








RDPC™
Rural Domestic Preparedness Consortium

2014-15 NATIONAL RURAL TRAINING NEEDS ASSESSMENT

VOLUME II: Assessing Capability and Training Needs within Rural Communities

Rural Domestic Preparedness Consortium

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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, cybersecurity, 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. This program was supported by Cooperative Agreement Number 2010-RD-TO-K013, administered by the U.S. Department of Homeland Security. Points of view or opinions in this program are those of the author(s) and do not represent the position or policies of the U.S. Department of Security.

Executive Summary

Rural communities throughout the United States continue to face persistent and ever-changing threats and hazards. A full understanding of the rural threat and hazard picture is needed by training providers in order to develop and subsequently deliver needed training that aims to build rural community resiliency and response capabilities. To achieve this understanding, the Justice and Safety Center (JSC) at Eastern Kentucky University (EKU), on behalf of the Rural Domestic Preparedness Consortium (RDPC), routinely conducts a National Rural Training Needs Assessment (NRTNA), which assesses the training experiences, needs, barriers, and preferences of rural first responders. With the last NRTNA occurring five years ago, and given the significance of rural and urban incidents occurring since this time (e.g. Newtown [CT] school shooting, Hurricane Sandy, Oso [WA] mudslide, Boston [MA] Marathon bombing, Deep Water Horizon explosion and spill, Tuscaloosa [AL] and Joplin [MO] tornadoes, high-profile train derailments, western U.S. wildfires, etc.), the need to conduct a new NRTNA was clearly established.

The first of two phases of the 2014-2015 NRTNA began in late summer 2014 with the eventual completion of *Phase I: Rural Training Coordinators Needs Assessment*[1] in early 2015. Subsequently, work began on *Phase II: Assessing Capability and Training Needs within Rural Communities* towards the end of Phase I. This report details the results of Phase II, which sought information from approximately 22,500 rural response agencies across the United States. Phase II of the 2014-2015 NRTNA obtained information pertaining to rural first responder training needs, barriers, and influences. Figure ES-1 presents the most important and salient results from Phase II. It must be noted that the Core Capability-based rural training needs cut across all mission areas (prevention, protection, mitigation, response, and recovery) and the respondents indicated a heavier need/emphasis on continual and short-term[2] training. Further, the results within rural training influences and barriers are consistent with previous national rural assessments in which cost factors were particularly important issues. Lastly, the results also indicate that rural emergency response agencies are successfully applying and diffusing the training they do receive thereby increasing the resiliency and response capabilities within the rural communities they serve.

Overall, Phase II of the NRTNA produced highly valuable information that can be utilized in training development and delivery efforts to address rural training needs. This will better prepare rural communities through increased community resilience and response capabilities. Phase II officially completes the main effort of the 2014-2015 NRTNA, which achieves the most comprehensive understanding of rural homeland security training needs to date.

Figure ES-1: Top NRTNA Results[3]

Core Capability-Based Training Needs	Topical Training Needs	Threat and Hazards Training Needs	Needed to Increase Resiliency and Response Capabilities	Training Influences	Training Barriers
Operational Communications	Active Shooter	Tornadoes	Relevant Training and Exercises	Training is Required	Location of Training
Threat and Hazard Identification	School Safety	Hazardous Materials Incidents	Equipment Acquisition	Cost	Cost of Travel
Operation Coordination	Media Relations	School Violence	Preparedness and Mitigation Funding	Location of the Training	Work Obligations
Public Information and Warning	Interagency Comms. and Coordination	Workplace Violence	Increase in Personnel	Topic of Training	Cost of Training
Planning	Hazardous Materials Incidents	Floods	Addressing of Technology Gaps	Dates and Times of Training	Personal and/or Family Obligation

[1] Simpkins, Brian. (2015). *2014-2015 National Rural Training Needs Assessment – Volume I: Rural Training Coordinators Needs Assessment*. Richmond, KY: Eastern Kentucky University, Justice and Safety Center.
[2] Short-term training needs are defined as those needs requiring training within the next six to twelve months.
[3] Results are presented based on the total number of responses (highest to lowest) for each result area.

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Acronym List

AAR	After Action Report
APEC	Asia-Pacific Economic Cooperation
CDP	Center for Domestic Preparedness
CD/DVD	Compact Disc/Digital Video Disc
CEU	Continuing Education Unit
CPG 101	Comprehensive Preparedness Guide 101
CPG 201	Comprehensive Preparedness Guide 201
COBRA	Chemical, Ordnance, Biological, and Radiological Training Facility
DHS	U.S. Department of Homeland Security
EF	Enhanced Fujita Scale
EKU	Eastern Kentucky University
EMI	Emergency Management Institute
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
HERT	Hospital Emergency Response Training for Mass Casually Incidents
IBM SPSS	International Business Machines Statistical Package for the Social Sciences
ICS	Incident Command System
IRB	Institutional Review Board
JSC	Justice and Safety Center
NDPC	National Domestic Preparedness Consortium
NFA	National Fire Academy
NIJ	National Institute of Justice
NIMS	National Incident Management System
NPR	National Preparedness Report
NPS, CHDS	Naval Postgraduate School, Center for Homeland Defense and Security
NPSIB	National Public Safety Information Bureau
NRTNA	National Rural Training Needs Assessment
NSSE	National Special Security Event
NTED	National Training and Education Division
RDPC	Rural Domestic Preparedness Consortium
SAA	State Administrative Agency
SOG	Standard Operating Guideline(s)
SOP	Standard Operating Procedure(s)
SWAT	Special Weapons and Tactics
TCL	Target Capabilities List
TDM	Tailored Design Method
TEEX	Texas A&M Engineering and Extension Service
TEPW	Training and Exercise Planning Workshop
TERT	Tactical Emergency Response Training for CBRNE Incidents
THIRA	Threat and Hazard Identification and Risk Assessment
TTT	Train-The-Trainer
U.S.	United States of America
USFA	U.S. Fire Administration

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Introduction

The Nation's rural first responders face many challenges in meeting homeland security requirements and often lack access to training that considers their unique needs. To meet the demand for consistent, quality training in rural areas, Congress and the U.S. Department of Homeland Security (DHS) established the Rural Domestic Preparedness Consortium (RDPC) to develop and deliver all-hazards training that supports rural homeland security goals and needs. In authorizing the RDPC, Congress noted:

> *Training for rural first responders poses unique challenges when compared to their urban counterparts. This new consortium will provide rural first responders with awareness level training, develop emerging training, and provide technical assistance in support of rural homeland security requirements.*[4]

Since its establishment in 2004, the RDPC has trained over 60,000 first responders across all 50 U.S. states as well as multiple U.S. territories. Training has been provided through 50 DHS-certified courses, which include instructor-led, web-based, and train-the-trainer courses.

To ensure that training initiatives are appropriately aligned with the overarching goals of federal, state, and local homeland security strategies and cognizant of the evolving needs of rural areas of the Nation, the Justice and Safety Center[5] (JSC) at Eastern Kentucky University (EKU), on behalf of the RDPC, routinely conducts a National Rural Training Needs Assessment (NRTNA) of rural responders in addition to other needs-based (e.g., Tribal Nations, maritime), event specific (e.g., National Level Exercise), and course evaluation research.[6] The specific goal of the NRTNA is to assess the training experiences, needs, barriers, and delivery experiences and preferences of rural first responders. Since 2005, the research team at EKU has conducted national rural assessments on training needs on five previous occasions.

Since the completion of the most recent NRTNA in 2009, the Nation and its relative threats and hazards have continued to evolve for both urban and rural communities. In addition to increasing occurrence and severity of natural events, communities now face a myriad of threats and hazards that come from both natural and man-made sources. Current examples of the varied event types now facing communities include active shooter situations, communicable disease preparedness and response (e.g., Ebola), civil disobedience, violent extremism, and increased gang/cartel activity across the United States. The diverse and evolving threat and hazard picture within the United States illustrates an informational need for more current data to determine the training needs and gaps within rural jurisdictions across the Nation. To address this informational need, the research team initiated the 2014-2015 NRTNA. This report details the results of Phase II of the NRTNA, which focuses on important issues for emergency response agencies within designated rural counties across the United States.

[4] Conference Report (H. Rept. 108-774) accompanying the Fiscal Year (FY) 2005 DHS Appropriations Act, Pub. L. 108-334.
[5] For more information on the Justice and Safety Center, please visit: http://www.jsc.eku.edu/
[6] To access copies of previous national assessments and other research performed by EKU on behalf of RDPC, please visit: https://www.ruraltraining.org/resources/tag/report/

Background

The NRTNA continues to be the only comprehensive, national assessment of rural first responder training needs in the United States. The 2014-2015 NRTNA is the fifth national assessment conducted by the research team at EKU. Since 2005, information has been collected from 4,890 rural emergency response agencies across the United States through the national assessments. Due to the success of previous NRTNAs and other national need-based and event-specific research, the research team at EKU was again tasked with the responsibility of administering a new NRTNA. Incorporating lessons learned and best practices from previous NRTNAs and other research, the current NRTNA represents a transition to a more in-depth and comprehensive process.[7] The revised NRTNA process provides more assurance of reliability and validity of the assessment and the results, more incorporation of stakeholder input, and cost efficiencies (e.g., staff time, material costs).

Despite methodological changes, the NRTNA's fundamental basis has remained unchanged since the first assessment in 2005, which is the Core Capabilities[8] as identified in the *National Preparedness Goal*.[9] Utilizing the Core Capabilities provides a common and comprehensive foundation to assess rural training needs as well as a mechanism that ensures that identified rural training needs can be easily translated to the overarching national targets and standards. Further, the common framework of the Core Capabilities enables comparative data analysis of between NRTNA results and other federal training assessment data as well as longitudinal analysis of rural training needs with previous NRTNA results. Additionally, although the NRTNA has continued to utilize survey research as the (non-experimental) research design, the survey itself has migrated from fully paper-based, to a hybrid incorporating an online version, to fully online. The entire NRTNA effort will result in a multivolume body of work with individual reports covering both phases and additional reports providing greater scrutiny and longitudinal analysis of NRTNA data. Overall, the 2014-2015 NRTNA will provide the most comprehensive understanding of rural homeland security training needs to date.

Importance

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. Although 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.

The importance of rural emergency preparedness, responses, recovery, and mitigation capabilities can be found in disasters such as the 9/11 attacks, the hurricane season of 2005, the Joplin (MO) tornado, the West (TX) fertilizer plant explosion, the I-35 bridge collapse, Superstorm Sandy, and recent chemical, coal ash, and crude oil spills in rivers in rural North Dakota (Mississippi River), North Carolina (Dan River), Virginia (James River), and West Virginia (Elk River). Further, in 2014 the United States experienced 45 major disaster declarations across 32 states and territories.[10] These are just a few of the many incidents, emergencies, and disasters that illustrate need for essential capabilities in both rural and urban America. Further, the vast majority of incidents are handled by local and state agencies, with very few incidents requiring involvement of federal management and/or resources. This illustrates that research into the training provided by federal training providers within the Federal Emergency Management Agency (FEMA), National Training and Education Division (NTED) is of significant importance.

Overall, the rigorous NRTNA process provides actionable and needed information for the RDPC and FEMA NTED. Specifically, the RDPC is provided with valuable information that can be immediately utilized to ensure the consortium is meeting the homeland security training needs of rural first responders. NTED is provided with information from its rural 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).[11] Future 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. In summation, the NRTNA is currently the only source by which actionable information is obtained regarding rural first responder training needs.

