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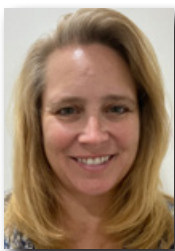
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Planning for Future Events Requires Updated Plans

By Catherine L. Feinman



Threats, hazards, and risks change over time as numerous variables change. This means preparedness professionals must be forward-thinking when planning for emergencies and disasters. Past events can teach valuable lessons for the future, and sometimes those lessons include adapting old plans to meet new or emerging challenges. The authors in this April edition of the Domestic Preparedness Journal share scenarios where communities will be better prepared by updating their plans and strategies to address growing national concerns.

Passing knowledge and training to the [next generation](#) to develop critical thinking and life-saving strategies are great ways to promote continuity of effort in fields that require growth and adaptability to meet future uncertainties. Multigenerational interactions also can offer new perspectives on old or recurring issues. When planning for emergencies and disasters, collaboration is critical.

Once communities identify potential local hazards like [rail incidents](#) involving hazardous materials, they can equip themselves with the tools, resources, and training that may not be in their current plans. Understanding how and when [military assets](#) can assist in civilian emergency response efforts is essential. Even hazards that are generally considered contained, such as [biosafety laboratories](#), can experience failures. Just because an incident has not occurred yet, does not mean it will not happen. Plans must include current risk assessments that are routinely updated to include new risks or hazards.

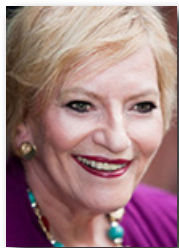
Incidents that can occur anywhere – like [school shootings](#) and [labor trafficking](#)– require all community stakeholders to have additional education and situational awareness to mitigate threats and save innocent lives. When effectively executed, community outreach efforts can reduce risks and hazards and [promote preparedness](#). However, even community outreach efforts must adapt to the changing demographics and evolving needs of the people within the area.

As the moon obscures the sun and diminishes daylight during a [solar eclipse](#), time seems to stand still as people stop and stare (hopefully with the proper eye protection). Like the other scenarios described in this issue, even a solar eclipse event requires new plans to avoid making previous preparedness mistakes. Regardless of the incident, do not stare so long at the old rigid plans that they prevent future evolving preparedness needs.

Catherine L. Feinman, M.A., joined Domestic Preparedness in January 2010. She has more than 30 years of publishing experience and currently serves as Editor of the Domestic Preparedness Journal, www.DomesticPreparedness.com, and the DPJ Weekly Brief, and works with writers and other contributors to build and create new content that is relevant to the emergency preparedness, response, and recovery communities. She received a bachelor's degree in international business from University of Maryland, College Park, and a master's degree in emergency and disaster management from American Military University.

Preparing the Next Generation for Increasing Disasters

By Kay C. Goss



When examining the national, state, tribal, and local efforts to prepare children for disasters and to educate them on emergency management as a profession, emergency planners often look to the Federal Emergency Management Agency (FEMA), other federal agencies, states, tribes, and local governments. However, many businesses, nonprofits, and other entities in the U.S. and other countries recognize the importance of children in preparing for disasters. According to Statista, there are close to [90,000,000](#) of the U.S. population under age 21 – the typical age at college graduation.

Around the world, many remarkable stories discuss children applying lessons they learned about disasters. For example, 11-year-old Tilly Smith, who had heard about the sucking noise that a tsunami makes just before it hits, warned all of those within range of her voice to move to higher ground. As a result, she saved the lives of many adults and children in Southeast Asia. The United Nations Office of Disaster Risk Reduction awarded her the highest recognition for her expertise and leadership and still shares her story on its [YouTube channel](#).

Youth Preparedness Resources

One place to begin when planning community youth preparedness efforts is FEMA's Community and Family Preparedness Program's legacy effort, which is the Student Tools for Emergency Planning ([STEP](#)) program. Teachers designed STEP to provide strategies for preparing for emergencies and saving lives. These strategies include:

- *Assembling food, water, blankets, flashlights, etc.* – What items would they want to take with them? Where would they find them when faced with disaster (allowing for a few minutes to let the situation settle in their minds)?
- Developing a family communication plan – What are the backup plans?
- *Determining places to meet* – What if they are locked out of the house? Who will meet them at which location later?
- Finding ways to implement all the above.

The STEP program learning objectives, goals, and activities are clear and simple. The one-hour, ready-to-teach base lesson can be reinforced with plans, games, and activities that align with 4th- and 5th-grade learning standards. For children, gaining this knowledge and experience could give them confidence, control, and calmness in a time that could be quite traumatic. In addition, FEMA provides extensive details for all aspects of this program to make it easy for teachers, parents, community leaders, mentors, and officials to implement in their communities and as a foundation for other related efforts to prepare, support, and strengthen children. Many use and continue this program in their communities.

In addition, the U.S. Department of Education (ED) partnered with FEMA to develop a vigorous program preparing teachers and students for shootings and other emergencies

Many states have moved forward to pay special attention to youth emergency preparedness programs. The growth and rigor of these programs are impressive.

immediately after the Columbine incident. The U.S. Department of Justice supported their efforts by providing counseling experts to guide the children impacted and assisting in planning for such events. Although that original program no longer exists, a helpful portion of the ED website is devoted to [Readiness for Schools](#). Providing direct assistance with planning activities, relevant documents, and templates makes this program easy to implement.

Due to their high level of expertise, built-in credibility, and proximity to children, teachers are often overloaded with responsibilities and unable to take on more. For example, after Hurricane Katrina in 2005, a significant effort was launched by naming a national Task Force on Children in Disasters. Their extensive report has inspired most federal agencies to undertake such actions in their areas.

State Programs

Many states have moved forward to pay special attention to youth preparedness. The growth and rigor of these programs are impressive.

- In *Arkansas*, a Community Service Organization funded by the U.S. Department of Housing and Urban Development Community Development Block Grants and other federal, state, and county agencies provides pre-K support for teaching children under age five fire safety and emergency preparedness. Two of their officials with daily responsibilities for managing, directing, and supporting those teaching emergency preparedness and fire safety are working toward becoming Certified Emergency Managers through the International Association of Emergency Management.
- *California* has for many years also had a vigorous outreach to children and schools through the [State's Office of Emergency Services](#), with alliances with local counties. County school superintendents are popularly elected and held responsible for emergency preparedness for 16 different disaster categories the state faces: floods, building fires, domestic terrorism, foreign terrorism, nuclear plant accident, tsunami, earthquake, cyberattacks, wildland fires, drought, contagious diseases, flu, tornado, gun violence, mudslides, El Niño. One such official was brought before a grand jury and questioned in 2007 to prove that he vigorously required his school leaders to prepare students for these potential disasters. In addition, California community colleges have had a successful effort to bring risk assessments and preparedness planning to their 33 community colleges.
- The University of *Colorado* at Boulder's Natural Hazards Center focuses on research and provides small incentive research grants for insightful

documentation of previous disasters, lessons learned, and the vigorous distribution of those studies. The University of Colorado at Boulder has also led some outreach to elementary and secondary schools, especially after the Columbine shootings. For example, in 2000, Congressman Curt Weldon of Pennsylvania was traveling abroad close to a school in Belsen, Russia, that had suffered numerous deaths from a shooting, went to the graveyard where the victims were buried, and found notes of care and concern on each grave, prepared and sent by the students at Columbine. The [107 HBCUs](#), with approximately 228,000 students, have rigorous programs of support for emergency preparedness, reflecting the significant concerns about the safety of their students. In addition, most states have some programs of special outreach to youth.

- *Maryland's* [Human Resource Services](#) cluster of its Career and Technical Education program of study requires that emergency preparedness and management be taught in each grade in the school system. Therefore, teachers are trained and required to cover this, including pre-K teachers.
- *Michigan* served as a national distribution hub for information, training materials, and memorabilia to support the [Community Emergency Response Team](#) training and rollout to the public, including schools and colleges.
- *New York* has a high-profile high school program. [The Urban Assembly School for Emergency Management](#) is a unique charter school that provides leadership building for the students who may or may not eventually become emergency management professionals. Still, all will be equipped to be civic leaders in preparedness.
- *Oregon* has several outreach avenues to schools, with support from Portland State University and Western Oregon University. Plus, the University of Oregon supported the disaster grads network for years, designed for disaster graduate students and graduates working in the profession. After its initial Oregon support, that network is now sustained and supported by the University of Colorado at Boulder through its Natural Hazards Center and highlighted by its annual conference of academicians and practitioners.
- *Texas* has a robust program led through the Texas A&M University System and Texas Division of Emergency Management, which includes broad community leadership training for local schools, firefighters, emergency managers, professors, civic leaders, and homeland security officials. One of their most active, high-profile resources is [Texas A&M Task Force 1](#), an internationally recognized and used search and rescue system and a crucial part of the FEMA Search and Rescue Task Force System of 25 such teams nationwide. In 2022, the Texas Division of Emergency Management welcomed its first cohort to the [Texas Emergency Management Academy](#), which combines administrative and boots-on-the-ground experience (including EMT-B certification) in an eight-month academy to train the emergency management workforce's next generation.

- *Utah* has a history of providing this information through state sources. In addition, the Church of Latter Day Saints also emphasizes emergency preparedness while preparing and providing emergency kits for distribution.
- *Virginia* uses a [Teachers Direct Newsletter](#), produced and distributed weekly by George Mason University via email to all teachers with information to assist them in covering emergency preparedness as provided by the Virginia Department of Emergency Management. Also, after experiencing the 2007 shooting incident, Virginia Tech University worked in support of the Virginia Tech Family Foundation, which conducted a national search for methods and plans to prevent and prepare for such emergencies. They made their findings freely available to colleges, universities, schools, or other similar entities to support any preparedness initiatives. In addition, Arlington County developed a program to train groups of teenage girls about emergency preparedness called "[HERricane](#)," which is now managed and implemented by the Institute for Diversity, Equity, and Inclusion in Emergency Management. They are taking it nationwide, first by the Philadelphia Fire Department in 2021 and New York City in 2022, and now going to California in 2023.

Coming Together to Promote Education

Every state has joined FEMA in developing at least one academic degree program in [emergency management](#), homeland security, or business continuity. Launched in 1994, the FEMA Higher Education Program serves as a state-by-state hub of educational and training support for teachers, students, interns, practitioners, and outreach personnel to build national preparedness from the ground up. Since 1997, the program's [annual symposium](#) has brought together administrators, professors, deans, students, and practitioners for the first week in June in Emmitsburg, Maryland. At the FEMA Emergency Management Institute, symposium participants share successes, challenges, and plans for improvements and outreach while sharing research findings, student posters, and more. The symposium will celebrate its 25th anniversary in June 2023, as one year was missed.

A new organization, [Emergency Management Academician Caucus](#), was launched in 2022 at a gathering of interested professionals and practitioners at the annual IAEM conference. This new caucus was developed to support the larger community of professors who teach and study emergency management and homeland security and the students who aspire to become professors or practitioners. The plan is to meet regularly during IAEM conferences and conventions, providing it with nonprofit support and grassroots outreach. Its first official meeting is planned to be held at the FEMA Higher Education Symposium during the first week of June 2023. The IAEM already had two committees devoted to educators: the Training and Education Committee and the Emergency Management Practitioners on Higher Education and School Campuses.

The academic caucus member programs also have access to a unique nonprofit accreditation program that sets standards for such programs, the [Council for the Accreditation of Emergency Management and Homeland Security Education](#).

Each state has some preparedness and safety programs supporting schools. The programs listed above are just a small sampling. Tribal emergency management education programs reside primarily with the National Tribal Emergency Management Council.

