



2019 National Tribal & Rural Training Needs Assessment



The Center is a DHS/FEMA training provider
for Rural Development



RDPC
Rural Domestic Preparedness Consortium

**Prepare for the Worst
Train to be the Best**

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The 2019 National Tribal and Rural Training Needs Assessment was conducted on behalf of the Rural Domestic Preparedness Consortium and The Center for Rural Development. This project was supported by Cooperative Agreement Number EMW-2017-CA-00052-S01, administered by the U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not represent the position or policies of the U.S. Department of Homeland Security.

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FEMA's National Training and Education Division (NTED) offers a full catalog of courses at no-cost to help build critical skills that responders need to function effectively in mass consequence events. Course subjects range from Weapons of Mass Destruction (WMD) terrorism, cyber security, and agro-terrorism to citizen preparedness and public works. NTED courses include multiple delivery methods: instructor-led (direct deliveries), train-the-trainers (indirect deliveries), customized (conferences and seminars) and web-based. Instructor-led courses are offered in residence (i.e. at a training facility) or through mobile programs, in which courses are brought to state and local jurisdictions that request the training. A full list of NTED courses can be found at www.firstrespondertraining.gov.

Executive Summary

Rural and Tribal first responders face a unique set of challenges when responding to emergency situations. Such responders are subject to constraints, and must overcome challenges, that are unique to the rural locations in which they operate. Central to the efficient use of available resources in rural areas is the provision of high quality, practical training to those individuals responding to emergency situations. Thankfully, high quality preparedness training is available to all rural communities free-of-charge, by virtue of federal funds channeled through the Rural Domestic Preparedness Consortium (RDPC).

Since 2005, the RDPC has used instructor-led and web-based training methods to reach more than 97,000 first responders across all 50 U.S. states and 5 U.S. territories. However, in order to remain relevant in the shifting landscape of rural disaster response, training needs must constantly be reviewed.

As part of their ongoing effort to provide high-quality training to rural and tribal responders the RDPC has commissioned this survey of first response organizations, in order to establish the training needs of those organizations. Areas covered by the survey at hand include Demographics, Rural Core Capability Ratings and Training Needs/Gaps, Additional Training Needs/Gaps, Training Information and Delivery Preferences, and Application of Training.

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Introduction

It has long been acknowledged that, compared to their urban counterparts, rural and tribal first responders face a unique set of challenges when responding to emergency situations. Rural places (counties, cities, towns, villages, parishes, and communities) have to deal with issues of coordinated communication between disparate responding entities, limited access to often-remote locations, scarcity of medical and technical amenities, and widely-dispersed populations, among other problems. In the event of a natural disaster, for example, rural communities will almost certainly rely on emergency equipment and personnel brought in from outside the area. In addition, a sparse population can mean small tax revenues available to spend on emergency response personnel and equipment.

The landscape of potential threats to the population of rural America – whether natural, accidental, or malicious – evolves continuously. Threats might originate in extreme weather events (hurricanes, tornadoes, flooding), natural disasters (wildfires, earthquakes, pandemics), serious accidents (release of oil, chemicals or other toxins; train derailments), and human activity (active shooters and other terrorist threats, civil unrest, cyber attacks). Fortunately, this nation has a wealth of expertise in its emergency response personnel, its community organizations, and its academic and technical communities that can be pressed into service to help prevent, mitigate, and recover from adverse events.

A rural area is often the first line of defense to immediately contain an event or disaster before it escalates. It is imperative that rural responders receive the training and tools necessary to help keep the Nation safe and prepared. (RDPC, 2018)

Federal, state, local, and tribal organizations are united in a common goal:

Rural communities across America will have the knowledge, skills, and abilities necessary to enhance the safety, security, and quality of life for citizens. (RDPC, 2018)

Central to this goal, and to the efficient use of available resources in rural and tribal areas, is the provision of high quality, practical training to those individuals responding to emergency situations. Thankfully, high quality preparedness training is available to all rural communities free-of-charge, by virtue of federal funds channeled through the Rural Domestic Preparedness Consortium (RDPC).

From the 2014-15 National Rural Training Needs Assessment (NRTNA) report:

The RDPC NRTNA continues to be the only comprehensive, national assessment of rural first responder training needs in the United States... The RDPC aims to build rural community resiliency and response capabilities through the provision of training of utmost importance to rural communities. In many cases, the RDPC represents the only opportunity for rural responders to obtain access to timely and effective training. Other training may overlook or fail to account for the unique conditions and challenges that exist in rural communities. This mission is important especially in light of recent trends and statistics that highlight the increasing demands for capabilities in both urban and rural areas alike. While federal funding for equipment purchases and preparedness activities in general may be diminishing,

rural communities continue to face a range of hazards and threats. It is essential that RDPC's mission is accomplished through a rigorous process that begins with the identification of rural needs through the NRTNA and culminates in the delivery of courses that are timely, accurate, and relevant, which will positively impact resiliency and response capabilities in rural communities.

Overall, the rigorous NRTNA process provides actionable and needed information for the RDPC and the Federal Emergency Management Agency (FEMA), National Training and Education Division (NTED). Specifically, the RDPC will be provided with valuable information that can be immediately utilized to ensure the consortium is meeting the homeland security training needs of rural emergency responders. Further, NTED will be provided information from its constituents to inform future funding allocations as well as to better understand rural homeland security issues, which may not be apparent or reflected in aggregate, national-level data such as reported in the National Preparedness Report (NPR). Longitudinal data analysis across all NRTNAs, where possible, will aid in the identification of rural training needs that have been met, those that continue to persist, and future rural training trends. (Simpkins, 2015)

Since 2005, the RDPC has used instructor-led and web-based training methods to reach more than 100,000 first responders across all 50 U.S. states and several U.S. territories (RDPC, 2018).

All this is in accordance with the **National Preparedness Goal**, formulated by the Federal Emergency Management Agency (FEMA) part of the Department of Homeland Security (DHS). Simply stated, this goal is

A secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk. (*National Preparedness Goal*, 2015)

As part of their ongoing effort to provide high-quality training to rural and tribal responders the RDPC has commissioned this survey of first response organizations, in order to establish the training needs of those organizations. For training to be effective it is essential it address the ever-changing needs of those people who are in the front line of disaster response; and the best way to establish exactly what those training needs are is to ask the people involved. This is the purpose of the current survey.

Research Design & Methodology

The 2019 National Rural Training Needs Assessment (NRTNA) employed a web-based survey with invitations to participate delivered via email and traditional mailings. Except for several added questions and minor formatting changes, the same survey instrument utilized for previous evaluations was converted to an electronic format for the current NRTNA evaluation. This was done to allow for reliable comparisons between the current and previous evaluations.

Survey instrument

The 2019 NRTNA questionnaire consisted of twenty-two questions covering five domains. Areas covered included; Demographics, Rural Core Capability Ratings and Training Needs/Gaps, Additional Training Needs/Gaps, Training Information and Delivery Preferences, and Application of Training. At the request of the Rural Domestic Preparedness Consortium, three new items were added to the survey instrument. These items are:

- What other training do you think should be provided as part of the Core Capabilities?
- Please list the last three trainings that anyone from your organization has attended

and

- How is information from trainings circulated within your jurisdiction?

Before data collection could begin the survey and methodology were submitted for Institutional Review Board (IRB) approval. This approval was received at the end of November 2018. Upon IRB approval, the survey instrument was converted to an electronic format utilizing the SoGoSurvey web-based platform. SoGoSurvey is rated as one of the most versatile, easy to use, and secure web-based survey programs available. Survey participants have the option of completing the evaluation on a desktop/laptop computer, as well as with any Android, Windows, iPhone, or iPad device. SoGoSurvey employs the highest level of security, using SSL Encryption to ensure that participants can feel confident that their personal and contact information is safe and protected.

Distribution

A list of eligible organizations, along with email addresses (where available) and contact addresses, was compiled from data obtained from the National Public Safety Information Bureau (NPSIB). The NPSIB was established in 1964 with a mission to provide accurate contact information regarding public safety organizations – including law enforcement, fire departments, and emergency management agencies. Survey participants were selected from three separate sampling frames. While the same questionnaire was utilized for each source, separate solicitations and survey URLs were used for each list. The initial emailing of 674 on February 5, 2019 was sent to individuals who had attended RDPC Trainings between 2013 and 2018. On February 14, 2019, emails were sent to 14,178 individuals on a list of national emergency

management providers. An additional 1,630 emails were sent on March 19, 2019 to individuals who had participated in the 2014/2015 NRTNA.

Following recognized protocols suggested by Dillman *et al*, in addition to email invitations, postal mailings and calls also were utilized to enjoin participants. In total, 764 cover letters were sent to organizations who did not have an email address on file on March 22, 2019. Each cover letter contained a survey link and unique access code to take part in the survey. Ten items were returned for various reasons. The reason for the mailings was to try to establish that there was no difference between organizations who could be contacted via email and those who could not. To try to increase response rate we also made phone calls to 15% of the 764 addresses, using a systematic sampling method (Dillman, Smyth, & Christian, 2014)

Response rates

Web-based surveys often experience delivery issues associated with server firewalls and institutional internet security protocols regarding unsolicited emails that contain internet links. These issues often result in the email being diverted to SPAM folders or rejected prior to being delivered. SoGoSurvey recommendations to decrease security/firewall issues were employed in the dissemination of the NRTNA survey. These suggestions included using plain cover letter templates without embedded logos or text and personalized mail merged emails where possible.

To assist with mitigation of potential delivery issues SoGoSurvey provides the following email distribution flowchart:

Email Scheduled: Indicates an email invitation has been scheduled for a future date

Sent for Delivery: Indicates that the invitation is in the process of being sent

Email Delivered/Not Read: Indicates that participant has yet to access the invitation email

Email Read/Not Participated: Indicates that the participant opened the invitation email but did not click on the link to participate in the survey

Dropped Out on Page: Indicates that the participant opened the survey link but did not submit the survey or abandoned it by closing the window or tab in which the survey was accessed

Incomplete: Indicates that the participant accessed the survey and clicked on Save and Continue Later to save their work

Completed: Indicates that the participant has completed the survey

Prior to initiation of the NRTNA evaluation a test email, which included a survey link, was sent through SoGoSurvey to 41 recipients. The vast majority (30 emails, or 73%) were delivered to the recipient's Inbox. Only 7 emails (17%) were diverted to a SPAM folder and even fewer (4 emails, or 10%) were not delivered at all.

What do we mean by ‘rural’?

From the RDPC:

Since its inception, RDPC has worked diligently to develop and deliver training to small, rural, and tribal communities throughout the United States. While Americans tend to have an idealized image of rural America, a common definition for “rural” is difficult to find. Consistent with guidance from the U.S. Census Bureau, RDPC defines the rural communities it serves as “any location with a population of less than 50,000 and with a population density of less than 1,000 persons per square mile.” In addition to the U.S. Census Bureau, most Federal agencies use a population threshold of under 50,000 to define a “rural” area. (RDPC, 2018)

However, for the purposes of this survey, the Census Bureau definition is not without its problems. Some of these problems become apparent when we examine the following extract from the Health Resource & Services Administration’s web site, which outlines the U.S. federal government’s own definition(s) of ‘rural’:

The federal government uses two major definitions of “rural,” along with many variants that are also available. One is produced by the U.S. Census Bureau and the other by the Office of Management and Budget.