[7] See methodology section for more information.
[8] The *Target Capabilities List (TCL)* was utilized in national assessments through 2009.
[9] Federal Emergency Management Agency (2011). *National Preparedness Goal*. Washington, DC: Federal Emergency Management Agency.
[10] Federal Emergency Management Agency (2015). *2015 National Preparedness Report*. Washington, DC: Federal Emergency Management Agency.
[11] For more information ont he *National Preparedness Report*, please visit: https://www.fema.gov/national-preparedness-report

Rural Responder Characteristics

Prior to detailing the unique rural first responder characteristics, one must understand the context of the terms *rural* and *frontier* as they relate to the first responder community. In terms of land mass, *rural* and *frontier* areas constitute 80% of the landmass and 20% of the population in the United States.[12] Further, many federal agencies, including the RDPC, use a population threshold under 50,000 to define a rural area and/or or a population density of less than 1,000 persons per square mile.[13] [14] Frontier areas are classified as areas with a population density of less than six persons per square mile and are characterized by isolation from population centers (e.g., cities) and provision of services (e.g., hospital, cell phone service), which comprise approximately 2% percent of the U.S. population and 46.7% percent of the land within the Unites States (largely concentrated in the western United States and Alaska).[15] [16]

The socio-geographic definitions are adequate to define rural and frontier areas, but they do not contribute to an understanding of the special characteristics which make these communities unique in terms of first responder agencies and the need for special considerations in training, some of which are provided below: [17]

- **Resource Constraints** – In rural communities, limited populations and tax bases create difficulties and shortcomings for first responder agencies in terms of staffing, equipment, and other resources. For example, volunteers are often required to fully staff or backfill rural fire departments.

- **Geography** – Emergency response in vast and, often times, sparsely populated areas may be extremely challenging. Greater distances traveled and difficult on-road and off-road terrain (e.g., mountains, marshlands, wilderness) may significantly impact response planning and operations.

- **Economy** – While rural communities are more likely than urban areas to rely on single economies, they are responsible for a greater share of the Nation's workers in the farming, manufacturing, and retail trade sectors. The Nation's agricultural resources and activities (e.g., supply chains and processing for animal and crop production) are highly concentrated in rural areas.

- **Infrastructure** – Many segments of critical infrastructure, such as hospitals and other healthcare facilities, are less capable (e.g., have fewer physicians and specialists per capita) than similar infrastructure in urban areas for various reasons. These conditions may limit response to public health hazards such as communicable diseases.

- **Modernization** – Citizens continue to demand that first responder agencies modernize systems despite resource shortages. For example and according to the Pew Research Center, approximately 88% of U.S. adults own a cell phone and 78% access the Internet. Rural first responder agencies must upgrade their own equipment as well as 9-1-1 centers, warning systems, and online resources for the benefit of their residents.

As for specific numbers, there is no single source for the number of rural first responders. General, descriptive information, however, can be gleaned from various sources. For example, the National Institute of Justice (NIJ) reports that approximately 90% (or ~14,500) of the over 16,000 municipal and county law enforcement agencies in the United States serve populations under 25,000 and over half of all agencies employ 10 or fewer officers.[18] Further, the U.S. Fire Administration (USFA) reports that 44% (or ~13,440) of the over 30,000 fire departments in the United States are located in rural areas.[19] Although these numbers may seem high, one must remember that rural and frontier areas constitute 80% of the landmass and 20% of the population in the United States. These statistics illustrate the sheer amount of rural responders across the United States, which receive much less attention than their urban counterparts.

[12] McGinnis, K. (2004). *Rural and Frontier Emergency Medical Services: Agenda for the Future*. Kansas City, MO: U.S. National Rural Health Association.
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[19] U.S. Fire Administration. (2007). *Mitigation of the Rural Fire Problem: Strategies Based on Original Research and Adaption of Existing Best Practices*. Emmitsburg, MD: U.S. Department of Homeland Security, Federal Emergency Management Agency, U.S. Fire Administration.

Methodology

Building upon lessons learned from previous EKU research efforts, the 2014-2015 NRTNA utilizes survey research as the (non-experimental) research design to obtain in-depth information from rural responders. This report details findings from Phase II of the NRTNA in which information was collected from rural emergency response agencies within 1,697 counties (and county equivalents) that are considered non-metropolitan according to the U.S. Department of Agriculture (counties with an Urban Influence Code of 5 through 12).[20]

Although the need for a NRTNA was previously established, the transition to a more in-depth and comprehensive methodological process began in August 2014 after the 2014 NPR was publically released. Once released, the 2014 NPR methodology and results were analyzed as part of the initial planning and coordination process along with a review of previous NRTNAs and other national rural assessment research performed by EKU to garner lessons learned and best practices. From this review, a draft survey and methodology were developed in August 2014 for both phases.

During the draft survey and methodology process, a stakeholder group was formed to provide strategic guidance for the NRTNA. The stakeholder group included State Administrative Agency (SAA) representatives, local training points of contact familiar with RDPC training, and RDPC Advisory Board members who represent prominent national and international first responder associations and organizations. Meetings with the stakeholder group were conducted in early September 2014, which included an in-depth review of the draft survey and methodology. Stakeholder group feedback was utilized to revise and finalize the survey and methodology, which were subsequently submitted to and approved by the NTED.

Once the survey and methodology were finalized, the research team at EKU developed and submitted an Institutional Review Board (IRB) application for Phase II of the NRTNA to the EKU Division of Sponsored Programs for review in accordance with federal and EKU regulations. IRB approval was granted in mid-December 2014. During the IRB process, the contact lists for the targeted rural emergency response agencies were developed as well as an online version of the finalized survey. Specifically, the disciplines of emergency management, emergency medical services (EMS), fire services, and law enforcement were targeted, which constitutes the main audience for RDPC courses. Contact information for each agency was obtained via the National Public Safety Information Bureau (NPSIB)[21] with the exception of state homeland security and state emergency management agencies, which was accessed via individual websites for each agency. As for the survey, EKU's Qualtrics[22] service account was utilized to develop and host the online survey, which is an online survey software platform that enables fully online data collection thereby eliminating the need for printed survey dissemination and manual data entry.[23]

To disseminate the survey, the research team at EKU utilized the Don Dillman[24] Tailored Design Method (TDM) to contact rural emergency response agencies to request their participation in the study. The TDM provides guidance on how to obtain high quantity and quality responses to surveys, which includes when to contact potential participants (five total contacts over a defined timeframe) and language to include in the separate contacts. EKU began utilizing the TDM in 2012 and experienced a significant increase in survey response rates; therefore, it was determined to be applicable for use for the NRTNA. All contacts sent to the targeted agencies were distributed via postal mail through EKU printing and mailing services. Lastly, each participant was assigned a unique one to five digit access code as an identifier to track his/her completion of the survey, which was provided within all mailed contacts. Participants were required to enter the access code in order to complete the online survey.

The data collection phase for the survey lasted 14 weeks (see Figure 1). Dissemination of the various contacts to survey participants began the week of February 2, 2015 in which postal letters were distributed. This pre-notice communication was mailed to all participants to introduce them to the project and provide advanced notice of the upcoming survey. The following week (week of February 9, 2015), the full invitation to participate in the NRTNA along with the online survey link was distributed to all participants. Approximately three weeks later (week of March 2, 2015), the first reminder postcard was mailed to those participants who had not completed the survey. An additional reminder postcard was mailed approximately two weeks later (week of March 16, 2015). The final contact/postcard reminder was mailed the week of March 30, 2015. Data collection officially ended on May 6, 2015 after which the online survey was deactivated. The collected data was then exported from the Qualtrics website for analysis via IBM SPSS® Statistics 21.0.

Figure 1: Data Collection Phase Timeline

Date (week of)	Description
February 2, 2015	Pre-notice contact
February 9, 2015	Full invitation and online survey link contact
March 2, 2015	Reminder contact[25]
March 16, 2015	Reminder contact
March 30, 2015	Final reminder contact
May 6, 2015	Completion of data collection phase

[20] For more information on Urban influence Codes, please visit: http://www.ers.usda.ogv/data-products/urban-influence-codes/documentation.aspx
[21] For more information on the NPSIB, please visit: http://www.safetysource.com/
[22] For more information on Qualtrics, please visit: http://www.qualtrics.com/
[23] Printed surveys are provided to individuals upon request
[24] Dillman, D., Smyth, J., & Christian, L. (2009) *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method (3rd ed.)*. Hoboken, NJ: John Wiley and Sons, Inc.
[25] The mailing of the first reminder contact was delayed by one week due to a severe winter storm that occurred the week of February 16, 2015 in Kentucky, which resulted int the closing of all EKU offices for the entire week.

Response Statistics and Demographics

A total of 22,571 rural emergency response agencies were invited to participate in Phase II of the NRTNA. A total of 45 agencies were unable to participate in the study due to reasons including insufficient postal address and (volunteer) agency no longer active. This resulted in an adjusted population of 22,526 agencies. A total of 2,734 responses were received, which is a 12.1% adjusted response rate. Per discipline, emergency management had the highest response rate at 18.4% followed by EMS (17.5%), law enforcement (13.8%), and fire services (9.6%). Due to size of the discipline population (55.4% of the overall population), fire services agencies provided the most responses (n=1,192; 43.6%) followed by law enforcement (n=872; 31.9%), EMS (n=361; 13.2%) and emergency management (n=309; 11.3%). Please see Figures 2 and 3 for detailed response statistics.

Figure 2: Overall Response Statistics

Adjusted Population	Responses Received	Adjusted Response Rate
22,526	2,734	12.1%

Figure 3: Response Statistics per Discipline

Discipline	Adjusted Population	Responses Received	Adjusted Response Rate	% of Overall Responses
Emergency Management	**1,675**	**309**	**18.4%**	**11.3%**
County Emergency Managers	*1,606*	*289*	*18.0%*	*10.6%*
State Homeland Security and Emergency Management Agencies	*69*	*20*	*29.0%*	*0.7%*
Emergency Medical Services	**2,067**	**361**	**17.5%**	**13.2%**
Local EMS	*2,017*	*353*	*17.5%*	*12.9%*
State EMS Directors	*50*	*8*	*16.0%*	*0.3%*
Fire Service	**12,478**	**1,192**	**9.6%**	**43.6%**
Law Enforcement	**6,306**	**872**	**13.8%**	**31.9%**
Airport and Harbor	*66*	*6*	*9.1%*	*0.1%*
Campus	*421*	*49*	*11.6%*	*1.8%*
State Conservation and Wildlife	*53*	*16*	*30.2%*	*0.6%*
County	*1,671*	*186*	*11.1%*	*6.8%*
Municipal	*3,880*	*552*	*14.2%*	*20.2%*
State Police/Highway Patrol	*50*	*26*	*52.0%*	*1.0%*
Tribal Nations	*165*	*37*	*22.4%*	*1.4%*
Total	**22,526**	**2,734**	**12.1%**	**100.0%**

As for geographical representation, at least one response was received from 72.5% (n=1,233) of the 1,697 targeted rural counties (see Figure 4). Further, responses were geographically dispersed in which responses were received from all 50 states with an average of approximately 55 responses received per state. As displayed in Figure 5, a total of eight states produced over 100 responses each, which comprised over one-third (34.9%; n=953) of the total responses. As for FEMA Region, the most responses were received from Region V (n=594; 21.7%) followed by Region IV (n=484; 17.7%), Region VII (n=463; 16.9%), Region VI (n=320; 11.7%), and Region VIII (n=301; 11.0%). These five regions accounted for 79.0% (n=2,162) of the total responses. All other regions had 150 or less responses. Although there are no gaps in responses (all states responding), there is a noticeable clustering of responses within the mid-west region with fewer responses per state further away from the mid-west. Figures 6 and 7 provide detailed response statistics and geographical representation of the responses.

