Plan

Evacuation drills for fires and protective measures for tornadoes may be part of routine activities for a business, but far fewer facilities practice for active shooter situations. To be prepared for such an incident, businesses should train employees, as appropriate, in what to expect and how to react.

Proper planning includes conducting drills that involve first responders. Exercises with these valued partners are one of the most effective and efficient ways to ensure that people know their roles as well as the roles of others at the scene. These exercises should include a walk-through of the business to allow law enforcement to provide input on shelter sites as well as familiarize first responders with the location.

Planning a Scalable Emergency Exercise

Planning for an EOP exercise may include the following phases: initial planning conference, venue selection, midterm planning conference, advanced ICS workshop, final planning conference, controller and evaluator briefing, emergency exercise, controller and evaluator debriefing, recovery and restoration tabletop exercise, and after-action conference and lessons learned follow-up.

Responding to an Active Shooter Incident

Each business's EOP should describe how both employees and citizens who may be at the business can most effectively respond to an active shooter situation. Training and discussing this with employees at all levels of a business is essential.

Though an unlikely occurrence, as are hurricanes, floods and fires, when an active shooter incident occurs, the affects can be devastating for personnel, and long lasting and expensive for business recovery.

Research shows it is highly unlikely law enforcement officers will be present when a shooting begins; therefore, those present must decide what to do. 18

No single response fits all active shooter situations; however, making sure each individual knows his or her options for response and can react decisively can save valuable time and lives. Depicting scenarios and considering response options in advance will assist individuals and groups in quickly selecting their best courses of action.

This can be a sensitive topic and make some personnel uncomfortable. However, though there is no single answer for what to do, helping personnel build a survival mindset can increase the odds of surviving. Scheduling time for an open conversation regarding the topic can help allay fears and make personnel more at ease. They may also find it reassuring to know that, as a whole, their business is thinking about how best to deal with this situation.

During an active shooter situation, the natural human reaction, even for those who are highly trained, is to be startled, feel fear or anxiety, and even experience initial disbelief and denial. Noise from alarms, gunfire, explosions, and people shouting and screaming should be expected. Training provides the means to regain composure, recall at least some of what has been learned, and commit to action.

There are three basic response options: *Run. Hide. Fight.* Individuals can run away from the shooter, seek a secure place where they can hide and/or deny the shooter access, or incapacitate the shooter in order to survive and protect others from harm.

As the situation develops, it is possible an individual may need to use more than one option. During an active shooter situation, individuals will rarely have all of the information they need to make a fully informed decision about which option is best. While they should follow preplanning efforts and any instructions given during an incident, they will often have to rely on their own judgment when deciding which option will best protect lives.

Respond Immediately

It is common for people confronted with a threat to first deny the possible danger rather than respond. An investigation by the National Institute of Standards and Technology (2005) into the collapse of the World Trade Center towers on September 11, 2001, found

that people close to the affected floors waited longer to start evacuating than those on unaffected floors. ¹⁹ Similarly, during the Virginia Tech shooting, individuals on campus responded to the shooting with varying degrees of urgency. ²⁰ These studies support this delayed response or denial. For example, some people reported hearing firecrackers, when in fact they heard gunfire. Train personnel to skip denial and to respond immediately.

Train personnel to recognize the sounds of danger, act, and forcefully communicate the danger and necessary action (for example, "Gun! Get out!"). In addition, those closest to a communications system should communicate the danger and necessary action. Repetition in training and preparedness shortens the time it takes to orient, observe, and act. If safe, contacting 911 or the business emergency number with clear and accurate information can help responding law enforcement find and eliminate the threat, thereby saving lives.