The first definition, developed by the Census Bureau, identifies two types of urban areas:

Urbanized Areas (UAs) of 50,000 or more people;

Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.

The Census does not actually define “rural.” “Rural” encompasses all population, housing, and territory not included within an urban area. Whatever is not urban is considered rural.

The Census recognizes that “densely settled communities outside the boundaries of large incorporated municipalities were just as “urban” as the densely settled population inside those boundaries.” Their definition does not follow city or county boundaries, and so it is sometimes difficult to determine whether a particular area is considered urban or rural. Under this definition, about 21% of the US population in 2000 was considered rural but more than 95% of the land area was classified as rural. In the 2010 Census, 59.5 million people, 19.3% of the population, was rural while more than 95% of the land area is still classified as rural.

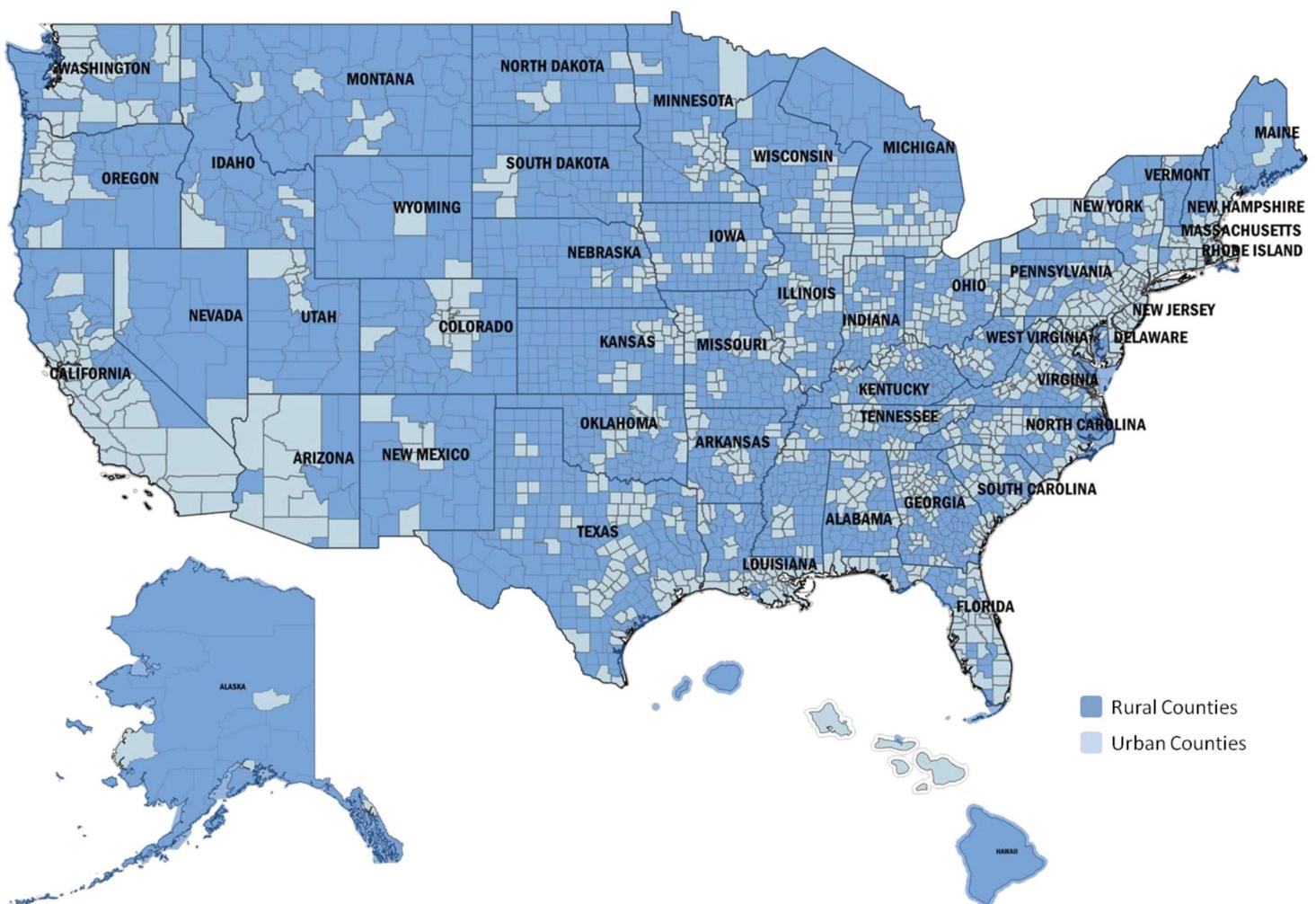
The second definition, developed by the Office of Management and Budget (OMB), designates counties as Metropolitan (Metro), Micropolitan (Micro), or Neither. A Metro area contains a core urban area of 50,000 or more population, and a Micro area contains an urban core of at least 10,000 (but less than 50,000) population. All counties that are not part of a Metropolitan Statistical Area (MSA) are considered rural. Micropolitan counties are considered non-Metropolitan or rural along with all counties that are not classified as either Metro or Micro. Under this definition about 17% of the population in 2000 was considered Non-Metro while 74% of the land area was contained in Non-Metro counties. After the 2010

Census, the Non-Metro counties contained 46.2 million people, about 15% of the total population and covered 72% of the land area of the country.

There are measurement challenges with both the Census and OMB definitions. Some policy experts note that the Census definition classifies quite a bit of suburban area as rural. The OMB definition includes rural areas in Metropolitan counties including, for example, the Grand Canyon which is located in a Metro county. Consequently, one could argue that the Census Bureau standard includes an overcount of the rural population whereas the OMB standard represents an undercount. (Health Resource & Services Administration, 2018)

In determining what is rural we used data on nonmetropolitan (nonmetro) areas, as defined by the Office of Management and Budget (OMB) on the basis of counties or county-equivalent units. This measure is used by federal statistical agencies in collecting, tabulating, and publishing federal statistics.

Figure 1 Rural and Urban Counties in the United States



Response Statistics and Demographics

To make our results comparable to the 2014-15 survey, which targeted 1,697 rural counties, we also targeted rural counties. (see *What do we mean by 'rural'?* p.5) A total of 17,198 responses were sought. 16,524 rural emergency response agencies were invited to participate: 15,730 were invited via email and 764 were invited to participate by postal mail, with about 15% of the latter also contacted by phone. An additional 674 contacts were made with people who had used training in the last six years. 3,006 unique responses were received, giving a response rate of 17.5%. However, this response rate does not take into account any emails that were bounced back or that went into recipients' junk mail folders; or the ten postal mailings that were returned for various reasons.

In terms of pure numbers we received the largest number of responses from law enforcement, followed by the fire, emergency management, and emergency medical services. However, in terms of response rates the highest was emergency management, followed by emergency medical, law enforcement, and the fire service (Figure 2).

Figure 2 **Response Statistics per Discipline**

Discipline	Population	Responses Received	Response %	Completed Responses	Completed Response %
County Emergency Managers	2,021	503	24.9%	326	16.1%
State Homeland Security and Emergency Management Agencies	42	8	19.0%	7	16.7%
Emergency Management	2,063	511	24.8%	333	16.1%
Local EMS	1,267	262	20.7%	168	13.3%
State EMS Directors	43	17	39.5%	12	27.9%
Emergency Medical Services	1,310	279	21.3%	180	13.7%
Fire Service	7,085	850	12.0%	466	6.6%
Airport and Harbor	39	9	23.1%	5	12.8%
Campus	460	95	20.7%	56	12.2%
State Conservation and Wildlife	20	4	20%	3	15%
Tribal Nations	90	21	23.3%	10	11.1%
Municipal	3,562	667	18.7%	377	10.6%
County	1,738	275	15.8%	159	9.1%
State Police/Highway Patrol	149	12	8.1%	7	4.7%
Law Enforcement	6,058	1,083	17.8%	617	10.2%

Response statistics per county

See Figures 4 and 5

We sent emails or mailings to at least one organization in 1,979 counties from the 1,983 we identified as rural.

We received responses from 1,330 counties, which is 67% of the counties from which we solicited information. From 995 of those counties we received complete information from at least one agency.

Highest responding states

Texas had the most completed responses. Region 5 had 5 out of the 6 states in their region in the top 10 highest reporting states. Regions 4, 6 and 7 also had states in the highest number of reported completed surveys.

Figure 3 Highest Responding States

State	Region
Texas	6
Iowa	7
Ohio	5
Georgia	4
Wisconsin	5
Indiana	5
Kansas	7
Michigan	5
Kentucky	4
Minnesota	5

