The Fifth Needs Assessment of the US Fire Service


SECTIONS INCLUDE: EXECUTIVE SUMMARY • HEALTH & WELLNESS • CHANGES ACROSS FIVE STUDIES • FACILITIES & APPARATUS • COMMUNITY RISK REDUCTION • TRAINING & CERTIFICATION • WILDLAND & WUI FIREFIGHTING • PERSONAL PROTECTIVE EQUIPMENT • STAFFING & OPERATIONS

DECEMBER 2021

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Abstract

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Acknowledgments

The NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

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Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
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National Association of State Fire Marshals: Philip Oakes
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National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan
Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communications and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

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EXECUTIVE SUMMARY

The Fifth Needs Assessment of the US Fire Service

DECEMBER 2021
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Executive Summary

Fire departments are essential parts of public safety, responding to an expanding list of hazards in our communities. Department members fight fires and engage in activities to prevent fires from occurring. Beyond these traditional roles, they work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, help people in a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

The Fifth Fire Service Needs Assessment Survey was conducted by NFPA in 2020–2021; four previous surveys were conducted in 2001, 2005, 2010, and 2015. The first two were conducted under grants from the US Fire Administration.

The goal of the fire service needs assessment survey is to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective. Because grant programs have targeted many of the identified needs, these surveys were designed to examine the reduction of the needs over time to measure the success of the grant programs.

Fire service needs are extensive across all population strata and department types. However, in nearly every area, the smaller the community protected, the more pronounced the needs.

While some needs have declined, others have persisted or even increased. Some areas have plateaued after initial improvements in earlier surveys, likely due to the Assistance to Firefighters Grants (AFG) program, Staffing for Adequate Fire and Emergency Response (SAFER) grants, and other grant programs launched in the wake of the September 11th terrorist attacks. Yet, gaps remain across all areas in the survey.

The expansion of fire department roles and responsibilities shows no sign of stopping despite the ongoing need to address the most basic of resources. Staffing levels across job roles and functions have remained flat and weekday staffing among volunteer fire departments remains a challenge.

Across every response type covered in the survey, from structural firefighting to active shooter situations, there are fire department personnel responsible for responding to incidents for which they have not been formally trained or certified.

This edition of the survey expanded its questions on health and safety programs. It found that there are unmet needs for departments of all sizes across the board, from health and fitness programs to exposure tracking to air quality monitoring. Behavioral health programs are also a critical area of unmet need.

The survey also uncovered maintenance needs for aging fire department infrastructure, such as facilities and apparatus. Positive trends in the availability and use of personal protective clothing and equipment have been tempered by ongoing challenges with older equipment, unmet needs, and maintenance challenges.

Community risk reduction also remains a challenge. The majority of departments perform many fire prevention activities, but there is unmet need across nearly every aspect of these programs. Assessing need through community risk assessments and by measuring impact remains critical.

Very small and very large departments are more likely to be responsible for providing services for wildland-urban interface (WUI) and wildland firefighting than midsize departments, a result not seen
Training, including specialized training for WUI operations and equipment, is necessary for departments of all sizes. A majority of departments must use formal and/or informal agreements to obtain assistance in these scenarios. This is a critical need, as most departments require some level of support for WUI/wildland fires that affect more than 2–5 structures and/or 10 acres.

**AFG/SAFER Comparisons**

These surveys have been linked from their inception to the DHS/FEMA grant programs, including the broad-spectrum grants set up under Public Law 108-767, Title XXXVI – Assistance to Firefighters and Staffing for Adequate Fire and Emergency Response (SAFER).

Between FY2015 and FY2019, AFG appropriations averaged $346 million per year, a reduction from the average between FY2005 and FY2009 ($572 million) and FY2010 to FY2014 ($359 million). There has been a steady decline in AFG funding\(^1\). Between FY2015 and FY2019, SAFER appropriations averaged $346 million per year, an increase from the average of SAFER’s initial period between FY2005 and FY2009 ($138 million) and a decrease from the period between FY2010 and FY2014 ($365 million)\(^2\).

Efforts by the Federal government to address COVID-19 related needs impacted FY2020 funding for AFG and SAFER due to increases in available funding and the issuance of certain programmatic waivers by FEMA. The FY2020 appropriations for AFG and SAFER were $455 million and $355 million, respectively. The FY2021 appropriations for both AFG and SAFER have risen to $460 million and $560 million, respectively.

More information about these grant programs, including their application requirements, is available from FEMA’s Assistance to Firefighters Grants Program [website](https://www.fema.gov/afg-safe).

**Survey Structure and Analysis**

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was also revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters

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While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix A.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.

**Measuring Need**

Two measures were defined to quantify needs, as described below and as depicted in Figure ES-1.

The first measure, *need for departments providing a service*, is based on fire departments that reported having to provide a specific service. Unmet need is calculated as the proportion of fire departments that did not have the resources (i.e., personnel, staffing, equipment apparatus) to provide a service out of all the departments *that are responsible for providing the service*. In Figure ES-1, this is shown as the orange area (middle circle minus the smallest circle), as a fraction of the entire middle circle.
The second measure, *size of need among all departments*, is calculated as the proportion of unmet need in all the fire departments. The unmet need is the number of fire departments that do not have the resources to provide a service that they are responsible for providing. In Figure ES-1, this is represented by the orange area. This measure is useful for comparing needs across different services since the denominator of all the departments remains constant. This is also a conservative estimate because it does not count departments that might want to provide a service but cannot due to a lack of resources.

We try to make it clear which metric is being used throughout the report. In most cases, all the survey respondents, whether or not they provide a service, are noted in the tables and figures. However, there are a few instances, most notably in the Wildland/WUI module where we focus solely on the departments that provide a certain service, as noted in the text.
Section 1. Staffing and Operations

Staffing remains a constant need for all fire departments, regardless of their career, combination, or volunteer status.

SAFER Funding: Between FY2015 and FY2019, SAFER appropriations averaged $346 million per year, an increase from the average of SAFER’s initial period between FY2005 and FY2009 ($137.8 million) and a decrease from the period between FY2010 to FY2014 ($364.7 million). SAFER has two program activities: Hiring of Firefighters and Recruitment and Retention. Between FY2015 and FY2020, the Hiring of Firefighters activity funded an average of 213.5 awards per year, while Recruitment and Retention funded an average of 116 awards per year.

Community Information

The survey also looked at communities by population size, as fire departments have different needs and funding sources based on the needs and resources of their communities.

Tall Buildings (three or more stories): All the responding departments that protect 500,000 or more people indicated having 50 or more tall buildings in their jurisdiction. Across all strata, 26 percent of the departments reported having no tall buildings, while 6 percent of the departments reported having 50 or more tall buildings. The vast majority of the departments protect communities with less than 24 tall buildings.

Funding Sources: Most funding for fire departments, regardless of size, comes from tax revenues, but some departments also draw significant funding from other sources.

Emergency Response Responsibilities

Fire departments respond to a wide variety of incidents, from fires to medical calls, hazardous materials incidents, and active shooters. The types of responses for which a fire department is responsible vary by the size of the department, and not every department responds to every type of call.

Structural Firefighting: The vast majority of departments perform this role, regardless of the size of the community protected.

Emergency Medical Service: Overall, 63 percent of all fire departments provide EMS. Even though most departments provide EMS, only a quarter of the departments provide ambulance services. In one-third of respondent communities, there was no ambulance service of any kind.

Tactical EMS for Law Enforcement: While most departments do not provide tactical EMS for law enforcement, it is more common for larger departments (those protecting more than 100,000 people) to provide this service.

Hazardous Materials Response: Seven out of ten fire departments (70 percent) provide hazardous materials response. It is more common for fire departments to provide this service than EMS, even among smaller departments.

Wildland-Urban Interface (WUI) or Wildland Firefighting: Wildland-urban interface (WUI) or wildland firefighting is performed by 87 percent of fire departments. Very small departments are more likely to provide this service than larger departments. Of the departments protecting populations of fewer than 2,500 people, 94 percent provide WUI/wildland response. Midsize departments are less likely to provide this service, with only 57 percent of the departments protecting populations of 25,000 to 49,999 people doing so.

Prevention Activities: Most of the departments surveyed (77 percent) reported performing fire prevention services (preparedness and mitigation). Nearly all of the departments surveyed that protect at least 25,000 people engage in this duty.

Code Enforcement: Per the survey, 37 percent of the departments engage in code enforcement. This activity is less common among departments protecting fewer than 2,500 people (19 percent).

Active Shooter Response: Half of the fire departments reported having a response role in the event of an active shooter incident. This responsibility is much more common among departments protecting more than 100,000 people.

Traffic Control: Eighty-three percent of the departments reported performing this activity. It is far more common among departments protecting fewer than 5,000 people (90–91 percent) than departments protecting more than 250,000 people (28–33 percent).

Staffing

Many fire departments have undergone staffing changes in the last five years, but change has not been uniform across department size and job function. Larger departments were more likely to report an increase in staffing levels across each of the functional areas listed below:

Firefighters: Since 2015, most fire departments have seen flat firefighter staffing levels.

Administration: Eighty-six percent of departments saw no change in administrative staff.

Education, Enforcement, and Risk Reduction: The vast majority of departments had no loss or gain of positions in these areas.

Support or Auxiliary Roles: Overall, 53 percent of departments have personnel that fill these roles. Traffic control is a much more common role among smaller departments, while logistics is more common in larger departments. The most common “other” response was administrative staff.

Diversity and Inclusion: Slightly more than half of all fire departments have a program to ensure diversity and inclusion in their hiring or volunteer recruitment and retention practices. These programs are much more common among larger departments: 96 percent of departments protecting communities of 500,000 or more have this type of program, while 47 percent of departments protecting 2,5000 people or less have them.

On Duty Responders and Assignments

Career firefighters

Engine/Pumper Staffing: Among departments protecting less than 500,000 people, most communities do not assign or typically staff at least four career firefighters to an engine or pumper and so are probably not in compliance with NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire
Departments, which requires a minimum of four on-duty firefighters on an engine or pumper. Among large departments (those protecting 500,000 or more), 66 percent of departments typically assign four or more firefighters to an engine or pumper and 79 percent staff four firefighters for this unit type.

Ladder Truck/Aerial Staffing: Among departments protecting less than 250,000 people, most communities do not assign or typically staff at least four career firefighters to a ladder truck or aerial. Among large departments (those protecting 500,000 or more), 67 percent of departments typically assign four or more firefighters to a ladder or aerial and 71 percent staff four or more firefighters to this unit type.

Volunteer firefighters

Availability: In general, fewer call/volunteer personnel are available during the day on weekdays than on nights and weekends.

In communities of 10,000 to 24,999, 6.7 call/volunteer personnel are available on weekdays (days) compared to 10.3 on weekends (days); 11.6 are available on weekdays (nights) compared to 12.0 on weekends (nights).

In communities of 5,000 to 9,999, 6.9 call/volunteer personnel are available on weekdays (days) compared to 11.5 on weekends (days); 12.6 are available on weekdays (nights) compared to 14.1 on weekends (nights).

In communities of 2,500 to 4,999, 6.8 call/volunteer personnel are available on weekdays (days) compared to 11.4 on weekends (days); 13.0 are available on weekdays (nights) compared to 13.6 on weekends (nights).

In communities of under 2,500, 6.2 call/volunteer personnel are available on weekdays (days) compared to 10.0 on weekends (days); 11.0 are available on weekdays (nights) compared to 11.8 on weekends (nights).

Communications, Dispatch, and Portable Radios

An emergency response requires swift, accurate notification and communication between firefighters and other responders, including law enforcement, and EMS. The survey looked at aspects of these needs—including communication on scene between partners, dispatch resources, and the ability to provide a portable radio to every on-duty first responder.

Communications: Most fire departments are able to communicate by radio with response partners at an incident scene, but only 51 percent of departments can communicate with all of their partner agencies at an incident scene.

Dispatch: The majority of departments have a public safety answering point (PSAP) that answers fire, EMS, and police calls. Overall, 62 percent of fire departments have a backup dispatch facility, but this is less common among smaller departments.

Portable Radios: Only half of all fire departments can equip all on-duty first responders with portable radios, a finding that is relatively consistent since 2010. From 2001 to 2010 there was a decline in departments reporting need in this area, but since then the unmet need has held steady across multiple surveys.
Section 2: Training

Across every response type in the survey, from structural firefighting to active shooter responses, there was fire department personnel reported as being responsible for responding to incidents for which they have not been formally trained or certified.

Note: The Fifth Fire Service Needs Assessment Survey included changes to several questions related to training and certification. The questions were revised to specify that the term training meant formal training, such as programs that result in a certification, are based on a standard, or are developed based on a formalized review or consensus process. Because of the changes to the question structure, comparisons with past surveys over time were limited.

Structural Firefighting: Despite the vast majority of fire departments (98 percent) performing structural firefighting, many firefighters, especially in those departments protecting smaller communities, have not received formal training. Only 30 percent of departments have certified all their firefighters to Firefighter Level I.

Emergency Medical Service: Of department personnel who perform EMS, 21 percent have no certifications. Unmet need is greatest among departments protecting less than 2,500 people, with 33 percent of personnel having no certification.

Hazardous Materials Response: Among departments that respond to hazardous materials calls, 14 percent of the personnel who perform this duty have no certification, while an estimated 9 percent of personnel have been certified to the highest level (Technician). Unmet need is highest among departments protecting fewer than 2,500 people, where 23 percent of personnel have no certification.

Wildland-Urban Interface (WUI) or Wildland Firefighting: Many departments that are responsible for Wildland/WUI operations have personnel who are not formally trained (68 percent). Access to specialized training for wildland-urban interface firefighting operations also remains a challenge, as 41 percent of the responding departments indicated that their training does not include this specialization. This need is most pronounced among departments protecting less than 2,500 people, despite the higher likelihood that they’ll have to provide this type of service in their communities.