Hazmat on the Rail

By Glen Rudner



Since February 3, 2023, following the train derailment in East Palestine, Ohio, the public has closely followed reports and commentary by media outlets and elected officials. This incident has become more controversial and publicized than others in recent years and has caused a public outcry for change. This article does not attempt to speculate on the details of an ongoing investigation, especially during a lengthy recovery phase. Instead, it serves as an important reminder to communities, responders, emergency management, local officials, and

railroads to continue to work together to build knowledge and trust and provide training to mitigate future hazards.

Responding to hazardous materials (hazmat) incidents involves many considerations that are not always obvious from the public's perspective. From an emergency preparedness perspective, it is critical to have a basic understanding of hazmat transports, the tools and resources for emergency responders, and the training available to prepare communities before an incident occurs.

Hazmat Rail Transports

Hazmat shipments by rail are common. Each year, the railroad industry ships approximately [3.1 billion tons](#) of hazardous materials, including chlorine, anhydrous ammonia, ethylene oxide, sulfur dioxide (SO₂), and others. While [more than 99.9%](#) of those shipments reach their destinations without issues, railroad incidents can and do occur. Rail incidents involving hazardous materials are low-frequency/high-consequence events.



The trend in rail incidents involving hazardous material releases (Source: [AAR, 2023](#)).

Many hazmat shipments involve transporting raw materials to manufacture all kinds of consumer products and home-building materials. And when a high-profile incident like the one in East Palestine occurs, there is usually a public outcry for additional rules and restrictions on the railroad industry. In this age of around-the-clock news, social media, and a desire for immediate answers, it is more important than ever to have a strong and unified command supported by a strong crisis communications plan. Without timely and accurate information, people critique the response and add their own narratives.

Response Tools & Resources

When a hazmat incident occurs, responders need tools and resources to assist in identifying risks and threats and making critical decisions. RAILINC provides one of these mobile application tools called [AskRail®](#). The AAR has made this app available to all authorized emergency responders. This tool is a collaborative effort between railroads and emergency responders and provides “immediate access to accurate, timely data about what type of hazardous materials a railcar is carrying so they can make an informed decision about how to respond to a rail emergency.” Authorized emergency responders can access the app by following the four-step process outlined at <http://askrail.us>

The U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration also produces the highly respected Emergency Response Guidebook ([ERG](#)) as a reference for the initial response to a hazmat transportation incident. The ERG provides information for rail crew members, first responders, public safety officials, and other decision-makers regarding general safety precautions, notification procedures, rail car identification charts, protective clothing, decontamination, and more. After responders identify the hazardous material, they can refer to the ERG for initial emergency response instructions. Each material describes potential health and safety hazards, first aid instructions, protective clothing recommendations, evacuation procedures, and other immediate public safety information.

Hazmat incidents involve many considerations that are not always obvious. They require training and resources to make rapid life-saving decisions.

In addition to technological tools and published resources, certain key positions hold extensive knowledge and should be contacted immediately when an incident occurs. The railroad’s hazmat manager or dangerous goods officer can answer many of the initial questions. Once hazmat managers arrive on-site, they assess railcar conditions and damages. Railroad officials must become part of unified command so that local response and elected officials, state government representatives, and federal on-scene personnel all will be part of the decision-making process known as the *unified command*. Decisions should be made based on facts and science of the knowns present at the time. These knowns should consider the current environmental conditions, including but not limited to weather, topography, local population protection (evacuation or protection in place), and downwind/downstream impacts.

Preparedness and Planning Are a Must

The response to a hazmat incident begins with preparation and planning. Local emergency management, response organizations, and railroads are all important

stakeholders. Preparedness and planning should not be an afterthought but an integral building block to a successful response. Railroads are training thousands of responders each year as part of a tremendous outreach initiative to recognize, identify, and notify the railroad during an incident. Each railroad also operates a website that includes information on how emergency response professionals can obtain additional resources and training:

- [BNSF Hazmat](#)
- [Canadian National First Responders Training and Resources](#)
- [Canadian Pacific Hazmat Training](#)
- [CSX Emergency Responder Training and Education](#)
- [Norfolk Southern Operations Awareness & Response](#)
- [Union Pacific Working With First Responders](#)

Other essential planning partners are the Local Emergency Planning Committees ([LEPCs](#)) and State Emergency Response Commissions ([SERCs](#)). Railroads should be active members of LEPCs and can offer exercises, drills, and connections to their local communities. In addition, railroads can assist with preplanning for incidents by offering commodity flow studies at no cost to the community.

There are also resources and training outside the rail industry. The Federal Emergency Management Agency (FEMA) makes planning tools available through the National Domestic Preparedness Consortium ([NDPC](#)), the Rural Domestic Preparedness Consortium ([RDPC](#)), which offers training to locations with populations of less than



A train derailment in Lee, Massachusetts, with a tanker car containing ethanol (Source: Massachusetts Department of Fire Services Hazmat Team, [2010](#)).

50,000), or their partners. Led by industry professionals, Transportation Community Awareness and Emergency Response ([TRANSCAER®](#)) provides an outreach program in North America to prepare communities and train emergency responders for hazardous material transportation incidents. The International Association of Fire Chiefs offers free training, tools, and resources to hazmat teams, first responders, federal, state, and local agencies, and the private sector through its [Hazardous Materials Fusion Center](#) project.

Although hazmat rail incidents are low-frequency, any community located near a railroad should prepare for the possibility that an incident could occur nearby. The more prepared the local responders are, the quicker they can respond and identify the specific threat and hazards. Comprehensive preparedness and planning will build relationships and instill trust before a potential emergency. The result will be well-thought-out decisions and timely and accurate information to the public regarding the public's safety.

Glen Rudner retired in 2022 as a manager of environmental operations for the Norfolk Southern (NS) Railway with environmental compliance and operations responsibilities in Tennessee, Alabama, Mississippi, and Louisiana. Previously, he was the hazardous materials compliance officer for NS's Alabama Division (covering Alabama, Mississippi, Louisiana, and southwestern Tennessee). Prior to NS, he served as one of the general managers at the Security and Emergency Response Training Center in Pueblo, Colorado. He worked as a private consultant and retired as a hazardous materials response officer for the Virginia Department of Emergency Management. He has nearly 42 years of experience in public safety. He spent 12 years as a career firefighter/hazardous materials specialist for the City of Alexandria Fire Department, as well as a former volunteer firefighter, emergency medical technician, and officer. As a subcontractor, he served as a consultant and assisted in developing training programs for local, state, and federal agencies. He serves as secretary for the National Fire Protection Association Technical Committee on Hazardous Materials Response. He is a member of the International Association of Fire Chiefs Hazardous Materials Committee, a member of the American Society of Testing and Materials, and a former co-chairman of the Ethanol Emergency Response Coalition. He served as a member of the FEMA NAC RESPONSE Subcommittee.



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Covenant School – Reviewing Another Tragic Shooting

By Tanya Scherr & Dan Scherr



March 2023 saw [four](#) school shootings, with the shooting at the Covenant School in Nashville, Tennessee, serving as the deadliest and garnering the most media attention. With so much coverage, focus, and effort to counter school shootings since Columbine, it raises the question of why the United States still has so many more school shootings than other countries. The

[World Population Review](#) reports the United States endured 288 school shootings from January 2009 to May 2018, while the closest (Mexico) had 8. School shootings in the United States have a long history, with the first documented school shooting in the 1800s. Most of these early incidents appear to be isolated events with one or two victims, more targeted acts of violence against one person versus a planned mass murder. The April 1999 Columbine shooting is frequently mentioned as the first mass shooting in recent times in the United States. Other school shootings at Virginia Tech, Sandy Hook, and Uvalde had large numbers of deaths and casualties.

It is important to understand the numbers discussed across reporting. The federal government does not have a singular definition for a school shooting, so the numbers are collected and reported using slightly different standards. When discussing violence in schools, the federal government uses several different approaches. They may define it as “targeted school violence,” an active shooting in an educational setting, or other definition. Targeted school violence was first outlined in [The Final Report and Findings of the Safe School Initiative](#) in 2004. This joint report from the U.S. Secret Service and the U.S. Department of Education was one of the first attempts to outline prevention efforts in the aftermath of the Columbine attack. Targeted school violence here refers to “any incident where (i) a current student or recent former student attacked someone at his or her school with lethal means ..., and (ii) where the student attacker purposefully chose his or her school as the location of the attack.” However, in this report “incidents where the school was chosen simply as a site of opportunity...or...a violent interaction between individuals that just happened to occur at the school were not included.”

The Federal Bureau of Investigation (FBI) reports each year focus on active shooter incidents, but also identify school shootings within the context of their reporting. [Active shooters](#) have a standard definition at the federal level – “an individual actively engaged in killing or attempting to kill people in a confined and populated area.” Under this definition, incidents are separated into a number of categories based on characteristics of the events. For example, the [FBI listed](#) 61 active shooter incidents in 2021, with 2 of these occurring in educational settings. However, in 2020, the [FBI report](#) designated 40

active shooter events with none in education. This can be compared with reporting from the [National Center for Education Statistics](#), which lists 93 school shootings during the 2020-2021 school year.

Using data compiled on April 10, 2023, the *Washington Post's* [School Shooting Database](#), as an example, shows 18 K-12 shootings have occurred so far in 2023 in the United States, with 8 dead and 14 wounded. By comparison, the [K-12 School Shooting Database](#) lists over 100 school shootings with over 80 casualties and continues to grow each day. The K-12 School Shooting Database differs from many other data sets as it [lists all shootings](#) at schools “when a gun is brandished, is fired, or a bullet hits school property for any reason, regardless of the number of victims, time, or day of the week.” Other databases limit the reporting to school hours, school grounds, or narrower definitions. This wide disparity in methodology can lead to wide-ranging reporting and confusion about the scope of the problem, where the issues lie, and trends in incidents and behaviors.

Chain of Events on March 27, 2023

The [Covenant School](#) is a small private school for pre-K through 6th grade. The school was founded in 2001 as an extension of the Covenant Presbyterian Church, which was founded in 1980. There are 33 faculty on-site, and the school shows an average enrollment of approximately 200 students, with a staff-to-student ratio of 8:1. The school hours, from 7:15 a.m.-5:30 p.m., provide before and after school care. The victims in this school shooting included three adults and three 9-year-old children. The three adult victims included the head of the school, a substitute teacher, and a custodian.

According to a [police spokesperson](#), the shooter was a 28-year-old transgender man (i.e., female at birth but identified using he/him) who previously attended the school. Police killed the shooter within 15 minutes of the first 911 call, less than an hour after the shooter left his home that morning. According to a press conference with the police chief, the shooter was under treatment for an emotional disorder and had purchased seven guns (legally). The shooter took [three handgun classes](#) and practiced at shooting ranges, all within the past year. The shooter brought three guns to the school and hid the remaining firearms at home without his parents' knowledge. The police department [press release](#) confirmed that the attack was premeditated and that extensive planning had been completed prior to the attack.

In addition to the seven guns legally purchased over 2.5 years and firing range practices in the year prior to the attack, he also completed three defensive handgun training classes before April 2022. [Documents](#) obtained from the shooter showed that multiple locations, including a local mall, had been considered. The school was ultimately chosen due to less security. Documents obtained included a school map, details of the selected entry point, and the subsequent attack. The shooter had a defined plan and knew the target area. The elapsed time from leaving the house until death by law enforcement was less than an hour.