Business emergency planners should create a threat annex for the *Run. Hide. Fight.* scenario. When developing this annex, consider, at a minimum, the questions contained in the *Run. Hide. Fight.* sections below and the role business personnel could or should play in leading the public and other nonemployees who may be at risk. As part of its preparedness mission, the City of Houston's program, *Ready Houston*, produced a sixminute, simple-to-understand video on the *Run. Hide. Fight* concept. Its Web site has supporting handouts and training materials to promote preparedness among residents of the Houston (Texas) region.²¹ All of these items are available free-of-charge.

Here is a brief summary of Run. Hide. Fight.

Run

Undertake, if safe to do so, the first course of action: Run out of the building and far away until in a safe location. Employees should be trained to:

- Leave personal belongings behind.
- Visualize possible escape routes, including physically accessible routes for individuals with disabilities.
- Avoid escalators and elevators.
- Take others with them, but do not stay behind because others will not go.
- Call 911 when safe to do so.
- Let someone know they are safe.

When training to run, consider whether:

- Escape routes have been identified.
- Employees have rehearsed the use of escape routes.
- Escape routes provide enough distance, cover, and concealment to provide safety.

• A system has been developed to account for all personnel when it is safe to do so.

Hide

If running is not a safe option, hide in as safe a place as possible. Employees and staff should be trained to:

- Hide in a location where the walls might be thicker and have fewer windows.
- Lock the door.
- Barricade the doors with heavy furniture.
- Close and lock windows and close blinds or cover windows.
- Turn off lights.
- Silence all electronic devices.
- Remain silent.
- Use strategies, if possible, to silently communicate with first responders (for example, in rooms with exterior windows, make signs to silently signal law enforcement and emergency responders to indicate the status of the room's occupants).
- Hide along the wall closest to the exit but out of the view from the hallway (allowing for an ambush of the shooter and for possible escape if the shooter enters the room).
- Remain in place until given an all clear by identifiable law enforcement.

When training to hide, consider whether:

- Shelter-in-place locations have been identified and properly marked.
- There is a method to secure the access to these locations.
- Employees rehearsed moving to and positioning within these locations.
- Communication methods have been established within these locations.

Fight

If neither running nor hiding is a safe option, as a last resort, when confronted by the shooter, individuals in immediate danger may consider trying to disrupt or incapacitate the shooter by using aggressive force. Items in the environment, such as fire extinguishers and chairs, can aid these actions. In a study of 160 active shooter incidents, 21 (13.1 percent) incidents ended when unarmed citizens safely and successfully restrained the shooter. In another 5 (3.1 percent) incidents, the shooting ended after armed individuals who were not law enforcement personnel exchanged gunfire with the shooter. Those individuals were 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.

Talking about confronting a shooter may be daunting and upsetting for some. They should know that they might be able to successfully take action to save lives, but this should be tempered with a clear explanation that no corporate policy requires such action. How each individual chooses to respond if directly confronted by an active shooter is up to him or her. Each employer must determine, as part of its planning process, policies on the control and presence of weapons in the business, as permitted by law.

When training to fight, consider whether:

- Employees have available common, nearby items to be used to assist in their defense.
- The concepts of superiority of numbers, speed, surprise, and violence of action are relevant.

Interacting with First Responders

If a shooting occurs, the business stakeholders should be trained to understand and expect that law enforcement's first priority must be to locate and neutralize the threat; all other actions are secondary. Active shooter situations can be one of the most dangerous situations a law enforcement officer may face. In the FBI's comprehensive study on active shooters, law enforcement arrived on the scene and engaged the shooter to end the threat in 45 of 160 instances. In 21 of those incidents, or 46.7 percent of the time, a law enforcement officer was either wounded or killed.²³

Business employees should be trained to cooperate, not interfere, with first responders. They should display empty hands with open palms and anticipate that law enforcement may instruct everyone to place their hands on their heads or get on the ground. When running, employees should be trained to exit in the direction law enforcement entered.