Figure 4: Response Statistics per County

Counties Targeted[26]	# of Responding Counties[27]	% of Counties Responding
1,697	1,233	72.7%

Figure 5: Highest Responding States

State	# of Responses	% of Responses	FEMA Region
Kentucky	166	6.1%	IV
Iowa	156	5.7%	VII
Wisconsin	116	4.2%	V
Kansas	111	4.0%	VII
Illinois	103	3.8%	V
Missouri	101	3.7%	VII
Michigan	100	3.7%	V
Texas	100	3.7%	VI
Total	**953**	**34.9%**	

In addition to respondent discipline and state, basic demographic information was collected via the survey to better understand rural response agency characteristics and jurisdictional representation. For example, respondents were asked to provide their agency's size (based on number of employees/volunteers), primary area of responsibility, and size of jurisdiction (based on population). Overall, approximately 90% of the respondents indicated they represented agencies that had 50 or less employees/volunteers and had a municipal and/or county area of primary responsibility with a population of 50,000 or less. Additional

Figure 6: Responses Received per State

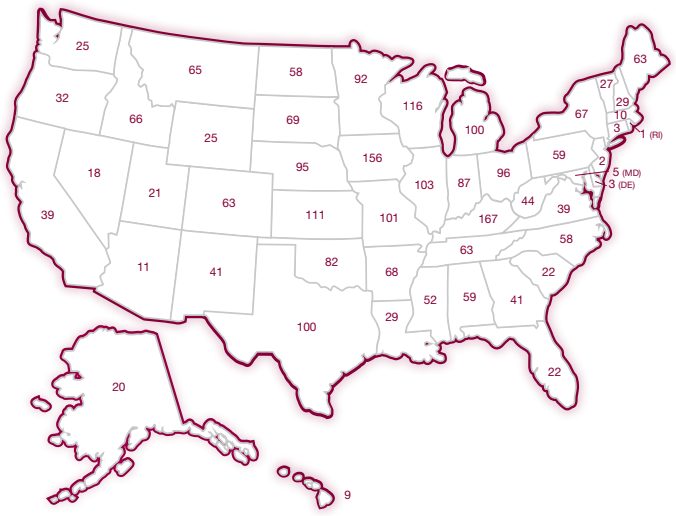
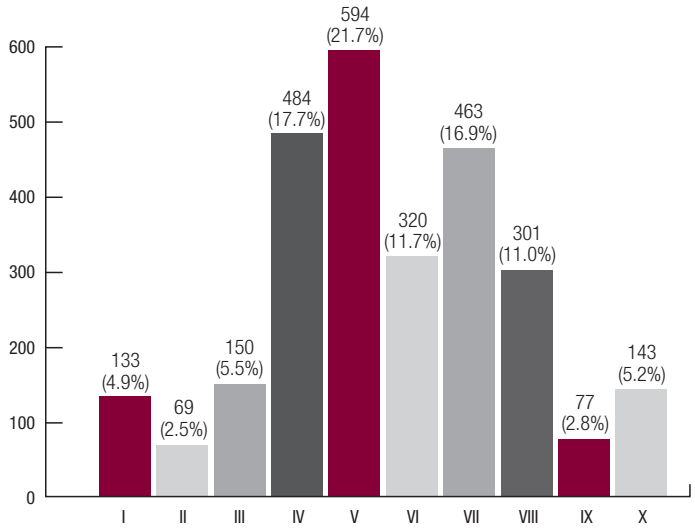


Figure 7: Responses per FEMA Region [28]



examination of the data reveals that over two-thirds (69%; n=1,888) of the respondents served populations of 10,000 or less, and approximately half (n=1,406) represented agencies with 20 or less employees and/or volunteers. Further, 78.9% (n=2,136) of the respondents indicated their agency assigns an individual to oversee training. Within those agencies, the survey respondent was the assigned individual within half of the agencies (53.6%; n=1,137). Figures 8 through 12 provide detailed demographic statistics.

[26] Only state-level agencies in Rhode Island were invited to participate in the study due to an absence of non-metropolitan counties within the state. Washington, DC-based agencies were also not invited to participate due to the entire district containing a metropolitan area. Additional U.S. territories were not invited to participate in the study due to unavailability of response agency contact information.

[27] A *responding county* is defined as a county from which at least one response to the survey was received.

[28] Unless otherwise noted, numbers and percentages in all figures displaying graphical/visual data are based on the total number of received responses (n=2,734).

Figure 8: Respondent Agency Primary Area of Responsibility

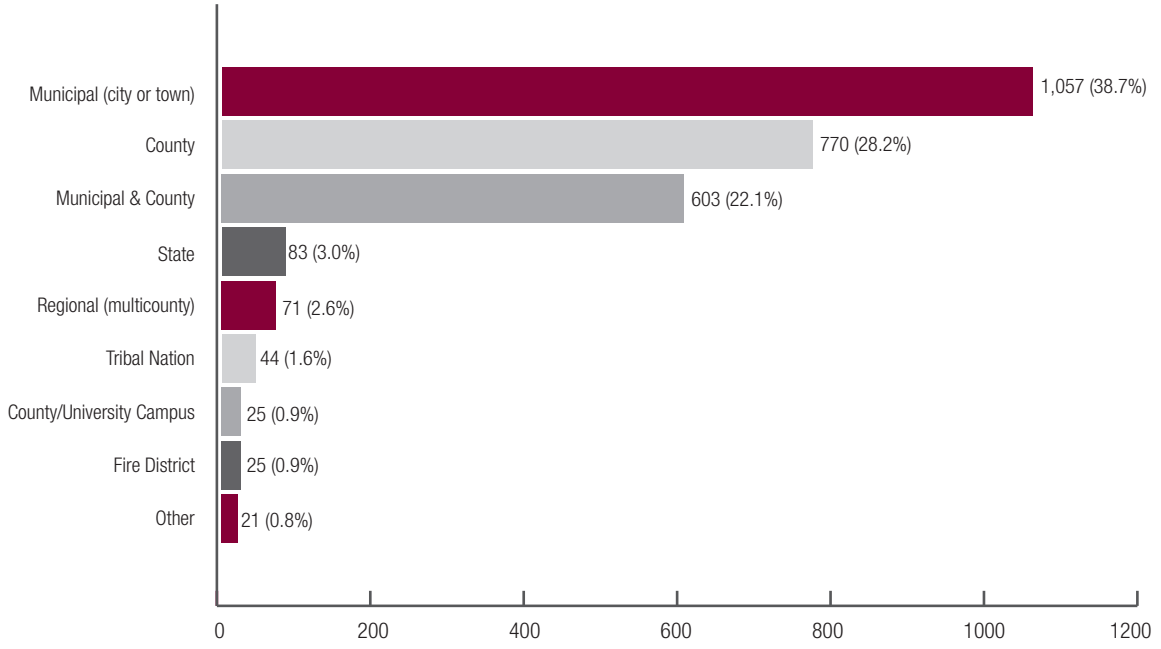


Figure 9: Population Served by Respondent Agency

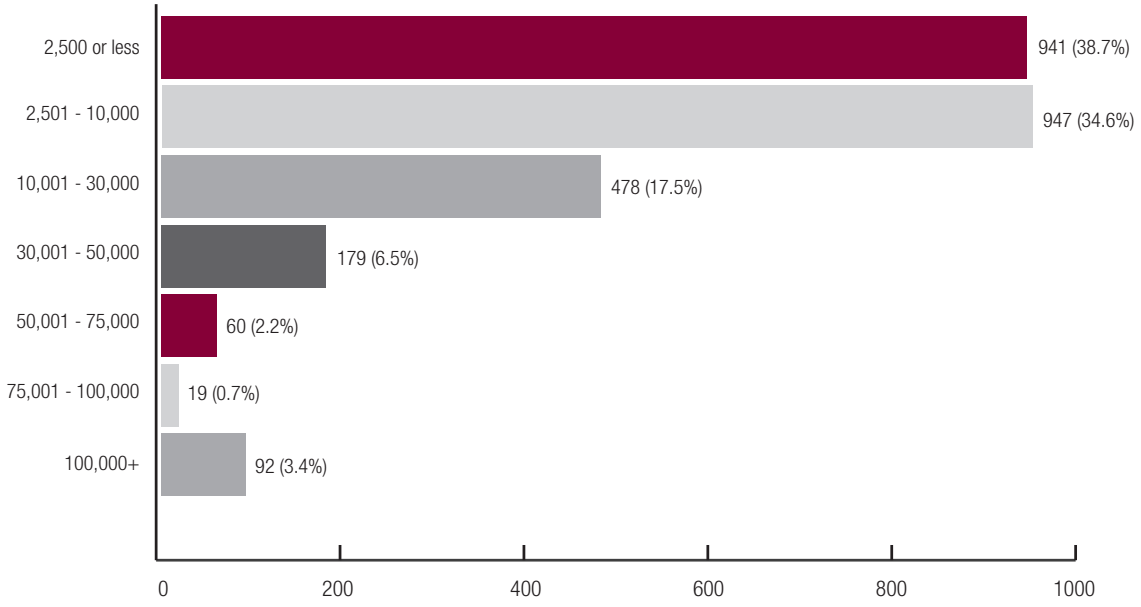


Figure 10: Respondent Agency Size

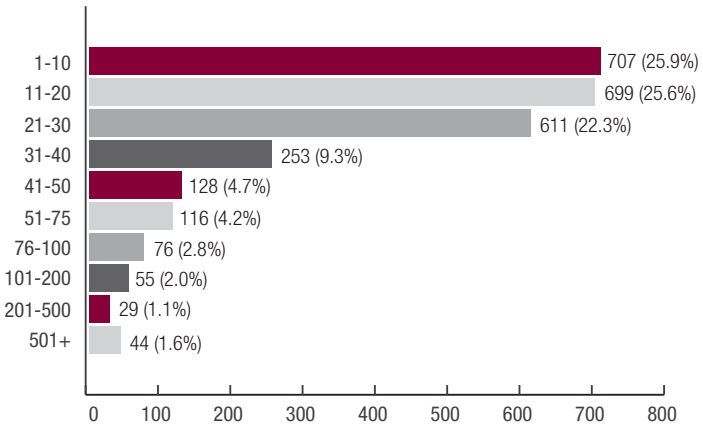


Figure 11: Respondent's Agency Assigns Individual to Oversee Agency Training (n=2,707)

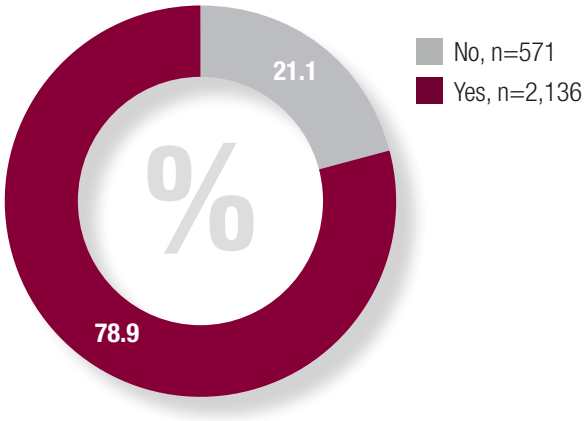
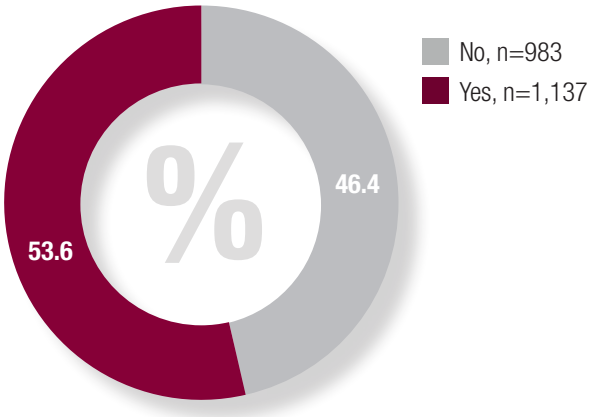


Figure 12: Respondent Assigned to Oversee Agency Training (n-=2,120)



Core Capability-Based Rural Training Needs Identification

Rural training needs identification was achieved through the use of the Core Capabilities. As previously noted, utilization of the Core Capabilities provides a common and comprehensive foundation to assess rural training needs as well as a mechanism that ensures that identified rural training needs can be easily translated to the overarching national targets and standards. To identify rural training needs, each respondent selected and rank ordered the top ten (10) Core Capabilities in which training is most needed within their jurisdiction to increase capabilities.[29]

As indicated in Figure 13, the Core Capability *Operational Communications* was the most selected capability. Approximately two-thirds of all respondents (64.6%; n=1,766) identified training was needed within this Core Capability. The remaining top five Core Capability-based rural training needs were selected by approximately 50% or more of the respondents, which included *Threat and Hazard Identification* (54.3%; n=1,484), *Operational Coordination* (54.0%; n=1,475), *Public Information and Warning* (50.0%; n=1,367), and *Planning* (49.3%; n=1,349). Figure 13 presents the remaining top ten selected Core Capabilities in which training is needed.