Figure 4 County Response Rate – AK-MT

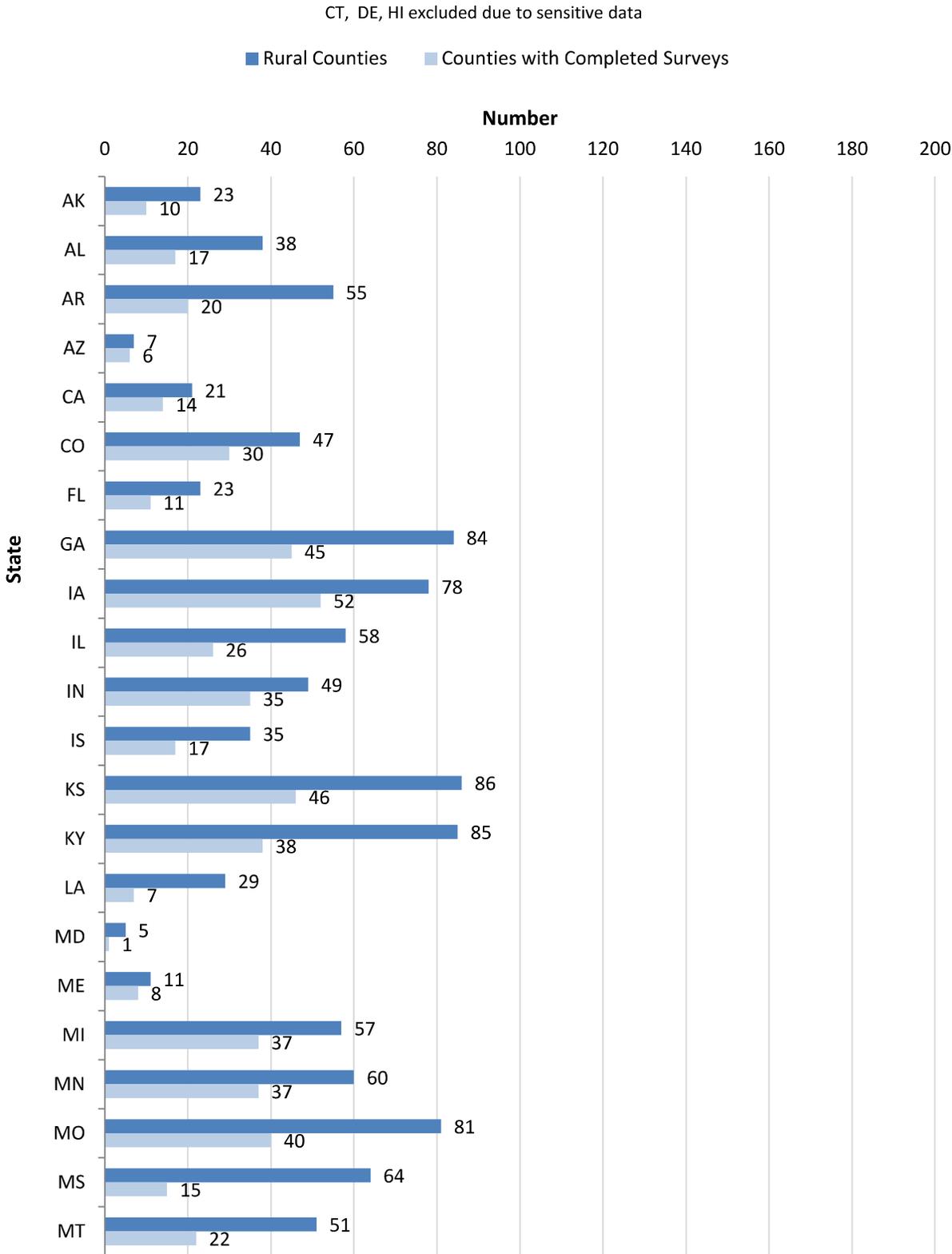
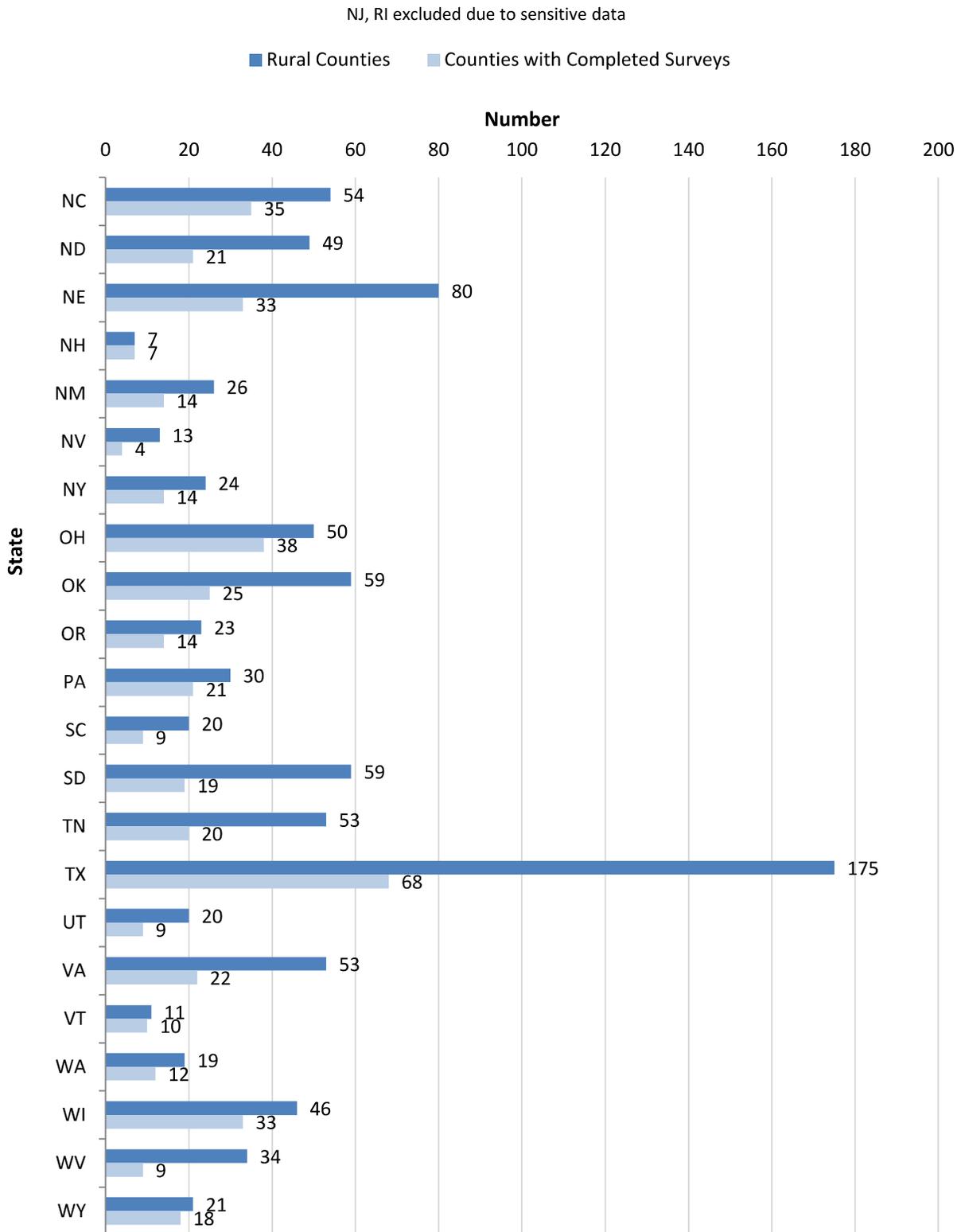


Figure 5 County Response Rate – NC-WY



Responses per FEMA Region

Almost a quarter of the responses came from Region V, followed by Region IV. However, more invitations were sent to Region IV than to Region V. Under 5% of the responses came from Regions II and IX combined. Regions III, V, VII, VIII, IX and X all had a higher response rate per region than expected. Region II, which constitutes a small percentage of the total to start with, returned fewer responses than expected (Figure 6).

Figure 6 Responses per FEMA Region

Region	All Responses %	Completed Responses %	Total Invites %
I (CT, ME, MA, NH, RI, VT)	6.0	5.7	6.4
II (NJ, NY)	1.8	1.3	2.7
III (DE, MD, PA, VA)	5.0	5.2	4.6
IV (AL, FL, GA, KY, MS, NC, SC, TN)	18.4	18.1	20.7
V (IL, IN, MI, MN, OH, WI)	22.4	22.9	20.0
VI (AR, LA, NM, OK, TX)	13.9	12.3	16.7
VII (IA, KS, MO, NE)	13.5	15.0	13.0
VIII (CO, MT, ND, SD, UT, WY)	10.8	10.7	9.4
IX (AZ, CA, HI, NV)	2.9	3.3	2.5
X (AK, ID, OR, WA)	5.3	5.5	4.1

Respondent agency primary area of responsibility

Nearly 40% of respondents had the responsibility of a municipal and over a third had the responsibility of a county (Figure 7).

Figure 7 Agency Primary Area of Responsibility

Primary Area of Responsibility	%
Municipal (city or town)	39.5
County	33.0
Municipal & County	13.7
State	3.5
Regional (multicounty)	2.4
Tribal Nation	0.7
College/University Campus	2.0
Fire District	0.6
Other	4.5

Population served by respondent agency

Nearly 55% of respondents serve populations of no more than 10,000; and nearly 80% of respondents serve populations of fewer than 30,000 people (Figure 8).

Figure 8 Population Served by Respondent Agency

Population Served	%	Completed %
< 2,500	25.1	23.4
2,501 – 10,000	32.7	31.2
10,001 – 30,000	22.5	23.7
30,001 – 50,000	9.0	9.4
50,001 – 75,000	3.6	3.9
75,001 – 100,000	1.8	2.1
>100,000	5.4	6.4

Employees

Nearly 20% of respondents reported that their agency has no full-time employees, and nearly 61% reported that there were 10 or fewer full-time employees at their agency. About 42% of respondents reported that there were no part-time employees, and nearly 48% reported that there were no volunteers at their agency. However, about a third of the agencies reported that they had ten or more volunteers at their agency. If an agency employs no full-time workers the number of volunteers increases: for example about 75% of agencies have 10 or more volunteers if there is no full-time worker.

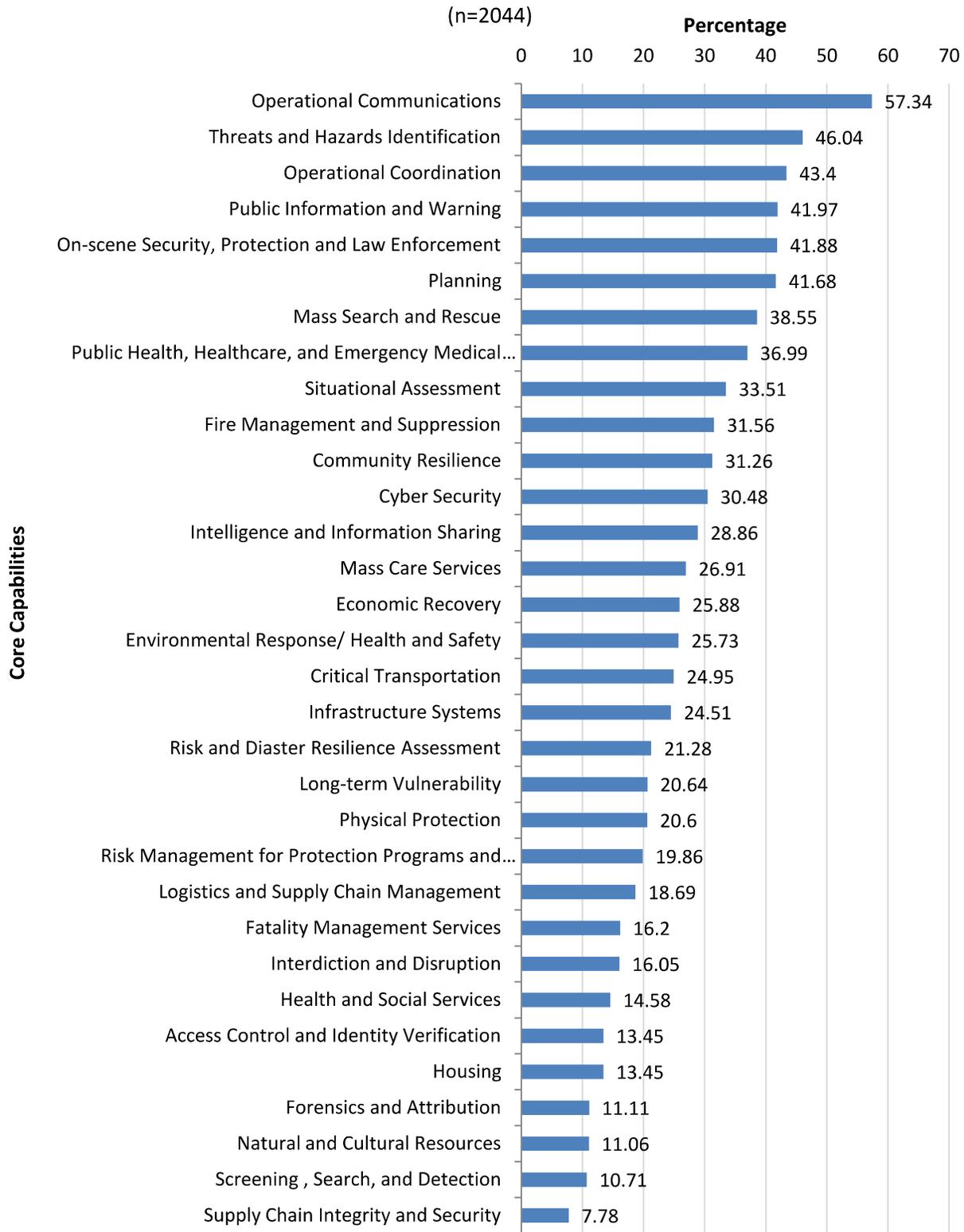
Approximately 60% of agencies report they have a person who is assigned to oversee training and that person completed the current survey in about 57% of those.