Timeline on March 27, 2023 (all times below are a.m. Central Standard Time):

- [9:30](#): Shooter leaves home.
- 9:53: Shooter is seen on camera footage arriving at The Covenant School, driving Honda Fit.
- 9:57: Shooter sends a goodbye message on Instagram to a former middle school classmate, stating something bad is about to happen.
- 10:10: Shooter fires rounds through the glass doors of the school's side entrance, gains entry, and is seen on video carrying two AR-style rifles and a handgun.
- 10:13: Additional shots were fired, and a call to 911 was made.
- 10:13: Hale walks through a school hallway. For several minutes, the shooter walks around outside a church office, enters, exits, and then passes the children's ministry.
- [10:21](#): Shooter fires shots before walking out of the video frame. The first responding officers arrived on campus.
- 10:23: The first officers enter the school. Police body-worn camera footage shows officers going room to room looking for the shooter, clearing classrooms, and speeding past at least one body in a hallway.
- 10:24: A team of five officers arrived on the second level and followed the sound of gunfire toward the shooter, according to police body-worn camera footage.
- 10:25: Two officers engaged the suspect.
- 10:27: The suspected shooter is declared dead.
- Children were removed from the school and sent to an off-site reunification area (another local church).

Post-Incident Reviews of the Covenant School Shooting

After-action reviews are performed to answer questions, including understanding what was supposed to happen, what actually happened, what was executed successfully, what did not go as planned, and what changes need to be made going forward. Covenant is an example of a small location that was trained and remained calm during the event. The quick thinking and actions of each group of individuals, from the staff to the students to law enforcement, all played a role in successfully minimizing the loss of life. A security consultant named Brink Fidler trained the Covenant School staff in mass shooter training in 2022. [His review](#) of the shooting determined that they had implemented their training in this event, including covering windows and turning out the lights. There were signs that some teachers were able to remove/evacuate the students, and others hid. Fidler also noticed a medical bag out and available for use if needed.

A review of 911 calls shows that teachers called while in hiding to ask for help very quickly. A total of three calls came in from the teachers within the building. Children can be heard crying quietly in the background while being guided to hide and remain as quiet

as possible. A review of school camera footage shows the shooter entering the school by shooting through locked doors. There are no signs of hesitation as he enters. Alarms are immediately sounded within the building and can be seen and heard in the footage. The shooter remains close to the wall as he moves through the building, and how the shooter holds the weapon suggests there was previous training in tactical movements.

A review of police bodycam footage shows that the police do not hesitate when they arrive on the scene. The teachers are calm, with the first teacher pointing to the next teacher who held the keys to the building. This person also communicates that two children appear to be missing. The second teacher provides the keys for entry into the building. Footage of the classrooms shows that no students are in sight, nor can they be heard as the rooms are searched. Coordinated efforts from law enforcement inside the building led to a quick takedown of the shooter on the second floor of the building. From start to finish, the shooter was incapacitated within 15 minutes of the first 911 call. Professionals around the country have [lauded](#) the Metro Nashville Police's efforts and contrasted them with the Uvalde Police response after the 2022 school shooting in Texas.

Historical Trends Regarding Active Shooters

School shootings continue to increase each year, and a previous study by the Office of Justice Programs identified similarities among these events. The research found an alarming majority of these [events](#) are premeditated, with the shooter(s) displaying previous signs of concerning behavior. Additionally, the majority of the shooters had felt bullied or threatened and had also confided in a schoolmate or sibling before the event. What was not similar in these events was the academic performance of the shooters. This area ranged from failing grades to superior grades, which follows an FBI study of [Pre-Attack Behaviors of Active Shooters in the United States Between 2000 and 2013](#). This study noted that most active shooters obtained their firearms legally and took the time to plan their attacks. The research also reported the shooters' multiple stressors and problem behaviors in the year leading up to their attacks. The Covenant shooter, according to [law enforcement](#), legally purchased 7 firearms over the previous few months, spent months planning the attack, was being treated for an emotional disorder, and left messages for a friend that concerned them enough to notify law enforcement, though it was too late to intervene. As a former student, the attacker was also able to write out maps of the school during the planning phase of the attack.

The United States leads the world in school shootings (288 in 2009-2018, followed by Mexico with 8). Communities must review and act to prevent another one.

In 2019, the U.S. Secret Service National Threat Assessment Center published a [report](#) on targeted school violence. Within their analysis of 41 incidents of targeted school violence, they felt that most could have been prevented by implementing a prevention program and identifying students of concern. After students of concern are identified, an intervention plan can be implemented to help prevent escalations that lead to acts

of violence. This report also confirmed some similarities previously noted in the Office of Justice and FBI reports, concluding that guns are most frequently used and obtained either legally or from their home (family members' weapons).

The Department of Homeland Security suggests that most active shooter events last [10-15 minutes](#). As such, it is important to have a strong plan in place to mitigate death and injuries until law enforcement can arrive. The National Center for Education Statistics shows a marked increase in schools that include written plans in the event of an active shooter. The current percentage is [96.2%](#), compared to 78.5% in 2003. The percentages range between 96% and 97% individually for elementary, middle, and high schools. The lowest percentage is 92%, attributed to combined schools. It would seem that this specific subset would need a strong plan in place due to the intricacies and large age range of their student populations.

No One-Size-Fits-All for Training

Even with the high percentage of written plans for active shooter events, there are mixed feelings about active shooter preparedness in schools. Differences of opinion range from the type of drills that should occur to the age range of the children that should be involved in any drills. These differences lead to a lack of standardization and approach for such an event, which could be both a positive and a negative. Some schools



use pellet guns, shooting blanks and simulating wounded victims with fake blood, which has raised concern from several organizations, such as [SandyHookPromise.org](https://www.sandyhookpromise.org/). The American Academy of Pediatrics also states that historically young children have not been involved in these types of drills and that it is important to ensure that there are no unintended consequences, such as [psychological trauma](#), by including younger children in these drills.

Following are examples of different types of trainings currently being offered:

- The FBI educational resources teach “[Run, Hide, Fight](#),” but the training is slightly different when the location is a school and primarily focuses on the *run or hide* aspect.
- [Save the Children](#) provides tips for managing active shooter drills, which include different levels of drills based on age. Younger children should learn familiarity with their surroundings and how to safely hide, whereas older children can be taught additional items, such as safely evacuating and calling 911.
- [I Love You Guys](#) is a nonprofit organization that provides training for schools and includes the concept of “locks, lights, out of sight.” This concept involves securing the occupied area, turning out the lights and lowering shades to make it more difficult to see, and remaining out of sight quietly until the event ends.
- Cybersecurity & Infrastructure Security Agency (CISA) publishes a wealth of training and [resources](#) for schools and communities for active shooter preparedness.
- The [U.S. Department of Homeland Security](#) also provides training resources and includes reminders for people to silence their phones or any other items that may attract attention to themselves.

An emergency action plan should include a method for reporting events, evacuation plans, an understanding of the number of people currently in the location, and clear-cut roles for each adult to prevent unnecessary overlap. When law enforcement arrives, keep hands visible and follow directions. If known, share the number of shooters, physical description, description of weapons, and the number of missing or potential known victims. Having a plan for removing people to an off-site location for reunification with families may also be necessary and should be determined ahead of time.

Preventing the Next School Shooting

A [study of mass shootings from 1980 to 2019](#) published in the National Library of Medicine concluded that police or security presence did not appear to help reduce the incidence of school shootings. This study even suggests that an armed presence actually increased the death rate. Studies also show that school shooters tend to enter the event with the intent to die, so a school with armed security in place may provide additional incentives for choosing that particular location. The study concluded that the strongest action to take is to invest in preventing school shootings before they occur. Following are some helpful resources:

- The [National Association of School Resource Officers](#) provides a variety of training and resources to assist resource officers as they serve as the primary first responders for critical events on their schools' campuses.
- The U.S. Department of Education, in conjunction with the Department of Justice, FBI, and Federal Emergency Management Agency, published a 2013 [Guide for Developing High-Quality School Emergency Operations Plans](#). This guide is used by a number of school systems around the country in the development of their safe schools' programs.
- The 2013 guide was followed in 2018 by the U.S. Secret Service's [Enhancing School Safety Using a Threat Assessment Model](#). This operational guide was published in the aftermath of the Stoneman Douglas school shooting and provides eight steps for schools to take to create a targeted violence prevention plan.
- For schools interested in funding opportunities, [SchoolSafety.gov](#) offers a grant-finding tool and library to help schools connect available funding with their proposed programs.

The Secret Service's 2021 report on [Averting Targeted School Violence](#) noted there were points where intervention was possible in the overwhelming majority of cases. Many students planning or executing shootings experienced school discipline, contacts with law enforcement, bullying, or mental health issues. They also intended or committed suicide during the attack, dealt with substance abuse, or experienced adverse childhood experiences. The report also noted the need for pairing school threat assessments with appropriate support and resources for distressed students. As stated in the report, the intent is not to penalize students in crisis or divert them to the criminal justice system but to provide a more positive outcome during times of distress. It also noted that classmates are best positioned to report their peers' red-flag behaviors, so it is critically important to educate students and follow up on these reports proactively and positively.

School shootings have a long and problematic history in the United States, and it is unlikely that any single action or policy will address and resolve this issue. The response of Metro Nashville Police during the Covenant shooting may be the new standard for law enforcement response. The training and assessments conducted by the school proved to be of tremendous value, as well. These elements may go a long way toward mitigating the impacts of school shootings, but taking additional steps to identify red flags and provide adequate support and interventions is also needed.


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The DoD Defense Coordinating Element and How It Is Certified

By Patrick B. McNiece



While the main mission of the defense coordinating element ([DCE](#)) is defending the homeland, Department of Defense (DoD) capabilities can be important in supporting citizens in case of major disasters such as hurricanes, earthquakes, and the like. This article describes the mission and composition of the DCE and how Army North (also known as the [Fifth Army](#)) certifies that the DCE is ready to perform its mission when needed.

The Support Structure

There is one DCE for each of the ten Federal Emergency Management Administration (FEMA) regions in the United States. In addition, the Indo-Pacific Command has a DCE for Defense Support of Civil Authorities (DSCA) for its territories in that region. The DCE partners primarily with FEMA, as the lead federal agency, to satisfy state requests for assistance in disaster response. However, the DCE can coordinate defense support with other lead federal agencies such as the Department of Health and Human Services (e.g., during a pandemic response), the U.S. Secret Service (e.g., in support of the State of the Union Address), or other agencies depending on the requirement.

[DCE Region 6](#) primarily supports FEMA Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas) when local, state, and federal disaster response agencies are at capacity. The DCE is led by a defense coordinating officer (DCO) – an Army colonel who has previously commanded a brigade-sized or equivalent formation of 1,500 to 5,000 soldiers and has served the nation for approximately 25 years. This senior officer validates mission assignments that FEMA assigns to DoD before they go to U.S. Northern Command or Indo-Pacific Command for unit sourcing and missioning the task. Composed of a nine- or ten-person team, the DCE supports the DCO. Regions 2 and 10 have ten people, allowing an extra person stationed in Puerto Rico and at the National Inter Agency Fire Center in Boise, Idaho.

The DCE is typically composed of the following:

- The DCO,
- A deputy DCO who is an Active Guard Reserve lieutenant colonel,
- A major operations officer,
- Two Department of Army civilian emergency management specialists (who provide long-term relationships with the states and continuity as Army soldiers rotate out every two to three years),
- A sergeant first class operations non-commissioned officer,
- An administrative and logistics non-commissioned officer, and
- Two communications non-commissioned officers to ensure communications.

The DCE also includes regional and state emergency preparedness liaison officers (EPLOs) from the reserve components of all services, allowing it to expand to four dozen disaster response personnel.

The role of the DCO is to be the Secretary of Defense's single point of contact for DoD [Title 10](#) support to the lead federal agency. The DCE supports the DCO. The DCO/DCE has five functions:

- Process requests for assistance/validate mission assignments;
- Provide situational awareness;
- Provide liaisons to federal, state, and local partners;
- Assist planning efforts with regional, state, and local entities and enable planning for DoD response operations; and
- Provide mission control of Title 10 (active-duty) forces when required.