In terms of rank ordering, *Operational Communications* was by far the most common Core Capabilities to be ranked as one of the top three rural training needs by the respondents (see Figure 14). This Core Capability was followed by *Planning, Operational Coordination, Threat and Hazard Identification,* and *Situational Assessment*. Although it received the second most overall top three selections, the Core Capability of *Planning* received the most #1 rankings of all Core Capability-based rural training needs. Further, the Core Capability of *Public Information and Warning* received the seventh most top three selections by the respondents despite the fact it was the fourth highest selected rural training need. Lastly, *Intelligence and Information Sharing* and *Critical Transportation* were not among the top ten selected rural training needs by the respondents (see Figure 13), but received the eighth- and ninth-most top three rankings respectively.

In addition to selecting and rank ordering the top ten Core Capability-based training needs, the respondents also indicated the timeframe in which needs should be addressed for each of the identified Core Capabilities. Respondents were provided the opportunity to select one or more of the following timeframes:

- Immediate – within next six months
- Short-Term – next six to twelve months
- Long-Term – within next one to three years
- Continual Basis – annual training, skills maintenance, training of new staff

As displayed in Figure 15, respondents indicated a heavier need/emphasis on continual training timeframes within rural areas followed by short-term, long-term, and immediate training timeframes.

[29] For the purposes of this question, ***capability*** is defined as *possessing the critical elements necessary to prevent, protect against, mitigate the effects of, respond to, and recover from all threats and hazards. Critical elements may include equipment, personnel, training, knowledge, and expertise necessary to capably manage a threat or hazard.*

Figure 13: Core Capability-Based Rural Training Needs

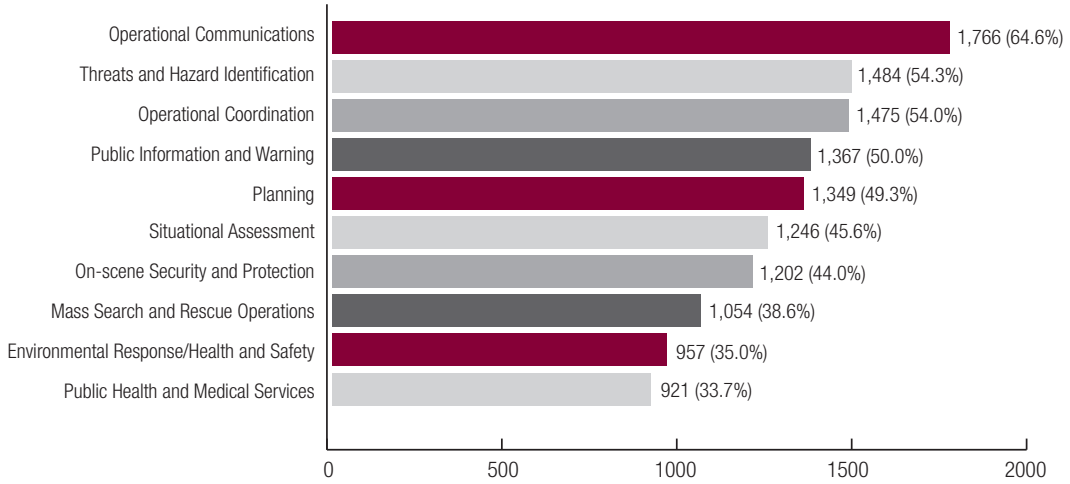
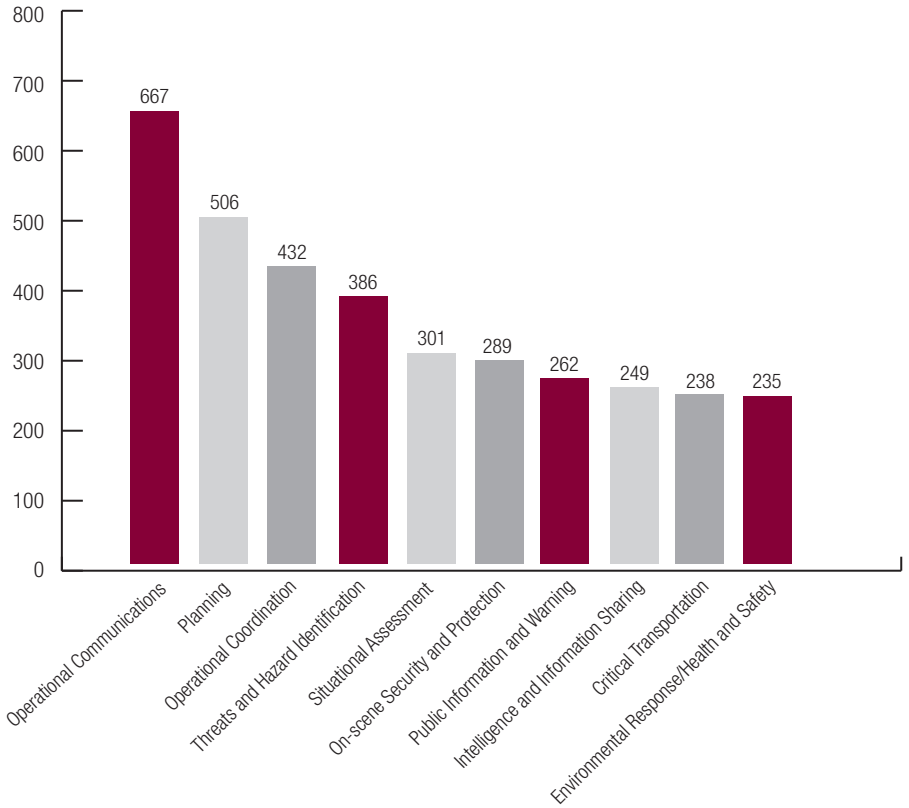
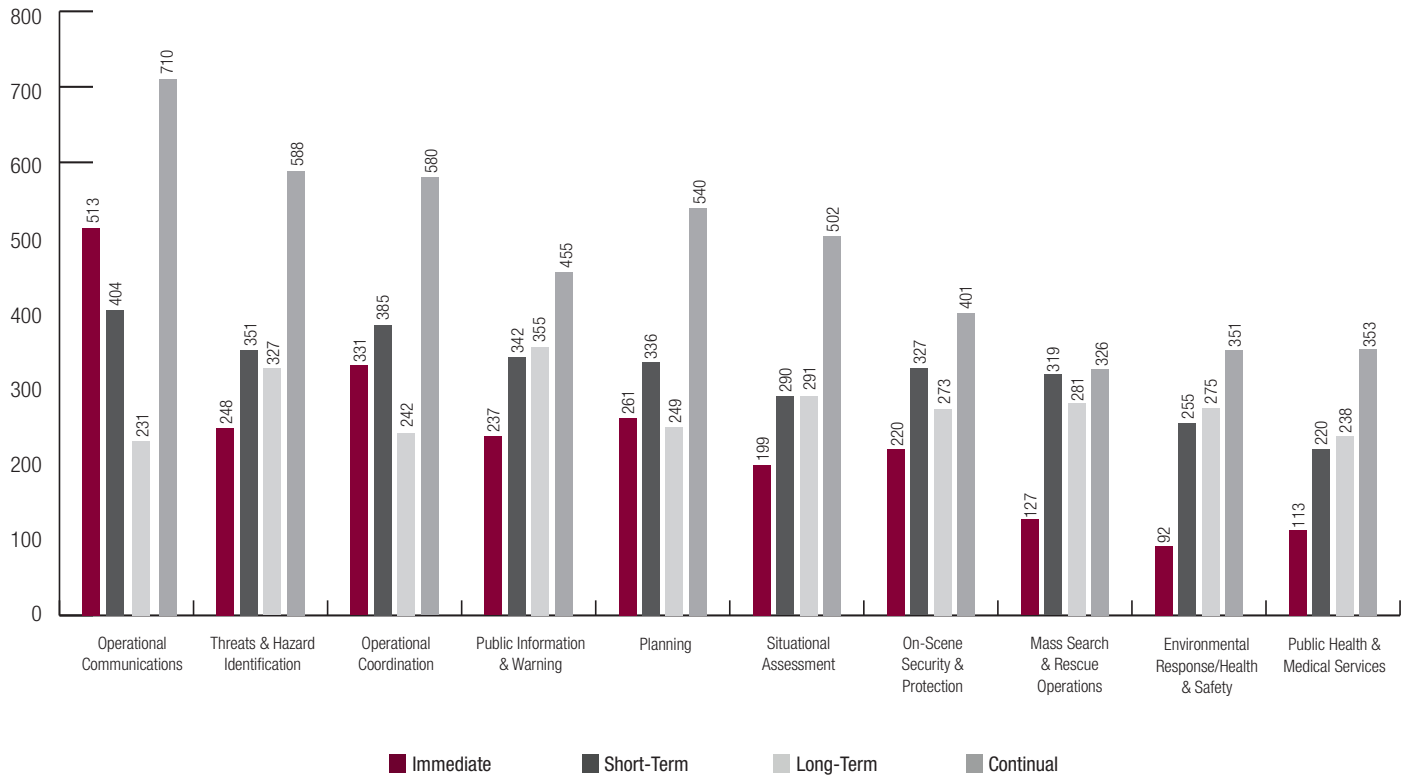


Figure 14: Rank Ordering of Core Capability-Based Training Needs [30]



[30] Rank ordering is based on the total number of times each Core Capability was ranked as one of the top three training needs by a respondent.

Figure 15: Training Timeframes for Core Capability-Based Rural Training Needs



Topical, Threat, and Hazard Rural Training Needs Identification

In addition to identifying rural training needs via the Core Capabilities, the survey respondents were also provided an opportunity to indicate rural training needs related to specific topics, threats, and hazards. This line of questioning is valuable because rural training needs may not be easily encapsulated within a single Core Capability. Therefore, providing opportunity for narrative descriptions of rural training needs allows for the collection of data that cannot be determined via preexisting classifications such as the Core Capabilities. To analyze these questions, all answers/narrative comments were coded with like items placed into categories that represent the intent of provided comments.

Two specific open-ended questions allowed the respondents to provide narrative comments on rural training needs. The first question asked respondents to indicate any topical training needs (versus needs related to equipment acquisition, increase in personnel, funding obtainment, etc.) they believe need to be addressed. As Figure 16 displays, *active shooter* and *school safety* were the top two identified rural topical training needs by a significant margin.[31] Other common rural topical training needs included *media relations* and *interagency communications and coordination.*

The second question asked respondents to identify the top threats and hazards to their jurisdiction in which they believe relative training is needed. Since rural communities face a variety of threats and hazards, the respondents were directed to the *Comprehensive Preparedness Guide 201: Threat and Hazard Identification and Risk Assessment Guide (CPG 201),*[32] which defines three types of threats and hazards:

- ***Natural hazards***, which result from acts of nature, such as hurricanes, earthquakes, tornadoes, animal disease outbreak, pandemics, or epidemics.

[31] *Active shooter* and *school safety* were provided as suggested examples, among others, at the end of the survey question, which could have influenced the results. Other suggestions provided at the end of the survey question included *countering violent extremism* and *dealing with the media.*
[32] Federal Emergency Management Agency (2013). *Comprehensive Preparedness Guide 201: Threat and Hazard Identification and Risk Assessment (2nd ed.).* Washington, DC: Federal Emergency Management Agency.

- ***Technological hazards***, which result from accidents or the failures of systems and structures, such as hazardous materials spills or dam failures.

- ***Human-caused incidents***, which result from the intentional actions of an adversary, such as a threatened or actual chemical attack, biological attack, or cyber incident.

In addition to the definitions above, the respondents were also directed to a replicated table of example threats and hazards from the CPG 201 to help identify possible threats and hazards.[33] Figure 17 displays the top ten rural threats and hazards identified by both groups. *Tornadoes, hazardous materials incidents*, and *school violence* were the top three rural threats and hazards in which training is needed. Overall, the top ten rural threats and hazards were evenly split between natural hazards and technological/human-caused hazards.