Core Capabilities

See Figure 9

To identify training needs respondents were asked to categorize their top ten needs from the 32 core capabilities that address the greatest risks to the nation, as identified in the National Preparedness Goal. The core capabilities are organized into five mission areas: Prevention, Protection, Mitigation, Response, and Recovery (Department of Homeland Security, n.d.). The thinking behind asking this is that communities should be given the flexibility to distribute their resources in the most effective manner.

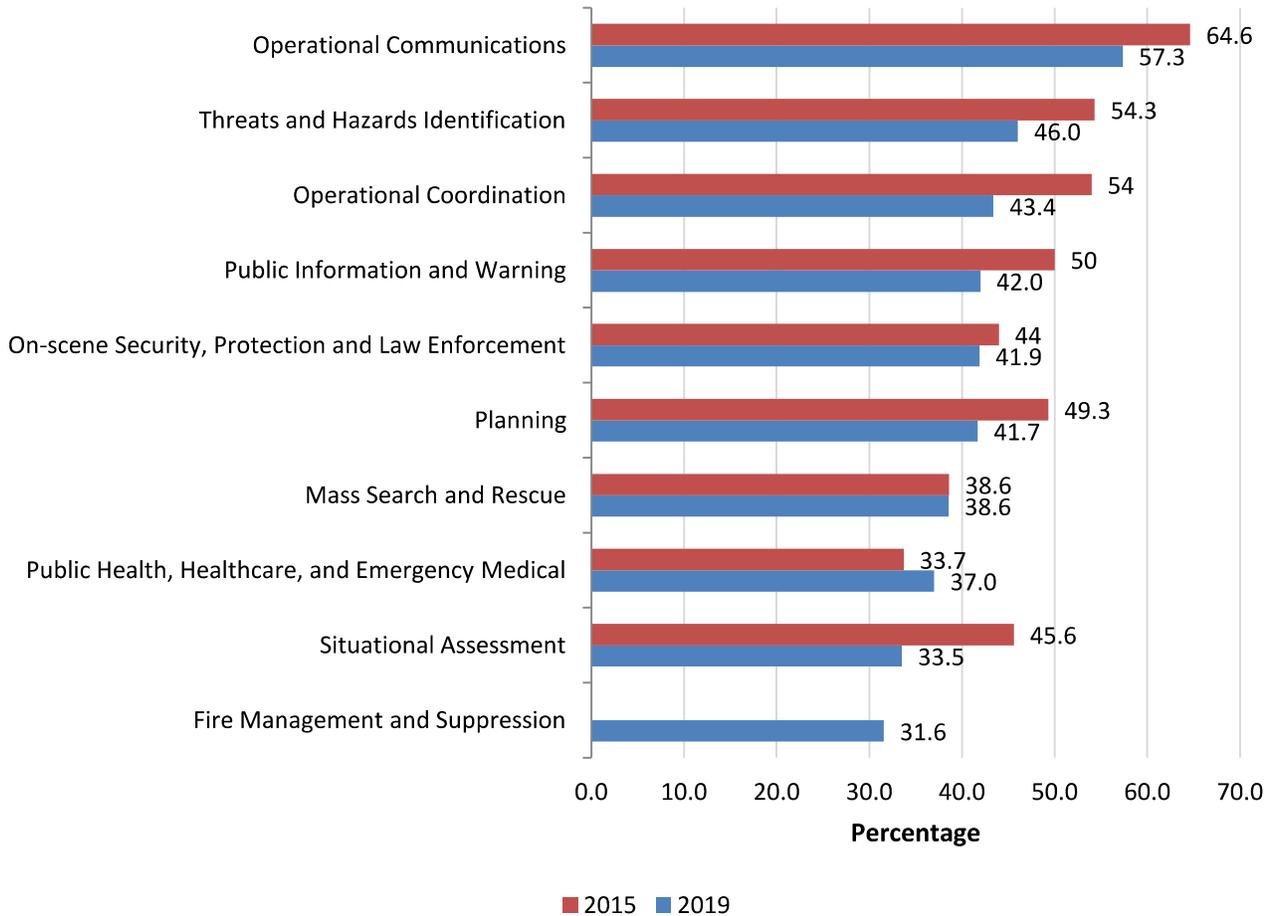
Figure 9 Core Capability Rural Training Needs



The core capability that was mentioned most frequently as a top ten need was ‘Operational Communications’, which was mentioned by over half the respondents. This need also was identified as the number one need in the 2014-15 NRTNA. In fact, the top four needs expressed by respondents remain the same as the 2014-15 NRTNA: ‘Operational Communications’, ‘Threats and Hazard Identification’, ‘Operational Coordination’, and ‘Public Information and Warning’. The only differences in the top ten core capabilities are ‘Fire Management and Suppression’ as the number 10 concern and ‘Environmental Response/ Health and Safety’ falling out of the top ten list. For a comparison of the top 10 core capability training needs compared to the 2015 survey (Figure 10).

Figure 10 Top Ten Needs – 2015 vs. 2019

(n=2044)



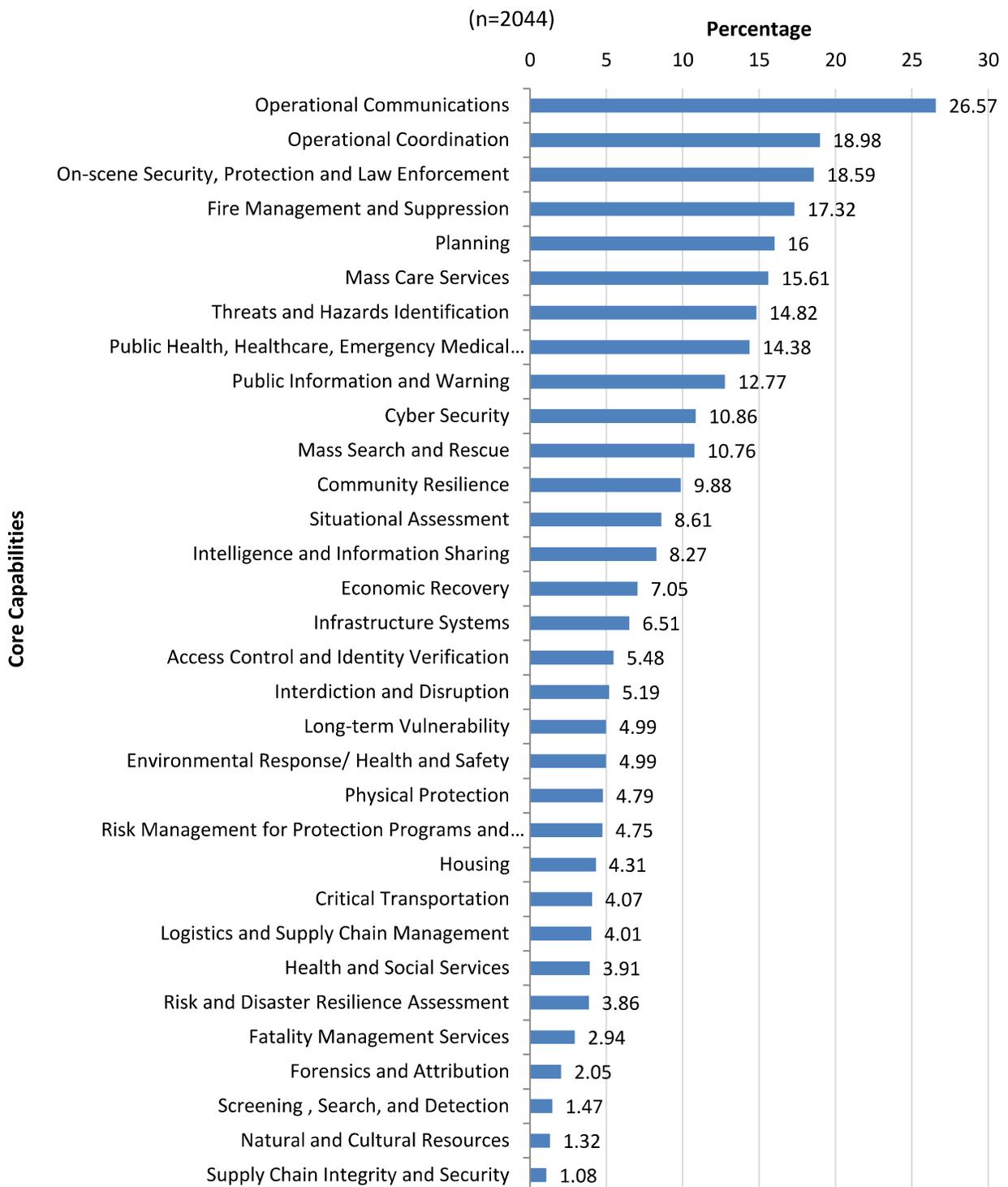
Note: Environmental Response/Health and Safety dropped out of the top 10

Operational Coordination is important to all departments. However, the number one priority changes according to the type of department. For those respondents who work in Emergency

Management, the number 1 priorities are Operational Communications (12.7%) and Operational Coordination (12.7%); those in emergency medical services are concerned with Public Health (28%) and Mass Care (11.3%); the fire service is concerned with Fire Management (35.6%) and Operational Coordination (10.9%); and law enforcement with On-scene Security, Protection and Law Enforcement (24.5%) and Operational Coordination (7.1%). This indicates that training in a rural county may be applicable to more than one type of agency and may increase numbers and interagency cooperation. However, this is not true for all training, as some training clearly has more relevance to certain agencies. This may indicate that agencies are compartmentalizing their tasks and their training, tending to focus on their own particular area. Encouraging agencies to focus on, and train in, other areas might serve to widen their abilities when it comes to an emergency scenario with which they are unfamiliar.

A point to note about the core capabilities is that six of the top ten are related to the mission area of 'Response' alone, and three are related to 'All Mission Areas'. The only other area to make it into the top ten is 'Mitigation'.

The current survey also considered which core capabilities were deemed the most important, and so examined the top three ranked priorities. Operational Communication was considered to be in the top three by over a quarter of the respondents; followed by Operational Coordination (nearly one-fifth of respondents). If respondents mentioned Mass Care Services or Cyber Security they were felt to be important even though they didn't receive as many people ranking them in their top ten. Equally, even though Mass Search and Rescue and Situational Assessment were rated by more people in the top ten, they did not rank as often in the top three (Figure 11).

Figure 11 **Top Ranked Core Capability Training Needs**

Time Frame of Core Capabilities

Respondents were asked in what time frame they thought their training needs for the Core Capabilities should be met. Most core capabilities were felt to be important on a continual basis (annual training, training of new staff) and a few core capabilities were felt to be important in the short-term (next 6-12 months). However, the core capabilities indicated as being needed in the short-term were not thought to be the most important core capabilities by large numbers of respondents. This could be due to the agencies surveyed.