Prevention Activities — Preparedness and Mitigation: More than three-quarters of the departments that responded engaged in these activities, but there is an unmet need for trained personnel in this role across departments of all sizes. There is some level of unmet need in this area in at least 67 percent of departments. Even in communities of 500,000 or more, 29 percent of departments report that not everyone is trained.

Code Enforcement: Sixty-three percent of departments do not engage in code enforcement activities. Among the 37 percent of departments that do engage in code enforcement activities, 78 percent have unmet training needs.

Active Shooter Response: Sixteen percent of all fire departments in the study (31 percent of those who indicated they respond to active shooter incidents) have not received multiagency training with law enforcement, EMS, sheriffs, and others or been tested on the training and equipment required for this type of response. Most departments that respond to active shooter incidents have standard operating procedures and/or standard operating guidelines (SOGs) in place. A lack of these organizational policies...
is consistent across small- and medium-sized departments (from those protecting fewer than 2,500 people up to those protecting 50,000 to 99,999 people).

**Traffic Control:** Two-thirds (66 percent) of departments have an unmet need for training in this area. This is particularly pronounced in smaller communities, in which personnel are also more likely to have traffic control responsibilities.

**Driver Training:** Nine out of ten (91 percent) departments require hands-on training using a vehicle and 58 percent require certification or specific training. Just under half (49 percent) require demonstration of competency at least once a year. Certification is more common in large departments, while demonstration of competency and formal driver training are generally more common in smaller departments.

### Section 3: Health/Safety

Protecting the health and safety of firefighters remains a pressing challenge, with unmet needs across departments of all sizes for most programs.

**Fitness and Health Programs:** The majority of fire departments (72 percent) do not have programs to maintain basic firefighter fitness and health. Larger departments are more likely to have these programs than smaller departments and their programs are more likely to be associated with the IAFC/IAFF Wellness-Fitness Initiative.

**Medical/Physical Exams:** Most departments (61 percent) do not provide physical and medical evaluations for all firefighters that are compliant with NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments*. Larger departments are more likely to provide these evaluations, but unmet need remains across departments of all sizes. Most departments that provide physical and medical evaluations for firefighters do so every six months or every year. Twenty-two percent of departments only provide evaluations for new firefighters.

**Fitness Assessments:** Among departments that provide medical and physical evaluations, 43 percent do not include a fitness assessment for all firefighters. Departments protecting larger communities tend to conduct these assessments more frequently.

**Behavioral Health:** Nearly three-quarters (73 percent) of all fire departments do not have behavioral health programs. Larger departments are much more likely to have these programs than smaller ones, with only 14 percent of the smallest departments (those protecting less than 2,500 people) having such programs.

Of the departments with behavioral health programs, 90 percent offer post-traumatic stress support. There is a significant drop-off for other behavioral health services, with the next most common feature (cancer prevention education) offered by 51 percent of departments with behavioral health programs. Only 34 percent of the departments with existing programs have relationships with behavioral specialists.

**Exposure Tracking, Decontamination, and Air Quality:** Slightly more than half (52 percent) of all departments do not provide for individual exposure tracking, whether it is department-based or a mechanism for individuals. Exposure tracking at the department level is much more common among large departments than smaller ones.
Infection Control/PPE Decontamination Programs: Two-thirds of departments (67 percent) have an infection control/PPE decontamination program for infectious diseases; 63 percent have an exposure control/PPE decontamination program for carcinogens and other toxic hazards.

Air Quality Monitoring: While most fire departments monitor carbon monoxide (66 percent) and oxygen levels (59 percent) on the fireground, nearly one-third (31 percent) do not do any air quality monitoring. Fewer departments monitor cyanide (33 percent) and volatile organic compounds (17 percent). Smaller departments are less likely to monitor air quality.

Section 4: Fire Department Infrastructure: Facilities and Apparatus

Maintaining fire department infrastructure can be a daunting task. This is further compounded by the need for modern facilities that meet today’s fire service missions.

Examples of infrastructure challenges include design considerations that minimize exposures for firefighters, private or separate facilities for men and women, and space to accommodate the equipment needs of growing response missions. Fifty-two percent of departments have policies that prohibit structural firefighting gear in living quarters of fire stations, but fire stations were not necessarily designed with these considerations in mind. Aging facilities are often not easy to retrofit, and many communities struggle to balance the needs of their schools, roads, public safety and other community needs.

Facilities

Replacing or renovating existing fire stations or building new fire stations are among the most expensive projects a community can undertake. In 2019, NFPA took a deeper look into data from the 2015 survey in the report Renovation Needs of the US Fire Service. The report identified funding needs of $70 to $100 billion for fire station renovation and/or replacement.

In 2009, FEMA awarded Assistance to Firefighters Fire Station Construction Grants to 120 fire departments to build new fire stations or modify existing stations, but these grants have not been awarded in recent years. The regular Assistance to Firefighters Grants program includes awards for modifying facilities but not for new construction. These modification funds are not substantial in comparison to the amount of total funding awarded; thus, any facility improvements reflected in this report were likely funded by other sources.

Age: An estimated 44 percent of fire stations are over 40 years old, a number that has increased slightly since 2015. Smaller departments are somewhat more likely to have older stations, but many large departments have older stations as well.

Backup Power: Stations without backup power are much more common among smaller departments. Half of the stations for departments protecting a community of 2,500 or fewer lack backup power, while this number is under 25 percent in all population strata greater than 5,000 people.

Exhaust Emission Control: Most fire stations (56 percent) are not equipped for exhaust emission control. This problem is especially acute in very small departments (those protecting 2,500 people or fewer), where 82 percent of stations are not equipped for exhaust emission control.

Facilities: Slightly more than half (52 percent) of fire stations do not have private or separate facilities for men and women. In general, these facilities are more likely to be available in departments protecting a larger population than in smaller departments.

Apparatus

Fire departments respond to a wide variety of incidents and often need different apparatus to effectively face the challenges presented by these incidents. The number and type often vary by community size and need.

Apparatus In-Service: The average number of apparatus in-service varies greatly by the population protected.

- Engines/pumpers: average of 44 in-service for departments protecting 500,000 or more to 2.1 in-service for those departments protecting less than 2,500.
- Ladders/aerials: average of 13 in-service for departments protecting 500,000 or more to 0.1 in-service for those departments protecting less than 2,500.
- Tankers/tenders: average of 4.2 in-service for the departments protecting 500,000 or more to 1.2 in-service for those departments protecting less than 2,500.
- Ambulances or other transport vehicles: average of 28.2 in-service for departments protecting 500,000 or more to 0.7 in-service for those departments protecting less than 2,500.

Age: Vehicle age remains a challenge for fire departments.

- Engines/pumpers: About half (49 percent) of the reported engines/pumpers are 15 or more years old. Nearly two-thirds (64 percent) of the engines/pumpers in the smallest communities are at least 15 years old, while among departments that protect at least 50,000 people, 13 to 14 percent of the engines/pumpers are 15 years old or older.
- Ladders/aerials: 41 percent of the ladders/aerials in service are more than 15 years old, with 25 percent being over 20 years old. Older ladder trucks are particularly prevalent in smaller communities.
- Tankers/tenders: Over half (58 percent) of the tankers/tenders in service are at least 15 years old, including two-thirds (65 percent) of those in departments protecting fewer than 2,500 people.
- Ambulances: 26 percent of the ambulances in service are over 15 years old. Newer ambulances are more common in larger departments.

Replacement Planning and Budgeting: Only 38 percent of all fire departments plan and budget for apparatus replacement on a regular schedule, while 31 percent have a plan but no budget. While larger departments are more likely to have a plan and budget, 45 percent of the smallest departments have no plan or budget.
Section 5: Personal Protective Equipment (PPE)

Since the first Needs Assessment survey in 2001, NFPA has tracked fire departments’ ability to provide their personnel with the equipment required to effectively and safely respond to emergencies. Note: The metric of 10 years of age or older is based on retirement schedules described in NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.

Beyond personal protective clothing for structural firefighting, fire departments must often outfit their first responders with other types of personal protective clothing (PPC) and equipment (PPE) to protect against the risks and vulnerabilities they face when working in dangerous environments.

The COVID-19 pandemic made PPE a part of the global lexicon; it was no longer a technical term used by first responders and others who understood the need for occupational protection. But the spotlight has brought challenges: lack of availability, price scalping, and counterfeit PPE have put the health of firefighters at risk as communities struggle through a supply chain under immense pressure.

Providing PPC: Most fire departments are able to equip all their emergency responders with PPC, but among smaller departments, there is still some need.

The percentage of departments that did not provide all their emergency responders with their own PPC held steady at 13 percent between the 2015 and 2020 surveys. There was no consistent pattern across departments of various sizes, but the need overall tends to be greater in departments protecting smaller communities.

Reserve PPC: Half of the smallest departments do not have enough PPC in reserve and there is some unmet need among departments of all sizes.

Replacing Personal Protective Equipment: Overall, nearly two-thirds (64 percent) of departments have firefighters wearing PPC that is 10 years old or older. Unmet need for PPE can be found in departments serving communities of all sizes, including one-third of the large departments (protecting a population of half a million or more). Among the smallest departments, 75 percent have at least some PPC that is 10 years of age or older.

Self-Contained Breathing Apparatus: More than half (53 percent) of all fire departments cannot equip everyone with SCBA. Departments protecting under 9,999 people have the highest rates of unmet need for SCBA equipment. In addition to lacking SCBA, much of the SCBA in use is 10 years of age or older. More than half of the departments use at least some SCBA equipment that is 10 years of age or older.

The proportion of fire departments where at least some SCBA equipment is 10 years of age or older decreased from the 2015 survey across departments of every size and seems to have reversed the increase that occurred between the 2010 and 2015 surveys.

Personal Alert Safety System (PASS) Device: Overall, 26 percent of departments say they cannot equip all their emergency responders on duty with their own PASS devices. The need is particularly pronounced among smaller departments. This need may be reflective of having older SCBA, as newer units feature an integrated PASS device.

Wildland: More than half (57 percent) of all fire departments cannot equip all their responders with wildland fire PPC. This unmet need can be found consistently across departments of all sizes.
Medical PPE: The COVID-19 pandemic brought the need for medical PPE into sharp focus. The survey asked departments about their ability to provide medical PPE to responders, both at the beginning of the pandemic and at the time the survey was taken. The survey did not contain an exhaustive list of examples or definitions of what exactly constitutes medical PPE because there is such a wide variety. As survey responses were submitted between September 2020 and February 2021, they generally came in six months to one year after the beginning of the pandemic in the United States. While there was some improvement between early 2020 and the time when the survey went out, nearly half (47 percent) of all departments still had unmet needs for medical PPE at the time they completed the survey.

Maintaining Personal Protective Equipment

The survey looked at several areas of concern in maintaining PPE: inspection and testing, laundering, infection control programs, and cancer prevention best practices. The survey results show that many departments do not have the resources required to properly maintain PPE.

Inspection and Testing: One-fifth (21 percent) of all the departments neither test nor inspect their personal protective ensembles each year and only 13 percent both inspect and test ensembles.

Laundering: Most departments have in-house laundering capabilities for PPC, but some (particularly smaller departments) do not. Eighty percent of departments of all sizes have their own facilities, use an outside service, or use both. However, among the smallest departments, one-third (34 percent) do not have access to internal or external PPC laundering facilities or services.

Infection Control Programs: One-third of departments do not have infection control/PPE decontamination programs for infectious and communicable disease, a reduction in need from 39 percent of departments that did not have any such programs in 2015. Thirty-seven percent do not have an exposure control/PPE decontamination program for carcinogens and other toxic hazards. This is also an improvement from 2015, when 44 percent of departments did not have such a program. The proportion of departments without such programs is greater in smaller communities.

Cancer Prevention Best Practices: PPE cleaning, decontamination, and storage are also a part of cancer prevention best practices for firefighters; however, many departments do not currently have the resources to engage in these practices. Smaller departments, in particular, have needs in this area, but the ability to provide a second set of gear remains a challenge for all departments to varying degrees.

Section 6: Community Risk Reduction

Prevention

Fire Prevention: More than three-quarters (77 percent) of the fire departments in the United States engage in fire prevention (preparedness and mitigation) activities. Nearly all departments protecting 25,000 or more people conduct these activities, as do about two-thirds (65 percent) of the smallest departments.

Despite fire prevention being a common responsibility of fire departments, 67 percent have not formally trained all of their responsible personnel. Even in the largest departments (protecting 500,000 or more people), nearly three in ten (29 percent) have not trained everyone.

Engineering Programs: About 56 percent of all departments have a pre-incident planning program, the most common program mentioned in the survey. One-third (33 percent) of departments engage in construction plans review.
Hazard Mitigation Planning Risk Assessment Programs: One-third of all departments have a hazard mitigation planning risk assessment program that includes natural disasters, while fewer departments have plans for transportation and industrial/chemical disasters.

In general, there was a positive trend across hazard mitigation planning, active system testing, permit approval, and construction plans review from the 2015 survey to the 2020 survey.

**Code Enforcement**

Per the survey, 37 percent of the departments perform code enforcement activities. These activities are much more common among larger departments.

**Fire Code Inspections:** Overall, a state department/fire prevention bureau is most commonly responsible for inspections (24 percent). In larger departments, full-time fire department inspectors are much more common. Smaller departments are much less likely to be responsible for conducting inspections.

The percentage of fire departments that perform code inspections has increased since the 2015 survey. In addition, the percentage of departments where a separate inspection department, building department, in-service firefighter, or full-time fire department inspector performs inspections all increased. This trend remained the same in very small departments (those protecting 2,500 people or fewer), though the overall proportion of departments in which no one conducts fire code inspections is higher in small communities than in other departments overall.