The primary mission of the DCE is to validate lead federal agency mission assignments by analyzing the requirements against the criteria from [DoD Directive 3025.18](#) (Defense Support of Civil Authorities). This directive requires that requests for assistance be evaluated against six criteria – known as the acronym CARRLL. Before the DCO can validate a mission for NORTHCOM/Indo-PACOM action, or if sourcing is required, for Secretary of Defense approval/sourcing the DCE team must consider:

- Cost (including the source of funding and the effect on the DoD budget);
- Appropriateness (whether providing the requested support is in the interest of the Department);
- Risk (safety of DoD Forces);
- Readiness (impact on the DoD's ability to perform its other primary missions);
- Legality (compliance with laws); and
- Lethality (potential use of lethal force by or against DoD Forces).

DCE Region 6 participated in a certification exercise in early February 2023 because they and their new DCO were not activated for a hurricane response in 2022. Normally, a real-world activation for hurricane response would qualify as constructive credit for a certification exercise. However, this unusual occurrence of zero hurricanes impacting Texas or Louisiana during the 2022 hurricane season provided an opportunity for DCE Region 6 to show it knew how to execute our mission essential tasks at the Rudder Reserve Center in San Antonio, Texas.

Army North Certification Exercises

Certification exercises ensure that DCE Region 6 can perform its mission when required. Army North has performed five certification exercises in the last six months due to new incoming DCOs. These exercises ensure the DCO and the DCE can support their lead federal agencies, validate mission assignments, and communicate appropriately with Army North and higher headquarters.

The February 2023 Region 6 certification exercise is typical of how Army North executes all certification exercises, which are run by the Army North staff, augmented by two observer/controller/trainers from other DCEs. Their focus is on the DCE ability to accomplish the key mission essential tasks required to support the lead federal agency in disaster response. It began with a pre-exercise scenario brief from Army North and the contractor who develops the scenario and portrays FEMA and state players, depending on partner agency participation. In this case, Region 6 re-used a Category Five hurricane scenario in the Rio



The Region 6 certification exercise certifies and prepares all participants for potential deployment response in real-world disaster situations, ensuring the future success of FEMA, the DoD, and other federal, state, and local partners (Source: U.S. Army North, February 8, 2023).

Grande Valley from an exercise last year. All pre-landfall mission assignments were loaded into the DoD mission assignment tracking system DOD DSCA Automated Support System ([DDASS](#)) (including general population and aeromedical evacuation missions) before the exercise started. The exercise began on February 7, 2023, with new requirements submitted and ended on the afternoon of February 9, totaling over 30 requests processed. The exercise also included all the standard FEMA “[Planning P](#)” meetings (such as the unified coordination group (UCG), command and staff, tactics, and planning meetings), public affairs interviews, and several crisis action planning meetings. In addition, the exercise included the FEMA Region 6 Incident Management Assistance Team and federal coordinating officer partners, which helped to maintain close relationships.

Army North has developed a strong process to prepare the DCO/DCE to support the lead federal agency and is prepared to support FEMA Region 6 when called upon. This exercise helped cement relationships between the DCO/DCE and our FEMA Region 6 Federal Coordinating Officer, the Incident Management Assistant Team, and the Texas Military Department. It also provided the opportunity for all regional and state EPLOs to participate in a rare “all-in” collective training event. This gave the Region 6 DCE team a valuable opportunity to test systems and processes and better prepare for its role in supporting a lead federal agency and helping communities in need.

Retired Army Colonel Patrick (Pat) B. McNiece is an emergency management specialist. He joined the Defense Coordinating Element Region VI in Denton, Texas, in 2014, where he focuses on enabling Defense Support of Civil Authorities and Homeland Defense. He partners primarily with FEMA, other federal agencies, as well as Texas, Oklahoma, and New Mexico National Guard and Emergency Managers. Previously, he served 34 years in Military Intelligence with senior intelligence positions in Afghanistan (twice), Iraq, Bosnia, Germany (twice), South Korea, and numerous bases in the U.S. He served in and supported NATO, airborne, air assault, infantry, and armored units. His graduate degree is from the Army War College, and his Bachelor of Science degree is from the U.S. Military Academy.

Biosafety Laboratory Issues and Failures

By Robert C. Hutchinson

Concerns regarding unexpected biological incidents and their public health implications were discussed in a 2014 *Domestic Preparedness* biosecurity and bioterrorism [article](#). From the improper possession and storage of decades-old live [smallpox virus](#) in a former Food and Drug Administration laboratory (lab) on the National Institute of Health (NIH) campus to the possible exposure to live [Bacillus anthracis](#) (anthrax) by Centers for Disease Control and Prevention, agencies experienced lab accidents and made serious human errors. The biosafety lab concerns were not limited to these two serious incidents.

These biosafety incidents – and others involving Ebola, high-pathogenic avian influenza, and anthrax – were relevant when considering the findings of a 2014 Government Accountability Office (GAO) [report](#). The report on biosafety lapses at high-containment labs indicated that no federal entity was responsible for strategic planning and oversight of these essential research labs. The expansion of labs was not based on a government-wide coordinated strategy but on the availability of congressional funding for each requesting agency. Lab oversight was reportedly fragmented and largely self-policing. The report recognized the value of national standards and a government-wide strategy. Many other GAO biosafety products since 2007 also documented these insufficient practices.

The biosafety challenges have continued in the decade since the publication of the 2014 *Domestic Preparedness* article. The worldwide debate of an accidental or intentional biosafety lab leak of the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Wuhan, China, demonstrates the continued threat of non-existent, insufficient, or ignored biosafety policies and practices in high-containment labs. The continued ignoring of these vulnerabilities could produce even more severe consequences, which may be difficult to truly comprehend even after the past three years of the COVID-19 pandemic. However, the biological threats may not be just international.

High-Containment Laboratories

Biosafety labs (BSL) range from BSL-1 (least secure) to BSL-4 (most secure) rating. As the threat of the agent (pathogen) increases, so does the level of biosafety training, procedures, and equipment required to properly handle them. BSL-3 and -4 are often considered high-containment labs. The number and complexity of BSL-4 labs have expanded since the 1970s but are still rather limited in number in the United States.

Fort Detrick was established in Frederick, Maryland, in 1931 as part of the Maryland National Guard. In the early 1940s, a research program and lab were developed at the fort to study biological agents and infectious diseases. The fort expanded into developing medical countermeasures in the 1950s, including therapeutics and diagnostic procedures. The facility became a leader in the early study of respiratory diseases and the operation and sterilization of biological labs. The research involved offensive biological warfare until the program ended in 1969 and transitioned to defensive in nature.

The U.S. Army Medical Research Institute of Infectious Diseases was created in 1969 at the fort to address biological threats to military personnel. Additional military and similar organizations were also moved to or originated at Fort Detrick to strengthen medical support and planning for global military operations. Through its various operations and expansions, Fort Detrick helped lead the way in developing high-containment labs.

The Centers for Disease Control and Prevention (CDC) opened its [first permanent](#) high-containment lab in 1969 to handle dangerous infectious pathogens, specifically the recently emerging Marburg virus and Lassa fever. The hemorrhagic fevers required enhanced facilities for their safe handling and research. A second was opened in 1978 that utilized positive pressure suits to protect the researchers. The CDC opened the first high-containment biosafety level (BSL)-4 lab in 1989 as one of only two nationwide. The number of federal government BSL-4 labs grew from two in 1990 to nine in 2007. The total number of BSL-4 labs in the United States increased from 2 to 15 by 2007. In 2008, CDC operated four different BSL-4 labs in one building to handle the deadly pathogens for which no approved treatment or vaccine exists.

International biosafety lab leaks may be timely, but domestic risks and concerns are real.

There were reportedly [14](#) BSL-4 labs in the United States in 2023. BSL-3 and -4 labs can be found in other governmental agencies as well as in academia and the private sector. The [CDC plans to build](#) a new High Containment Continuity Laboratory in Atlanta, Georgia, by 2025. The BSL-4 facility will have 160,000 square feet to accommodate approximately 80 researchers.

Lack of National Strategy

The GAO issued a [2007 report](#) with preliminary observations on overseeing high-containment BSL-3 and -4 labs across the federal, state, academic, and private sectors. Generally, BSL-3 labs handle agents that can be transmitted through the air and cause lethal infection using air-tight enclosures. BSL-4 labs handle high-risk agents and diseases for which no therapy or vaccine is available and require BSL-3 standards along with full-body suits with an outside air supply and shower upon exit of the facility. The auditors found that no single federal agency was responsible for tracking the BSL-3 and -4 labs or the associated risks.

The auditors reported that the limited federal oversight for the high-containment labs was fragmented across several agencies and often relied on self-policing their activities. It created unnecessary risk. The findings recommended establishing a single federal entity to conduct government-wide strategic planning for high-containment lab requirements, including assessment of risks. There was also a need to develop national standards for designing, constructing, commissioning, operating, and maintaining such sensitive labs.

In a more detailed [2009 report](#), GAO again addressed the need for a national oversight strategy. With no single federal agency overseeing the expansion of high-containment labs, there was no common operating picture or global understanding of the aggregate risks. GAO identified that:

If an agency were tasked or a mechanism were established with the purpose of overseeing the expansion of high-containment laboratories, it could develop a strategic plan to (1) ensure that the number and capabilities of potentially dangerous high-containment laboratories are no greater or less than necessary, (2) balance the risks and benefits of expanding such laboratories, and (3) determine the type of oversight needed. (p. 66)

The report emphasized that recent biosafety incidents at high-containment labs and their causal factors were not unique. Those incidents and other biosafety lab accidents involved similar factors and involved the failure to maintain adequate biosafety. GAO recommended that the federal government identify a single entity for the government-wide evaluation of labs.

GAO stressed in a [2013 report](#) that an assessment of the nation's need for high-containment labs was absent. The report showed that, as lab expansion occurred, no single federal agency was responsible for assessing the nation's overall needs. It also found no national standards for lab design, construction, operations, and maintenance, which increased accident risk. With the lack of national standards and uncertainty regarding the number of high-containment labs required to support the country's needs, the auditors believed the nation was exposed to considerable risk.

In [2014 testimony](#) of biosafety lab lapses, the GAO began with their finding that no federal entity was responsible for strategic planning and oversight of high-containment labs. As a result, there was no government-wide strategic evaluation of research requirements based on public health or national security requirements. They believed this failure may have been more critical five years later in 2014 due to budget constraints.

The GAO released a [2015 report](#) for primary observations on federal efforts to address weaknesses exposed by recent safety lapses. The report addressed several 2014 and 2015 Department of Defense (DOD) and CDC lapses that raised biosafety and biosecurity policy and procedure questions. DOD and CDC reportedly improved their operations to better manage high-risk biological agents in high-containment labs. The level of improvement may have been insufficient compared to the level of risk.

A follow-up [2016 report](#) addressed the continued need for more robust policies and oversight for high-containment labs to improve safety. GAO continued to find deficiencies in internal controls for the management of labs. The reviewed policies were not as comprehensive because they lacked vital safety elements or did not apply to the specific labs. In addition, many of the policies were not up to date. The report provided 33 recommendations for federal departments and agencies.

In a [2023 report](#), the GAO found that the Department of Health and Human Services (HHS) could improve research oversight involving enhanced potential pandemic pathogens. HHS developed a framework in 2017 that required funding agencies to refer proposed research involving enhanced potential pandemic pathogens to HHS for additional review and associated risks and benefits. However, the report found that the framework did not fully meet the key elements of effective oversight, leaving HHS

without assurance that the department was reviewing all necessary research proposals. These findings may be more relevant in the future.