Short-term

Logistics & Supply Chain Management
Supply Chain Integrity and Security
Long-term Vulnerability

Long-term

Natural and Cultural Resources
Fatality Management Services
Housing
Economic Recovery
Forensics and Attribution
Infrastructure Systems

Continuous

Fire Management and Suppression
Public Health, Healthcare, Emergency Medical Services
On-scene Security, Protection and Law Enforcement
Interdiction and Disruption
Operational Coordination
Intelligence and Information Sharing
Planning
Threats and Hazards Identification
Screening , Search, and Detection
Operational Communications
Public Information and Warning
Health and Social Services
Environmental Response/ Health and Safety
Cyber Security
Situational Assessment
Community Resilience
Risk Management for Protection Programs and Activities
Access Control and Identity Verification
Mass Care Services
Mass Search and Rescue
Risk and Disaster Resilience Assessment
Physical Protection
Critical Transportation

Topical, Threat, and Hazard Rural Training Needs Identification

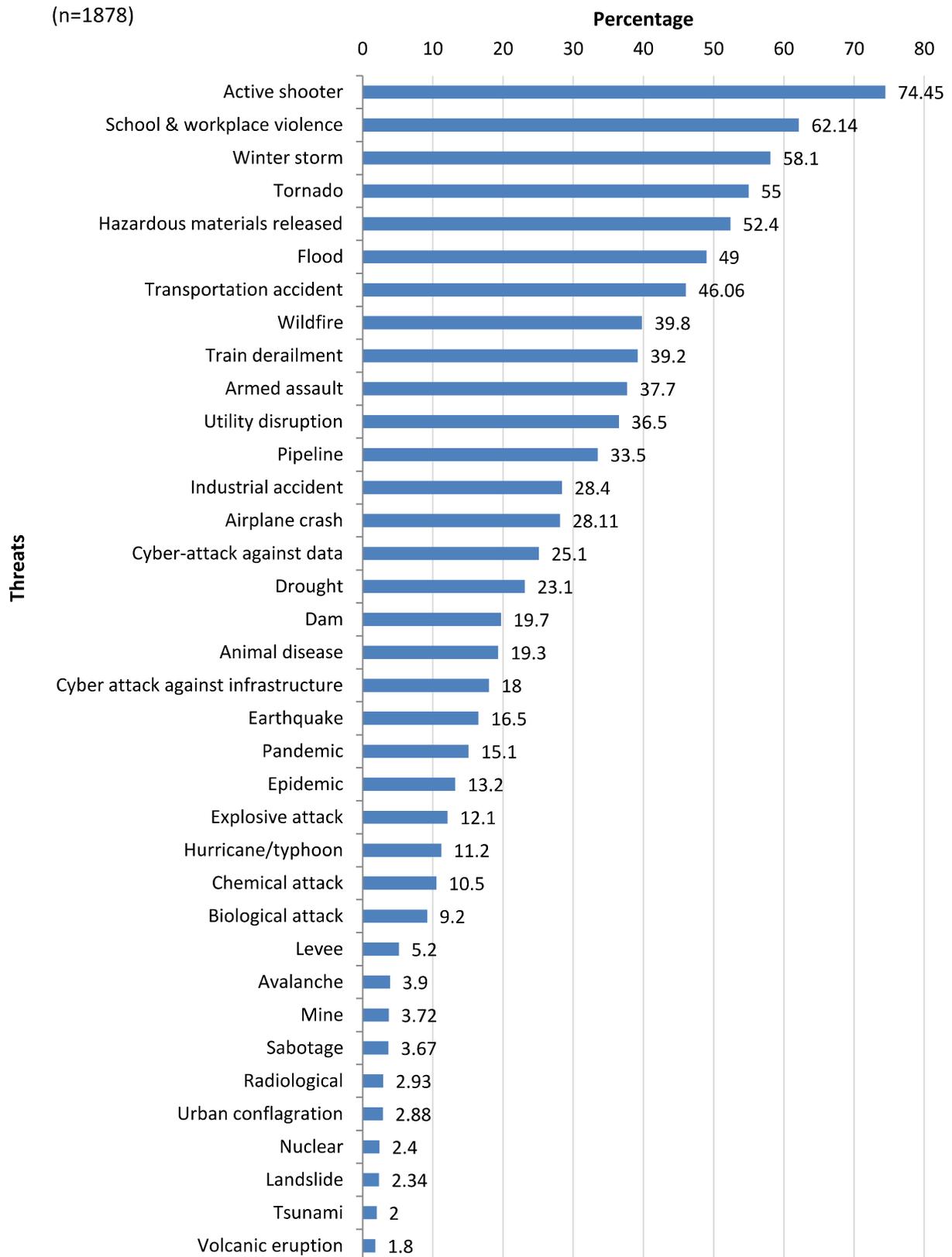
Respondents were asked to indicate topical training gaps, and the common themes from both researchers were: Training (active shooter, hazardous materials, fire fighting, mental health, grant writing), Funding, Personnel (recruitment, retention, volunteers), and Communication.

Identifying risks (threats and hazards) is the first of three steps in conducting a threat and hazard identification and risk assessment (THIRA). For the purposes of the THIRA, threats and hazards are organized into three categories: Natural hazards, technological hazards, and human-caused incidents (“CPG 201THIRA,” n.d.). It is this list that guides the questions asking respondents to identify the top ten threats and hazards to their community. Although the list gives examples by category, respondents were not shown this categorical list: they also were not asked to select at least one item from each category. It therefore is possible that respondents might have selected all threats from one particular category. The identification of threats is useful because rural training may not be captured by a single core capability (Figure 13).

Figure 12 **THIRA: Threats by Category**

Natural	Technological	Human-caused
avalanche	airplane crash	active shooter incident
animal disease outbreak	dam failure	armed assault
drought	hazardous materials released	biological attack
earthquake	industrial accident	chemical attack
epidemic	levee failure	cyber-attack against data
flood	mine accident	cyber attack against infrastructure
hurricane/typhoon	pipeline explosion	explosives attack
landslide	radiological release	nuclear attack
pandemic	train derailment	sabotage
space weather	transportation accident	school and workplace violence
tornado	urban conflagration	
tsunami	utility disruption	
volcanic eruption		
wildfire		
winter storm		

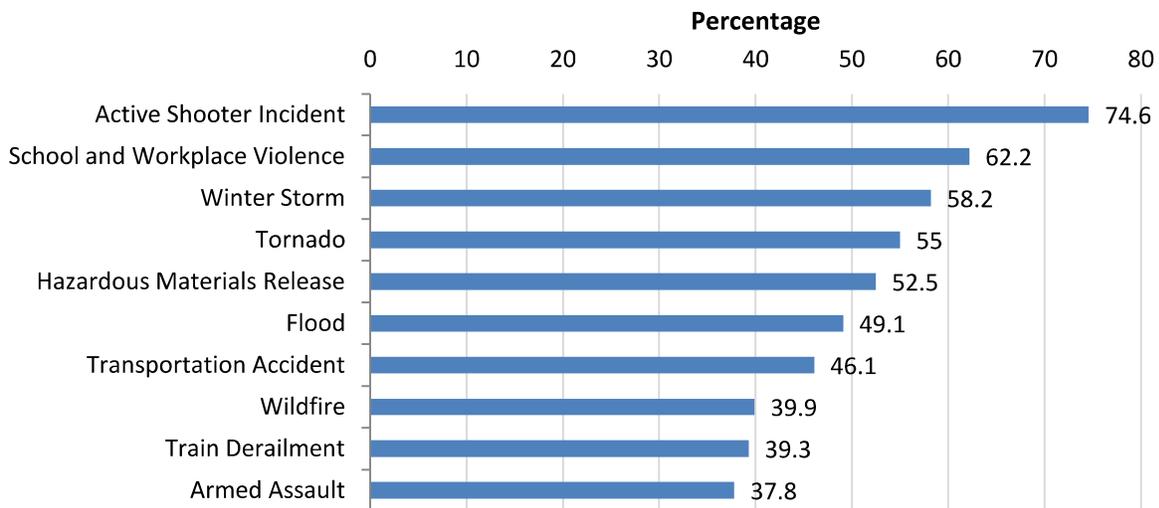
Figure 13 Aggregated Threat Reporting



Top threats

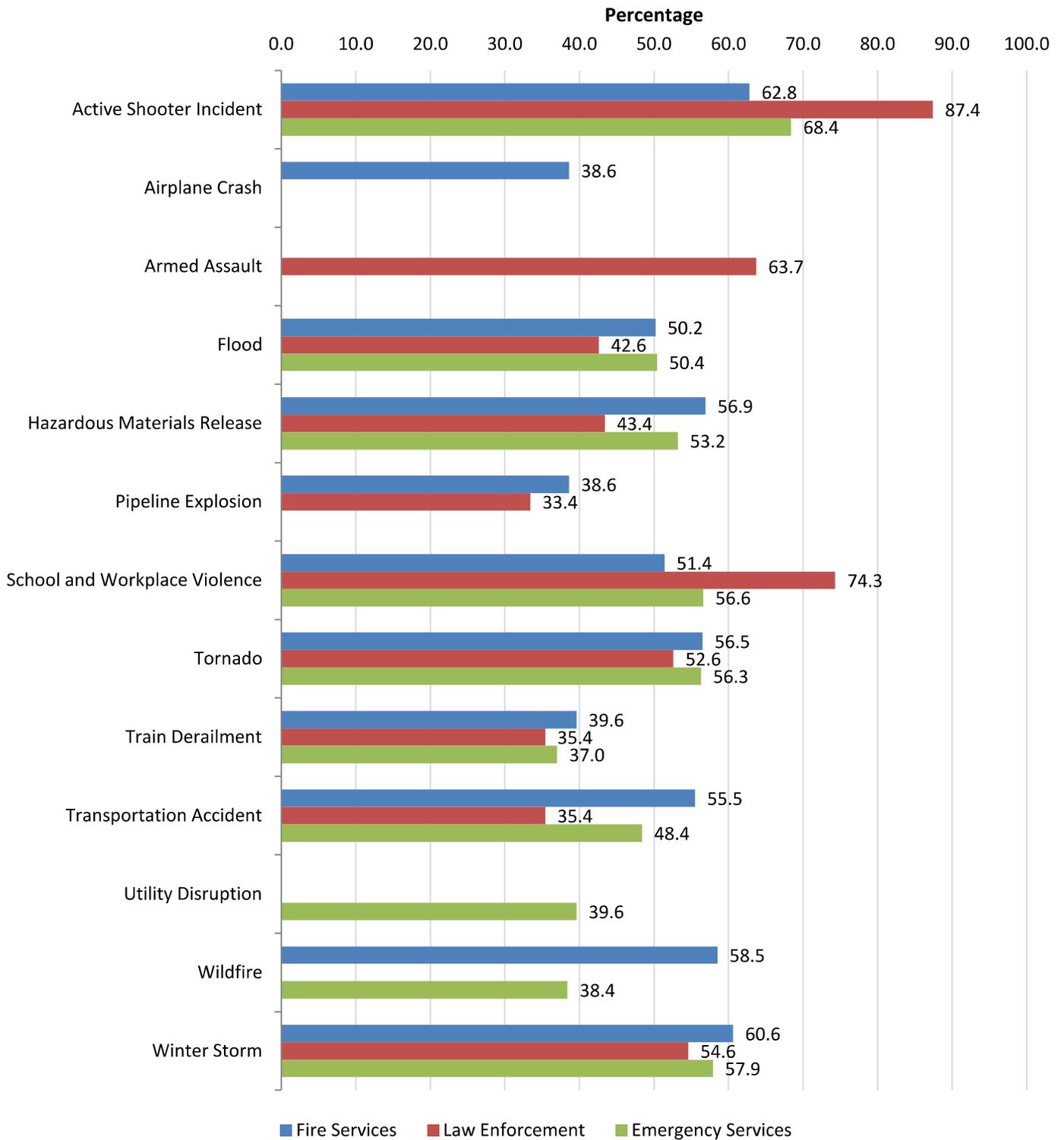
Respondents were asked for their ten most important threats, and Figure 14 displays these. The most important threat across all regions and all services is Active Shooter Incident with nearly 75% of respondents reporting it as a top 10 priority. The number 2 threat is School and Workplace Violence which is mentioned by 62%. Both of the top two threats are human-caused threats, as is the number 10 threat, Armed Assault, which is mentioned by nearly 38% of respondents. The natural threats of Winter Storm (58%), Tornado (55%), Flood (49%) and Wildfire (40%) are the number 3, 4, 6, and 8 threats respectively. Finally, the top technological threat is Hazardous Materials Release, which is mentioned by over 52.5% of respondents and is the fifth most commonly cited concern. Other technological threats in the top ten include Transportation Accident (46%) and Train Derailment (39%) at positions 7 and 9.