**Fire Investigations**

Responsibility for determining if a fire was deliberately set varies from community to community. For example, 68 percent of the departments indicated that a regional or state fire task force investigator makes the determination. Meanwhile, 38 percent of the departments indicated that a fire department investigator determines if a fire was deliberately set. This role is more common among larger departments.

**Public Education**

**Activities:** Fire Prevention Week activities are the most common public education activities overall, with nearly two-thirds (65 percent) of departments indicating that they utilize them. Fourteen percent of departments have no educational programming.

The survey found little change between 2015 and 2020 in the percentage of fire departments with older adult fire safety programs, wildfire safety programs, school fire safety programs, and youth firesetter programs.

**Assessing Need and Measuring Impact:** Less than one-quarter (24 percent) of the departments have public education programs based on a community risk assessment. Only 15 percent of departments indicated that their public education programs ensure diversity and inclusion, and only 13 percent collect data on the number of people reached.
Section 7: Wildland-Urban Interface (WUI) and Wildland Firefighting

The 2020 survey asked questions regarding the ability of departments to handle wildland-urban interface (WUI) and wildland (brush, grass, and forest) fires. The following summary focuses on the subset of departments responsible for providing WUI and wildland firefighting operations.

Responsibility: Overall, 87 percent of fire departments perform WUI/wildland firefighting. This duty is more common among very large and very small departments. Those departments protecting between 25,000 and 49,000 people are least likely to be responsible for WUI/wildland firefighting.

Three-quarters (75 percent) of departments are specifically responsible for protecting structures in the WUI. Small departments and large departments are most likely to have this responsibility.

WUI/Wildland Firefighting Training: Overall, 78 percent of departments who perform WUI/wildland firefighting operations have some need for training, and the need is more pronounced in smaller departments.

Access to Specialized WUI Firefighting Training: Nearly half (47 percent) of departments that perform WUI/wildland firefighting operations indicated that their training does not include specialized WUI firefighting operations training.

Equipment: Two-thirds of departments who are responsible for WUI/wildland firefighting have unmet needs for wildland personal protective clothing for their firefighters. There is need even among the largest departments (those protecting a population of 500,000 people or more), with 35 percent being unable to equip all of their responsible personnel. Table A-2 in the Appendix has a more detailed breakdown of the survey responses.

Ability to Handle Challenging WUI/Wildland Incidents

Protecting 5 Structures or Fewer: Most departments (58 percent) could handle a wildfire incident involving 2–5 structures on their own and 95 percent would only need to go to the regional level to get the resources they need.

Protecting 6 to 20 Structures: Most departments would need to go to at least the regional level to handle a wildfire incident involving 6–20 structures and nearly one-third (30 percent) would need to go to the state level, as regional help would not be enough.

Protecting More Than 20 Structures: Nine out of ten (90 percent) fire departments would have to go to at least the state level to obtain the resources necessary to deal with a wildfire incident affecting more than 20 structures.

Acres: Nearly two-thirds (64 percent) of fire departments responsible for protecting structures in the WUI can handle a wildland fire of up to 10 acres on their own.

Obtaining Assistance: Most departments (63 percent) have a written agreement for obtaining assistance during a wildfire and 29 percent have an informal agreement.
Conclusion

Since 2001, the goal of the Needs Assessment survey has been to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have in order to be safe and effective. The 2020 survey found that fire service needs continue to be extensive across the board, consistent with findings from surveys conducted in previous years.

The expansion in fire department roles and responsibilities has shown no signs of stopping, even as we continue to see departments of all sizes and types struggle to address existing resource needs. The COVID-19 pandemic threw many of these resource needs into sharp focus, but these challenges will not end when the pandemic does. There are new, emerging, and growing challenges that the fire service will likely continue to face. In understanding its unmet needs, the fire service can better articulate to decision-makers what resources are most critical to meeting these challenges.
CHANGES ACROSS FIVE STUDIES

as part of

The Fifth Needs Assessment of the US Fire Service

DECEMBER 2021
Since 2001, NFPA has surveyed fire departments across the United States multiple times to ascertain what services fire departments are providing and what resources they have to provide those services safely and effectively. With five surveys going back nearly 20 years, this needs assessment study can be used to track responses to certain questions over time.

While we cannot directly compare every question over every study, we can begin to gain some insight into how the resources available to the fire service have changed and, in some cases, how they have not. The study does not capture the same departments over this 20-year span; some departments that responded in 2020 had not responded in previous years, while some that did not respond did so for earlier surveys. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the five surveys.

While this study is not designed to analyze the effectiveness of efforts to properly equip fire departments (such as with government grants), it can be used to clarify areas of need for future efforts, as well as to get some directional information about ongoing endeavors.

Finally, it is not possible to study every question over time due to a variety of factors, such as changes in question structure. In addition, some questions have been added or deleted over time to reflect the evolution of the challenges facing the fire service, such as the relatively new focus on exposure and cancer.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehlmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-Changes
Survey Responses and Defining *Unmet Need*

The needs assessment study, as it has in the past, defines *unmet need* as not having the resources required to provide a service. For some questions, the survey asked about the *extent* of the need within the department. For example:

**Question:** How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. *Unmet need* is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

**Department Size and Nomenclature**

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
## Contents

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Survey Results: Changes from Previous Needs Assessments

What we looked at: The Fifth Fire Service Needs Assessment Survey and the results from the previous four studies. We analyzed questions that had been tracked over the course of previous studies if the questions were asked in the same way. The results are frequently broken out to show differences in unmet needs between departments serving communities of different sizes. Large and small departments both have resource challenges, but they’re often different. The response rate to the 2020 survey was lower than previous surveys.

Key Takeaways

- The proportion of older fire stations has grown, but some progress has been made in equipping fire stations with backup power. However, the percentage of fire stations with exhaust emissions control has remained stagnant since 2015.
- The number of departments lacking public education and fire safety programs has remained steady.
- More communities are conducting fire inspections than in the past.

Stations

The percent of stations that are over 40 years old has grown in each study since NFPA began surveying departments for unmet needs in 2001. There was a slight increase between 2015 and 2020. Figure 1 below shows that nearly half (44 percent) of all fire stations are over 40 years old, and that number has grown in departments of most sizes. Departments serving populations between 10,000 and 50,000 and 250,000 or more both saw slight decreases in the percent of stations over 40 years old.

Figure 1: Percent of stations over 40 years old by size of community across five studies

[Figure 1: Chart showing the percent of stations over 40 years old by size of community across five studies from 2001 to 2020.]

*Needs Assessment of the United States Fire Service*  
*Changes Across Five Studies, December 2021*  
CH-5  
NFPA Research, Quincy, MA
There has been progress in equipping fire stations with emergency backup power. Figure 2 below shows that 31 percent of fire stations lack emergency backup power. This is down from over 50 percent as recently as 2005. While this progress is encouraging, challenges remain among fire departments protecting smaller communities. Fifty-one percent of the fire stations in departments protecting communities of 2,500 people or less still lack backup power, and the percent of stations lacking backup power has increased since 2015 among departments protecting communities of 2,500 to 4,999 people.

**Figure 2: Percent of stations without backup power by size of community across five studies**

The percent of total fire stations not equipped for exhaust emissions control held steady at 56 percent between the 2015 and 2020 studies. Figure 3 below shows that the proportion of stations lacking this feature increased among some population sizes and decreased in others. Given the increasing evidence of and focus on firefighter occupational cancer, the lack of improvement in this area is troubling.

**Figure 3: Percent of stations not equipped for exhaust emissions control by size of community across five studies**
Apparatus

Figure 4 below shows that the proportion of engines/pumpers in use that are at least 15 years old increased from the 2015 survey to the 2020 survey, particularly in very small and very large departments. Departments protecting fewer than 5,000 people and those protecting over 250,000 people all saw increases in the proportion of older pumpers, while departments protecting midsize populations generally held steady or decreased.

Figure 4: Percent of engines/pumpers in use that are at least 15 years old by size of community across five studies
Firefighter Equipment and PPE

Since the first needs assessment survey in 2001, NFPA has tracked fire departments’ ability to provide their personnel with the equipment required to effectively and safely respond to emergencies. Figures 5 through 8 show how the results of the 2020 survey compared to previous years.

Figure 5 shows that the percentage of fire departments unable to equip all their emergency responders on a shift with portable radios has remained relatively unchanged since 2015. This was the case across departments of all sizes. The figure also shows that the progress from the first study (2001) to the third study (2010) seems to have stalled. From 2001 to 2010, there was a decline in departments reporting need in this area, but the unmet need has held steady since then across multiple surveys.

**Figure 5: Percent of departments where not all emergency responders on a shift have portable radios by size of community across five studies**

![Figure 5: Percent of departments where not all emergency responders on a shift have portable radios by size of community across five studies](chart.png)
Figure 6 shows that the proportion of fire departments where at least some SCBA is 10 years of age or older decreased from the 2015 survey. The decline was seen across departments of every size and seems to have reversed the increase that was seen between the 2010 and 2015 surveys.

**Figure 6: Percent of departments where not all emergency responders on a shift have portable radios by size of community across five studies**

Figure 7 shows that the percent of departments where not all emergency responders have their own personal protective clothing held steady at 13 percent between the 2015 and 2020 surveys. There was no consistent change in this category across departments of various sizes, but the need overall tends to be greater in departments protecting smaller communities.

**Figure 7: Percent of departments where not all emergency responders have their own personal protective clothing by size of community across five studies**
The percent of departments where some personal protective clothing is at least 10 years old decreased from 72 percent in the 2015 survey to 64 percent in the 2020 survey (see Figure 8). This decline was seen across departments of all sizes and the overall results were more in line with the 2010 survey.

**Figure 8: Percent of departments where some personal protective clothing is at least 10 years old by size of community across five studies**

<table>
<thead>
<tr>
<th>Percent of Fire Departments</th>
<th>2001</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
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<td>10%</td>
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<td>90%</td>
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<td>100%</td>
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<tr>
<td>All under 2,500</td>
<td>64%</td>
<td>76%</td>
<td>63%</td>
<td>58%</td>
<td>45%</td>
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<td>2,500 to 4,999</td>
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<td>5,000 to 9,999</td>
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<td>500,000 or more</td>
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Fire Prevention and Public Education Programs

In addition to emergency response, many fire departments engage in a wide range of fire prevention and public education activities. These programs help protect the public from fire and its associated risks to life and property. The 2020 needs assessment study asked about a variety of these programs.

Figure 9 shows the percentage of departments that lacked certain engineering programs across the five studies (if the question was asked in all five). In general, there was a positive trend across hazard mitigation planning, active system testing, permit approval, and construction plans review from the 2015 survey to the 2020 survey.

Figure 9: Percent of departments lacking particular engineering programs (including code enforcement) across five studies
Figure 10 shows that there was little change in the percentage of fire departments lacking older adult fire safety programs, wildfire safety programs, school fire safety programs, and youth firesetter programs between the 2015 and 2020 surveys.

**Figure 10: Percent of departments lacking particular fire safety education programs across five studies**

![Bar chart showing the percentage of departments lacking particular fire safety education programs across five studies from 2001 to 2020.](chart.png)
Figure 11 shows that the percentage of fire departments in which no one performs code inspections has decreased since the 2015 survey. The percentage of departments where a separate inspection department, building department, in-service firefighters, or full-time fire department inspectors perform inspections all increased. This trend remained the same in very small departments (those protecting 2,500 people or less), though the overall proportion of departments where no one conducts fire code inspections is higher in small communities than in departments overall (Figures 11 and 12).

**Figure 11: Who conducts fire code inspections across five studies**

**Figure 12: Who conducts fire code inspections in communities with less than 2,500 people across five studies**
Additional Resources and Education About Previous Needs Assessment Studies

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (nfpa.org/library).

Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix B.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
PART I. BASIC INFORMATION

Name of person completing form: ________________________________

Rank/Title: ________________________________

NFIRS/FDID: ________________________________

E-mail address: ________________________________ Phone: (______) _______ _______ _______

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): ________

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): ________

3. Number of buildings in community that are 3 or more stories in height (check one):
   - None
   - 1–4
   - 5–10
   - 11–24
   - 25–49
   - 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: ________% Fundraising: ________%
   - Payment per call/Contract services: ________% Ambulance Billing: ________% Fees: ________%
   - Insurance: ________% SAFER/AFG or similar grants: ________% Other: (specify) ________%

PART II. PERSONNEL AND THEIR CAPABILITIES

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ________
   - Enforcement: ________
   - Education: ________
   - Risk Reduction: ________
   - Administration: ________

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  
   - Yes  
   - No

7. Total number of full-time (career) uniformed firefighters: ________ (If none, go to Question 12): 
   - How many are female? ________
   - Average number of full-time career / paid firefighters on duty available to respond to emergencies: ________

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days ______ Nights ______ During weekends: Days ______ Nights ______

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?
   If any, fill only those roles. Check all that apply.
   - First aid
   - Directing traffic
   - Command post ops
   - Rehab
   - Water supply
   - Communications
   - Logistics
   - Other (specify): ____________________________

   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 15)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one)  
      - Yes  
      - No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels?
      - (For all that apply, include percentages for highest level. Total must equal 100%)
        - No certification ______%  
        - EMR: Emergency Medical Responder ______%  
        - EMT: Emergency Medical Technician ______%  
        - AEMT: Advanced Emergency Medical Technician ______%  
        - Paramedic ______%
   C. Does your community provide ambulance services?
      - Yes: Fire Department Based Service  
      - Yes: Government or Third Service  
      - Yes: Hospital Based  
      - Yes: Private  
      - Yes: Other (specify) ______
      - No ambulance service  
   D. Does your fire department provide Tactical EMS for law enforcement operations?
      - Yes  
      - No

   A. Is this a service your fire department provides? (check one)  
      - Yes  
      - No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      - No certification ______%  
      - Awareness ______%  
      - Operational ______%  
      - Technician ______%

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?
      - Yes  
      - No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 19)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)
19. **Code enforcement.**
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

20. **Active shooter response.**
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)
      - Yes  
      - No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
      - Yes  
      - No

21. **Traffic control.**
   A. Is this a role your department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

22. **Basic firefighter fitness and health.**
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)  
      - Yes  
      - No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?
      - Yes  
      - No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?
      - Yes  
      - No (If no, skip to Question 23)
   D. How often?
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other
   E. Does this program include a fitness assessment for all firefighters?
      - Yes  
      - No (If no, skip to question 23)
   F. How often?
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other

23. **Does your department have a Behavioral Health Program?**
   - Yes  
   - No (If no, go to Question 25)

24. **Which of the following are included in your behavioral health program (check all that apply)?**
   - Fitness for duty evaluation  
   - Cancer prevention education  
   - Physical health education  
   - Heart attack prevention education  
   - Post-Traumatic Stress support  
   - Trained behavioral peer support  
   - Behavioral health education  
   - Suicide prevention education  
   - Other (please specify): ______________

25. **Does your department actively track exposures or have a mechanism for individual exposure tracking**
   (including carcinogens, hazardous materials, and infectious diseases)?
   - Yes—Department actively tracks  
   - Yes—Mechanism for individuals  
   - Yes—Both  
   - No—None of these

26. **Does your department have an Infection Control / PPE Decontamination Program**
   (infectious and communicable disease hazards)? (check one)  
   - Yes  
   - No

27. **Does your department have an Exposure Control / PPE Decontamination Program**
   (carcinogen and other toxic hazards)? (check one)  
   - Yes  
   - No

28. **Which of the following air quality measures does your department monitor at the fireground?** (check all that apply)
   - 02 (Oxygen)  
   - HCN (Cyanide)  
   - CO (Carbon Monoxide)  
   - Volatile Organic Compound (VOC)  
   - Other (please specify) ________________

29. **Which of the following cancer prevention best practices apply to your department?** (check all that apply)
   - Cancer screening program  
   - Second set of structural firefighter gear for all firefighters  
   - SOPs/SOGs for cleaning gear after a fire  
   - Gross decontamination of gear at the fireground  
   - Provide cleaning wipes for use on face/neck/hands  
   - Training to ‘shower within an hour’ after a fire  
   - Prohibit structural firefighter gear in living quarters of fire stations  
   - Other (please specify) ____________  
   - None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment
     If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
       - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
       - Industrial chemical disasters
       - Transportation disasters
       - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) _________________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) _________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Home safety visits
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) _________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community’s demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: _______ Number of stations over 40 years old: _______
    Number of stations having backup power: _______
    Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): _______
    Number of stations with private or separate facilities for men and women: _______

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumper</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–14</td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply) 
- Certification or specific training 
- Hands-on training using the actual vehicle 
- Demonstration of competency at least once a year 
- Formal driver’s training at least twice a year 
- None of these

40. Portable radios. 
A. What percentage of your on-duty emergency responders can be equipped with portable radios? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%)

41. Self-contained breathing apparatus (SCBA). 
A. What percentage of your on-duty emergency responders can be equipped with SCBA? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
B. What percentage of your SCBA are 10 years old or older? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
- Don’t know

42. Personal alert safety system (PASS) devices. 
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
- Don’t know

43. Personal protective clothing. 
A. How many of your emergency responders are equipped with personal protective clothing? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
B. How many of your department’s personal protective clothing is 10 years of age or older? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
- Don’t know 
C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one) 
- Yes 
- No 
- Don’t know
D. Is your personal protective ensemble inspected and tested each year? 
- Inspected only 
- Tested only 
- Inspected and tested 
- None of these
E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing? 
- We have laundering facilities 
- We utilize an outside service 
- We have our own facilities and use an outside service 
- Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
- Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication. 
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one) 
- Yes 
- No 
- Don’t know
B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene? 
- None (0%) 
- Few (1–25%) 
- Some (26–50%) 
- Many (51–75%) 
- Most (76–99%) 
- All (100%) 
- Don’t know

46. Dispatch. 
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls? 
- PSAP that answers police, fire, and EMS calls 
- PSAP that answers fire and EMS calls 
- Police department 
- Fire department 
- Private company
B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call? 
- Yes 
- No, the call is transferred to another center to be processed
C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call? 
- Yes 
- No, we typically have call takers and separate dispatchers.
D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times? 
- Yes 
- No, sometimes we cut back to one person on duty 
- No, we never have two persons on duty
E. Do you also have a backup dispatch facility? (check one) 
- Yes 
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      □ Yes  □ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      □ 1  □ 2–5  □ 6–20  □ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      □ Less than 1 acre  □ 1–10 acres  □ 11–50 acres  □ 51–100 acres  □ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized
      training and equipment for this incident? (check one)  □ Local would be enough  □ Regional  □ State  □ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized
      training and equipment for this incident? (check one)  □ Local would be enough  □ Regional  □ State  □ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with
      specialized training and equipment for this incident? (check one)  □ Local would be enough  □ Regional  □ State  □ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      □ Yes, written agreement  □ Yes, informal  □ Yes, other (specify) ____________________________  □ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the
    qualifications of NFPA 1581?  □ Yes  □ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581?  □ Yes  □ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)  □ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)  □ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. ______________________________________

2. ______________________________________

3. ______________________________________
STAFFING & OPERATIONS

as part of

The Fifth Needs Assessment of the
US Fire Service

DECEMBER 2021
Needs Assessment of the United States Fire Service:
Staffing and Operations

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

The types of duties performed by fire departments vary based on geography, other government services, and, notably, the size of the population that a department protects.

Some departments are comprised of career firefighters, others are comprised entirely of volunteers, and many have a combination of career and volunteer firefighters. Regardless of the size of a department, staffing and operations needs change over time.

This report examines the communities that fire departments protect, fire department staffing and funding, and functional changes over time. It also examines what services departments provide by the size of the community protected. There is also a section on communications and dispatch.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehlmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connar provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-Staffing
Survey Responses and Defining *Unmet Need*

The needs assessment study, as it has in the past, defines *unmet need* as not having the resources required to provide a service. For some questions, the survey asked about the *extent* of the need within the department. For example:

**Question:** How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. *Unmet need* is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

**Department Size and Nomenclature**

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
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Survey Results: Staffing & Operations

What we looked at: The Fifth Fire Service Needs Assessment Survey gathered information about fire departments and the communities they serve, including the services provided, personnel, sources of revenue, and many other topics. To see the changes from study to study, see the “Changes Across Five Studies” module.

Key Takeaways:
- Fire departments are responsible for a wide variety of emergency responses.
- Since 2015, most departments have seen flat staffing levels across various roles.
- Slightly more than half (53 percent) of all fire departments have a program to ensure diversity and inclusion in their hiring or volunteer recruiting and retention practices These programs are more common in larger departments.
- Seven out of ten (70 percent) fire departments provide hazardous materials response. This is more common than EMS, even among smaller departments.
- Traffic control is more likely to be performed by members of smaller departments than larger ones.
- Only half of all fire departments can equip all on-duty first responders with portable radios. This has remained relatively consistent since 2010 (see the “Changes Across Five Studies” section of the Fifth Fire Service Needs Assessment Report for additional information).

Community Protected

Communities of different sizes have different needs. For example, Table 1 below shows that departments protecting larger populations are more likely to have many tall buildings in their communities. The presence of tall buildings impacts the operational needs of the fire department in terms of staffing, equipment, and other resources.

Table 1: Number of buildings in the community that are three or more stories in height (check one)
(by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>None</th>
<th>1–4</th>
<th>5–10</th>
<th>11–24</th>
<th>25–49</th>
<th>50 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>0%</td>
<td>94%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>0%</td>
<td>4%</td>
<td>2%</td>
<td>5%</td>
<td>12%</td>
<td>77%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>1%</td>
<td>5%</td>
<td>13%</td>
<td>17%</td>
<td>18%</td>
<td>46%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>0%</td>
<td>10%</td>
<td>16%</td>
<td>22%</td>
<td>19%</td>
<td>32%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>6%</td>
<td>23%</td>
<td>22%</td>
<td>20%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>12%</td>
<td>40%</td>
<td>25%</td>
<td>13%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>24%</td>
<td>45%</td>
<td>17%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>40%</td>
<td>42%</td>
<td>11%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>26%</td>
<td>38%</td>
<td>15%</td>
<td>9%</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Table 2 shows that most funding for fire departments, regardless of their size, comes from taxes, but some departments also draw significant funding from other sources. For example, in departments protecting 500,000 people or more, an average of 11 percent of their revenue comes from ambulance billing, while in smaller departments (those protecting fewer than 2,500 people), 12 percent of the budgeted revenue comes from fundraising.

Table 2: What share (%) of your budgeted revenue is from (total 100%)? (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Taxes</th>
<th>Ambulance Billing</th>
<th>Fundraising</th>
<th>Payment per Call/ Contract Services</th>
<th>Fees</th>
<th>SAFER/ AFG or Similar Grants</th>
<th>Insurance</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>74%</td>
<td>11%</td>
<td>0%</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>80%</td>
<td>2%</td>
<td>0%</td>
<td>7%</td>
<td>6%</td>
<td>2%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>88%</td>
<td>5%</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>87%</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>90%</td>
<td>4%</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>86%</td>
<td>5%</td>
<td>3%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>82%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>79%</td>
<td>3%</td>
<td>9%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>74%</td>
<td>1%</td>
<td>12%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Staffing and Personnel

Many fire departments have undergone staffing changes in the past five years. These changes have not been uniform across departments or job functions. Figures 1 through 5 show the proportion of fire departments that have experienced increases, decreases, or no change in staffing levels for each of the following categories: Firefighters (Figure 1), Administration (Figure 2), Education (Figure 3), Enforcement (Figure 4), and Risk Reduction (Figure 5).

Firefighters

Figure 1 shows that most departments saw no change in the number of firefighters from 2015 to 2020. Larger departments were more likely to report an increase.

Figure 1: Change in number of firefighters since 2016 (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Increase</th>
<th>Decrease</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>24%</td>
<td>9%</td>
<td>67%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>16%</td>
<td>9%</td>
<td>75%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>17%</td>
<td>11%</td>
<td>72%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>29%</td>
<td>10%</td>
<td>61%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>42%</td>
<td>8%</td>
<td>50%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>51%</td>
<td>9%</td>
<td>40%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>56%</td>
<td>10%</td>
<td>34%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>63%</td>
<td>6%</td>
<td>31%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>72%</td>
<td>6%</td>
<td>22%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>79%</td>
<td>13%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Administration

Overall, 12 percent of fire departments saw an increase in administrative staff between 2015 and 2020. Larger departments were more likely to gain staff than smaller ones. Eighty-six percent of departments saw no change in administrative staff.

**Figure 2: Change in number of administration staff since 2016 (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Increase</th>
<th>Decrease</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 2,500</td>
<td>5%</td>
<td>94%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>8%</td>
<td>91%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>16%</td>
<td>80%</td>
<td>4%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>25%</td>
<td>71%</td>
<td>4%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>29%</td>
<td>64%</td>
<td>7%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>51%</td>
<td>7%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>51%</td>
<td>43%</td>
<td>6%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>44%</td>
<td>0%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>63%</td>
<td>33%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Education, Enforcement, and Risk Reduction

The vast majority of departments had no loss or gain of positions in the areas of Education (Figure 3), Enforcement (Figure 4), or Risk Reduction (Figure 5). In general, larger departments were more likely to have gained positions in these areas.

Figure 3: Change in number of education staff since 2016 (by size of community protected)
Figure 4: Change in number of enforcement staff since 2016 (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Increase</th>
<th>Decrease</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5%</td>
<td>1%</td>
<td>94%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>2%</td>
<td>4%</td>
<td>98%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>2%</td>
<td>3%</td>
<td>97%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>6%</td>
<td>4%</td>
<td>93%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>12%</td>
<td>2%</td>
<td>86%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>18%</td>
<td>4%</td>
<td>78%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>22%</td>
<td>6%</td>
<td>71%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>20%</td>
<td>5%</td>
<td>75%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>33%</td>
<td>0%</td>
<td>67%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>29%</td>
<td>13%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Figure 5: Change in number of risk reduction staff since 2016 (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Increase</th>
<th>Decrease</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4%</td>
<td>1%</td>
<td>96%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>2%</td>
<td>5%</td>
<td>98%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>1%</td>
<td>3%</td>
<td>99%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>2%</td>
<td>7%</td>
<td>97%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>7%</td>
<td>9%</td>
<td>92%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>11%</td>
<td>9%</td>
<td>88%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>16%</td>
<td>1%</td>
<td>82%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>22%</td>
<td>4%</td>
<td>74%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>17%</td>
<td>6%</td>
<td>78%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>33%</td>
<td>8%</td>
<td>58%</td>
</tr>
</tbody>
</table>
Diversity and Inclusion

Slightly more than half (53 percent) of all fire departments have a program to ensure diversity and inclusion in their hiring or volunteer recruiting and retention practices. These programs are much more common among larger departments. For example, 96 percent of the departments protecting communities of 500,000 or more have this type of program, but only 47 percent of the departments protecting 2,500 people or fewer do.

Figure 6: Departments with programs to ensure diversity and inclusion in hiring (or volunteer recruiting) (by size of community protected)

Among those that responded to the survey, 4 percent of the career firefighters and 11 percent of the volunteer firefighters were female. NFPA’s US Fire Department Profile includes additional information on female firefighters. Slightly more than half (52 percent) of all fire stations lack private or separate facilities for women (see the “Facilities and Apparatus” module for more information.)
On-Duty Responders and Assignments

Career Firefighters On Duty

Unsurprisingly, larger departments have more career firefighters on duty and available to respond to emergencies at any given time. Table 3 shows the average number of full-time career/paid firefighters on duty by the size of the community protected by the department (among departments with career firefighters).