GAO discussed high-containment labs in numerous other reports, testimonies, and products related to biosafety and biological threats and risks. The need for a national oversight strategy and enhanced management and coordination remained essential for the current and future high-containment labs.

Risk of Lab Leaks

According to a [2020 analysis](#) by Lynn C. Klotz at the Center for Arms Control and Non-Proliferation, the risk of a pandemic from an enhanced influenza virus via an accidental lab leak was unacceptably high. The concern stemmed from the amount of viral enhancements conducted by scientists in various countries. Research that modified avian influenza to be more transmissible to mammals was a substantial concern. According to Klotz, there are at least three ways this could happen:

(1) An undetected or unreported laboratory-acquired infection where the infected lab worker leaves the lab and goes into the community at the end of the workday. This is the one release scenario for which there is considerable data, so it is possible to estimate the probability of release from a lab.

(2) Mischaracterization of a virus as harmless, so it is removed entirely from biocontainment or removed to labs with lower biosafety levels (e.g., from biosafety level 3 to biosafety level 2) for further research.

(3) Purposeful release into the community by a mentally unstable lab worker or by someone with evil intent.

The concerns and risks to humans were real, with 14 facilities reportedly conducting research with lab-created, highly pathogenic avian influenzas transmissible to mammals. The analysis indicated that lab-enhanced avian influenzas were among the more worrisome pathogens since they could cause a deadly worldwide pandemic. Research involving gain-of-function activities may not receive the appropriate review and oversight, causing significantly more serious vulnerabilities.

According to [research](#) in 2019 by Klotz, human error caused 67-79% of incidents that led to potential BSL-3 lab exposures. The percentages came from an analysis of years of incident data from the Federal Select Agent Program and NIH. Klotz found that the first step in calculating the likelihood of a pandemic was to understand the probability of human error – knowledge, rule, or skill-based – in releasing the pathogen. Beyond human error, there are equipment or mechanical failures and incomplete inactivation of a pathogen for a BSL-2 lab (which could be linked to human error).

During the 2017 meeting of the Biological Weapons Convention, an [analysis](#) estimated a 20% probability of a mammalian-airborne-transmissible, highly pathogenic avian influenza virus release from one of 10 labs over 10 years. The release could initiate a pandemic of the novel pathogen. Unfortunately, human error remains a continued vulnerability for future lab incidents and possible leaks, no matter the quality of the labs' facilities, training, and



Scientists working inside positive pressure personnel suit at biosafety level 4 (BSL-4) laboratory of the National Institute of Allergy and Infectious Diseases (NIAID) Integrated Research Facility in Frederick, Maryland (Source: [NIAID](#), n.d.).

procedures. As the number of labs and technology expands, so does the risk. The research and analysis by Klotz may have been prognostic in analyzing possible lab leaks and the emergence of SARS-CoV-2 and the COVID-19 pandemic.

Pending Confirmation

A review of the information above, along with emerging information and research, provides an interesting assessment of the possible source of SARS-CoV-2. The United States government and its intelligence community appeared to be shifting toward the more significant possibility of a lab leak in Wuhan. The [Federal Bureau of Investigation](#) believed that the virus most likely originated in a Chinese government lab. Other intelligence community members concurred with that belief with varying levels of confidence.

The [Overton Window](#) for the virus origination theory shifted from a wet or seafood market toward a lab leak in Wuhan, China, since its emergence in 2020. However, the debate continued:

- If a lab leak, was it accidental by human error or intentional by the government or a bad-actor employee?
- Either way, did the government of China intentionally conceal its escape or encourage the pathogen's spread after it entered the local population?

All the answers may never be known or trusted by the impacted world. However, what was known was that a lab leak *could* produce severe, if not catastrophic, consequences well beyond the public health environment.

Both houses of Congress unanimously passed the [COVID-19 Origin Act of 2023](#) to mandate the declassification of COVID-19 origin-related intelligence and information. The president signed the bill with a statement to continue to review all classified information and its links to the Wuhan Institute of Virology. It remains to be seen how much information will be transparently and timely shared with the public.

Oversight and Action

Regardless of the location, the threat of a highly pathogenic public health threat escaping from a high-containment lab is a grave risk. The United States has limited control or influence over foreign labs beyond supplied funding and political pressure to adhere to treaties and norms. The United States does have a level of control over domestic labs, where there appears to be room for improvement to enhance safety and security to include a national strategy and oversight.

The number of high-containment labs may increase domestically and worldwide in response to the COVID-19 pandemic. These biosafety labs may utilize controversial procedures and methods with terms such as [gain-of-function](#) or [directed evolution](#) to conduct their research. The results may range from beneficial to cataclysmic. To reduce the possibility of a lab leak, enhanced oversight and coordination in the United States are overdue. Lab accidents have occurred in the past, and there will be more in the future with even more dangerous pathogens. Humans will err. Procedures will fail.

Bioterrorism and biowarfare remain at the top of the list for what keeps many homeland defense and security experts up at night. However, the biological threat may not stem from outside the United States. The next lethal outbreak or pandemic could be home-grown from a lab leak and much more deadly than COVID-19. It is time for expanded high-containment lab oversight and action to address this possible internal threat along with a very serious discussion about gain-of-function and directed evolution research.

*[Robert C. Hutchinson](#), a long-time contributor to *Domestic Preparedness*, was a former police chief and deputy special agent in charge with the U.S. Department of Homeland Security (DHS), Homeland Security Investigations in Miami, Florida. He retired in 2016 after more than 28 years as a special agent with DHS and U.S. Department of the Treasury. He was previously the deputy director for the agency's national emergency preparedness division and assistant director for its national firearms and tactical training division. His numerous writings and presentations often address the important need for cooperation, coordination, and collaboration between the fields of public health, emergency management, and law enforcement, especially in the area of pandemic preparedness. He received his graduate degrees at the University of Delaware in public administration and Naval Postgraduate School in homeland security studies. He currently serves on the Domestic Preparedness Advisory Board.*



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Eclipses Again Will Darken the Sky in 2023 and 2024

By Laurel J. Radow



On August 21, 2017, time stood still for many in the United States. On that day, the first [total solar eclipse](#) transversed the continental United States [in nearly a century](#). Communities across the country saw what many in the recent past had to travel great distances to view. That widespread special event created many lessons learned for cities and states that experienced severe traffic jams, unmet sanitation needs (e.g., lack of portable toilets and trash disposal), and other emergency response challenges.

Only a few years later, the nation awaits two more significant eclipse events on October 14, 2023, and April 8, 2024. These events will cover different paths but allow most U.S. communities to view at least one. The annular eclipse (also known as a [ring of fire](#)) on [October 14, 2023](#), will cross nine states from Oregon down through Texas. That event will likely not draw the size of crowds as those seen in 2017. However, emergency preparedness and public safety professionals near the path should still collaborate with other community stakeholders to better prepare for related special events and resource needs. The total eclipse event on [April 8, 2024](#), will cross all of North America – from Mexico, across the United States from Texas to Maine, and finally, eastern Canada – drawing similar attention as the event in 2017. Everyone involved in planning for either the annular or total eclipse events should consider the lessons learned from the 2017 event.

The total eclipse is expected to last up to 4 minutes and 27 seconds, almost double the length of the [2017 event](#). In addition, because the 2024 eclipse will cross a more populated part of the United States, many more people are expected to view it than the 2017 eclipse. However, not every resident will be in the path of totality. Many science museums outside the eclipse's path plan to invite many people to their sites to learn more about the eclipse and related science. Therefore, while many will travel to the path of totality, many others may travel to learn about the eclipse closer to their homes outside the path.

Eclipse Working Group

With the 2017 eclipse raising awareness and interest, the American Astronomical Society (AAS) realized that interest would grow for the 2023 and 2024 eclipses. So, in the summer of 2020, the AAS established the Solar Eclipse Task Force ([SETF](#)). Its members include experts who organized many of the 2017 eclipse events. To ensure that the AAS could gather as much useful information as possible, SETF established [seven working groups](#), including the Local Planning Working Group (LPWG).

This article focuses on the work of the members of the LPWG, whose members represent a range of organizations, including state agencies, county government, universities, and science museums. All are actively involved in developing the eclipse plans for their state, county, locality, university, or rural sites. The working group began with monthly meetings in mid-2021. However, as many of the LPWG members also are involved in the daily operational planning of their own events, the calls are now held every two months.

Since 2020, much of the time has been spent gathering information to post and share with the wide range of localities and states who will host future eclipse events.

With an event that, by its very nature, involves a wide range of capabilities, the information that preparedness professionals need can be difficult to find. One lesson learned is that, with no central repository, much of the material generated in the months and days leading up to the 2017 eclipse was not uploaded until 2017, and eclipse material was sometimes only temporarily available. Unfortunately, this means that, since then, some of those links have gone cold.

Two after-action reports from Wyoming provide agencies with additional lessons learned from the 2017 event. The [Great American Eclipse – Natrona County After-Action Report/Improvement Plan](#) was compiled by the public health preparedness manager and recently released to the public. The [Wyoming State Agency Eclipse Report](#) was compiled by the Wyoming Department of Agriculture and contains the essential after-action report elements and answers three key questions that are helpful when planning for future eclipse events:

- What was planned vs. what actually happened?
- What went well, and what should be done again?
- What did not go well and can be improved for next time?

Managing a Planned Special Event That Is Also a Natural Event

Preparedness professionals know how to train, prepare, and respond to a natural disaster. However, a natural event that is also planned is rare and often managed like other types of past planned events (e.g., an annual parade or a county fair). It is at one's peril when agencies respond with the approach, "It's only two or four minutes of darkness. We handle those all the time." Following are some common gaps that can be overlooked when working with partners and developing plans with this type of approach:

- This one-off event spans a far more significant area than a typical scheduled event. Rarely do planned special events span state or international borders. [Flotillas of tall ships](#) sailing into New York Harbor or an occasional Super Bowl are rare examples.
- No one knows how many people to expect until information such as rented hotel rooms or booked flights becomes known.
- Extra concerns and attention (including health issues) are needed for interstate and intercountry travel.
- Host communities must know how to work with the federal government to prepare for the influx/outflow of people traveling to eclipse viewing areas within and between the three countries.

During the regular calls with LPWG members, it became evident that the lead depends on the state. It is less important which agency takes the lead than it is for the planning to be underway, with information shared within the state and among bordering states. [Various states](#) provide best practices for a range of models and activities they currently use.

Rochester, New York's eclipse plans offer an example of a wide-ranging planning effort underway. The Genesee Transportation Council, Rochester Museum & Science Center, Visit Rochester, and Kids Out and About are collaborating with stakeholders across sectors to coordinate a region-wide effort. The goal is to create the best possible

experience for 375,000 or more visitors and 1.1 million residents, with a particular focus on the public sector. Their combined efforts have led to:

- Schools canceling classes across the region at both the K-12 and higher education levels;
- A series of transportation-specific meetings to tackle traffic and safety issues;
- The ordering of several hundred thousand eclipse glasses; and
- The decentralization of viewing and education efforts by training and equipping more than 50 community ambassadors from across the nine-county region.

Planners in Rochester have been holding stakeholder meetings quarterly since 2019 and moved to monthly starting in April 2023. More than 300 organizations are represented at these meetings.

Unique Planning Considerations

Eclipse planning brings many stakeholders into the planning process who may not be familiar with event planning for other large-scale events. For example, one rural Oklahoma county, McCurtain County with [30,931](#) residents, will be the only county in the state that falls within the path of totality in 2024.

In addition to the sky darkening, an eclipse event requires many considerations and past lessons learned for emergency planners and public safety professionals.