Figure 14 Respondents' Ten Most Important Threats



However, the top ten concerns are not uniform across all services (Figure 15). The number one concern with all agencies is Active Shooter Incident, although the percentage of law enforcement agencies (87%) that categorized it as a top 10 concern is greater than either emergency services (68%) or fire services (63%).

Figure 15 Top Ten Concerns Across Services

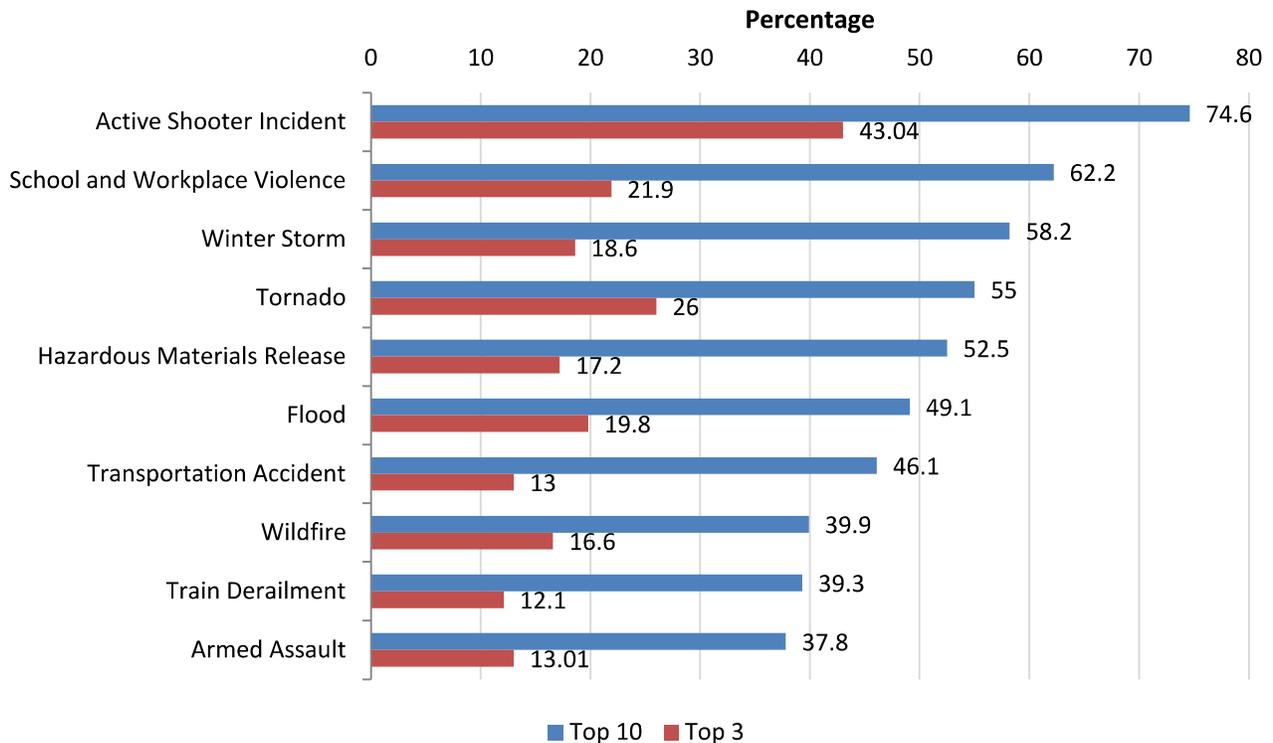


The top three concerns for law enforcement are Active Shooter Incident (87%), School and Workplace Violence (74%) and Armed Assault (64%). However, law enforcement agencies were the only ones who had Armed Assault in their top 10. The top three concerns for fire services are Active Shooter Violence (63%), Winter Storm (61%), and Wildfire (59%). The fire service also say that Airplane Crash was a concern (39% - tied for 10th position). The top three concerns for emergency services were Active Shooter (68%), Winter Storm (58%), and School and Workplace Violence (57%). They are the only group that responded that Utility Disruption (40%) was a concern. This implies that although training can be provided across services, some types of training may be more important to some agencies than others. Therefore, resources can be focused on those types of training it is felt would be most beneficial to each type of service.

Although all types of agencies identify Active Shooter as the principal threat, the percentage of law enforcement agencies that do this is much higher than the percentage of other agencies. Whereas 16.7% of emergency management agencies identified Active Shooter as the number one threat, 44% of law enforcement agencies did so. Emergency management, emergency medical services, and fire service all identified Tornado as the number one priority in over 11% of responses. Law enforcement identified it as the number one priority in under 6% of responses. According to NOAA's National Severe Storms Laboratory (NSSL), only 10 Americans were killed by tornadoes in 2018; the lowest number of recorded deaths since the Ulysses S. Grant administration (Rice, 2019). The NSSL attributes this low number of fatalities in large part to greater preparedness and improvements in warning systems. This is perhaps a tangible result of training initiatives.

When respondents were asked for their top three concerns, a similar pattern emerged. Figure 16 shows the top three concerns are Active Shooter Incident (43%), Tornado (26%), and School and Workplace Violence (22%).

Figure 16 Comparison: Top 10 vs. Top 3 Concerns



There also appear to be some regional differences in threat prioritization. Active Shooter is ranked as the number one priority in all regions except regions IX and X, where Wildfires (31.7% and 19.2%) are the most important threat. Given the recent history of wildfires in large parts of those regions this is not entirely unexpected.

When considering the top 10 priorities, there are differences across the regions, as can be seen in Figure 17. All regions have Active Shooter Incident as a top ten priority and is usually the priority that has the highest percentage of respondents place it in the top ten. The exceptions are regions I and X who are more concerned with Winter Storm. Active Shooter Incident, Flood, Hazardous Materials, School and Workplace Violence, and Transportation Accident are all in the top ten for all regions, whereas Dam Failure is important in region 1 but Earthquake is a concern for regions IX and X. Although Tornado is a high-ranked priority, it is only a top ten concern for four regions (IV, V, VI and VII).

Figure 17 Regional Incident Priorities

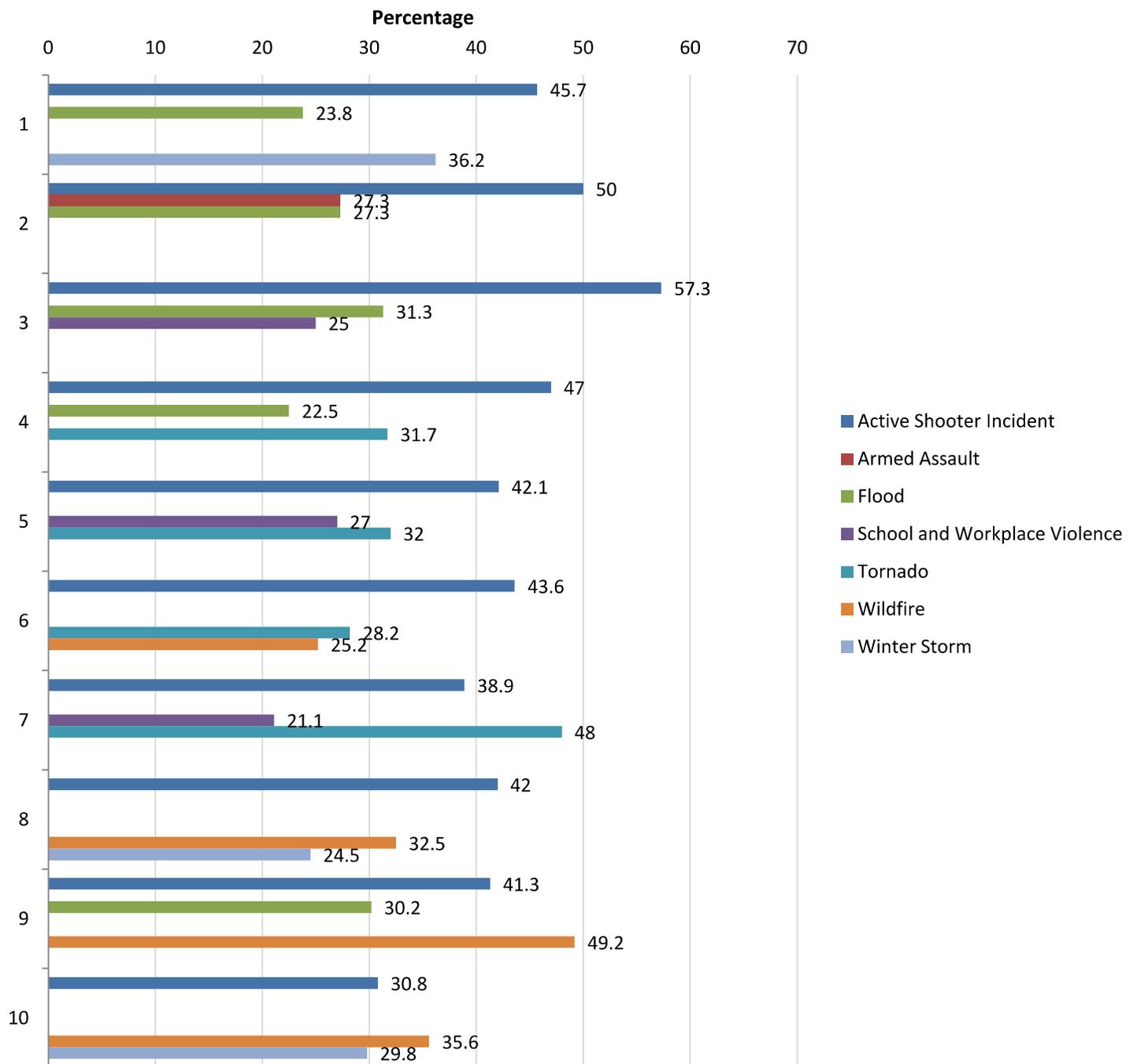
Priority	Region									
	1	2	3	4	5	6	7	8	9	10
Active Shooter Incident	70.5	86.4	78.1	78.1	76.6	73.1	73.5	70.0	74.6	70.2
Armed Assault	30.5	50.0	38.5	39.1	40.0	46.6		35.5	38.1	
Dam Failure	32.4									
Earthquake									49.2	50.0
Flood	58.1	45.5	56.3	51.2	41.4	45.3	49.8	42.5	60.3	52.9
Hazardous Materials	49.5	50.0	54.2	48.8	57.0	48.7	55.6	55.0	52.4	46.2
Industrial Accident		36.4	41.7							
Pipeline Explosion			42.7			53.8	39.6			
School/Workplace Violence	60.0	72.7	64.6	60.4	67.6	63.7	61.1	61.0	52.4	53.8
Tornado				67.2	68.8	67.5	82.9			
Train Derailment		50.0	38.5	38.5	46.3	40.2	45.8	35.0		31.7
Transportation Accident	56.2	59.1	44.8	47.3	46.1	43.2	49.1	39.5	55.6	38.5
Utility Disruption	43.8	54.5			39.7		33.5	37.5	39.7	45.2
Wildfire	34.3			37.6		54.7		64.0	73.0	56.7
Winter Storm	73.3	77.3	67.7	42.3	64.1		64.0	67.0	55.6	71.2

We also considered the top three priorities of respondents by region, and saw some differences from the top ten list. As can be seen in Figure 18, of the concerns that were ranked in the top 3 by respondents Active Shooter Incident is still a concern, although region 7's number one concern is Tornado and region 9's number one concern is Wildfire.