Table 3: Average full-time career/paid firefighters on duty (only departments with career firefighters) (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Average number of full-time career/paid firefighters on duty available to respond to emergencies (only departments with career firefighters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>307.6</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>160.3</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>76.6</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>28.5</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>13.9</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>7.7</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>3.9</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>2.7</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Departments with career firefighters have different assignment and staffing levels for engines and ladder trucks. Tables 4 and 5 show the assignments and typical staffing levels for engines, while Tables 6 and 7 show the assignments and typical staffing levels for ladder trucks. In general, larger departments were more likely to answer these questions, as the questions were about paid personnel only. Larger departments are also more likely to have more people assigned and staffed.

Table 4: Minimum number of on-duty career/paid personnel ASSIGNED to an engine/pumper (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
<th>4%</th>
<th>5%</th>
<th>Not Applicable</th>
<th>No Full-Time Firefighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>0%</td>
<td>0%</td>
<td>33%</td>
<td>58%</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>6%</td>
<td>50%</td>
<td>39%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>0%</td>
<td>12%</td>
<td>56%</td>
<td>30%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>0%</td>
<td>13%</td>
<td>64%</td>
<td>17%</td>
<td>2%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>3%</td>
<td>28%</td>
<td>51%</td>
<td>8%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>9%</td>
<td>24%</td>
<td>29%</td>
<td>9%</td>
<td>2%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>11%</td>
<td>19%</td>
<td>13%</td>
<td>2%</td>
<td>1%</td>
<td>10%</td>
<td>45%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>8%</td>
<td>7%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>8%</td>
<td>72%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>89%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>6%</td>
<td>9%</td>
<td>10%</td>
<td>3%</td>
<td>1%</td>
<td>6%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Table 5: Number of on-duty career/paid personnel TYPICALLY STAFFING an engine/pumper (by size of community protected) (may be the same as the number of assigned personnel)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
<th>Not Applicable</th>
<th>No Full-Time Firefighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
<td>79%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>0%</td>
<td>72%</td>
<td>28%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>0%</td>
<td>10%</td>
<td>63%</td>
<td>26%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>0%</td>
<td>10%</td>
<td>66%</td>
<td>19%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>2%</td>
<td>19%</td>
<td>56%</td>
<td>15%</td>
<td>1%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>8%</td>
<td>21%</td>
<td>31%</td>
<td>13%</td>
<td>2%</td>
<td>7%</td>
<td>18%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>10%</td>
<td>16%</td>
<td>15%</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>7%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td>7%</td>
<td>72%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>89%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>5%</td>
<td>8%</td>
<td>12%</td>
<td>4%</td>
<td>1%</td>
<td>5%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Table 6: Minimum number of on-duty career/paid personnel ASSIGNED to a ladder truck/aerial (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
<th>Not Applicable</th>
<th>No Full-Time Firefighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>0%</td>
<td>0%</td>
<td>33%</td>
<td>54%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>6%</td>
<td>28%</td>
<td>56%</td>
<td>11%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>0%</td>
<td>14%</td>
<td>49%</td>
<td>33%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>2%</td>
<td>18%</td>
<td>46%</td>
<td>19%</td>
<td>4%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>5%</td>
<td>22%</td>
<td>29%</td>
<td>11%</td>
<td>1%</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>12%</td>
<td>19%</td>
<td>12%</td>
<td>3%</td>
<td>0%</td>
<td>37%</td>
<td>18%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>8%</td>
<td>8%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>36%</td>
<td>45%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
<td>72%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>9%</td>
<td>89%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>4%</td>
<td>6%</td>
<td>5%</td>
<td>2%</td>
<td>0%</td>
<td>19%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Table 7: Number of on-duty career/paid personnel TYPICALLY STAFFING a ladder truck/aerial (by size of community protected) (may be the same as the number of assigned personnel)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
<th>Not Applicable</th>
<th>No Full-Time Firefighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>0%</td>
<td>0%</td>
<td>29%</td>
<td>63%</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>0%</td>
<td>44%</td>
<td>56%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>0%</td>
<td>12%</td>
<td>51%</td>
<td>36%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>2%</td>
<td>14%</td>
<td>48%</td>
<td>25%</td>
<td>1%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>6%</td>
<td>17%</td>
<td>33%</td>
<td>15%</td>
<td>1%</td>
<td>23%</td>
<td>5%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>11%</td>
<td>19%</td>
<td>12%</td>
<td>5%</td>
<td>1%</td>
<td>35%</td>
<td>18%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>7%</td>
<td>9%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>34%</td>
<td>45%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
<td>72%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>9%</td>
<td>89%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
<td>3%</td>
<td>0%</td>
<td>18%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Volunteer Firefighters On Duty

Volunteer fire departments often have different levels of capacity at different times of the day and week. Table 8 shows that, generally, fewer volunteers are available during the day on weekdays than nights and weekends.

Table 8: Average number of call/volunteer personnel available who respond to emergencies (among smaller departments that are mostly volunteer)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>During Weekdays: Days</th>
<th>During Weekdays: Nights</th>
<th>During Weekends: Days</th>
<th>During Weekends: Nights</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 to 24,999</td>
<td>6.7</td>
<td>11.6</td>
<td>10.3</td>
<td>12.0</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>6.9</td>
<td>12.6</td>
<td>11.5</td>
<td>14.1</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>6.8</td>
<td>13.0</td>
<td>11.4</td>
<td>13.6</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>6.2</td>
<td>11.0</td>
<td>10.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Support or Auxiliary Roles

Beyond firefighting and direct emergency response, many fire departments have staff that perform only support or auxiliary roles. Overall, 53 percent of departments have these personnel; Table 9 below shows the duties these department members perform. Directing traffic is much more common among smaller departments, while logistics is more common in larger departments. The most common “other” response was for administrative staff.

Table 9: If any active members of your fire department only fill support or auxiliary roles and have no direct firefighting responsibilities, what roles do they fill? (check all that apply) (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Logistics</th>
<th>Rehab</th>
<th>Communications</th>
<th>Directing Traffic</th>
<th>Command Post Ops</th>
<th>First Aid</th>
<th>Water Supply</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>83%</td>
<td>17%</td>
<td>67%</td>
<td>0%</td>
<td>22%</td>
<td>17%</td>
<td>11%</td>
<td>67%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>83%</td>
<td>33%</td>
<td>75%</td>
<td>8%</td>
<td>50%</td>
<td>33%</td>
<td>17%</td>
<td>42%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>55%</td>
<td>11%</td>
<td>25%</td>
<td>5%</td>
<td>30%</td>
<td>14%</td>
<td>5%</td>
<td>59%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>15%</td>
<td>13%</td>
<td>10%</td>
<td>34%</td>
<td>15%</td>
<td>10%</td>
<td>51%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>35%</td>
<td>37%</td>
<td>16%</td>
<td>23%</td>
<td>39%</td>
<td>20%</td>
<td>21%</td>
<td>35%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>32%</td>
<td>36%</td>
<td>19%</td>
<td>33%</td>
<td>28%</td>
<td>30%</td>
<td>23%</td>
<td>32%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>25%</td>
<td>46%</td>
<td>21%</td>
<td>50%</td>
<td>21%</td>
<td>33%</td>
<td>31%</td>
<td>21%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>28%</td>
<td>44%</td>
<td>24%</td>
<td>49%</td>
<td>25%</td>
<td>40%</td>
<td>34%</td>
<td>22%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>23%</td>
<td>37%</td>
<td>26%</td>
<td>60%</td>
<td>16%</td>
<td>44%</td>
<td>39%</td>
<td>16%</td>
</tr>
<tr>
<td>ALL Departments</td>
<td>27%</td>
<td>39%</td>
<td>24%</td>
<td>50%</td>
<td>21%</td>
<td>38%</td>
<td>33%</td>
<td>22%</td>
</tr>
</tbody>
</table>
Emergency Response

Fire departments respond to a wide variety of incidents, from fires to medical calls, hazardous materials incidents, and active shooters. However, not every department responds to every type of call, and the response types vary by the size of the department.

Structural Firefighting

Figure 7 shows that the vast majority of departments perform structural firefighting regardless of the size of the community protected.

**Figure 7: Responsibility for structural firefighting (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>98%</td>
<td>2%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>97%</td>
<td>3%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>
**Emergency Medical Service**

A substantial majority of large fire departments (those protecting 25,000 or more people) provide emergency medical services (EMS), as do over half (54 percent) of the smallest departments. Overall, 63 percent of all fire departments provide EMS.

**Figure 8: Responsibility for EMS response (by size of community protected)**

![Responsibility for EMS response](image)

Even though most departments provide EMS, only a quarter of departments provide ambulance services. Table 10 shows that in one-third of the communities surveyed, there is no ambulance service of any kind.

**Table 10: Does your community provide ambulance services? (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Yes: Fire Department-Based Service</th>
<th>Yes: Private</th>
<th>Yes: Government or Third Party</th>
<th>Yes: Hospital-Based</th>
<th>Yes: Other</th>
<th>No Ambulance Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>54%</td>
<td>17%</td>
<td>13%</td>
<td>0%</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>33%</td>
<td>28%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>49%</td>
<td>28%</td>
<td>5%</td>
<td>5%</td>
<td>1%</td>
<td>11%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>45%</td>
<td>27%</td>
<td>9%</td>
<td>7%</td>
<td>1%</td>
<td>11%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>48%</td>
<td>16%</td>
<td>15%</td>
<td>6%</td>
<td>1%</td>
<td>13%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>42%</td>
<td>18%</td>
<td>12%</td>
<td>6%</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>33%</td>
<td>20%</td>
<td>13%</td>
<td>6%</td>
<td>3%</td>
<td>25%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>24%</td>
<td>15%</td>
<td>21%</td>
<td>8%</td>
<td>2%</td>
<td>30%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>16%</td>
<td>12%</td>
<td>18%</td>
<td>9%</td>
<td>3%</td>
<td>42%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>25%</td>
<td>15%</td>
<td>17%</td>
<td>8%</td>
<td>3%</td>
<td>33%</td>
</tr>
</tbody>
</table>
Figure 9 shows that most departments do not provide tactical EMS for law enforcement, although it is more common for larger departments to provide this service.

**Figure 9: Responsibility for tactical EMS for law enforcement (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>ALL departments</th>
<th>Less than 2,500</th>
<th>2,500 to 4,999</th>
<th>5,000 to 9,999</th>
<th>10,000 to 24,999</th>
<th>25,000 to 49,999</th>
<th>50,000 to 99,999</th>
<th>100,000 to 249,999</th>
<th>250,000 to 499,999</th>
<th>500,000 or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Fire Departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17%</td>
<td>10%</td>
<td>14%</td>
<td>19%</td>
<td>30%</td>
<td>43%</td>
<td>49%</td>
<td>63%</td>
<td>72%</td>
<td>58%</td>
</tr>
<tr>
<td>No</td>
<td>83%</td>
<td>90%</td>
<td>86%</td>
<td>81%</td>
<td>70%</td>
<td>57%</td>
<td>51%</td>
<td>37%</td>
<td>28%</td>
<td>42%</td>
</tr>
</tbody>
</table>

**Hazardous Materials Response**

Figure 10 shows that seven out of ten (70 percent) fire departments provide hazardous materials response. This is more common than EMS, even among smaller departments.

**Figure 10: Responsibility for hazardous materials response (by size of community protected)**
Wildland-Urban Interface (WUI) or Wildland Firefighting

Wildland-urban interface (WUI) or wildland firefighting is performed by 87 percent of departments. Figure 1 shows that this is one area where very small departments are more likely to provide a response than larger departments. Ninety-four percent of the departments protecting populations of fewer than 2,500 people provide WUI/wildland response, while midsize departments are less likely to perform this role (only 57 percent of departments protecting populations of 25,000 to 49,999 people provide such a response).

Figure 11: Responsibility for WUI/wildland firefighting (by size of community protected)
Prevention Activities
Most of the departments surveyed (77 percent) perform fire prevention (preparedness and mitigation) activities. Figure 12 shows that nearly 100 percent of the departments surveyed that protect at least 25,000 people engage in this duty.

Figure 12: Responsibility for fire prevention (by size of community protected)
As shown in Figure 13, 37 percent of departments engage in code enforcement. This is less common in smaller departments, where only 19 percent of the departments protecting fewer than 2,500 people enforce codes.

**Figure 13: Responsibility for code enforcement (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>ALL departments</th>
<th>Less than 2,500</th>
<th>2,500 to 4,999</th>
<th>5,000 to 9,999</th>
<th>10,000 to 24,999</th>
<th>25,000 to 49,999</th>
<th>50,000 to 99,999</th>
<th>100,000 to 249,999</th>
<th>250,000 to 499,999</th>
<th>500,000 or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Fire Departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>37%</td>
<td>19%</td>
<td>36%</td>
<td>49%</td>
<td>71%</td>
<td>82%</td>
<td>81%</td>
<td>83%</td>
<td>78%</td>
<td>92%</td>
</tr>
<tr>
<td>No</td>
<td>63%</td>
<td>81%</td>
<td>64%</td>
<td>51%</td>
<td>29%</td>
<td>18%</td>
<td>19%</td>
<td>17%</td>
<td>22%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Active Shooter Response
Half of the fire departments have a response role in the event of an active shooter incident. Figure 14 shows that this responsibility is much more common among departments protecting large populations.