Rural Community Resiliency and Response Capabilities

In addition to identifying rural training needs, the respondents were provided an opportunity to identify other needs within their jurisdiction. Specifically, the respondents were asked to identify what is needed to increase rural community resiliency and response capabilities. *Relevant training and exercises* were the top need by a considerable margin in which close to two-thirds of the respondents (62.0%; n=1,694) identified this need. Close to half of the respondents also identified *equipment acquisition* (48.5%; n=1,326) and *preparedness and mitigation funding* (46.9%; n=1,281) as needs to increase community resiliency and response capabilities. Other identified needs were an *increase in agency personnel* (43.9%; n=1,201) and *addressing of technology gaps* (31.3%; n=855). For the respondents who identified the need to address technology gaps, additional questions allowed for further explanation. Of these respondents, over three-quarters identified the need for *better awareness of what technologies exist and how they can be effectively used* (77.8%; n=665) and general *technology acquisition* (75.0%; n=641). These were followed closely by the need for *funding to operationally maintain and use existing technology* (70.2%; n=600) and *training on existing technologies* (62.8%; n=537). Figures 18 and 19 provide detailed response statistics.

Figure 16: Topical Rural Training Needs

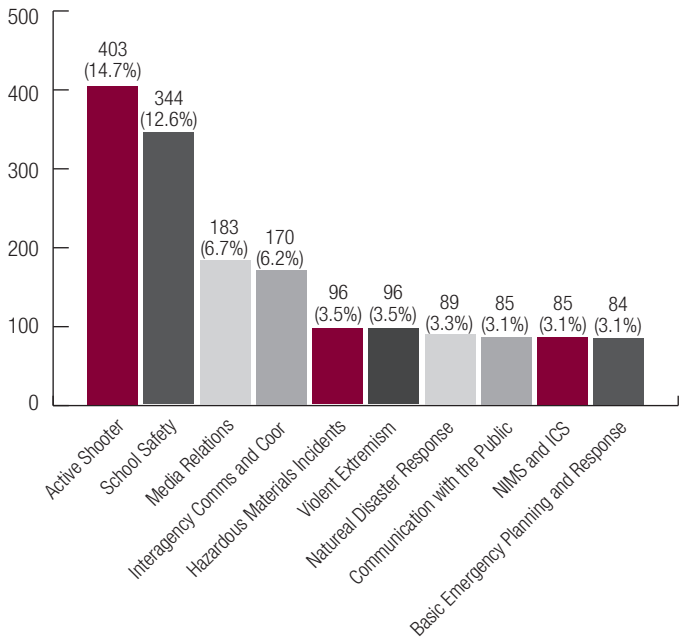
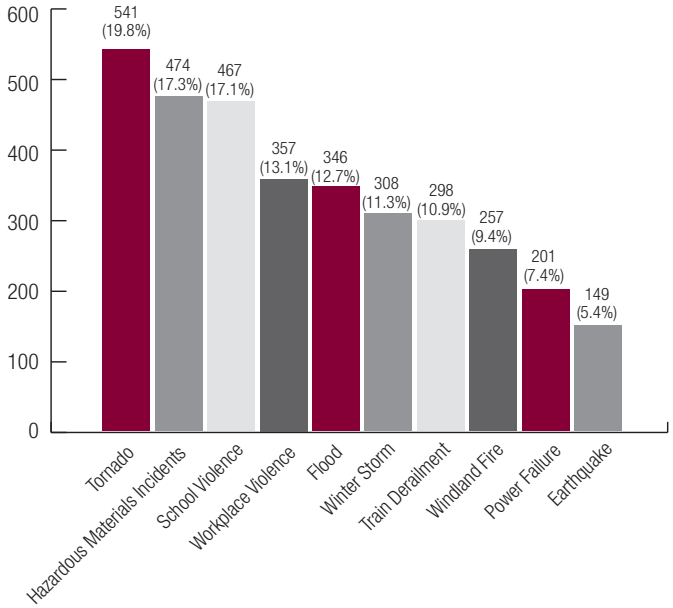


Figure 17: Rural Training Needs by Threat and Hazard



[33] The source of the replicated table is Table 2: Example Threats and Hazards located on page 6 of the CPG 201.

Figure 18: Needs to Increase Rural Community Resiliency and Response Capabilities

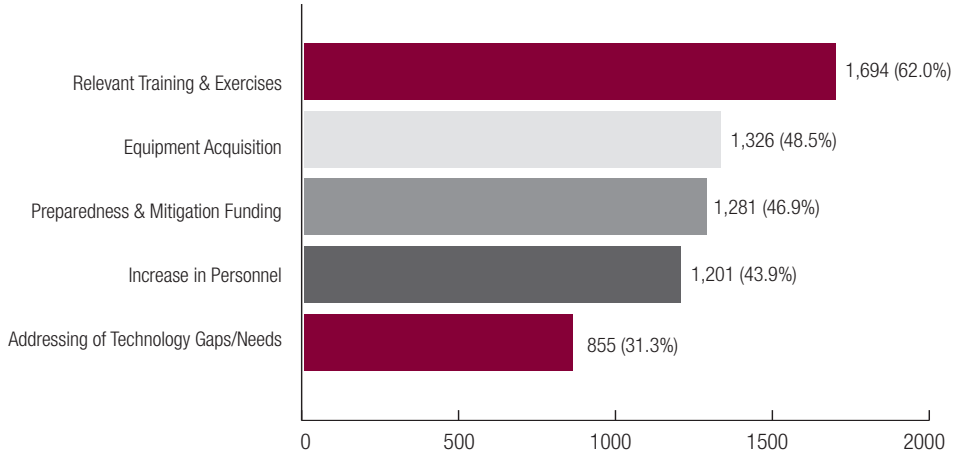
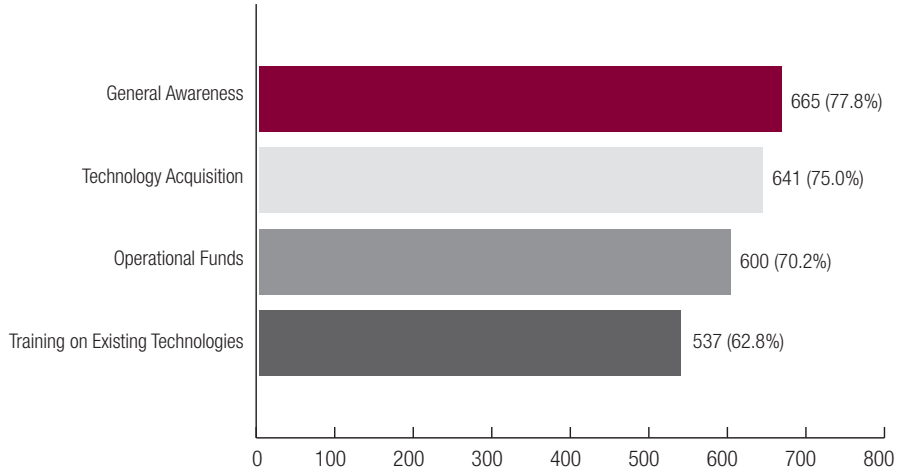


Figure 19: Rural Technology Needs (n=855)



Rural Training Needs Assessments

Aside from training needs identification completed at the national (e.g., NRTNA, NPR) and state (Threat and Hazard Identification and Risk Assessment [THIRA]) levels, respondents were asked whether their agency conducts a training needs assessment. As indicated in Figure 20, less than half of the respondents (40.5%; n= 890) indicated that their agency does in fact conduct training needs assessments. As for methodology, the following list illustrates that respondents utilize a mixture of formal processes (e.g., THIRA process and Training and Exercise Planning Workshops [TEPW]), informal processes (e.g., After Action Report [AAR] reviews and in-house assessments), and the use of federal, state, and certification training requirements to determine needs within their agencies.

- In-house assessments (n=166)
- Solicit information from agency through surveys, interviews, meetings, etc. (n=105)
- Training needs are based on annual certification and Continuing Education Units (CEU) requirements (n=68)
- Review internal capability in relation to current trends, topics, recent events, and published AARs (n=67)
- Annual meeting/review with other agencies (e.g., TEPW) (n=64)
- Training needs are based on state and/or federal requirements (n=62)
- Use THIRA process or other method to determine threats and vulnerabilities to address through training (n=36)

Training Information Obtainment

In addition to rural training needs identification, the respondents were asked to detail how they obtain training information. It is important for training providers to understand how rural response agencies determine what training programs are available to address their specific needs. This information can help inform necessary adjustments to marketing and outreach efforts to ensure information is readily available to rural communities and response agencies. The most common method to obtain training information is *state agencies* (60.7%; n=1,659). This source was followed by *local agencies* (47.8%; n=1,308), *directly from training providers* (46.5%; n=1,271), and *word of mouth/social networking* (39.4%; n=1,077). Figure 21 presents expanded data on how training information is obtained by the respondents.

Figure 20: Implementation of Training Needs Assessments and Methodology (n=2,201)

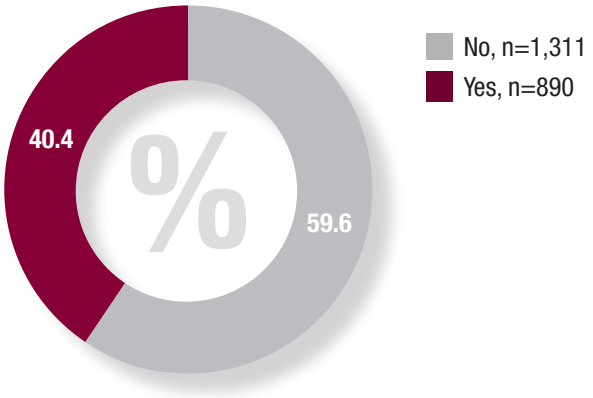
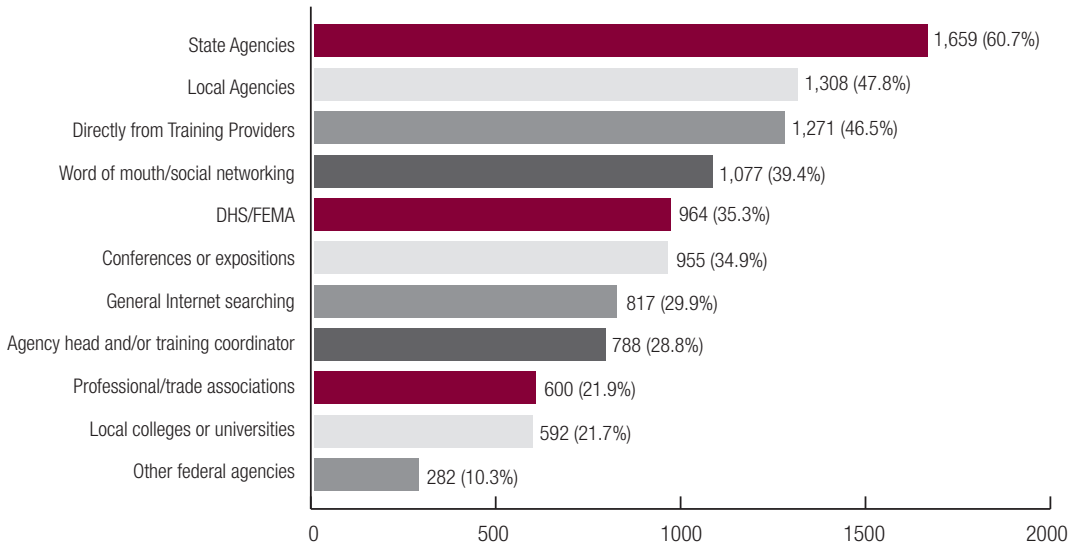