Beginning in 2020, the executive director of the Broken Bow Area Chamber of Commerce and McCurtain County Tourism Authority devised a plan. She started meeting with various groups within the community, beginning with the city managers, mayors, and fire and police chiefs. The quarterly meetings are currently open to

the public, with notices posted on Facebook to educate those not attending any of these meetings. Using the chamber's resources, the executive director has begun to contact the communities that need to know about the eclipse, including but not limited to school principals, lodging sites, and managers of parks on federal and state lands.

In addition to remote and rural areas preparing for new and unique challenges, some private sector entities are updating their plans in anticipation of the eclipse events. For example, the Frozen Foods Institute has provided information to its members to help them consider how best to deliver their goods to retailers during the weeks leading up to the eclipse. Culled from the material the LPWG has gathered and with the expertise of its members, Mark Howell of the LPWG developed the following information and recommendations to help agencies work with partners to build eclipse plans.

[Tourism/Chambers of Commerce](#) – Pay attention to upticks in numbers, such as visitations, business revenues, etc., starting in April 2023. A significant deviation from typical annual averages for the same month could indicate people are *scouting* for next year. For example, variations occurred in John Day, Oregon, late summer of 2016, when many more people than usual set up early-season bowhunting camps. Even without hard data and numbers, local businesses know what a typically busy time looks like. Watch for that as a *tickler* metric of potential interest in the area.

Rural communities – Three things every rural community should worry about with the eclipse are travel, toilets, and trash. Rural communities often lack the infrastructure in these three areas to fully handle what is coming. Ordering from surrounding areas may be necessary to close the gap between resources on hand and resources that will likely be needed. Reserve reader boards and other extra traffic control devices, port-a-potties, and dumpsters early, as in right now. This was a significant lesson learned in John Day during the 2017 Eclipse.

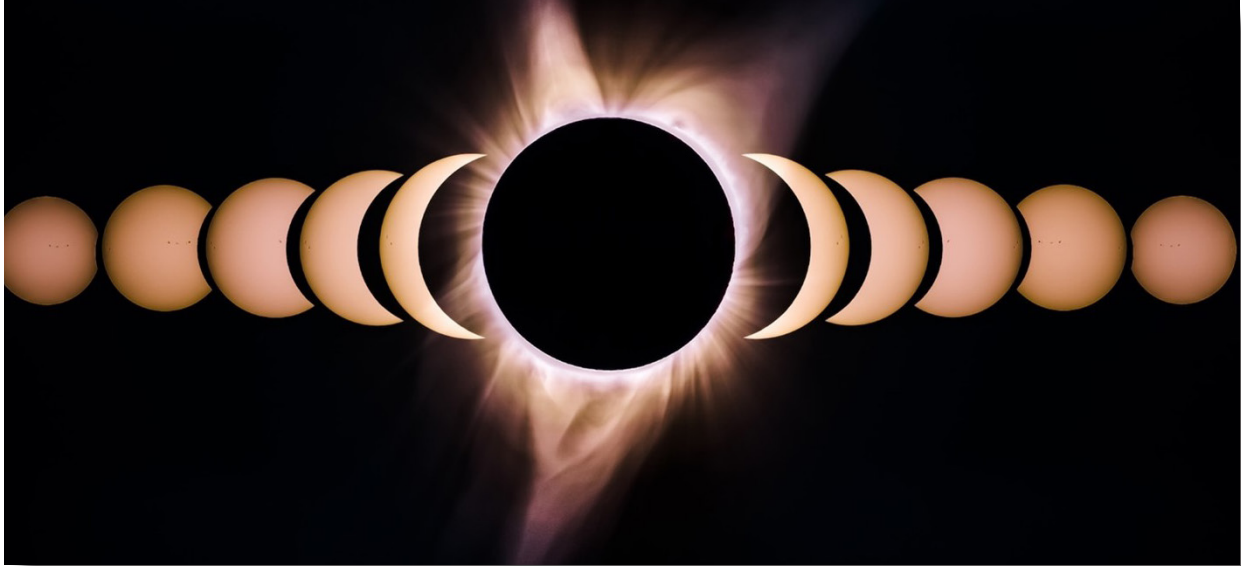
Emergency management – Preparing for a solar eclipse does not fit into the typical disaster or planned special event construct. Yet, it still requires a multidiscipline, multijurisdictional approach to develop realistic expectations, coordinate resources, and plan for potential life and safety concerns. Emergency managers should:

- Focus on local surge capacity (consider the number of people who will likely travel to a location to view the eclipse and the duration of their stay);
- Understand that the normal mutual aid channels may not work when a mass influx of people arrives in the broader regional area (other jurisdictions are just as busy, if not busier, than the local jurisdiction);
- Work with eclipse task forces, lead agencies, facilitating organizations, and other participants to support planning efforts;
- Identify public and private viewing locations;
- Secure resources needed to support the maximum capacity at visitor locations;
- Map ingress and egress options;
- Be aware of other activities and events scheduled before and after the eclipse; and
- Address transportation-specific and other safety issues.

Mutual aid – Organizations like Community Emergency Response Teams and Citizens On Patrol can help with search and rescue, traffic control, aid stations, etc. Think outside the box to engage local groups to help in various ways (REACT, Civil Air Patrol, etc.). If there is a national park, national forest, or fish and wildlife refuge in the area, work with them as much as possible. Stand up a local incident management team the week before the event to coordinate operations within a county or small regional area.

Long-term benefits – Preparedness professionals should be familiar with emergency support functions. However, other stakeholders like tourism professionals, visitors, and event planners may not be familiar with the [National Response Framework](#). The preparedness community can use eclipse planning efforts to share the concepts of the framework with the whole community. In turn, these new partners can learn emergency coordination and organizational structure through eclipse preparation tabletop exercises, site training, and other planning efforts. These groups can then assist when disasters occur in the future.

Tribal Nations – One more area that needs special attention when addressing unique planning considerations is the 574 federally recognized Tribal Nations and Alaska Native Villages in the United States. Although the eclipse is well understood for what it is in the science realm, there is far less to no understanding of the meaning of the eclipse when it comes to certain Tribes. One example of this can be seen by asking the question, “Why



Composition of the August 2017 eclipse taken at Crooked River Ranch in Oregon (Source: [Bryan Goff](#) on [Unsplash](#)).

can't natives see the eclipse?" According to traditional beliefs, viewing the eclipse could result in health and spiritual problems. Navajo beliefs warn against eating, sleeping, or being out in the sun while a solar eclipse is happening. To learn more about Tribes and the eclipse, please read "[American Indian Beliefs About the Eclipse.](#)"

Preparing for Future Events

Though much will change between the 2024 eclipse and the next total eclipse on [August 12, 2045](#), it is critical to capture how states and localities plan and execute their eclipse events. Though many current preparedness professionals may be long retired in 2045, they will acquire much knowledge from these eclipse events to pass on to future professionals. It is far better to share lessons learned and best practices from these events than to force those in the years ahead to start from scratch.

The AAS is continually updating its website with the most helpful information the task force has been able to gather, including:

- [General information](#) for an overview of the eclipse events and
- [Specific information](#) to help plan eclipse events.

As the lead federal agency, [NASA](#) also updates its website regularly.

Laurel J. Radow, AAS SETF member and Co-chair, AAS Local Planning Working Group. She joined the Federal Highway Administration (FHWA), U.S. Department of Transportation in 1996. From 2004 until her retirement at the end of 2016, she served as a member of the FHWA Office of Operation's Traffic Incident and Events Management Team. In that capacity, she served as program manager for the agency's Evacuations/Emergencies and Planned Special Events programs and managed a range of Traffic Incident Management tasks. From 2014-2016, she served as vice chair of the National Academy of Sciences Transportation Research Board's (TRB) Standing Committee on Critical Transportation Infrastructure Protection (AMR10). She recently completed her second and final term as chair of the same committee. In addition to co-chairing the TRB at the October 2018 Resiliency Conference (T-RISE), she also served as guest managing editor for the TR News September/October 2021 Issue no. 335, "[State of Emergency: What Transportation Learned from 9/11.](#)"

Labor Trafficking – An Underreported Escalating Crisis

By Richard Schoeberl, Anthony Mottola, & David Gonzalez



According to the [International Labor Association](#), the latest global estimates published in 2022 indicate that 50 million people live in conditions of modern-day slavery. More than half (28 million) live in forced labor conditions, with child labor accounting for 3.3 million. It is further

estimated that forced labor generates \$150 billion annually. The circumstances seem to be deteriorating around this issue, likely due to a combination of factors such as social and economic repercussions from the ongoing worldwide COVID-19 pandemic, as the number of people exploited rose from [40.3 million](#) in 2016 to 49.6 million in 2021.

Reasons for Underreporting

Because forced labor is often viewed as an international issue, it is sometimes neglected and routinely occurs in the United States, despite laws and ratified trafficking legislation to protect people. Most people would not recognize the signs of labor trafficking, and some would not even identify what they observed as trafficking. Labor trafficking for forced labor in the U.S. can be identified in many forms to include debt bondage, involuntary servitude, coercion, and violence. Forced labor can include farming, construction, service industry, domestic work, and even begging.

For decades, law enforcement agencies and academia focused heavily on sex trafficking, gathering data, and conducting research to assist in its prevention with little attention directed at labor exploitation. Immigrants are particularly vulnerable to labor trafficking, partly as a direct result of their migration. According to the [U.S. Department of Treasury](#), trafficking and smuggling at the U.S. southwest border generates an estimated \$2-\$6 billion annually. From a policing lens, human trafficking enforcement has been largely focused on sex trafficking, with few labor trafficking cases identified and prosecuted.

Conversely, [experts](#) have assessed global trafficking to estimate that 70% of persons are trafficked for forced labor and only 30% for sex. Labor cases are complex to investigate, and many agency representatives are not trained in state and federal labor laws. The Human Trafficking Institute's 2021 [Federal Human Trafficking Report](#) indicated that, in the past 20 years, U.S. federal prosecutors concentrated 93% of prosecutions on sex trafficking and only 7% on forced labor cases.

According to the U.S. State Department’s [2022 Trafficking in Persons Report](#), a global “comprehensive resource of governmental anti-trafficking efforts,” the U.S. government meets the minimum standards for addressing human trafficking. However, the report noted that:

There was a continued lack of progress to comprehensively address labor trafficking in the United States, including in efforts to identify victims, provide them specialized services, and hold labor traffickers, including contractors and recruiters, accountable.

The Trafficking in Persons Report’s first *prioritized recommendation* mentions the need to “increase efforts to comprehensively address labor trafficking in the United States, including identification of and provision of services to labor trafficking victims.” According to the report, human trafficking has globally become the second largest criminal activity, rapidly approaching drug trafficking.

U.S. Policies and Their Effects on Illegal Immigration

Labor trafficking concerns in the U.S. are not a new phenomenon. Congress passed one of the first anti-human trafficking legislations in 2000, the [Victims of Trafficking and Violence Protection Act of 2000](#), to address concerns about all forms of human trafficking. This legislation has been through several iterations and reauthorized several times over the years (2003, 2005, 2008, 2013, 2019, and [2023](#)) to afford more services and protections to survivors and enhance the funding to existing anti-trafficking programs. This crucial legislation has crafted the U.S. response to the human trafficking enigma.

It is widely known that labor trafficking relies on illegal immigration and smuggling. A 2020 report from [Polaris](#) indicated that, in the agriculture sector, “76 percent of the likely victims were immigrants and nearly half of all likely victims ... were from Mexico.”

The global pandemic affected the workforce and supply chain of goods, creating the perfect storm for trafficking men, women, and children for labor in the U.S.