**Figure 14: Responsibility for active shooter response (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Is this a role your fire department performs? - Active shooter response.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>50% 50%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>32% 68%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>52% 48%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>65% 35%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>78% 22%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>86% 14%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>89% 11%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>91% 9%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94% 6%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>96% 4%</td>
</tr>
</tbody>
</table>
Traffic Control
Traffic control is more likely to be a responsibility for smaller departments than larger ones. Figure 15 shows that 90 percent of the departments protecting fewer than 5,000 people engage in traffic control, while only 25 percent of the departments protecting 250,000 to 500,000 people do.

Figure 15: Responsibility for traffic control (by size of community protected)
Communications and Dispatch

Response at any emergency situation requires swift and accurate notification as well as communication between responders at the scene, including those that are not part of the fire department (police, EMS agencies, etc.).

Communications and Interoperability

Figure 16 shows that most fire departments are able to communicate by radio with response partners at an incident scene.

**Figure 16: Ability to communicate with other agencies at incident scene (by size of community protected)**

Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)

- Yes
- No
- Don't know
Figure 17 shows that overall, 51 percent of departments can communicate with all of their partner agencies at an incident scene (departments that did not respond to this question are considered to be unable to communicate with their partners at all). Unmet need in this situation is defined as not being able to communicate with all partners.

Figure 17: Ability of departments to communicate with partners (agencies/departments) at an incident scene (by size of community protected)
Table 11 provides additional details on departments that can communicate with some partners at the incident scene, but not all of them.

**Table 11: How many of your partners (agencies/departments) can you communicate with at an incident scene? (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>Don't Know</th>
<th>Can't Communicate by Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>63%</td>
<td>25%</td>
<td>8%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>67%</td>
<td>28%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>68%</td>
<td>22%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>60%</td>
<td>31%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>58%</td>
<td>25%</td>
<td>5%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>56%</td>
<td>28%</td>
<td>6%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>50%</td>
<td>27%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td>1%</td>
<td>8%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>54%</td>
<td>26%</td>
<td>6%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>47%</td>
<td>26%</td>
<td>8%</td>
<td>5%</td>
<td>3%</td>
<td>0%</td>
<td>2%</td>
<td>9%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>51%</td>
<td>26%</td>
<td>7%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td>1%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Dispatch

Table 12 shows that the majority of departments have a public safety answering point (PSAP) that answers fire, EMS, and police calls. Among departments protecting larger populations, the police department is more likely to have this responsibility.

Table 12: Who has the primary responsibility [i.e., public safety answering point (PSAP)] for answering 911 calls? (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Fire Department</th>
<th>PSAP That Answers Police, Fire, and EMS Calls</th>
<th>Police Department</th>
<th>PSAP That Answers Fire and EMS Calls</th>
<th>Private Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>4%</td>
<td>71%</td>
<td>21%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>72%</td>
<td>22%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>4%</td>
<td>74%</td>
<td>19%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>1%</td>
<td>84%</td>
<td>13%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>0%</td>
<td>81%</td>
<td>14%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>1%</td>
<td>85%</td>
<td>11%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>1%</td>
<td>87%</td>
<td>8%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>1%</td>
<td>85%</td>
<td>8%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>2%</td>
<td>81%</td>
<td>13%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>1%</td>
<td>83%</td>
<td>11%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Most calls that are determined to be fire calls are processed by the same center that answers 911 calls, though this is less common among large departments (Figure 18).

Figure 18: Fire call processing location (by size of community protected)
Figure 19 shows that large departments are more likely to have separate call takers and dispatchers than smaller departments.

**Figure 19: Are the call taker and dispatcher the same? (by size of community protected)**

Table 13 shows that almost all the departments that have at least one person who takes calls and dispatches typically have at least 2 people on duty at all times.

**Table 13: If there is no separate dispatcher, does the 911 center that processes fire calls typically have at least two people on duty at all times? (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Yes</th>
<th>No, sometimes we cut back to one person on duty</th>
<th>No, we never have two people on duty</th>
<th>Departments Not Responding to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>79%</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>78%</td>
<td>0%</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>70%</td>
<td>1%</td>
<td>0%</td>
<td>28%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>56%</td>
<td>1%</td>
<td>0%</td>
<td>44%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>41%</td>
<td>1%</td>
<td>1%</td>
<td>58%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>37%</td>
<td>1%</td>
<td>0%</td>
<td>62%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>34%</td>
<td>0%</td>
<td>1%</td>
<td>65%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>27%</td>
<td>1%</td>
<td>1%</td>
<td>70%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>18%</td>
<td>2%</td>
<td>1%</td>
<td>79%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>27%</td>
<td>1%</td>
<td>1%</td>
<td>71%</td>
</tr>
</tbody>
</table>
Overall, 62 percent of fire departments have a backup dispatch facility; however, this is less common among smaller departments (Figure 20).

**Figure 20: Access to backup dispatch facility (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>62% 38%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>51% 49%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>68% 32%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>73% 27%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>77% 23%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>77% 23%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>83% 17%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>85% 15%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>72% 28%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>96% 4%</td>
</tr>
</tbody>
</table>
Portable Radios

Communication is also required for safe and effective emergency response at incident scenes. Figure 21 and Table 14 show that only half of all fire departments can equip all their on-duty first responders with portable radios. This finding has remained relatively consistent in this survey since 2010 (see the “Changes Across Five Studies” module for more information.

**Figure 21:** Ability of departments to equip all on-duty emergency responders with portable radios (by size of community protected)

![Pie chart showing the percentage of on-duty emergency responders equipped with portable radios by population protected]({})

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>96%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>96%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>87%</td>
<td>8%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>77%</td>
<td>12%</td>
<td>5%</td>
<td>5%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>58%</td>
<td>17%</td>
<td>9%</td>
<td>11%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>46%</td>
<td>21%</td>
<td>15%</td>
<td>11%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>37%</td>
<td>18%</td>
<td>13%</td>
<td>16%</td>
<td>15%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>50%</td>
<td>17%</td>
<td>11%</td>
<td>12%</td>
<td>9%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Additional Resources and Education About Staffing and Operations

- IAFF/Residential Fireground Experiments: www.firereporting.org/study-reports/
- USFA/Fire Service Operational Safety: usfa.fema.gov/operations/ops_safety.html
- Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix B.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
PART I. BASIC INFORMATION

Name of person completing form: ____________________________

Rank/Title: ___________________________________________

NFIRS/FDID: __________________________________________

E-mail address: _________________________ Phone: (______)

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): ______

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): ______

3. Number of buildings in community that are 3 or more stories in height (check one):
   - q None
   - q 1–4
   - q 5–10
   - q 11–24
   - q 25–49
   - q 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: __________
   - Fundraising: __________
   - Payment per call/Contract services: __________
   - Ambulance Billing: __________
   - Fees: __________
   - Insurance: __________
   - SAFER/AFG or similar grants: __________
   - Other: (specify) __________

PART II. PERSONNEL AND THEIR CAPABILITIES

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ______
   - Enforcement: ______
   - Education: ______
   - Risk Reduction: ______
   - Administration: ______

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  
   - q Yes  
   - q No

7. Total number of full-time (career) uniformed firefighters: ______ (If none, go to Question 12):  
   - How many are female? ______
   - Average number of full-time career / paid firefighters on duty available to respond to emergencies: ______

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - q 1  
   - q 2  
   - q 3  
   - q 4  
   - q 5+  
   - q Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - q 1  
   - q 2  
   - q 3  
   - q 4  
   - q 5+  
   - q Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - q 1  
    - q 2  
    - q 3  
    - q 4  
    - q 5+  
    - q Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    - q 1  
    - q 2  
    - q 3  
    - q 4  
    - q 5+  
    - q Not applicable
12. **Total number of active part-time (including call or volunteer) firefighters:** ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days ______ Nights ______ During weekends: Days ______ Nights ______

13. **How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?**
   If any, fill only those roles. Check all that apply.
   - First aid
   - Directing traffic
   - Command post ops
   - Rehab
   - Water supply
   - Communications
   - Logistics
   - Other (specify): ____________________________

14. **Structural firefighting.**
   A. Is this a role your fire department performs? (check one), (If no, go to Question 15)  
   - Yes
   - No
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)

15. **Emergency medical service (EMS).**
   A. Is this a service your fire department provides? (check one)  
   - Yes
   - No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
   - No certification _______%
   - EMR: Emergency Medical Responder _______%
   - EMT: Emergency Medical Technician _______%
   - AEMT: Advanced Emergency Medical Technician _______%
   - Paramedic _______%
   C. Does your community provide ambulance services?
   - Yes: Fire Department Based Service
   - Yes: Government or Third Service
   - Yes: Hospital Based
   - Yes: Private
   - Yes: Other (specify) _______
   - No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations?  
   - Yes
   - No

16. **Hazardous materials response (Hazmat).**
   A. Is this a service your fire department provides? (check one)  
   - Yes
   - No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
   - No certification _______%
   - Awareness _______%
   - Operational _______%
   - Technician _______%

17. **Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.**
   A. Is this a role your fire department performs? (check one)  
   - Yes
   - No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?  
   - Yes
   - No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)

18. **Fire prevention (preparedness & mitigation).**
   A. Is this a role your fire department performs? (check one)  
   - Yes
   - No (If no, go to Question 19)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
A. Is this a role your fire department performs? (check one)  
   - Yes  
   - No
B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
   - None (0%)  
   - Few (1–25%)  
   - Some (26–50%)  
   - Many (51–75%)  
   - Most (76–99%)  
   - All (100%)

20. Active shooter response.
A. Is this a role your fire department performs? (check one)  
   - Yes  
   - No (If no, go to Question 21)
B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)  
   - Yes  
   - No
C. Have your department's personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
   - Yes  
   - No

21. Traffic control.
A. Is this a role your department performs? (check one)  
   - Yes  
   - No
B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
   - None (0%)  
   - Few (1–25%)  
   - Some (26–50%)  
   - Many (51–75%)  
   - Most (76–99%)  
   - All (100%)

22. Basic firefighter fitness and health.
A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)  
   - Yes  
   - No (If no, go to Question 22C)
B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?  
   - Yes  
   - No
C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?  
   - Yes  
   - No (If no, skip to Question 23)
D. How often?  
   - New firefighters only  
   - Every six months or annually  
   - Every two years  
   - Every three years  
   - Other  
   - __________________
E. Does this program include a fitness assessment for all firefighters?  
   - Yes  
   - No (if no, skip to question 23)
F. How often?  
   - New firefighters only  
   - Every six months or annually  
   - Every two years  
   - Every three years  
   - Other  
   - __________________

23. Does your department have a Behavioral Health Program?  
   - Yes  
   - No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)?
   - Fitness for duty evaluation  
   - Cancer prevention education  
   - Physical health education  
   - Heart attack prevention education  
   - Post-Traumatic Stress support  
   - Trained behavioral peer support  
   - Behavioral health education  
   - Suicide prevention education  
   - Relationship with a Behavior Specialist  
   - Volunteer clinical interventions  
   - Wellness preventative education  
   - Other (please specify): __________________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?
   - Yes—Department actively tracks  
   - Yes—Mechanism for individuals  
   - Yes—Both  
   - No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one)  
   - Yes  
   - No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one)  
   - Yes  
   - No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply)
   - O2 (Oxygen)  
   - HCN (Cyanide)  
   - CO (Carbon Monoxide)  
   - Volatile Organic Compound (VOC)  
   - Other (please specify)  
   - Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply)
   - Cancer screening program  
   - Second set of structural firefighter gear for all firefighters  
   - SOPs/SOGs for cleaning gear after a fire  
   - Gross decontamination of gear at the fireground  
   - Provide cleaning wipes for use on face/neck/hands  
   - Training to ‘shower within an hour’ after a fire  
   - Prohibit structural firefighter gear in living quarters of fire stations  
   - Other (please specify)  
   - None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment
     If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
     - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
     - Industrial chemical disasters
     - Transportation disasters
     - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) ________________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) ________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Home safety visits
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) ___________________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community’s demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: _______ Number of stations over 40 years old: _______
   Number of stations having backup power: _______
   Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): _______
   Number of stations with private or separate facilities for men and women: _______

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumpers</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)  
- Certification or specific training  
- Hands-on training using the actual vehicle  
- Demonstration of competency at least once a year  
- Formal driver’s training at least twice a year  
- None of these

40. Portable radios.  
A. What percentage of your on-duty emergency responders can be equipped with portable radios?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)

41. Self-contained breathing apparatus (SCBA).  
A. What percentage of your on-duty emergency responders can be equipped with SCBA?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

B. What percentage of your SCBA are 10 years old or older?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

42. Personal alert safety system (PASS) devices.  
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

43. Personal protective clothing.  
A. How many of your emergency responders are equipped with personal protective clothing?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

B. How many of your department’s personal protective clothing is 10 years of age or older?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)  
- Yes  
- No  
- Don’t know

D. Is your personal protective ensemble inspected and tested each year?  
- Inspected only  
- Tested only  
- Inspected and tested  
- None of these

E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?  
- We have laundering facilities  
- We utilize an outside service  
- We have our own facilities and use an outside service  
- Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.  
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)  
- Yes  
- No  
- Don’t know

B. If yes to 45A, how many of your partners (agencies/Departments) can you communicate with at an incident scene?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Don’t know

46. Dispatch.  
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?  
- PSAP that answers police, fire, and EMS calls  
- PSAP that answers fire and EMS calls  
- Police department  
- Fire department  
- Private company

B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?  
- Yes  
- No, the call is transferred to another center to be processed

C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?  
- Yes  
- No, we typically have call takers and separate dispatchers.