Figure 21: Sources of Training Information



Rural Training Influences, Barriers, and Preferences

Once rural training needs are identified, it is important to understand what influences rural first responders and/or their agencies to select a specific training course/program and what barriers exist that may preclude them from attending a training course/program. Two specific questions were asked of the respondents to obtain this information. First, respondents were asked to indicate what factors influence the decision of their agency to select a training course/program. As indicated in Figure 22, approximately 60% of the respondents indicated *training is required* (62.0%; n=1,694), *cost* (59.6%; n=1,630), and *location of training* (58.3%; n=1,593) as the top decision influences/factors. The remaining factors in order were *topic of interest, dates and times of training, availability of certification or credit,* and *reputation of the training provider or facility.*

As for rural training barriers, the respondents were asked to indicate what barriers prevent responders and other community stakeholders within their jurisdiction from attending training. By a significant margin, the respondents identified *location of training* (60.0%; n= 1,641), *cost of travel* (59.7%; n=1,631), *work obligations* (57.9%;n =57.9%), and *cost of training* (55.4%; n=1,516) as the top training barriers. Figure 23 provides the remaining barriers along with detailed response statistics. In addition to the overall rural training barriers question above, the respondents were also presented a specific question regarding whether minimum course attendee requirements are a barrier to hosting training within rural jurisdictions. As displayed in Figure 24, a majority of the respondents (58.6%; n=1,297) perceived minimum course attendee

Figure 22: Decision Factors in Training Selection

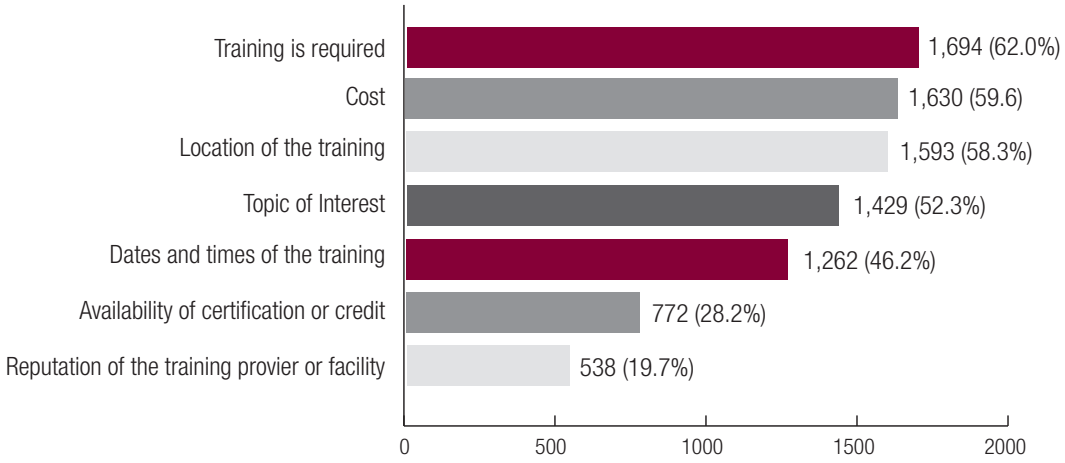
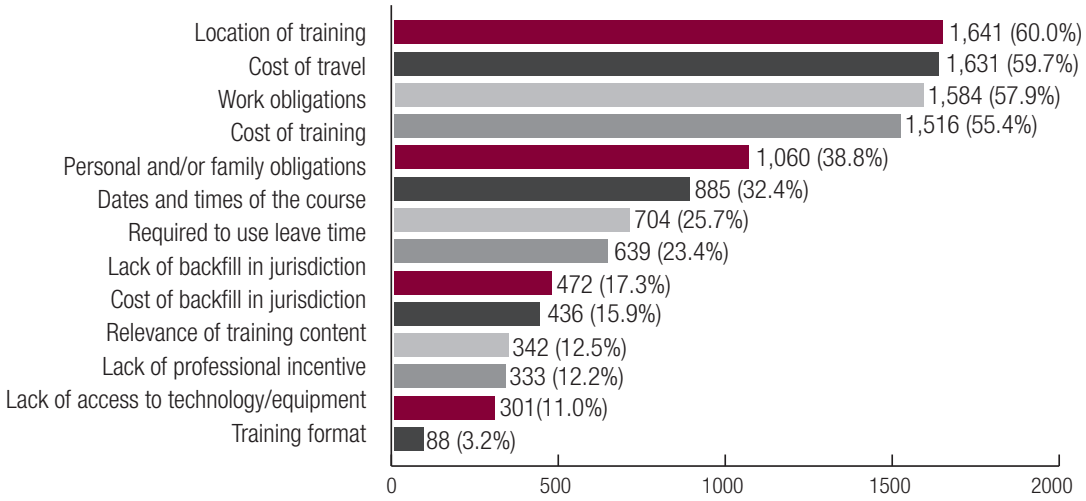


Figure 23: Rural Training Barriers



requirements as a barrier. These individuals suggested a reduction in minimum course attendee requirements (to the 10-15 range) due to difficulties in obtaining 20 attendees because of various factors:

- Located in rural areas with limited first responders;
- Frequent long drive distances to training locations (increases training costs);
- Reliance on volunteers who have day jobs which forces them to use sick/vacation time to attend training during the week; and
- It is common that rural first responders will not know if they can attend training until a day or two before the training which directly affects registration information that needs to be submitted prior to the course delivery.

For those who indicated minimum course attendee requirements were not an issue (41.5%; n=917), they explained that the minimum number is not the overall issue, but rather the other common training barriers, such as training costs.

In the previous discussions, the training barrier of *date and time of the training* course was indicated by 46.2% (n=1,262) of the respondents. Coincidentally, the survey included a specific question that asked respondents whether instructor-led training courses offered on evening and weekend schedules would provide greater access to rural jurisdictions. As displayed in Figure 25, 70.6% (n=1,556) of the respondents indicated that greater access would be provided. The following list provides the common reasoning why the responders believe greater access to training would be provided though instructor-led training courses offered on evening and weekend schedules:

- The heavy presence of volunteers in rural agencies who have other fulltime employment, which limits ability to train during business hours throughout the week;
- Job responsibilities during business hours presents attendance issues; and
- The nature of shift work in response agencies presents scheduling and attendance issues.

The effect of the reliance on volunteers in rural areas seems to be evident in training length preferences as indicated by the respondents. Specifically, the respondents were asked to identify what length of training does agencies in their jurisdiction most prefer. As indicated in Figure 26, the most preferred length by approximately half of the respondents was one day (eight hours) followed by a length of less than four hours. Overall, 89.6% (n=1,074) of all respondents indicated a preference for a training course length of eight or less hours.

Figure 24: Minimum Course Attendee Requirements as a Rural Training Barrier (n=2,214)

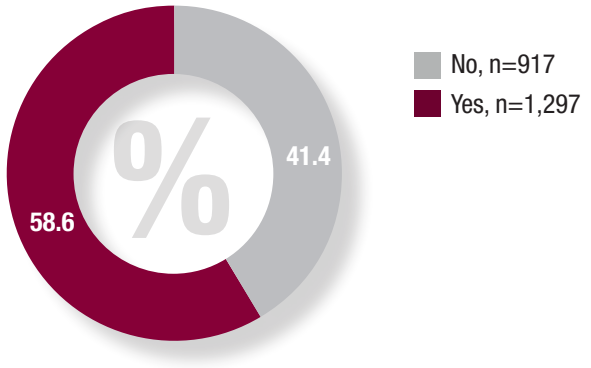


Figure 25: Greater Access to Training via Night and Weekend Training (n=2,204)

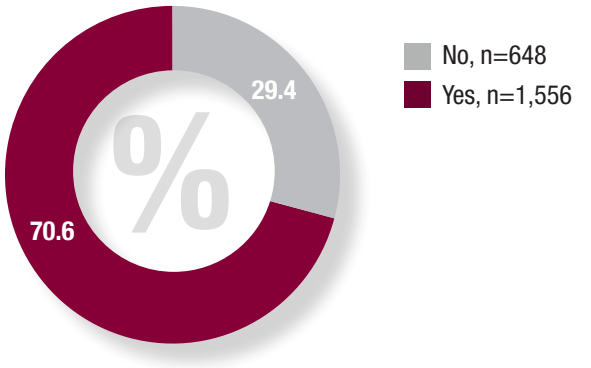
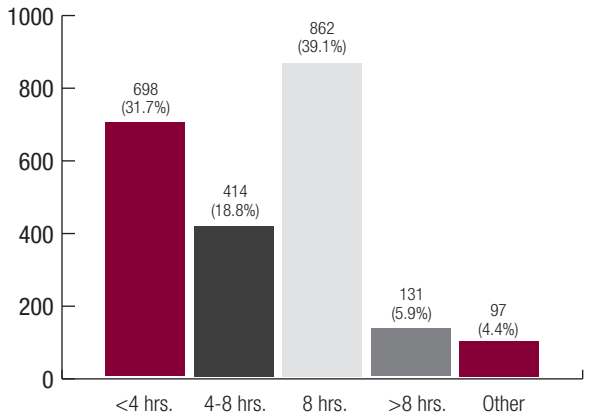


Figure 26: Preferred Training Course Length (n=2,202)



Rural Training Delivery, Application, and Diffusion

The last section of the survey allowed respondents to provide information related to rural training delivery, application, and diffusion. Beginning with training delivery, the respondents indicated which of the federal training providers within FEMA NTED had provided training to agencies within their jurisdiction.[34] As displayed in Figure 27, although the respondents indicated the use of all federal training providers, both the Emergency Management Institute (EMI) and the National Fire Academy (NFA) were more heavily utilized by a significant margin. In addition to inquiring about the use of FEMA federal training providers, the respondents were asked for suggestions on how to improve training delivery to rural jurisdictions. Despite the overall low number of comments provided (which could be an indication of effective and efficient training delivery operations by federal training partners), there were some identifiable themes within the submitted comments, which are displayed in Figure 28.

Figure 27: Utilized Training Providers

Provider[35]	# of Respondents	% of Respondents
Center for Domestic Preparedness (CDP)	546	20.0%
Emergency Management Institute (EMI)	1,060	38.8%
National Domestic Preparedness Consortium (NDPC)	175	6.4%
National Fire Academy (NFA)	1,014	37.1%
Naval Postgraduate School (NPS), Center for Homeland Defense and Security (CHDS)	79	2.9%
Rural Domestic Preparedness Consortium (RDPC)	383	14.0%

Figure 28: Training Delivery Improvement Suggestions

Topic	# of Respondents	% of Respondents
Offer training in small and rural jurisdictions to reduce training barriers	276	10.1%
Expanded offerings of online courses (to include initial modules prior to live course) and CD/DVD training	162	6.0%
Better advertisement of available training programs and courses	95	3.5%
Provide funding to cover true costs of training attendance (e.g., backfill, overtime, travel costs, etc.)	91	3.3%
Flexibility in training delivery to include evenings, weekends, and other alternate times.	89	3.3%
Offer free training content to rural areas/agencies	81	3.0%
Tailor training content to rural areas/agencies	75	2.7%
Eliminate or reduce minimum attendee requirements	37	1.4%
Better coordination with local and state agencies	23	0.8%
Develop and deliver more Train-The-Trainer (TTT) courses	22	0.8%
Provide more training deliveries	22	0.8%
Increased diversity in training topics	20	0.7%

[34] Received training can inclue mobile courses (delivered within a respondent's jurisdiction), resident courses (delivered at the training provider's location), and distance learning courses (e.g., web-based courses).
[35] For more information on each federal training provider, please visit: https://www.firstrespondertraining.gov/content.do/page=trainingProviders

As for training application, the respondents were asked to describe any incidents in which agencies in their jurisdiction applied training from a federal training partner to an actual incident. These *success stories* are important as they show how received training is transferred to a rural responder's daily job setting and utilized in all mission areas. Similar to the training delivery question, the training application question received a low number of comments. This should not, however, be construed as a lack of training application. Within the responses, the respondents typically listed event types without providing specific details of the incident. Although detailed information was not captured by the survey, the RDPC has previously recorded detailed accounts of the application of RDPC training to actual events.[36] The following list provides a topical breakdown of the provided comments:

- National Incident Management System (NIMS) and Incident Command System (ICS) training is used every day for all responses (n=77)
- Hazardous materials incident (n=69)
- Tornado (n=46)
- Wildland fire (n=44)
- Flooding (n=28)
- Severe weather (e.g., snow storm, ice storm, wind storm, and extreme heat event) (n=28)
- Structural/Urban fire (n=21)
- Rail car incident (n=20)
- Major vehicle accident (n=18)
- Search and rescue operation (n=16)
- Tropical storm/hurricane (n=13)
- Drug interdiction and clandestine drug laboratory identification (n=12)
- Bomb threat and/or other event involving explosive material (n=11)
- SWAT/Hostage event (n=9)
- Active shooter (n=8)
- Mass casualty incident (n=7)
- Media relations (n=7)
- Planned event (n=6)
- Incident involving public evacuation (n=5)
- Plane crash (n=5)
- School-based incident (n=5)

Despite typical listing of events, some respondents did provide incident descriptions in which training application details were provided. The following bullets provide some of the more notable comments.[37]

- A railcar carrying 20,000 gallons of 27% ammonia hydroxide had a valve assembly malfunction. The assembly broke off behind the valve releasing contents of the railcar just outside the city. Fortunately the prevailing wind and gravity carried the vapors and liquid away from the town. However, the two railcar workers and the responding law enforcement officer were contaminated. The Emergency Preparedness Coordinator/Ambulance Supervisor for the hospital had attended Hospital Emergency Response Training (HERT)[38] at the CDP. The lessons learned had been passed on to upper management and the event incident commander knew what needed to be done. The result was when the three affected people arrived; people met them in Type C decontamination gear and decontaminated them in the fixed outdoor decontamination shower that the hospital had built.