From this we can surmise that the top five priorities for respondents are Active Shooter Incident, Flood, School and Workplace Violence, Tornado, and Wildfire. Armed Assault is excluded because it was only mentioned by region II, which had very few respondents.

When respondents are asked which other events concern them, they most often mention weather events such as high winds, ice, excessive heat, and the consequences of climate change; also civil unrest, communications failure, and terrorist attacks.

Figure 18 Top Three Priorities of Respondents by Region



Perceived Training Provision Gaps

The survey respondents were asked to think about any training needs that are not currently being met. These questions elicited open-ended responses that ranged over a wide field of topics. Two coders worked independently on the survey data generated by these questions to compile thematic categories that would better express the consensus of the responses.

The two questions pertaining to training provision gaps are:

What other training do you think should be provided as part of the Core Capabilities?

and

Please indicate any topical training gaps/needs (versus capabilities related to equipment acquisition, increase in personnel, funding obtainment, etc.) within your jurisdiction that you believe should to be addressed. These can be specific topics and/or issues that are not easily encapsulated within a single Core Capability.

In processing the responses to these questions the two coders compared common themes within the responses to the catalog of trainings already available through FEMA and other organizations. The coders searched keywords in both the title and the descriptive body of catalog entries, matching them to survey responses. The coders obtained consensus results by looking for at least five requests for each type of training.

By this method we arrived at a short list of training gaps that respondents feel should be addressed.

One of the positive outcomes of this process is that a large number of survey respondents felt that no extra courses are necessary, and they are happy with the training already available.

The (unranked) list of perceived training gaps is as follows:

New trainings—

1. **Mental health/wellness of responders** – Survey respondents requested training in the identification and mitigation of PTSD and stress among emergency personnel. As a secondary issue, they have requested training in identifying people in the general population with such problems.
2. **Safe operation of emergency vehicles (EVOC)** – This training is commercially available.
3. **Substance abuse & drugs** – Respondents would like training in the identification and treatment of these problems. This might be a response to the ongoing opioid crisis in the US which is known to disproportionately affect rural communities (Centers for Disease Control and Prevention, 2019).

Expansion of existing trainings—

4. **Funding outside of FEMA** – Respondents would value training on seeking out diverse funding sources; perhaps state appropriations, private donations, bequests, etc.
5. **Self-EMT care & personal safety** – Although FEMA offers training in EMS, the expressed need is for self EMT, linked to training in preserving personal safety in an emergency scenario.
6. **Specialty rescue techniques** – Respondents expressed an interest in training for water rescue (including techniques specific to rescue in fast-moving water) and rescue in confined spaces.

Staff recruitment & retention – The available FEMA training pertaining to recruitment of volunteers notwithstanding, respondents are interested in training in the recruitment and retention of staff members.

Rural Community Resiliency and Response Capabilities

Respondents were asked to identify what was needed in their jurisdiction to increase community resilience and response capabilities. The survey provided a set of likely responses, in addition to the option of selecting ‘other’ with space for extra information. The following percentages are based on respondents who answered the question:

95% of respondents said that they need relevant training and exercises

88% said they need preparedness and mitigation funding

85% identify a need for equipment acquisition

81% need an increase in personnel or response agencies

80.5% feel that technological gaps need to be addressed

In general, percentages have increased since the 2014-15 report, even when they are calculated for total respondents. The only area in which percentages have not increased is for training, which is at 59.6% compared to 62%. Although we should always exercise caution in interpreting a single metric from an array of metrics, nevertheless this decrease might indicate that emergency responders increasingly feel that their training needs are being met more fully, compared to five years ago.

Even though ‘technological gaps’ was selected by fewest respondents (as was the case in 2014-15), there is a considerable increase in the number of respondents who selected this as an area that needs improvement. Almost 50% of all respondents selected this as an area compared to 31.3% in 2014-15. Of the respondents who identified that ‘technological gaps’ need to be addressed, most believe there is a need for

—better awareness of what technologies exist (89.7%)

—technology acquisition (87.8%)

- funding to operationally maintain and use existing technology (86.6%)
- training (83.1%)

The order of concerns in this area is the same as in 2014-15; however, the percentages are greater in 2019. Other technological needs that were identified were

- better and faster internet/cell phone coverage in rural areas
- use of two way radio communication
- use of drones
- Arc GIS

Concerns about internet and cell phone coverage might be expected to rise, given the increasing dependence of first responders on internet-based communications systems. The recent California wildfires involving hundreds of firefighters, medics, police officers, and other responders have highlighted some previously-unexpected problems in this area (Brodkin, 2018; Moody, 2018; Pai, 2017). We might also expect an increase in requests for training in the deployment of drones, especially where they are used to search for and locate disaster survivors, or to inspect unsafe buildings, utility lines, and infrastructure after an event.

Respondents used the write-in section of the ‘Other’ category to suggest improvements in public education, buy-in, communication, infrastructure, and planning. Whereas these undoubtedly will impact first responders’ ability to work effectively, at least two of them (public education and infrastructure) are beyond the purview of the RDPC or FEMA. However, employees and volunteers in response agencies might be encouraged to get involved at the community level, to help steer school districts and city and county planners toward greater disaster preparedness.

Rural Training Needs Assessment

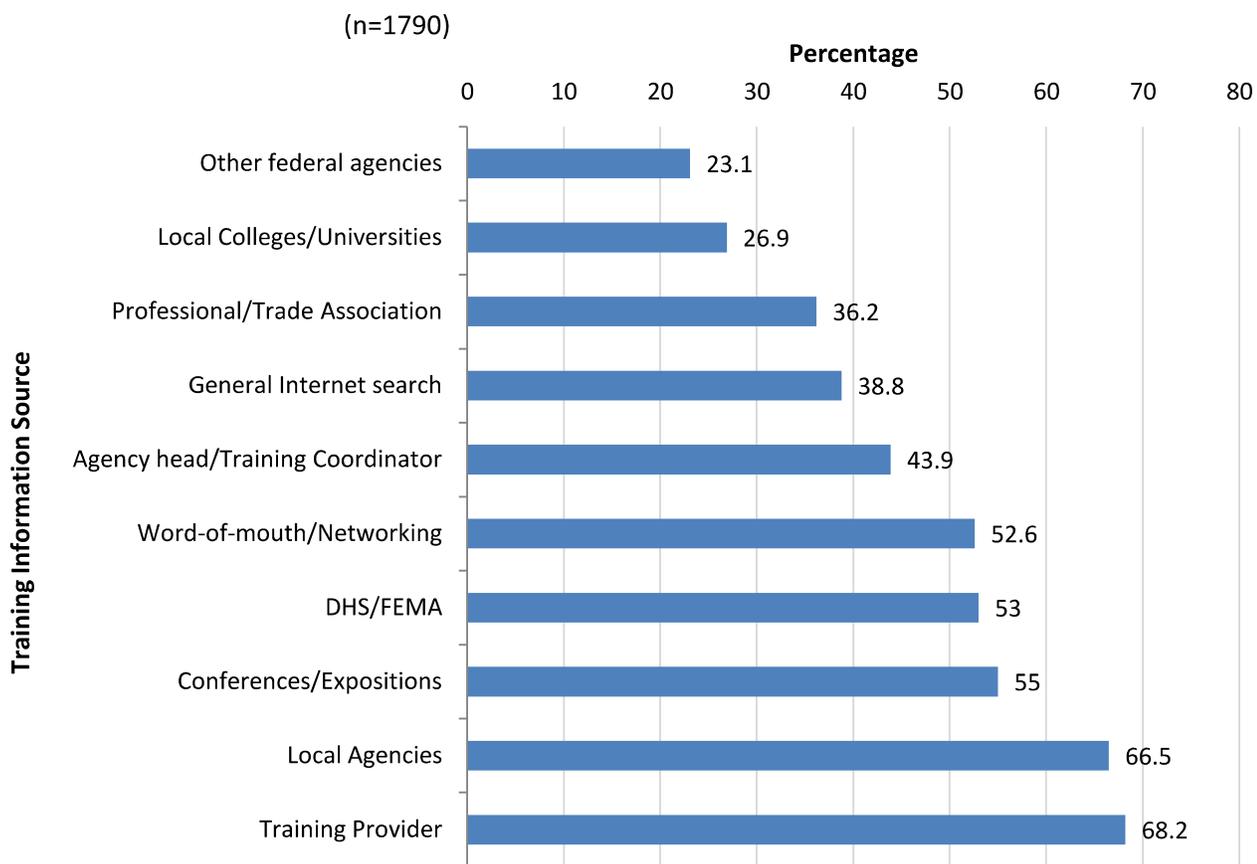
Respondents were asked if their agency conducts training needs assessments (TNAs). Some 40% of respondents reported that their agency does, in fact, conduct needs assessments, although there is no clear consensus on what constitutes a needs assessment, or how it should be conducted. Such assessments vary widely in their application and their content. Some are conducted monthly, others annually. Training needs are prioritized for disparate reasons: according to what is mandated or can earn annual certification or continuing education credits (CEUs), or according to what agency personnel request. Sometimes training is based on the current situation of a particular agency – perhaps in response to an emergency event recently experienced by agency staff. Some TNAs include surveys, interviews, and meetings, while others are decided at the command staff level. TNAs might be conducted internally, or may involve consultation with third parties and outside agencies. Some TNAs use the THIRA process to determine threats and vulnerabilities; presumably, others do not.

Training Information and Delivery Preferences

How training information is received

Respondents were asked to report how they receive information about training that is available to them. Over two thirds of respondents reported that they heard about training opportunities directly from their Training Provider (68.2%), and from their Local Agencies (66.5%). Over a half of respondents reported that they heard about training opportunities from each of Conferences and Expositions (55%), DHS/FEMA (53%), and Word-of-mouth (52.6%). This information can be useful in ensuring that we use the most appropriate methods to keep rural agencies apprised of training opportunities.