D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?  
- Yes  
- No, sometimes we cut back to one person on duty  
- No, we never have two persons on duty

E. Do you also have a backup dispatch facility? (check one)  
- Yes  
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      ■ Yes    ■ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      ■ 1    ■ 2–5    ■ 6–20    ■ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      ■ Less than 1 acre    ■ 1–10 acres    ■ 11–50 acres    ■ 51–100 acres    ■ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ■ Local would be enough    ■ Regional    ■ State    ■ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ■ Local would be enough    ■ Regional    ■ State    ■ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ■ Local would be enough    ■ Regional    ■ State    ■ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      ■ Yes, written agreement    ■ Yes, informal    ■ Yes, other (specify) ____________________________    ■ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581?  ■ Yes    ■ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581?  ■ Yes    ■ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    ■ None (0%)    ■ Few (1–25%)    ■ Some (26–50%)    ■ Many (51–75%)    ■ Most (76–99%)    ■ All (100%)    ■ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    ■ None (0%)    ■ Few (1–25%)    ■ Some (26–50%)    ■ Many (51–75%)    ■ Most (76–99%)    ■ All (100%)    ■ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. __________________________________________

2. __________________________________________

3. __________________________________________
Needs Assessment of the United States Fire Service: Training and Certification

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

The emergency response and prevention activities outlined above require different sets of knowledge and skills, while the apparatus and equipment used in these responses often require specialized maintenance and operation. Training and certification are the most effective ways to ensure that firefighters are able to operate safely and effectively at a range of incident scenes, as well as during their non-emergency work, such as code enforcement.

This section of the needs assessment study focuses on departments’ ability to provide training and certification to department members.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-Training/Certification
Survey Responses and Defining *Unmet Need*

The needs assessment study, as it has in the past, defines *unmet need* as not having the resources required to provide a service. For some questions, the survey asked about the *extent* of the need within the department. For example:

**Question:** How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. *Unmet need* is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

**Department Size and Nomenclature**

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

**Table A. Total number of survey responses by community size**

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,969</strong></td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).

*Needs Assessment of the United States Fire Service Training and Certification*, December 2021  
NFPA Research, Quincy, MA
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<tr>
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<td>20</td>
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<td>24</td>
</tr>
</tbody>
</table>
Survey Results: Training and Certification

**What we looked at:** The Fifth Fire Service Needs Assessment Survey measured the level of training and certification in the United States Fire Service.

*Note: The Fifth Fire Service Needs Assessment Survey included changes to several questions related to training and certification. The questions were revised to specify that the term training meant formal training, such as programs that result in a certification, are based on a standard, or are developed based on a formalized review or consensus process. This helped to clarify the questions, but it also limited our ability to track changes from study to study. For more information on the changes from study to study, please see our “Changes Across Five Studies” module.*

**Key Takeaways:**
- Across every response type, from structural firefighting to active shooter, there are fire department personnel who are responsible for responding to incidents for which they have not been formally trained or certified.
- More than half of departments have unmet need for training in structural firefighting.
- Twenty-one percent of department personnel who perform EMS have no certifications.
- Smaller departments are more likely to be responsible for traffic control, and there is a lot of unmet need for training in this area.
- Sixty-seven percent of departments in the US have at least some unmet need for training and certification of its personnel assigned to fire prevention (preparedness and mitigation) activities.

**Structural Firefighting**

The vast majority of fire departments (98 percent) perform structural firefighting. However, many firefighters, especially those in departments protecting smaller communities, have not received formal training. Figure 1 and Table A-1 in the Appendix show that overall, 55 percent of departments have members that engage in structural firefighting but have not been formally trained. This issue is particularly prominent in departments protecting smaller communities.
Many firefighters who perform structural firefighting have not been certified to Firefighter Level I, even if they have received some formal training. Figure 2 and Table A-2 in the Appendix show that only 30 percent of departments have certified all their firefighters to Firefighter Level I.

Figure 2: Departments where not all personnel responsible for structural firefighting are certified to Firefighter Level I (by size of population protected)
Emergency Medical Services (EMS)

Figure 3 shows that 63 percent of all the departments that responded to the study provide EMS of some type in their communities. Departments protecting larger communities are more likely to provide EMS.

**Figure 3: Responsibility for EMS calls (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>59%</td>
<td>41%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>92%</td>
<td>8%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Different departments provide different levels of EMS and first responders within departments have different certifications. EMS certifications and definitions can vary from state to state, so our survey tried to capture the most representative categories. Table 1 shows that 21 percent of department personnel who perform EMS have no certifications. This is more common among departments protecting smaller communities; 33 percent of responders who perform EMS in departments protecting fewer than 2,500 people are not certified.

Table 1: What percentage of department personnel performing this duty are certified to the following levels? (among departments providing EMS)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Paramedic</th>
<th>AEMT: Advanced Emergency Medical Technician</th>
<th>Emergency Medical Technician</th>
<th>Emergency Medical Responder</th>
<th>No Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>40%</td>
<td>7%</td>
<td>52%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>42%</td>
<td>8%</td>
<td>50%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>37%</td>
<td>7%</td>
<td>47%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>41%</td>
<td>4%</td>
<td>47%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>45%</td>
<td>5%</td>
<td>39%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>36%</td>
<td>6%</td>
<td>40%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>24%</td>
<td>6%</td>
<td>38%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>11%</td>
<td>5%</td>
<td>37%</td>
<td>24%</td>
<td>23%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>6%</td>
<td>3%</td>
<td>31%</td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>18%</td>
<td>5%</td>
<td>36%</td>
<td>20%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Hazardous Materials Response (Hazmat)

Figure 4 shows 69 percent of departments overall provide some level of hazardous materials response, with all the large departments (those protecting 250,000 people or more) providing this service and 59 percent of the smallest departments (those protecting fewer than 2,500 people) responding to Hazmat calls.

Figure 4: Responsibility for hazardous materials calls (by size of population protected)

Among departments that respond to hazardous materials calls, 14 percent of personnel who perform this duty have no certification, including 23 percent in the smallest departments. Table 2 also shows that an estimated 9 percent of fire department personnel who perform Hazmat duties have been certified to the highest level (Technician).

Table 2. What percentage of department personnel performing this duty are certified to the following levels?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Awareness</th>
<th>Operational</th>
<th>Technician</th>
<th>No certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>13%</td>
<td>65%</td>
<td>22%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>14%</td>
<td>67%</td>
<td>19%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>17%</td>
<td>56%</td>
<td>27%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>14%</td>
<td>59%</td>
<td>27%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>14%</td>
<td>59%</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>18%</td>
<td>62%</td>
<td>16%</td>
<td>4%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>30%</td>
<td>52%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>33%</td>
<td>48%</td>
<td>5%</td>
<td>13%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>39%</td>
<td>34%</td>
<td>4%</td>
<td>23%</td>
</tr>
<tr>
<td>Total</td>
<td>31%</td>
<td>46%</td>
<td>9%</td>
<td>14%</td>
</tr>
</tbody>
</table>
Wildland-Urban Interface (WUI)/Wildland firefighting

Note: Please see the “Wildland and WUI Firefighting” module for information specific to departments that indicated an operational responsibility for response to WUI/wildland fires.

Most of the fire departments in the study (87 percent) indicated that they perform WUI or wildland firefighting, though this is more common among very large and very small departments (Figure 5).

**Figure 5: Responsibility for WUI/wildland firefighting (by size of population protected)**
Many departments that are responsible for WUI/wildland operations have personnel that are not formally trained. Figure 6 and Table A-3 show that many firefighters who are responsible for wildland firefighting have not received training, regardless of the size of their department.

**Figure 6: Departments where not all responsible personnel have received formal training in WUI/wildland firefighting (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>What percentage of the personnel who perform this duty (Wildland Firefighting) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>19% 68% 13%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>15% 79% 6%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>21% 68% 10%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>21% 61% 18%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>22% 50% 27%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>23% 33% 43%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>27% 35% 38%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>33% 35% 32%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44% 35% 50% 6%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>46% 38% 17%</td>
</tr>
</tbody>
</table>
Figure 7 shows that some departments, particularly smaller departments, do not have access to wildland training that also includes specialized WUI firefighting operations.

**Figure 7: Departments where WUI/wildland training includes specialized WUI firefighting operations (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Does this training include specialized Wildland-Urban Interface firefighting operations training?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent of Fire Departments</td>
</tr>
<tr>
<td>ALL departments</td>
<td>46%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>48%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>51%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>42%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>35%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>33%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>49%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>47%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>67%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>67%</td>
</tr>
</tbody>
</table>
Fire Prevention — Preparedness and Mitigation

Figure 8 shows that more than three-quarters of departments engaged in fire prevention (preparedness and mitigation) activities, but many of those assigned to these tasks have not received formal training. Even in communities of 500,000 or more, 29 percent of departments report that not everyone is trained. Figure 8 and Table A-4 in the Appendix show that 67 percent of departments in the US have at least some unmet need in this area.

Figure 8: Departments where not all personnel responsible for fire prevention have been formally trained (by size of population protected)

What percentage of the personnel who perform this duty (Fire Prevention) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>All (100%)</th>
<th>Unmet Need</th>
<th>No Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>10%</td>
<td>67%</td>
<td>23%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>5%</td>
<td>61%</td>
<td>35%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>7%</td>
<td>72%</td>
<td>20%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>10%</td>
<td>79%</td>
<td>11%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>20%</td>
<td>74%</td>
<td>7%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>31%</td>
<td>67%</td>
<td>2%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>57%</td>
<td>1%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>53%</td>
<td>46%</td>
<td>1%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>44%</td>
<td>0%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>71%</td>
<td>29%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Code Enforcement

Figure 9 shows that most fire departments (63 percent) do not engage in code enforcement activities and even among those that do, many responders have not been formally trained.

Overall, 29 percent of fire departments have some unmet need for personnel training in this area, which represents 78 percent of all the departments that perform code enforcement. For more information, see Figure 9 below and Table A-5 in the Appendix.

Figure 9: Departments where not all personnel responsible for code enforcement have received formal training (by size of population protected)
Active Shooter Response

Figure 10 shows 50 percent of fire departments surveyed provide response to active shooter incidents, including nearly all large departments. One-third (32 percent) of the smallest departments (those protecting fewer than 2,500 people) provide response to such incidents.

**Figure 10: Departments responsible for active shooter response (by size of population protected)**

![Chart showing the percentage of fire departments responsible for active shooter response by population size.](chart.png)
Most departments that provide response to active shooter incidents have standard operating procedures and standard operating guidelines (SOPs and SOGs) in place, as shown in Figure 11.

**Figure 11: Departments with and without SOPs and SOGs in place for active shooter events (by size of population protected)**

![Diagram showing the percentage of fire departments with SOPs/SOGs by population protected size](image-url)
Fifty percent of departments do not provide response to active shooter incidents. Of departments who do provide response to active shooter incidents, 31 percent have not received multi-agency training (with police, EMS, sheriffs, etc.) or been tested on the training and equipment required (see Figure 12).

**Figure 12: Departments where personnel have or haven't received multiagency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required (by size of population protected by department)**
Traffic Control

Figure 13 shows that 82 percent of all fire departments perform traffic control duties. Performance of this task is more common among very small departments than larger ones. As shown in Figure 13, 90 percent of the departments protecting communities of 5,000 or less engage in traffic control but only 33 percent of the largest departments (those protecting 500,000 or more) do.

Figure 13 and Table A-6 show that two-thirds (66 percent) of the departments overall have an unmet need for training in this area. This is particularly pronounced in departments in smaller communities, which are also more likely to have traffic control responsibilities.

Figure 13: Departments where not all personnel responsible for traffic control have received formal training (by size of population protected)
Driver Training

In addition to having apparatus available and up to date, fire departments must train their workers to safely and effectively operate these vehicles. Figure 14 shows how different departments train on emergency vehicle operation. Nine out of ten (91 percent) departments require hands-on training to use a vehicle and 58 percent require certification or specific training. Just under half (49 percent) of departments require demonstration of competency at least once a year. Certification is more common in large departments, while a demonstration of competency and formal driver training are generally more common in smaller departments.

Figure 14. Training and certification requirements for operating emergency vehicles (by size of population protected)

Additional Resources and Education About Training and Certifications

- USFA/Fire service training and professional development: usfa.fema.gov/training
- Fire Department Safety Officers Association: fdsoa.org
- International Fire Service Training Association: www.ifsta.org
- Emergency Responder Safety Institute: respondersafety.com

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix C.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
### Appendix B: Supporting Tables

#### Table A-1:
What percentage of the personnel who perform this duty (Structural Firefighting) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Structural Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>83%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>98%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>92%</td>
<td>6%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>88%</td>
<td>8%</td>
<td>2%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>78%</td>
<td>15%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>56%</td>
<td>24%</td>
<td>8%</td>
<td>6%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>43%</td>
<td>29%</td>
<td>11%</td>
<td>9%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>24%</td>
<td>24%</td>
<td>14%</td>
<td>14%</td>
<td>18%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>43%</td>
<td>23%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