Law enforcement's first priority is to ensure the scene is safe. Then, within the scene, they will turn their focus to lifesaving efforts. Business personnel and resources also can contribute to these efforts where training and equipment permit. The standard operating procedures (SOPs) established by myriad responding agencies should be based on the acronym *THREAT*, a method of prioritization articulated by the American College of Surgeons and key federal partners at the Hartford Consensus Conference on April 2, 2013, and documented in a concept paper titled *Improving Survival from Active Shooter Events: the Hartford Consensus*. ²⁴ The consensus was an acknowledgement that lives could be saved if priority to incidents was given in this order: Threat suppression, Hemorrhage control, Rapid Extrication to safety, Assessment by medical providers, and Transport to definitive care.

Roles and Responsibilities

Law Enforcement, fire, emergency response personnel and other first responders have detailed plans for responding to and recovering from such incidents. Businesses can blend into this response and aid in recovery by having resources available such as building plans, location of employees, utility access, and control over cameras, locks and alarms.

After an Active Shooter Incident²⁵

Once the scene is secured, first responders will work with the business personnel and victims on a variety of matters. This will include transporting the injured to a higher level of care, interviewing witnesses, securing the crime scene, and initiating the investigation.

Public Crisis Communication Plan

First responders routinely coordinate messaging to assure the public that the scene is safe and secure, and to provide valuable, practical information about such things as known facts of the incident, road closures, media staging areas, available resources for those affected, and plans going forward. Traditional news media as well as social media outlets should be used. To ensure consistency, businesses should coordinate with on-scene unified command communications personnel before releasing information. Business communications' personnel are an integral resource to this joint effort. Preplanning allows seamless integration of business information into communications including details about the business itself (for example, size, history, products, and employees). Integrated statements by business ownership, or participation at press events, are an opportunity to provide information to affected business employees, reduce pressure on corporate phone lines, and directly express corporate statements regarding the incidents.

Survivor/Victim/Family Communication Plan

When the immediate reunification of loved ones is not possible during an ongoing and/or evolving emergency, providing family members with timely, accurate, and relevant information is paramount. Having family members wait for long periods for information about their loved ones adds to their stress and frustration, and can escalate the emotions of the entire group.

Essential steps to help establish trust and provide family members with a sense of control can be accomplished by:

- Identifying a safe location where family members can gather separate from distractions, the media, and the general public, but close enough to allow family members to feel connected in proximity to their loved ones.
- Scheduling periodic updates, even if no additional information is available.
- Being prepared to speak with family members about expectations when reunified with their loved ones.
- Ensuring effective communication with those who have language barriers or need other accommodations, such as sign language interpreters for the hearing impaired.

When reunification is not possible because an individual is missing, injured, or killed, how and when this information is provided to families and loved ones is critical. Before an emergency, the planning team should determine how to convey this information. Law enforcement typically takes the lead on death notifications, but all parties should understand their roles and responsibilities. This will ensure that families and loved ones receive accurate and timely information in a compassionate way.

While law enforcement and medical examiner procedures must be followed, families should receive accurate information as soon as possible. Having trained personnel on hand or readily available to talk to family members concerning the death or injury of their loved ones can ensure the notification is provided to family members with clarity and compassion. Counselors should be on hand to immediately assist family members.

The business's EOP should include identified points of contact (for example, federal, state, county and local victim assistance personnel, counselors, and police officers) to work with and support family members. These points of contact should be connected to families as early in the process as possible, including while an individual is still missing, but before any victims have been positively identified. After an incident, it is critical to confirm that each family is getting the support it needs, including long-term support.

The business's EOP should include printed and age-appropriate resources to help families recognize and seek help for a variety of reactions that they or their loved ones may experience during and after an emergency. It is critical that families and loved ones are supported as they both grieve their loss and support their surviving family members. Extensive federal and state resources exist to help the planning team develop a process for assisting families during an emergency; all the preparation can be done prior to any incident.

The business EOP also should explicitly address how affected stakeholders will be supported if they prefer not to engage with the media. This includes strategies for keeping the media separate from families while the emergency is ongoing and providing support for stakeholders who may experience unwanted media attention at their homes.