- Agency's participation in the RDPC event planning course[39] helped to facilitate a very successful coordinated effort between my agency and other agencies for the Asia-Pacific Economic Cooperation (APEC) National Special Security Event (NSSE) in 2011.

- All of the folks who took the course by RPDC for a basic introduction for public information officers[40] have been employed several times in this jurisdiction to keep the media up to date on anything that has happened.

- All personnel are trained in the NIMS classes. We used this two years ago in a propane truck accident. Two weeks ago a major snow/ice storm shut down our county for one week. Down power lines and trees made transportation almost impossible. A state of emergency was declared by the Governor. Electrical power and natural gas was out for 10 hours. The federal NIMS training was followed and a positive outcome was experienced. All agencies worked extremely well together.

- Hurricane Sandy was a recent event in which numerous success stories were achieved in part, due to the training provided by DHS/FEMA. Collaboration between public and private entities allowed for resources to be effectively tracked and supplied to state-run shelters. The information flow was timely and appropriate and the necessary parties were involved helping to lead to successful responses.

- I had arranged for RDPC to do a rail car incident training[41] within our county and about 18 months later we did have an actual incident and most of the responders were able to read the car placards and understand contents. It was not anything hazardous in the end but we were all able to pull bits and pieces of that training together so the response was quick and safe.

[36] Rural Domestic Preparedness Consortium. (2014). *Training to Action.* Richmond, KY: Eastern Kentucky University, Justice and Safety Center.
[37] All identifying information was removed from the comments to protect the privacy of the respondents and to maintain the anonymity of the survey and the results. Additionally, grammatical edits were performed on the comments to ease readability.

- I was responsible for handling bomb threat incidents in 2009 and 2014 that were school-related. Proper preparedness and understanding based knowledge learned in past training served me well as well as the school. I had attended the RDPC school safety course[42] in an out of county offered training. I enjoyed it and saw a need for it to come to my home county. I made the arrangements and hosted the training in a county-wide event that was very well received. I saw the continual need to invest in my relationship with my local school district and have since established a satellite office within our school. Again, a program that has served us very well. Situational awareness and a good working relationship have provided prompt action when called upon. Learned through experience and training.

- NIMS and ICS training was a lifesaver when our town took a direct hit by an EF-5 tornado

- Our community was impacted by an EF-4 tornado that was on the ground for 35 miles within my county. Due to the devastation caused by the storm an Incident Management Team was activated and deployed within the county. We had been developing local responders for NIMS operations. Due to the training that had been conducted within the county, local responders and leaders were better equipped to interact with the incident management team and appreciate the organization that this team brought to our disaster.

- Texas A&M Engineering and Extension Service (TEEX) provided training in ropes and rescue[43] for our department, which came in handy in 2014. Our volunteer fire department was responsible for the rescue of three people, one of which had fallen into a 100 foot canyon and suffered a severely broken ankle.

- Train derailment with chlorine gas release. Previous CDP TERT[44] training and training at the Chemical, Ordnance, Biological, and Radiological (COBRA) Training Facility[45] helped with awareness of dangers involved, protective wear needed, etc. Surface and maritime radiological screening operations are conducted statewide on a regular basis. Training from Nevada National Security Site[46], CDP, and other radiological training programs have prepared numerous personnel to properly conduct this type work.

- We had an incident in which there was a suspected radiological exposure occurred during a response to a motor vehicle crash. Because of training we had received from CDP[47], we were able to rule out the exposure through use of the radiation detectors we had been provided.

In addition to rural training application, the survey also incorporated questions related to rural training diffusion.[48] Training diffusion is important within rural response agencies because an agency may only be able to send one individual to a training course instead of multiple individuals afforded by larger agencies. Once the training course is completed, the single individual then has the responsibility to diffuse the information to others within his/her agency or even multiple agencies within the community. One way diffusion can occur is through the development or updating of agency policies, procedures, and/or plans. Therefore, the survey included a specific question that asked respondents whether they have noticed or witnessed agencies within their jurisdiction developing and/or updating policies, procedures, or plans because of training received through federal training partners. Rather than providing descriptive accounts, the respondents primarily listed the types of policies, procedures, and/or plans that have been developed or updated as a result of the training:

- General preparedness and response protocols (n=154)
- NIMS and ICS integration (n=60)
- Standard operating procedures (SOPs) and guidelines (SOGs) (n=60)
- Emergency operations plan (EOP) (n=39)
- Active shooter policy (n=29)
- Hazard materials plan (n=27)
- School-based incident plan (n=19)
- Hazard mitigation plan (n=11)
- Pre-incident planning (n=10)
- Communications plan (n=8)
- Wildland fire response (n=6)
- Continuity of operations plan (COOP) (n=5)
- Mass casualty incidents (n=5)
- Mass fatality plan (n=5)
- Public health plan (n= 5)
- Bomb threat response (n=4)
- Recovery plan (n=4)
- Search and rescue operations (n=4)
- Vehicle accident response (n=4)
- Planned event plan (n=3)
- Public evacuations (n=3)
- Rail car incident response procedures (n=3)

[38] *PER 902 Hospital Emergency Response Training for Mass Causality Incidents.* For more information, please visit: https://cdp.dhs.gov/training/courses/hert
[39] *MGT 335 Event Security Planning for Public Safety Professionals.* For more information, please visit: https://www.ruraltraining.org/training/courses/mgt-335/
[40] *AWR 209 Dealing with the Media: A Short Course for Rural First Responders.* For more information, please visit: https://www.ruraltraining.org/training/courses/awr-209/
[41] *AWR 147 Rail Car Incident Response.* For more information, please visit: https://www.ruraltraining.org/training/courses/awr-147/
[42] *AWR 148 Crisis Management for School-Based Incidents – Partnering Rural Law Enforcement, First Responders, and Local School Systems.* For more information, please visit: https://www.ruraltraining.org/training/courses/awr-148/
[43] *Rescue Training Program.* For more information, please visit: https://teex.org/Pages/Program.aspx?catID=5
[44] *PER 260 Technical Emergency Response Training for CBRNE Incidents.* For more information, please visit: https://cdp.dhs.gov/training/program/b
[45] For more information on the COBRA Training Facility, please visit: https://cdp.dhs.gov/about/
[46] For more information on training offered by the Center for Radiological Nuclear Training at the Nevada National Security Test Site, please visit: http://www.ctosnnsa.org/

Similar to the application question above, some respondents did provide comments in which training diffusion details were provided. The following bullets provide some of the more notable comments.[49]

- Due to HERT training from the CDP there is a fixed decontamination shower and mass decontamination tent systems in our jurisdiction. Response plans are in place and reviewed biannually at minimum. This keeps technical decontamination skills up and the knowledge of the fixed and tent decontamination systems. Ammonia related releases are a top threat in our community. This level of preparedness would not have been possible without the CDP training.

- Our agency has updated its emergency operations plan due to RDPC training.[50]

- Recovery planning process was initiated following attendance of an RDPC training[51] event coordinated at our state emergency management conference. Our local EOP is updated continually due to training provided by EMI.[52]

- We recently hosted the *TEEX MGT 312 Senior Officials Workshop*.[53] As a result of this, many cities within the county are updating their EOPs, and we are creating a county continuity of government plan.

Discussion

The results of Phase II of the 2014-2015 NRTNA produced valuable information from rural emergency responders. Efforts by the research team at EKU to identify and develop an appropriate rural emergency response population for Phase II was achieved, which is exemplified by the fact that approximately 90% of the respondents indicated they represented agencies that had 50 or less employees/volunteers and had a municipal and/or county area of primary responsibility with a population of 50,000 or less. Additional examination of the data reveals that over two-thirds (69%; n=1,888) of the respondents served populations of 10,000 or less, and approximately half (51.4%; n=1,406) represented agencies with 20 or less employees/volunteers. The presence of very large agencies (200+ employees) and large population sizes (100,000+) within the data are due to state agencies that responded, which represented 3.0% (n=83) of the responses. Although the state agencies correctly provided demographic information related to their agency, they were instructed to answer the remaining questions as they related to rural jurisdictions within their state. As for response rates, the overall response rate is low (12.1%), but the number of counties responding was high (n=1,233; 72.7%) and responses were received from all states and all disciplines.

These created a geographically-dispersed and disciplinary-diverse group of respondents that allows for sufficient data analysis in order to draw constructive conclusions.

As for rural training needs, the top identified Core Capability-based rural training needs were *Operational Communications*, *Threat and Hazard Identification, Operational Coordination, Public Information and Warning,* and *Planning*. Although *Planning* received the fifth most responses as a rural training need, it received the most #1 rankings of any Core Capability. Therefore, this illustrates that while *Planning* may not be a perceived as a rural training need by everyone, those who do perceive it as a rural training need view it as possibly the most important. This may be due to the increased emphasis on engaging the Whole Community[54], which plays a major role in rural planning efforts as well as in all mission areas. The same could be stated for *Intelligence and Information Sharing* and *Critical Transportation*. These were not among the top ten selected Core Capability-based rural training needs, but received the eight- and ninth-most top three rankings of all Core Capabilities.

Conversely, the Core Capability of *Public Information and Warning* received the fourth most responses as a rural training need, but dropped to seventh in terms of individual #1 rankings and overall total rankings (1 through 3). This may be due to the high presence of responses from mid-west states that deal with severe weather (tornadoes, wind storms, severe thunderstorms, etc.) and rely on public information and warning

[47] For more information on training offered by the Center for Domestic Preparedness, please visit: https://cdp.dhs.gov/
[48] Knowledge transfer that allows for the concept of *train one, train many.*
[49] All identifying information was removed from the comments to protect the privacy of the respondents and to maintain the anonymity of the survey and the results. Additionally, grammatical edits were performed on the comments to ease readably.
[50] *MGT 383 Emergency Operations Plans for Rural Jurisdictions.* For more information, please visit: https://www.ruraltraining.org/training/courses/mgt-383/
[51] *MGT 415 Disaster Recovery in Rural Communities.* For more information, please visit: https://www.ruraltraining.org/training/courses/mgt-415/
[52] For more information on training provided by EMI, please visit: https://training.fema.gov/emi.aspx
[53] *MGT 312 Senior Officials Workshop for All-Hazards Preparedness.* For more information, please visit: https://teex.org/Pages/Class.aspx?course=MGT312

systems to alert citizens to take appropriate action. Regardless of the reasoning, *Public Information and Warning* continues to be an important capability in all areas (urban and rural) in light of increased severity and occurrence of severe weather events, the sheer amount of hazardous materials that are transported throughout the United States on a daily basis via roads, rails, and water, and the continued threat of possible technological hazards and human-caused incidents.