The report credited the elevated number of trafficked Mexicans to the well-established recruitment system that transcends borders. Additional legislation has previously been indirectly in place to address the significant issue surrounding smuggling and labor trafficking, specifically the Public Health Service Act of 1944, which established [Title 42](#) – explicitly designed to

prevent the spread of communicable diseases. Identified as 42 U.S. Code, the act indicated that, if the U.S. Surgeon General determined the existence of an infectious disease in a foreign country, the U.S. Surgeon General (with presidential approval) could prohibit migrants and property from entering the U.S. This order would stay in effect until health officials determine there is no further national threat.

In 1966, the authority was transferred from the U.S. Surgeon General to the Centers for Disease Control (CDC). In March 2020, the Trump administration and the [CDC](#) determined that the COVID-19 pandemic was a dangerous communicable disease, thus prohibiting the entry of persons at the Mexico and Canada borders to avoid spreading the virus. Under the law, U.S. Customs Border Patrol (CBP) was tasked with refusing entry and deporting those who posed a health risk. This process prompted transnational organized crime syndicates to create new ways to prey on migrants in compromised economic conditions with no ability to cross without traffickers' and smugglers' assistance. In 2021, the United Nations Office on Drugs and Crime ([UNDOC](#)) [released a report](#) on the impact of COVID-19 on trafficked in persons. The UNDOC conducted a survey of migrants and found that traffickers with ties to transnational organized crime groups have moved their recruitment methods to social media platforms by advertising false jobs. Traffickers establish "[front companies](#)" to hide their clandestine operations and exploit unsuspecting migrants by forcing them to work in, restaurants, bars, massage parlors, and farming.

In 2020, due to the combination of the pandemic's travel restrictions, border closures, and Title 42, illegal crossings at the southern border decreased. CBP reported only [400,651](#) arrests and expulsions by the end of the 2020 fiscal year, cutting CBP's contact numbers in half from the previous 2019 fiscal year data. However, the CBP contacts began to rise in record numbers – [1,662,167 in 2021 and 2,214,652 in 2022](#) – as mass migration overwhelmed the border. This data is based on CBP contact, but undocumented migrants continued to cross the U.S.-Mexico border undetected with the assistance of traffickers.

Global Threats & Domestic Decisions

In October 2022, CBP identified [86,796](#) unapprehended migrants (known as *gotaways* by agents) crossing the southern border as smugglers and traffickers continued their illicit operations. The majority of migrants at the height of the pandemic were from [Mexico and the Northern Triangle](#) countries (i.e., Guatemala, Honduras, and El Salvador), but a migration shift was identified by the end of 2022. In November 2022, research identified [63%](#) of the migrants encountered at the border were from other countries – including Columbia, Cuba, and Nicaragua – with a growing number of unaccompanied children. Furthermore, CBP has seen an increasing number of people from other countries – such as [Russia, Asia, and Africa](#) – at the southwestern U.S. border. Recently, news organizations have reported that the current surge of migrants has caused economic strains on city's budgets that include [Chicago and New York](#). In 2023, New York City Mayor, Eric Adams, stated that the city has "[no room](#)" for migrants and is seeking assistance from the federal government.

Before the implementation of Title 42, U.S. Code [Title 8](#) (Aliens and Nationality) mandated that certain U.S. government agencies screen unaccompanied alien children (UAC) and follow specific procedures for entry into the U.S. UAC are considered children under 18 years of age with no parental, legal guardian, or documented family

representation in the United States that can provide [care and custody](#). After Title 42 was in place, CBP arrested or detained UAC, and the agency would expel UAC at the border. Although the Trump administration initiated Title 42, the Biden administration continued the program but altered the code to allow undocumented minors and family units to be processed in the U.S. CBP would continue to detain and arrest UAC, but the agencies tasked with processing and protecting these children included the U.S. Department of Justice, U.S. Department of Homeland Security, and the Department of Health and Human Services. The Department of Health and Human Services' Office of Refugee Resettlement processes and houses the UAC until the placement of the children with vetted sponsors.

The vetting process for these sponsors has been flawed in many aspects, and several sponsors did not have a [legitimate immigration status](#). For example, during the U.S. Senate's [117th first session](#) in 2021, the Homeland Security and Governmental Affairs Committee identified loopholes and gaps in the Office of Refugee Resettlement's vetting system to place UAC in appropriate facilities and homes, some with questionable practices. The [Office of Refugee Resettlement reported](#) receiving an unparalleled number



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(122,731) of UAC referrals and placing 109,030 UAC with vetted sponsors in fiscal year 2021. During this time, children are allowed to remain in the country while immigration proceeds with the refugee status process to stay permanently in the U.S.

Predictions for a Growing Crisis

The global pandemic has decreased the workforce population and affected the supply chain of goods, creating the perfect storm for trafficking men, women, and children for labor in the U.S. As stated, little research has focused on labor trafficking in the U.S. and even less on child trafficking. The U.S. has some of the strictest laws for human trafficking, but little research is available about persons trafficked for labor. In 2021, the International Labor Office and United Nations Children’s Fund (UNICEF) conducted a [child labor study](#) and estimated that, in 2020, 160 million children (63 million girls and 97 million boys) were labor trafficked globally. The report further recognizes that the COVID-19 pandemic exacerbated child labor situations, with more children at risk of being pushed into labor trafficking. The World Bank economists predict poverty estimates are growing, and the combination of the Ukraine war and the pandemic led to an additional [75-90 million in 2022](#) in poverty. These predictions suggest that people may flee their poverty-stricken countries seeking work, and [child labor](#) may substantially increase.

In 2022 and 2023, the U.S. Department of Labor investigated several corporations based in the U.S. for illegally employing minors in the [auto](#), [poultry](#), and [food sanitation](#) industries. Although there have been no arrests for labor trafficking, the Department of Labor has fined and pursued court injunctions to cease these companies’ hiring practices. Corporations have been relying on migrant workers to fill workforce shortages using staffing companies within the U.S. These staffing agencies often receive workers through [illegal job brokers](#) that habitually provide false identification to migrant children. Unfortunately, children may not recognize the signs associated with being exploited, thus making them vulnerable to these brokers and traffickers.

Furthermore, the COVID-19 pandemic and growing inflation have heightened the global risk for vulnerable [children and their families](#). These factors can account for the unprecedented migrant numbers from all over the world at the U.S. border and recent media reports on child labor in the U.S. Post-pandemic [global studies](#) identified the criminals’ increased demand to traffic children based on unexpected labor needs and increases in supply chain production. The U.S. is not immune to labor shortages as businesses and industries (large and small) suffer from a lack of workforce personnel.

What Communities Can Start Doing Now

The degree to which industries knowingly or unknowingly use exploited labor continues to remain unknown. Therefore, establishing “best practices” can make a difference in developing an effective response to the labor exploitation crisis that

continues to go under-identified and is projected to increase as surges of migrants continue gaining access to the U.S. An increase in specialized training in industries that intersect with trafficking victims (such as law enforcement, healthcare, agriculture, other low-wage service sectors, etc.) is critical, as broad stroke awareness training is no longer sufficient to meet identification and investigation needs. Labor trafficking is best understood when studied from a multiplicity of angles, so working in multidisciplinary teams to build effective training platforms can be critical to developing and establishing best practices for industries that intersect with victims and perpetrators. Additionally, outside entities, such as groups like [Slave Free Alliance](#), that evaluate supply chains and business models can help companies better understand the risks they face with “slavery in the supply chain” and unidentified labor exploitation with contracted companies. Companies that contract labor or regularly use tiers of subcontractors should take every step possible to reduce the risk of labor exploitation in the supply chain.

Given the limited education about labor trafficking, law enforcement officials may not always be aware of alternative partners who are involved with labor exploitation investigations. Efforts to combat labor exploitation may command a more proactive approach in areas unfamiliar to traditional law enforcement, such as partnerships with nongovernmental organizations, the Department of Labor, municipal regulators, and even the private sector.

Laws (whether state or federal) surrounding human trafficking (for the purchaser and the trafficker) need to be increased/strengthened upon conviction. Some U.S. laws still exist that make human trafficking an adult a [class “D” felony](#) (e.g., in Iowa, traffickers receive more than one year in prison if convicted but no more than 5 years). If convicted of human trafficking involving a minor, a violator can get up to 10 years in prison. If convicted of selling a minor, those penalties need to change upward with no early release if the nation is serious about stopping human trafficking.

Prosecution is only as effective as victim participation in the legal process. According to a study by the [Police Executive Research Forum](#), prosecutors have found it more difficult to build a convincing case proving the statute elements of force, fraud, or coercion beyond a reasonable doubt without the victim’s assistance. The study recommends that identifying additional evidence to describe and corroborate the victim’s state of mind is critical in trafficking cases. Additionally, labor trafficking victims are cautious about reporting abuse due to threats of violence, deportation, and the lack of knowledge of legal rights. As previously mentioned, most do not even consider themselves victims. Prosecution teams should be aware of the services to assist, such as the U.S. Department of Labor and the Equal Employment Opportunity Commission, and familiarize themselves with these resources and learn how to work with them.

More frequent media reports on sex trafficking have led to an overall greater public awareness of sex trafficking than labor trafficking. In addition, with substantial outreach efforts and community education surrounding sex trafficking over recent years, law enforcement agencies have made efforts to combat it. However, complementary efforts are now needed to ensure law enforcement has institutional support, enhanced resources, public/private partnerships, and prosecutorial support to adequately combat labor trafficking crimes. The government, law enforcement, businesses, labor unions, and nongovernmental organizations must join forces to eliminate every remnant of labor trafficking collectively. Without collaboration, success is marginalized.

Richard Schoeberl, Ph.D., has over 25 years of law enforcement experience, including the Federal Bureau of Investigation (FBI) and the National Counterterrorism Center (NCTC). He has served in a variety of positions throughout his career, ranging from a supervisory special agent at the FBI's headquarters in Washington, DC, to unit chief of the International Terrorism Operations Section at the NCTC's headquarters in Langley, Virginia. Before these organizations, he worked as a special agent investigating violent crime, human trafficking, international terrorism, and organized crime. He was also assigned numerous collateral duties during his FBI tour – including as a certified instructor and member of the agency's SWAT program. In addition to the FBI and NCTC, he is an author and has served as a media contributor for Fox News, CNN, PBS, NPR, Al-Jazeera Television, Al Arabiya Television, Al Hurra, and Sky News in Europe. Additionally, he has authored numerous scholarly articles, serves as a peer mentor with the Police Executive Research Forum, is currently a professor of Criminology and Homeland Security at the University of Tennessee-Southern, and works with Hope for Justice – a global nonprofit combatting human trafficking. He also serves on the Domestic Preparedness Advisory Board.

Anthony (Tony) Mottola has over 35 years of law enforcement and security experience including the New York City Police Department and the United States Air Force. He retired as a sergeant detective (SDS) after 25 years as a member of NYPD. He served as executive officer for the NYPD Intelligence Bureau's Strategic Unit, which is a covert counterterrorism initiative and director of the Domestic Liaison Program. He represented the Intelligence Bureau in numerous investigations including the Boston Bombing, civil unrest, mass shootings, and large-scale incidents outside New York City. During his tenure with the NYPD, he worked additional assignments in Counter Terrorism, Gang Intelligence, Detective Bureau, Task Force, Street Narcotics Enforcement Unit, anti-gang/graffiti units, and patrol. He was a first responder/search leader for recovery efforts and supervisor of security details in the immediate aftermath of World Trade Center attacks. He holds a master's degree from Marist College and is a doctoral candidate at Nova Southeastern University. Additionally, he is a professor with The University of Tennessee Southern.