Figure 19 Sources of Training Information

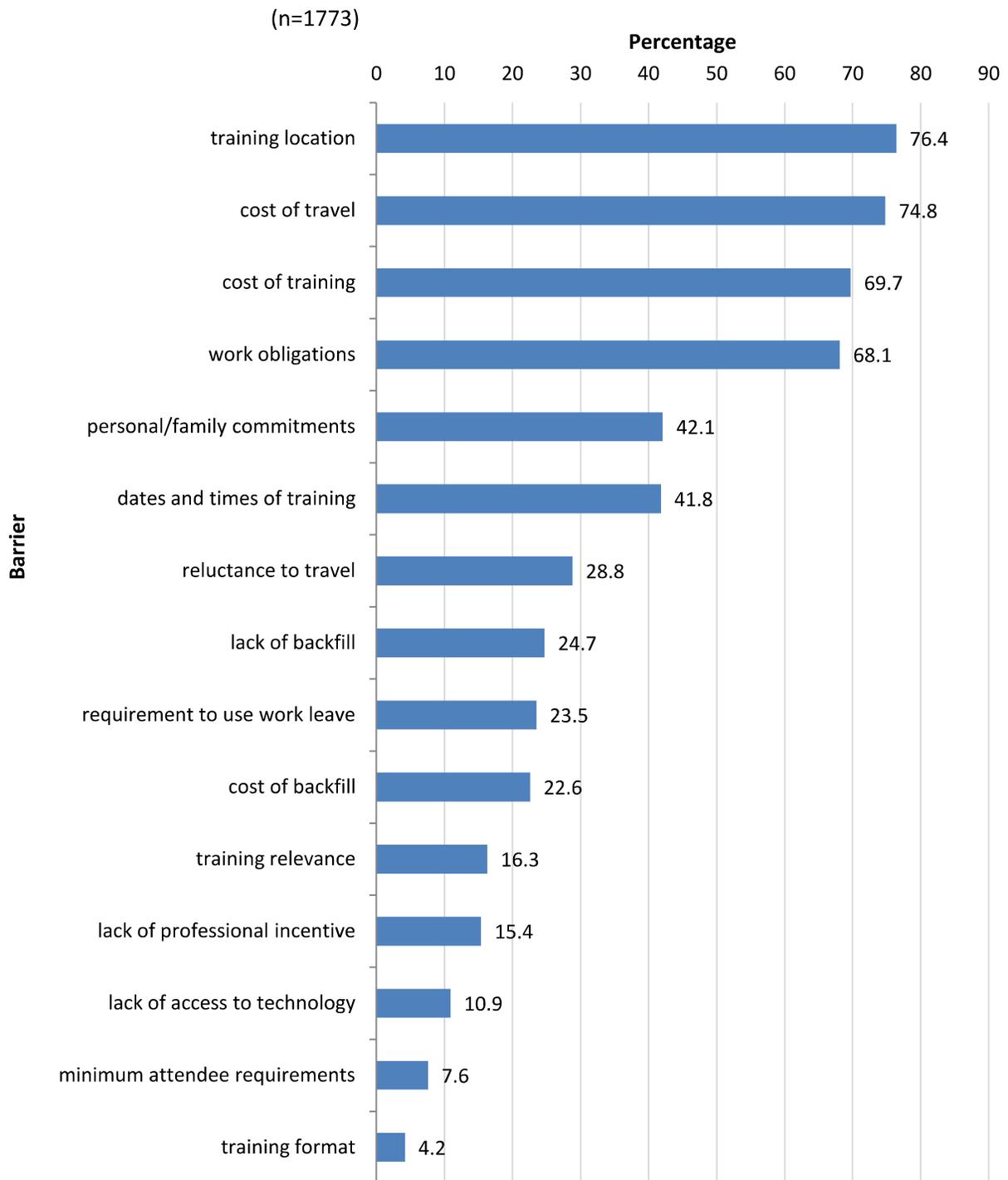


Rural training influences, barriers, and preferences

It is not just important to know what types of training respondents need, but also to understand why they may not partake of training that is available to them. To help assess whether respondents would utilize training, they were asked what barriers exist that influenced their decision not to attend a training.

The biggest barrier is the location of the training, highlighted by 76.4% of respondents. This is followed closely by cost of travel (74.8%). We can imagine that, for rural areas, training location can be a major problem: not only do personnel have to travel larger distances to attend trainings, but there are fewer suitable venues available in rural areas. As a possible solution, it might be prudent to develop more online and virtual training opportunities. (Other barriers to obtaining training are listed in *figure 14* below.) The top four barriers have not changed since the 2014-15 report. Respondents reported that many courses were cancelled due to low enrollment even if their number was one or two short of the minimum size. A suggested size for minimum course attendee requirements was 10-15 people.

Figure 20 **Barriers to Training**



Respondents also were asked to list what motivates them to attend training. The biggest reasons were cost and location of training, followed by the fact it was required training. Respondents

were not necessarily impacted by the reputation of the training provider, and about a third (31.3%) thought about certification when making training decisions.

Figure 21 **Reasons Respondents Attend Training**

Why attend training?	%
Cost	75.6
Location of training	73.4
Required training	72.9
Topic of Interest	63
Dates and times	54.9
Certification	31.3
Reputation of training provider	24.8

Almost a half (49.3%) wanted training of 8 hrs, but about a quarter (22.3%) wanted training that was under 4 hours. Fewer than 10% of respondents were interested in training that lasts more than one day.

Figure 22 **Length of Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
< 4 hrs	397	13.2	22.3	22.3
4-8 hrs	266	8.8	14.9	37.2
one day (8 hrs)	880	29.3	49.3	86.5
more than one day	157	5.2	8.8	95.3
Other	75	2.5	4.2	99.5
Did not answer question	9	.3	.5	100.0
Total	1784	59.3	100.0	

Training offered on nights/weekends

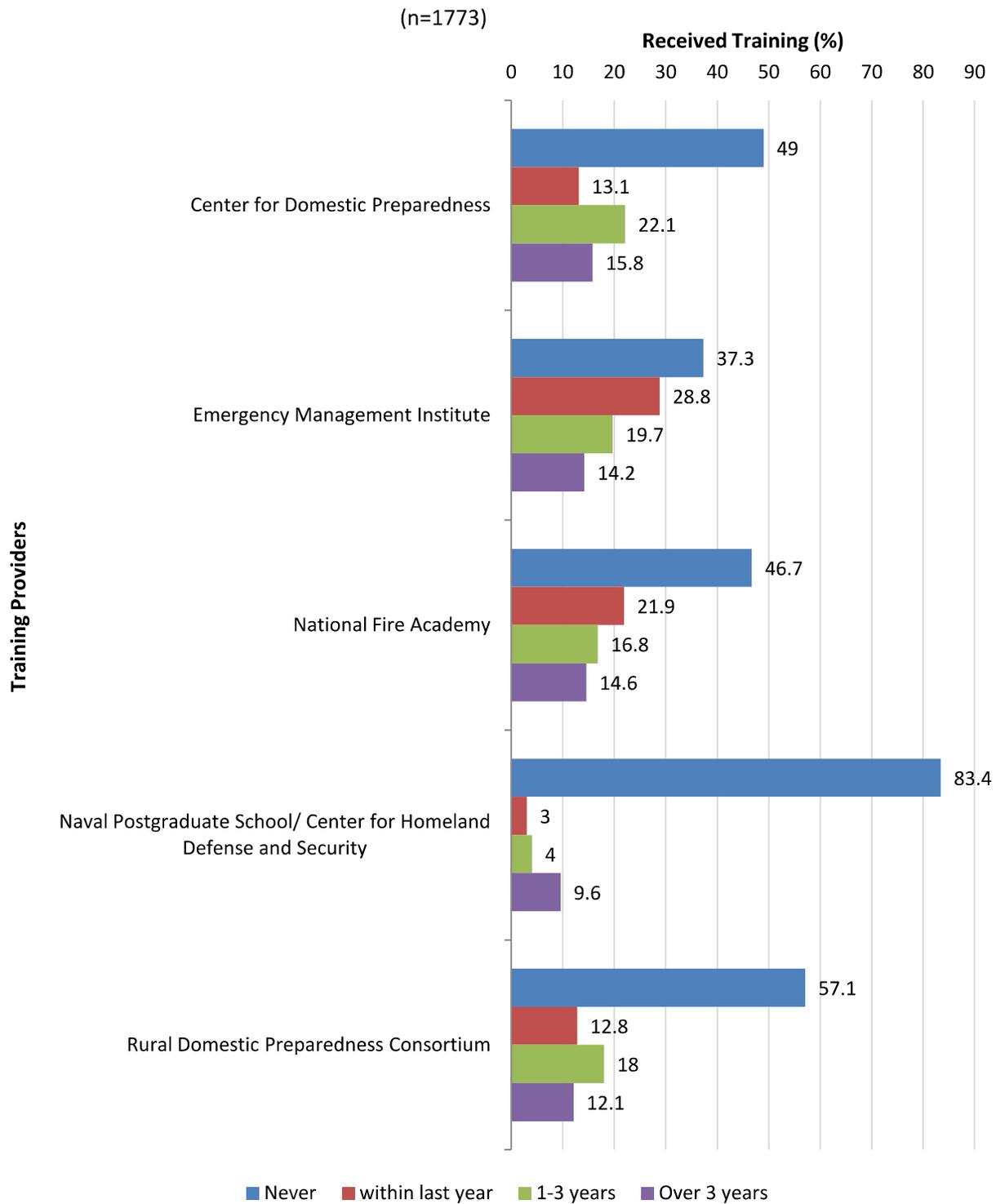
Almost two thirds of respondents (65.4%) felt that training offered at night and on weekends would be beneficial. The main reason for this is that it would allow volunteers who work during the day to attend trainings. The main reasons against it are that people want to spend evenings and weekends with their families, and that it is easier to backfill on a dayshift.

Rural federal training provision

Respondents were asked how they receive information related to training opportunities and whether and when they had any training from various federal organizations. The Emergency Management Institute (EMI) was the agency from which most responders reported receiving training.

About 63% of respondents reported receiving training from the EMI and nearly 29% of respondents had received training from them in the last year. The other organizations respondents mentioned they received training included the National Disaster Preparedness Training Center (NDPTC), Texas A&M Engineering Extension Service (TEEX), FEMA (Federal Emergency Management Agency), and Security and Emergency Response Training Center (SERTC).

Figure 23 Rural Federal Training Provision



Recommendations

Many respondents reported that they had successfully utilized the training that they have received.

Considering that the biggest perceived barriers to training are the location and cost of training and the cost of travel, it might be prudent to more aggressively promote the free training that is available to organizations. Agencies may not be aware that, in some circumstances, Homeland Security Grant Program (HSGP) funds may be used for overtime and backfill costs for those individuals attending NTED courses (NTED, n.d.). It might also be beneficial for a majority of trainings to be available online, thus removing the cost-of-travel barrier. Where online alternatives are not feasible, perhaps smaller trainings at diverse locations might be provided.

Other suggestions for improving training for agencies in rural areas include providing each training more than once at a location, to allow more people to attend and to address the backfill issue; lowering the minimum class size; and advertising the trainings more widely to let agencies know what trainings are available.

Employing local, qualified trainers might serve to make trainings more accessible to community agencies, and may facilitate the provision of a greater number of courses.

It might prove beneficial to expand remote delivery of courses – either through conventional online channels or via the more cutting-edge virtual emergency training platforms that have shown great promise.

There may be merit also in developing series courses: offering basic, intermediate, and advanced levels of some courses would encourage professional development and might also help agencies with retention of staff – especially among their volunteers.

Allied to this, perhaps some form of National Certification might be offered for completion of courses. This would serve several ends: it would encourage participants to complete all levels of the course series, and also would provide them with a recognized certification should they move to another agency, or even to another location in the US. (About a third of respondents considered certification when making training decisions.) For the RDPC it would help create a database of first responders and emergency personnel who are qualified to a standard level in a range of different skill areas. Holders of certifications might even choose to be included on an emergency call-list, so that qualified responders from areas adjacent to a disaster zone can quickly be co-opted to help.

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