As for the top identified rural training need *(Operational Communications)*, the continued need for interoperable voice and data communications across the United States in both urban and rural areas may have resulted in the identification of this training need. Further, rural areas face resource constraints that create difficulties and shortcomings for rural response agencies in terms of staffing, equipment, and other resources, which can have a direct impact on operational communications abilities. Additionally, rural agencies also face geography issues related to communications in which obtaining simple *operable communications* is sometimes difficult due to vast and, often times, sparsely populated areas that may be extremely challenging (e.g., mountains, marshlands, wilderness). Common conditions, constraints, and other aspects of emergency response in rural communities can also affect *Operational Coordination* capabilities (another top three identified training need) due to possible large incident areas, mutual aid needed from surrounding communities, and a heavy reliance on volunteers. Heavy reliance on volunteers in rural communities as well as high employee turnover rates in rural agencies may also provide insight into why a heavier need/emphasis on continual training timeframes was indicated by the respondents.

Other Core Capability-based rural training needs of note include results for *Threat and Hazard Identification*, which was identified as the second highest rural training need. This result may be due to a filter-down affect in which state agencies are becoming more familiar with the THIRA process due to the State Preparedness Report process and requirements. Therefore, the use of the THIRA process may be being pushed to the local level as well. Further, the increased emphasis on *Planning* as indicated in the data may also provide insight into the need for *Threat and Hazard Identification* training. Specifically, *Planning* involves, among other elements, the development of necessary emergency plans, such as EOPs that typically include hazard-, threat-, and/or incident-specific annexes.[55] Therefore, the THIRA process can be utilized to develop these annexes or aid in the development of other plans as needed.

Overall, the identified Core Capability-based rural training needs represent a significant departure from federal data, as none of the top ten Core Capability training needs identified by this study are listed as a top ten training need within the two most recent versions of the NPR.[56] [57] This is not a surprising result as rural homeland security issues may not be apparent or reflected in aggregate national-level data such as reported in the NPR. This illustrates the important and significant value of the NRTNA as a mechanism to determine alignment (or misalignment) of the needs of rural communities with national priorities. This result, however, does cause some concern due to the NPR being based on data reported by the 56 states and territories of the United States. Further examination of this difference is warranted to determine possible explanations.

As for topical, threat, and hazard training needs, the respondents provide a variety of rural training needs. Beginning with topical training needs, *active shooter* and *school safety* were the top two rural training needs by a significant margin. The need for *active shooter* training is not surprising due to the continued occurrence of these events, which have shown the ability to take place at a variety of events and perpetrated by individuals with various backgrounds. Similar comments can be made regarding *school safety* in which recent events illustrate a need to increase mission area capabilities to address future events. This may also be compounded by the fact that RDPC's school safety and incident response courses continue to receive an increasing number of requests that cannot be fulfilled due to federal budget restrictions and shifting priorities to focus on emerging threats, such as cybersecurity and large scale coordinated attacks. Further, *interagency communication and coordination, communication with the public*, and *basic emergency planning and response* were mentioned by respondents, which directly related to the identified Core Capability-based training needs thereby illustrating the importance of this training in rural communities. In relation to threats and hazards, rural training needs related to *tornadoes, hazardous materials incidents, floods, winter storms,* and *wildland fires* are understandable due to the repeated threat and actual occurrence of these events. The same can be said of

[54] Federal Emergency Management Agency (2011). A *Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action (FDOC 104-008-1).* Washington, DC: Federal Emergency Management Agency.
[55] Federal Emergency Management Agency (2010). *Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining Emergency Operations Plans (Version 2.0).* Washington, DC: Federal Emergency Management Agency.
[56] Federal Emergency Management Agency (2015). *2015 National Preparedness Report.* Washington, DC: Federal Emergency Management Agency.
[57] Federal Emergency Management Agency (2014). *2014 National Preparedness Report.* Washington, DC: Federal Emergency Management Agency.

school and *workplace violence events* and needed training to respond to these types of events. Overall, the top ten rural threats and hazards in which training is needed were evenly split between natural hazards and technological/human-caused hazards thereby illustrating the variety of incidents rural responders face. It must be noted, however, that the top threat-/hazard-based rural training need was *tornadoes*, which is partially explained by a large number of responses coming from states in the mid-west that regularly experience tornadoes.

One of the more pertinent results from the respondents is what is most needed to increase rural community resiliency and response capabilities. Although it is no surprise that close to two-thirds of the respondents (62.0%, n=1,694) identified *relevant training and exercises* as most needed, less than one-third of the respondents (31.3%, n=855) identified *addressing of technology gaps* as a need. One may think technology needs would be a larger issue within rural emergency response agencies due to budget limitations. It seems, however, that these agencies need basic/common response equipment as indicated by approximately half of the respondents who identified *equipment acquisition* as the second highest need to increase community resiliency and response capabilities. This can be due to the small population bases in rural areas that results in limited tax revenue (from common single-industry economies [e.g., mining, agriculture], which often hinders the procurement of equipment (and training as well) to assist first responder agencies in preparedness, response, recovery, and mitigation efforts. Therefore, the limited population and previously mentioned large land mass of rural communities often makes it difficult to show a positive cost-benefit analysis when requesting funding for equipment and/or training by the response agency.

When addressing known rural training needs, *state agencies* were the most commonly utilized source to obtain training information by a significant margin. This is not an unexpected result as all FEMA NTED training is coordinated through the respective SAA within each state or territory. The results also show a reliance on *local agencies* and *word of mouth/ social networking* thereby illustrating the importance of professional networks to assist in getting training to rural agencies. When selecting training to address known rural training needs, the respondents indicated that the fact that the *training is required* is the most important factor when selecting training. This references the previous discussion in which many rural agencies have difficulties in obtaining and receiving training. Therefore, much emphasis is placed on completing training that is necessary due to state and federal regulation and/or is part of necessary certifications. The next two training decision selection factors (*cost* and *location of the training*) deal with the true cost of attending training for rural emergency response agencies. For example, even if a training is provided free of charge (such as a mobile delivery of a RDPC instructor-led training course), the agency still faces considerable cost if the location of the training is far away in terms of possible travel and personnel costs. An interesting result was the *reputation of the training provider or facility* was the least important training selection decision factor. Instead,

training is required and *training cost* were the most important. This is also consistent with the training barriers as indicated by the respondents. Specifically, three of the top four rural training barriers as noted by the respondents deal with the true cost of attending a training course. These barriers include *location of training, cost of travel*, and *cost of training*, all of which were indicated by over 55% of the respondents. The true cost aspect of attending a training is consistent with previous rural national assessments that identified cost as a significant rural training barrier. Therefore, it is no surprise that the respondents provided the following comments when asked for training delivery improvement suggestions by FEMA NTED federal training providers:

- Offer training in small and rural jurisdictions to reduce training barriers;
- Expanded offerings of online courses (to include initial modules prior to live course) and CD/DVD training;
- Provide funding to cover true costs of training attendance (e.g., backfill, overtime, travel costs, etc.); and
- Offer free training or training at reduced costs.

Aside from funding provisions, the RDPC was created to address the other three comments above (as well as tailoring training content to rural areas/agencies) and has been achieving this objective since its establishment. The comments illustrate, however, that work is needed by the RDPC and other federal training providers to disseminate important information to small, rural, and frontier communities that provides what training is available and how their agencies and communities can benefit from the training.

The *dates and time of the training* were also an important training selection decision factor and training barrier as noted by the respondents. Subsequently, the survey included questioning regarding whether instructor-led training courses offered on evening and weekend schedules would provide greater training access to rural communities. A significant majority of the respondents (70.6%; n=1,556) indicated that greater access would be provided. Those who confirmed greater access overwhelmingly indicated that evening and weekend training would assist the heavy presence of volunteers in rural agencies in obtaining needed training. The volunteer effect was also noted in training length preference in which almost 90% of the respondents (89.6%; n=1,074) indicated a preference for a training course length in eight hour or less range. The volunteer effect was also apparent in whether minimum course attendee requirements were a barrier to hosting training in rural communities. In fact, a majority the respondents (58.6%; n=1,297) indicated that minimum course attendee requirements were a barrier. Overall, the results illustrate the need for rural training delivery flexibility (evening and weekend training; reduced minimum course attendee requirements) and more outreach to rural communities to enable more insight as to what training courses and programs are available from FEMA NTED federal training providers.

Those respondents who have attended training indicate utilization of all FEMA NTED federal training providers. EMI and NFA were the most utilized providers by the respondents, which is not surprising due to the high percentage of fire service individuals comprising the respondent population. Regardless of training providers, the comments related to training application and diffusion from the respondents illustrate the training has been successfully used by rural emergency response agencies in response to a variety events and incidents, and has been utilized to develop and/or revise important policies, plans, and procedures that reach out and touch many more individuals than just those who attended the training. This includes the implementation and utilization of the concepts and principles of NIMS and ICS.

Although formal NIMS compliance and implementation objectives have been established for ten years (beginning in 2005[58]), the respondents provided interesting comments on how NIMS and ICS have recently been implemented and utilized in rural communities. Specifically, NIMS and ICS was the most commented topic regarding training application and the second most commented topic for training diffusion. Further, despite long-established NIMS training courses by EMI, the responders identified NIMS and ICS training as one of the top ten topical rural training needs. This illustrates the need for federal and state agencies to increase efforts to ensure local responders are aware of national level objectives, concepts, and principles, especially in rural and frontier areas. The lack of awareness was also noted in received phone calls and e-mails from respondents who had never heard of the concepts of the Core Capabilities or Whole Community and needed further explanation/understanding before completing the survey. For example, a typical comment was that the Core Capabilities did not apply to a respondent's agency because they are a small agency in a rural area that only handles traffic accidents and an occasional small wildland fire. Therefore, explanation was needed to illustrate that despite the incident, specific Core Capabilities are needed, such as *Operational Communications*.

Overall, Phase II of the 2014-2015 NRTNA revealed a variety of rural training needs across the United States. Despite the variety, common themes among rural training needs were identified through analysis by the Core Capabilities, topical area, and by perceived threats and hazards. In addition to rural training needs, insightful and actionable information regarding rural training barriers, training course/program information obtainment sources, and training selection decision factors was obtained. Although the information obtained via Phase II can stand independently, the combination of this information with the Phase I results provides the most comprehensive understanding of rural homeland security needs to date. The totality of this information provides the appropriate insight into and knowledge of training needs and other training-related aspects within rural communities throughout the United States. This information will enable FEMA NTED leaders to make appropriate decisions based on actionable information to benefit rural emergency response agencies and the communities they serve.

Conclusion

Phase II the NRTNA provided an opportunity to rural emergency responders to voice their opinions on training needs within rural communities across the United States. Their voices and the data they provided are important to guide the direction of federal funding to support course development and delivery for rural communities. The identified rural training needs cut across all mission areas (prevention, protection, mitigation, response, and recovery), and provides actionable data to guide activities to fulfill rural training needs. Further, the training delivery-related information highlights where appropriate steps can be taken by both FEMA NTED and its federal training providers to more effectively provide training to rural communities. The combination of the Phase I and Phase II results provides an in-depth and comprehensive understanding of rural training needs across the United States. Training that is developed and subsequently delivered without adhering to the understanding provided through this research will likely not be effective, timely, or relevant. Through the 2014-2015 NRTNA effort, a more thorough understanding of rural homeland security has been achieved. Despite any limitations in the research, the survey results provide valuable information for federal and state training organizations in terms of rural training needs identification. Lastly, the entire 2014-2015 NRTNA effort will culminate with the development of the remaining volumes of the planned multivolume body of work. The formal completion of the 2014-2015 NRTNA will achieve the most comprehensive understanding of rural homeland security training needs to date.

[58] For more information on NIMS compliance and implementation objectives, please visit: https://www.fema.gov/implementation-guidance-and-reporting

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