David Gonzalez has over 30 years of combined military and law enforcement experience with many years of training, including sniper, airborne, weapons specialist, communications specialist, Ranger indoctrination, air assault, and recon. After departing the military, he began working as an Iowa law enforcement officer and certified law enforcement polygraph examiner. As a detective, he worked white-collar crimes, sex crimes (adult and children), crimes against persons/violent crime, major case crimes (including high-profile crimes), cold-case homicides, and human sex-/labor-trafficking investigations. He led his team (including federal law enforcement, state law enforcement, and local law enforcement) in human sex-/labor-trafficking investigations encompassing many U.S. states. He received two awards for his work in human trafficking by the Iowa governor, many awards (including human trafficking) from the U.S. Attorney's Office and federal government, and two "Law Enforcement Officer of Year" awards for his investigative work. He retired from law enforcement after 26 years of service and is now a specialist consultant to law enforcement teams handling complex trafficking cases and conducting investigations in coordination with law enforcement agencies. Additionally, he works with Hope for Justice – a global nonprofit combatting human trafficking – and provides training to law enforcement and civilian entities throughout the United States.

Preparedness Promoters – Assessing Marginalized Populations

By Maxwell Palmer



For many reasons, some emergency planning and preparedness efforts have excluded immigrant and migrant populations. Florida – where many pockets of dense Caribbean and Hispanic populations and much of the state is exposed to natural hazards – is a frontline example of inclusion in emergency management policy and practices. Examining the emergency management plans of the metropolitan areas with the largest Caribbean and Latin American immigrant and migrant populations locates some best practices for multicultural inclusion in emergency planning. Those best practices, coupled with a literature review of studies that have assessed the resilience and vulnerability of similar groups elsewhere in the United States, provide an assessment tool that preparedness professionals can replicate where Hispanic and Caribbean populations are growing.

Comprehensive Emergency Management Plan (CEMP) Analysis

Florida contains a diverse demographic of cultures, which include those of the Caribbean basin and Latin America. According to the Migration Policy Institute, the largest [Caribbean](#) populations have settled in:

- Miami-Fort Lauderdale-West Palm Beach – Representing Miami-Dade, [Broward](#), and [Palm Beach](#) Counties;
- Fort Meyers-Cape Coral—Representing Lee and Collier Counties;
- Orlando-Kissimmee – Representing [Orange](#) and [Osceola](#) Counties; and
- Tampa-St. Petersburg-Clearwater – Representing Hillsborough and Pinellas Counties.

The densest [Haitian](#) populations include the same cities as the Caribbean areas plus the Naples-Immokalee-Marco Island (Collier County) and Cape Coral-Fort Myers ([Lee County](#)) areas. Although no CEMP could be found for Pinellas County, all other counties have been accounted for in this review.

In most of these counties' CEMPs, the keywords *Haitian*, *Caribbean*, *Creole*, *Spanish*, *Hispanic*, *Latino*, *Limited English Proficiency (LEP)*, *Immigrant*, *Migrant*, *vulnerable*, and variations of these words were difficult to find or not mentioned at all. Mentions of these words often referred to preparedness for mass migration from the Caribbean or vulnerability due to limited English skills rather than actionable accommodations to better serve their Caribbean and Latin American constituents.

Some exceptions to this trend are in the CEMPs of [Miami-Dade County](#), [Hillsborough County](#), and [Collier County](#). These exceptions represent only one county from each metropolitan area identified by the Migration Policy Institute but none for the Orlando

metro area, which has the [state](#)'s second-largest number of Caribbean and Latin Americans. The Miami-Dade CEMP acknowledges migrant seasonal farmworkers as a vulnerable population that is difficult to interface and communicate with. As such, that county's Office of Emergency Management has identified partner organizations in the community that can help them deliver information to groups that are difficult to reach. Additionally, recognizing that approximately [75%](#) of their population does not speak English as a first language and 34% have a poor command of the English language, Miami-Dade makes concerted efforts to broadcast public information and emergency warnings in English, Spanish, Creole, and other languages as time and resources permit.

In Collier County, which encompasses Naples, Marco Island, and Immokalee, the County Manager of Operations also acknowledges its population of [600-700 migrant farmworkers](#) in East Naples and Immokalee. Collier County has a population of approximately 371,400, with about one-third of its population over 65. About 33% of the people also [reported](#) in the 2021 Census data speaking a non-English language at home, and 148,000 identified as Hispanic/Latino. [Collier County](#) acknowledges that "migrant people may also have limited resources available to them such as food, school, water, work, translators, and housing." As such, Collier has a running list of radio and television stations that broadcast in Spanish and Creole and use those channels to release public information announcements when necessary. While awareness of communication and service barriers is critical in an emergency management plan, more specific action items and relationships to help facilitate the navigation of these barriers would constitute a more effective plan. Collier's LMS Hazard Analysis – a subsection of the CEMP – also includes a comprehensive list of known hate groups in the region, including but not limited to anti-immigrant groups ([see pp. 179-180](#)). While most other CEMPs focus on migrants and migration as a hazard, Collier incorporates a perspective of migrant protection – the only example of such hazard recognition that this review discovered.

Hillsborough County encompasses the city of Tampa and neighbors Pinellas County, for which no CEMP could be found. Its population is over 1.4 million people, 427,381 of which identify as Hispanic/Latino, and nearly [30%](#) of 2021 Census respondents reported speaking a language other than English at home. [Hillsborough County's CEMP](#) identifies best practices for distributing disaster planning guides in English and Spanish at the beginning of every hurricane season, including a map of hurricane evacuation zones and criteria. The county also recognizes that small population percentages speak Creole, Vietnamese, and Korean. Regarding migrant seasonal farmworkers, Hillsborough County identified the eastern and southern areas of the county where many migrant seasonal farmworkers work. They also acknowledge underestimating this population's size during harvest season (official estimates only account for 500 workers). Emergency public broadcasting is done in both English and Spanish, with an emphasis on the inclusion of vulnerable populations – including those with limited English proficiency – listed under the responsibilities of the County Recovery Manager in the Hillsborough CEMP.

Creating a Tool to Better Serve All Populations

The purpose of this project was to create a tool for better monitoring and assessing immigrant populations before, during, and after disasters. Because there are many

reasons to distrust those who seek personal identifying information from immigrant groups, it is essential to analyze best practices for public engagement and facilitation of effective participation within the target population.

A 2020 research study of undocumented [Latino/a and indigenous migrants](#) in central California explored barriers to resilience and experiences of marginalization. While this study highlights important shortcomings in disaster services frameworks, it is not scalable or replicable due to its sampling methods (i.e., most interview subjects and observations were from people the researchers knew from previous professional connections). Although this data collection method still offers a relevant perspective, the sampling does not necessarily protect the integrity of the data. Additionally, the fact that the researchers had prior relationships with the participants is an asset that will not always be available in similar studies and must be accounted for when developing a readily available tool to replicate a similar needs assessment in new or other locations.

[Mark VanLandingham](#) studied the Vietnamese immigrant population in southeast Louisiana following Hurricane Katrina. Specifically, VanLandingham used wellness information from a grant-funded study called “Health Impacts of International Migration”

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(HIIM), which had some suitable indicators for measuring disaster recovery. The biggest coincidental strength of VanLandingham’s research was that it established a baseline on the Vietnamese population before Hurricane Katrina, making the post-Katrina assessment much more comparable. In developing a

replicable migrant and immigrant needs assessment surrounding disasters, it is important to ensure that baseline data can be recorded before a disaster or crisis.

Similar to the migrant study in California, [VanLandingham](#) accessed the Vietnamese population in southeast Louisiana by tapping into the social network of a local community-based organization. The Catholic church had a suitable population register for the Vietnamese community. Also similar to the California migrant community, the Vietnamese community is tightly knit, making entry without a community-based researcher difficult. Finding someone well-connected or at least respected in the target population is vital for collecting sufficient data in immigrant and migrant communities. Additional aspects of both studies’ research methods include incentivization and follow-up methods, standardized self-assessments, a mixed-methods approach, and qualitative data collection focused on community consultation.

The Promotores(as) Model

Promotores(as) de Salud – otherwise known as Community Health Workers – is a model used by public health agencies to reach marginalized populations such as migrant and immigrant Hispanic communities. As described in a report written by the [Center for the Study of Social Policy](#):

The Promotor Model...[is] based on Community Health Worker (CHW) Programs that have been established throughout the world since the 1920s. There are several different types of Community Health Worker models, which vary based on program goals and activities, as well as the communities being served. However, their common aim is to build community capacity through a range of activities, such as outreach, community education, informal counseling, social support, and advocacy.

This model leverages the social capital and the passion and motivation to take action that is already present in the target community to encourage outreach, organizing, and relationship building that can create positive change in that population. As criticized in research methods of California and Louisiana migrant populations, investigators could only progress as far as second-degree relationships could take them. However, if a frontline organization had the resources to train and fund citizens of these communities of concern in vulnerability assessment and disaster planning, these *Promotores(as)* would be accomplishing a two-for-one task:

- Strengthening individual and social resilience, and
- Assessing the needs of populations that do not frequently interface with government officials.

A priority in the 2017 version of Miami-Dade County's CEMP was allocating information and resources to pre-selected frontline community organizations to reach the marginalized populations, and stakeholder engagement is still an obvious priority in its updated 2022 version. Suppose other governments with vulnerable and "[\(in\) visible](#)" constituents did the same and added more funding and training to those outreach programs. In that case, the government could build disaster resilience in underserved communities while simultaneously building respect and trust they could not previously generate within these hidden areas of migrant and immigrant workers. The proposed methodology to develop this needs assessment tool has three steps:

- First, reach out to effective frontline community organizations that interface with target populations regularly. Then, work with them to identify meaningful resilience and vulnerability indicators through preliminary qualitative and archival analysis.
- Second, recruit *Promotores(as)* to create an assessment survey utilizing the selected indicators and provide training on conducting community surveys and providing disaster preparedness information and consultation.
- Third, use these *Promotores(as)* to conduct the needs assessment before and after disasters, utilizing the same participants when possible, thus establishing a comparable baseline.

Taking Outreach and Assessment Tools to the Next Level

Exploring how immigrant and migrant populations have been assessed for disaster vulnerability in Florida and identifying common vulnerability indicators within target populations illustrates the gap between emergency management plans and target population vulnerability. Better data collection tools to assess these populations can



help close this gap. Previous case studies and assessment tools used to analyze migrant and immigrant populations sometimes failed to take objective samples. Instead, they leveraged the readily available social capital to scratch the surface of the deep pool of relationships within their target groups. If used as prescribed, this new assessment tool combines the *Promotores(as)* of the public health model with effective research to truly get to the root of this target population's problems. In addition, by training community members to conduct their own needs assessments, they also participate in the disaster preparedness cycle themselves.

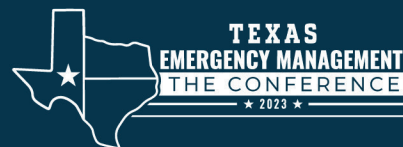
Retrieving accurate data and establishing effective outreach take time and trust, which is what existing assessments lack. To bridge the sociocultural gaps between government, academia, and Caribbean and Hispanic/Latino communities, those communities must have a voice. This new assessment method gives agency and ownership to subjects and investigators alike, hopefully empowering communities to tell their own stories in ways that allow them to advocate and prepare for themselves.

Maxwell Palmer is a soon-to-be graduate from Tulane University's Disaster Resilience Leadership Academy, where he has earned a Master of Science. He has spent time volunteering with a migrant health network in Southwest Virginia, where he earned a dual B.A. in Civic Innovation and Spanish Language and Culture from Emory & Henry College. As a former wildland firefighter, he is familiar with the emergency management field and incident command system, and is interested in exploring more community-based approaches to disaster preparedness that connect marginalized populations to critical services at all stages of the disaster cycle.

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