Recovery Operations

Execute the Recovery Annex.

Appendix A: The Planning Process Checklist

For	m a Collaborative Training Team
0000	Identify Core Planning Team. Form a Common Framework. Define and Assign Roles and Responsibilities. Determine a Regular Schedule of Meetings.
Und	derstand the Situation
000	Identify Threats and Hazards. Assess Risk Posed by Identified Threats and Hazards. Prioritize Threats and Hazards.
Det	ermine Goals and Objectives
	Develop Goals and Objectives.
Plai	n Development
Plan	Identify Course of Action. Identify Resources. Identify Information and Intelligence needs.
000	Identify Course of Action. Identify Resources.
000	Identify Course of Action. Identify Resources. Identify Information and Intelligence needs.
Plai	Identify Course of Action. Identify Resources. Identify Information and Intelligence needs. Preparation, Review, and Approval Format the Plan. Write the Plan. Review the Plan.

Appendix B: The Content Checklist

Bas	ic Plan
	Introductory Material
0	Purposes and Situation Overview
U	Concept of Operations
	Organization and Assignment of Responsibilities
	Direction, Control, and Coordination
	Information Collection, Analysis, and Dissemination
	Training Exercises
	Sharing Information with First Responders
	Administration, Finance, and Logistics
	Plan Development and Maintenance
	Authorities and References
Cuit	ical Operational Functional Appayor
CIT	ical Operational Functional Annexes
	Evacuation Annex
	Lockdown Annex
	Shelter-in-Place Annex
	Continuity of Operations Annex
	Recovery Annex
	Security Annex
	Crisis Communications Annex
Thr	eat-and Hazard-Specific Annexes
-	eat-and nazard-specific Affricaes
	Natural Hazards
	Technological Hazards
	Adversarial and Human-Caused Threats (Including Active Shooter Incidents)
	Naversalial and Hallan edused Tilledes (including Netive Shootel including)

https://www2.ed.gov/admins/lead/safety/threatassessmentguide.pdf). Additionally, in 2007, the U.S. Secret Service, FBI, and U.S. Department of Education initiated an examination of attempted and committed homicidal acts of violence on American college campuses from 1900 to 2008, *Campus Attacks: Targeted Violence Affecting Institutions of Higher Education* (U.S. Secret Service, et al., 2010, http://www2.ed.gov/admins/lead/safety/campus-attacks.pdf). A second phase of the project focuses exclusively on grievance-based attacks that occurred from 1985 to 2010.

¹ All Web sites listed in this guide were accessible as of March 1, 2018.

² In the broader PPD-8 construct, the term *prevention* refers to those capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. The term *prevention* refers to preventing imminent threats.

³ For more information on NIMS and ICS, please see http://www.fema.gov/national-incident-management-system.

⁴ For more information, please see *Developing and Maintaining Emergency Operation Plans (Comprehensive Preparedness Guide [CPG] 101), Version 2.0* (Federal Emergency Management Agency, 2011, http://www.fema.gov/plan).

⁵ For more information on the threat and hazard identification and risk assessment process, please see *Comprehensive Preparedness Guide (CPG) 201: Threat and Hazard Identification and Risk Assessment Guide* (U.S. Department of Homeland Security, 2012, http://www.fema.gov/plan).

⁶ Vulnerabilities are characteristics that could make the business more susceptible to threats and hazards.

⁷ The term *annex* is used throughout this guide to refer to functional, threat- and hazard-specific, or other supplements to the basic plan. Some plans may use the term *appendix* in the same fashion.

⁸ For additional information on conducting exercises, please see the Homeland Security Exercise and Evaluation Program Web site, https://www.fema.gov/hseep.

⁹ If the planning team considers the information critical to the successful implementation of the plan, it may identify roles and responsibilities of one or more individuals/organizations before and after an incident in addition to during an incident.

¹⁰ For additional information, please see http://www.ready.gov.

¹¹ Department of Homeland Security (DHS). 2008. *Active Shooter: How to Respond*. Washington, DC (DHS, http://www.dhs.gov/xlibrary/assets/active_shooter_booklet.pdf.) Note: Some gun-related incidents are not defined as active shooter incidents because they do not meet the active shooter definition. Instead, they may involve a single shot fired, accidental discharge of a weapon, or incidents that are not ongoing.

¹² Blair, J. Pete and Schweit, Katherine W. (2014). *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, https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view).

¹³ For more information, please see Contemporary Threat Management: A Practical Guide for Identifying, Assessing, and Managing Individuals of Violent Intent (Specialized Training Services, 2003); The Handbook for Campus Threat Assessment and Management Teams (Applied Risk Management, 2008); Threat Assessment: An Approach to Prevent Targeted Violence (U.S. Department of Justice, 1995); and Rethinking Risk Assessment: The MacArthur Study of Mental Disorder and Violence (Oxford University Press, 2001).

¹⁴ Federal Bureau of Investigation. 2002. *Workplace Violence: Issues in Response*, (FBI, Quantico, VA, http://www.fbi.gov/stats-services/publications/workplace-violence).

¹⁵ Federal Bureau of Investigation. 2017. *Making Prevention a Reality: Identifying, Assessing, and Managing the Threat of Target Attacks* (FBI, Quantico, VA, https://www.fbi.gov/file-repository/making prevention a reality identifying assessing managing threats of ta.pdf/view).

¹⁶ For information on warning signs of violence at schools, please see *The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States* (U.S. Secret Service and U.S. Department of Education, 2004, https://www2.ed.gov/admins/lead/safety/preventingattacksreport.pdf) and *Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates* (U.S. Secret Service and U.S. Department of Education, 2002,

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¹⁷ For example, please see

https://rems.ed.gov/docs/resources/VA_Recommendations_College_Threat_Assessment.pdf. Additional information can be found in *Recommended Practices for Virginia Colleges Threat Assessments* (Virginia Department of Criminal Justice Services, 2009, http://www.threatassessment.vt.edu).

¹⁸ Blair, J. Pete and Schweit, Katherine W. (2014). 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, https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view).

¹⁹ Occupants of both towers delayed initiating their evacuation after World Trade Center (WTC) 1 was hit. In WTC1, the median time to initiate evacuation was three minutes for occupants from the ground floor to floor 76 and five minutes for occupants near the impact region (floors 77 to 91). Averill, Jason D., et al. 2005. *Federal Building and Fire Safety Investigation of the World Trade Center Disaster: Occupant Behavior, Egress, and Emergency Communications* (Washington, D.C.; National Institute of Standards and Technology. http://www.mingerfoundation.org/downloads/mobility/nist%20world%20trade%20center.pdf).

²⁰ Virginia Tech Review Panel. 2007. *Mass Shootings at Virginia Tech: Report of the Review Panel*. (Richmond, VA: Virginia Tech Review Panel, https://governor.virginia.gov/media/3772/fullreport.pdf.)

²¹ As part of its preparedness mission, *Ready Houston* produces training materials (videos, handouts, etc.) to promote preparedness among residences of the Houston (Texas) region. All of these items are available free of charge and many are available at http://readyhouston.wpengine.com/prepare-today/videos-asnd-resource. Note: These videos are not recommended for viewing by minors.

- ²² Blair, J. Pete and Schweit, Katherine W. (2014). 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, https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view).
- ²³ Blair, J. Pete and Schweit, Katherine W. (2014). 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, https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view).

²⁴ The *Bulletin of the American College of Surgeons*, June 1, 2013, (Chicago, IL, http://bulletin.facs.org/2013/06/improving-survival-from-active-shooter-events).

²⁵ Please see the Functional Annexes section of this guide for additional recovery annex consideration.