#### Table A-2:
What percentage of department personnel who perform this duty (Structural Firefighting) are certified to Firefighter Level I (NFPA 1001)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Structural Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>88%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>83%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>90%</td>
<td>7%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>88%</td>
<td>9%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>81%</td>
<td>12%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>64%</td>
<td>20%</td>
<td>7%</td>
<td>4%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>42%</td>
<td>26%</td>
<td>11%</td>
<td>10%</td>
<td>9%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>23%</td>
<td>26%</td>
<td>13%</td>
<td>15%</td>
<td>21%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>13%</td>
<td>16%</td>
<td>12%</td>
<td>18%</td>
<td>29%</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>30%</td>
<td>19%</td>
<td>11%</td>
<td>13%</td>
<td>20%</td>
<td>5%</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Notes:**
- Needs Assessment of the United States Fire Service Training and Certification, December 2021
- TC-20
- NFPA Research, Quincy, MA
What percentage of the personnel who perform this duty (Wildland firefighting) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Wildland Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>46%</td>
<td>8%</td>
<td>0%</td>
<td>13%</td>
<td>13%</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>33%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>33%</td>
<td>10%</td>
<td>2%</td>
<td>6%</td>
<td>10%</td>
<td>6%</td>
<td>32%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>27%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
<td>12%</td>
<td>4%</td>
<td>38%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>23%</td>
<td>8%</td>
<td>3%</td>
<td>4%</td>
<td>13%</td>
<td>5%</td>
<td>43%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>22%</td>
<td>13%</td>
<td>6%</td>
<td>8%</td>
<td>14%</td>
<td>8%</td>
<td>27%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>21%</td>
<td>20%</td>
<td>10%</td>
<td>11%</td>
<td>14%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>21%</td>
<td>23%</td>
<td>13%</td>
<td>11%</td>
<td>17%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>15%</td>
<td>22%</td>
<td>14%</td>
<td>15%</td>
<td>21%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>19%</td>
<td>20%</td>
<td>12%</td>
<td>12%</td>
<td>18%</td>
<td>6%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Table A-4:
What percentage of the personnel who perform this duty (Fire prevention) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>71%</td>
<td>4%</td>
<td>0%</td>
<td>8%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>39%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>53%</td>
<td>7%</td>
<td>5%</td>
<td>10%</td>
<td>21%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>6%</td>
<td>8%</td>
<td>7%</td>
<td>36%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>31%</td>
<td>7%</td>
<td>6%</td>
<td>15%</td>
<td>35%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>20%</td>
<td>8%</td>
<td>8%</td>
<td>13%</td>
<td>43%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>10%</td>
<td>5%</td>
<td>6%</td>
<td>16%</td>
<td>43%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>7%</td>
<td>3%</td>
<td>6%</td>
<td>15%</td>
<td>38%</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
<td>12%</td>
<td>28%</td>
<td>13%</td>
<td>35%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>10%</td>
<td>4%</td>
<td>6%</td>
<td>13%</td>
<td>34%</td>
<td>10%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Table A-5:
What percentage of the personnel who perform this duty (Code enforcement) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Code Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>67%</td>
<td>8%</td>
<td>0%</td>
<td>4%</td>
<td>13%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>28%</td>
<td>0%</td>
<td>6%</td>
<td>11%</td>
<td>33%</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>44%</td>
<td>10%</td>
<td>4%</td>
<td>5%</td>
<td>19%</td>
<td>1%</td>
<td>17%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>39%</td>
<td>4%</td>
<td>3%</td>
<td>5%</td>
<td>30%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>33%</td>
<td>7%</td>
<td>4%</td>
<td>7%</td>
<td>31%</td>
<td>0%</td>
<td>18%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>20%</td>
<td>5%</td>
<td>2%</td>
<td>10%</td>
<td>33%</td>
<td>1%</td>
<td>29%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
<td>8%</td>
<td>29%</td>
<td>1%</td>
<td>51%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>23%</td>
<td>2%</td>
<td>64%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>13%</td>
<td>1%</td>
<td>81%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>8%</td>
<td>2%</td>
<td>1%</td>
<td>4%</td>
<td>20%</td>
<td>1%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Table A-6:
What percentage of the personnel who perform this duty (Traffic control) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Traffic Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>25%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>4%</td>
<td>67%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>17%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>72%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>22%</td>
<td>6%</td>
<td>1%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
<td>58%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>20%</td>
<td>9%</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>58%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>18%</td>
<td>11%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
<td>5%</td>
<td>53%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>18%</td>
<td>15%</td>
<td>7%</td>
<td>7%</td>
<td>12%</td>
<td>4%</td>
<td>37%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>17%</td>
<td>19%</td>
<td>11%</td>
<td>15%</td>
<td>13%</td>
<td>6%</td>
<td>19%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>20%</td>
<td>21%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>13%</td>
<td>18%</td>
<td>11%</td>
<td>15%</td>
<td>20%</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>16%</td>
<td>17%</td>
<td>11%</td>
<td>13%</td>
<td>16%</td>
<td>9%</td>
<td>17%</td>
</tr>
</tbody>
</table>
PART I. BASIC INFORMATION

Name of person completing form: ________________________________

Rank/Title: ________________________________________________

NFIRS/FDID: ______________________________________________

E-mail address: _____________________________________________ Phone: (____) ________ ________

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): ________

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): ________

3. Number of buildings in community that are 3 or more stories in height (check one):
   - q None
   - q 1–4
   - q 5–10
   - q 11–24
   - q 25–49
   - q 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)? Taxes: ________%  Fundraising: ________%
   Payment per call/Contract services: ________%  Ambulance Billing: ________%  Fees: ________%
   Insurance: ________%  SAFER/AFG or similar grants: ________%  Other: (specify) ________%

PART II. PERSONNEL AND THEIR CAPABILITIES

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ________
   - Enforcement: ________
   - Education: ________
   - Risk Reduction: ________
   - Administration: ________

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  q Yes  q No

7. Total number of full-time (career) uniformed firefighters: ________ (If none, go to Question 12):
   How many are female? ________
   Average number of full-time career / paid firefighters on duty available to respond to emergencies: ________

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - q 1
   - q 2
   - q 3
   - q 4
   - q 5+
   - q Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - q 1
   - q 2
   - q 3
   - q 4
   - q 5+
   - q Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - q 1
    - q 2
    - q 3
    - q 4
    - q 5+
    - q Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
     - q 1
     - q 2
     - q 3
     - q 4
     - q 5+
     - q Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days ______ Nights ______ During weekends: Days ______ Nights ______

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities? ______
   If any, fill only those roles. Check all that apply.
   ■ First aid  ■ Directing traffic  ■ Command post ops  ■ Rehab  ■ Water supply  ■ Communications
   ■ Logistics  ■ Other (specify): __________________________

   A. Is this a role your fire department performs? (check one). (If no, go to Question 15)  ■ Yes  ■ No
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one)  ■ Yes  ■ No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification ______%  b. EMR: Emergency Medical Responder ______%  c. EMT: Emergency Medical Technician ______%  
      d. AEMT: Advanced Emergency Medical Technician ______%  e. Paramedic ______%
   C. Does your community provide ambulance services?  ■ Yes: Fire Department Based Service  ■ Yes: Government or Third Service  ■ Yes: Hospital Based  ■ Yes: Private  ■ Yes: Other (specify) ______  ■ No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations?  ■ Yes  ■ No

   A. Is this a service your fire department provides? (check one)  ■ Yes  ■ No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification ______%  b. Awareness ______%  c. Operational ______%  d. Technician ______%

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one)  ■ Yes  ■ No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?  ■ Yes  ■ No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one)  ■ Yes  ■ No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      ■ None (0%)  ■ Few (1–25%)  ■ Some (26–50%)  ■ Many (51–75%)  ■ Most (76–99%)  ■ All (100%)
A. Is this a role your fire department performs? (check one) ☐ Yes ☐ No
B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)? ☐ None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)

20. Active shooter response.
A. Is this a role your fire department performs? (check one) ☐ Yes ☐ No (If no, go to Question 21)
B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one) ☐ Yes ☐ No
C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one) ☐ Yes ☐ No

21. Traffic control.
A. Is this a role your department performs? (check one) ☐ Yes ☐ No
B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)? ☐ None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)

22. Basic firefighter fitness and health.
A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one) ☐ Yes ☐ No (If no, go to Question 22C)
B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)? ☐ Yes ☐ No
C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters? ☐ Yes ☐ No (If no, skip to Question 23)
D. How often? ☐ New firefighters only ☐ Every six months or annually ☐ Every two years ☐ Every three years ☐ Other ______
E. Does this program include a fitness assessment for all firefighters? ☐ Yes ☐ No (if no, skip to question 23)
F. How often? ☐ New firefighters only ☐ Every six months or annually ☐ Every two years ☐ Every three years ☐ Other ______

23. Does your department have a Behavioral Health Program? ☐ Yes ☐ No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)?
☐ Fitness for duty evaluation ☐ Post-Traumatic Stress support ☐ Relationship with a Behavior Specialist
☐ Cancer prevention education ☐ Trained behavioral peer support ☐ Volunteer clinical interventions
☐ Physical health education ☐ Behavioral health education ☐ Wellness preventative education
☐ Heart attack prevention education ☐ Suicide prevention education ☐ Other (please specify): ___________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)? ☐ Yes—Department actively tracks ☐ Yes—Mechanism for individuals ☐ Yes—Both ☐ No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one) ☐ Yes ☐ No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one) ☐ Yes ☐ No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply)
☐ 02 (Oxygen) ☐ HCN (Cyanide) ☐ CO (Carbon Monoxide) ☐ Volatile Organic Compound (VOC)
☐ Other (please specify) ____________________________ ☐ Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply)
☐ Cancer screening program ☐ Second set of structural firefighter gear for all firefighters
☐ SOPs/SOGs for cleaning gear after a fire ☐ Gross decontamination of gear at the fireground
☐ Provide cleaning wipes for use on face/neck/hands ☐ Training to ‘shower within an hour’ after a fire
☐ Prohibit structural firefighter gear in living quarters of fire stations ☐ Other (please specify) ________ ☐ None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment

   If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
   - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
   - Industrial chemical disasters
   - Transportation disasters
   - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) _____________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) _________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) ____________________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community’s demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: _______ Number of stations over 40 years old: _______
   Number of stations having backup power: _______
   Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): _______
   Number of stations with private or separate facilities for men and women: _______

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumpers</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15–19</td>
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<tr>
<td>20–29</td>
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<tr>
<td>30+</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)
- Certification or specific training
- Hands-on training using the actual vehicle
- Demonstration of competency at least once a year
- Formal driver’s training at least twice a year
- None of these

40. Portable radios.
A. What percentage of your on-duty emergency responders can be equipped with portable radios?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)

41. Self-contained breathing apparatus (SCBA).
A. What percentage of your on-duty emergency responders can be equipped with SCBA?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. What percentage of your SCBA are 10 years old or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

42. Personal alert safety system (PASS) devices.
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

43. Personal protective clothing.
A. How many of your emergency responders are equipped with personal protective clothing?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. How many of your department’s personal protective clothing is 10 years of age or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)
- Yes
- No
- Don’t know
D. Is your personal protective ensemble inspected and tested each year?
- Inspected only
- Tested only
- Inspected and tested
- None of these
E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?
- We have laundering facilities
- We utilize an outside service
- We have our own facilities and use an outside service
- Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)
- Yes
- No
- Don’t know
B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

46. Dispatch.
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?
- PSAP that answers police, fire, and EMS calls
- PSAP that answers fire and EMS calls
- Police department
- Fire department
- Private company
B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?
- Yes
- No, the call is transferred to another center to be processed
C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?
- Yes
- No, we typically have call takers and separate dispatchers.
D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?
- Yes
- No, sometimes we cut back to one person on duty
- No, we never have two persons on duty
E. Do you also have a backup dispatch facility? (check one)
- Yes
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      ☐ Yes  ☐ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      ☐ 1  ☐ 2–5  ☐ 6–20  ☐ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      ☐ Less than 1 acre  ☐ 1–10 acres  ☐ 11–50 acres  ☐ 51–100 acres  ☐ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough  ☐ Regional  ☐ State  ☐ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough  ☐ Regional  ☐ State  ☐ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough  ☐ Regional  ☐ State  ☐ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      ☐ Yes, written agreement  ☐ Yes, informal  ☐ Yes, other (specify) ____________________________  ☐ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581?  ☐ Yes  ☐ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581?  ☐ Yes  ☐ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    ☐ None (0%)  ☐ Few (1–25%)  ☐ Some (26–50%)  ☐ Many (51–75%)  ☐ Most (76–99%)  ☐ All (100%)  ☐ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    ☐ None (0%)  ☐ Few (1–25%)  ☐ Some (26–50%)  ☐ Many (51–75%)  ☐ Most (76–99%)  ☐ All (100%)  ☐ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. ____________________________

2. ____________________________

3. ____________________________
HEALTH & WELLNESS

The Fifth Needs Assessment of the
US Fire Service

DECEMBER 2021
Needs Assessment of the United States Fire Service: Health and Wellness

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

Firefighters face obvious safety risks during emergency situations, but some are less obvious. Repeated exposure to unhealthy environments and carcinogens can cause cancer, while high-stress incidents can strain behavioral health. These types of exposures occur frequently when responding to emergencies.

There are also needs for ongoing tracking of firefighter health and wellness concerns, such as fitness assessments and physical evaluations. While these needs go beyond the typical realm of on-scene firefighter safety, they can have an enormous impact on firefighter health and department operational strength. Because of the importance of these issues, the Fifth Fire Service Needs Assessment added several questions focused on firefighter health and wellness.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-Wellness
Survey Responses and Defining Unmet Need

The needs assessment study, as it has in the past, defines unmet need as not having the resources required to provide a service. For some questions, the survey asked about the extent of the need within the department. For example:

Question: How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. Unmet need is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

Department Size and Nomenclature

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
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Key Takeaways: ................................................................................................................................. 5
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Additional Resources and Education About Firefighter Health and Wellness ......................... 19
Appendix A: Survey Structure and Analysis .............................................................................. 20
  Survey Structure and Analysis ..................................................................................................... 20
Appendix B: Fifth Survey of the Needs of the US Fire Service .................................................. 21
Survey Results: Health and Wellness

What we looked at: The Fifth Fire Service Needs Assessment Survey measured if United States fire departments have the resources necessary to deliver and maintain firefighter health and wellness programs. To see the changes from study to study, see the “Changes Across Five Studies” module.

Key Takeaways:
- Most fire departments (72 percent) do not have programs to maintain basic firefighter fitness and health.
- Most departments (61 percent) do not provide medical and physical evaluations that comply with NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments, for all firefighters.
- Nearly three-quarters (73 percent) of all fire departments in the United States do not have a behavioral health program. Larger departments are much more likely to have these programs, while only 14 percent of the smallest departments have behavioral health programs.
- Many fire departments do not engage in cancer prevention best practices.
- Most fire stations (56 percent) are not equipped for exhaust emissions control; this number rises to 82 percent in the smallest communities.

Fitness and Health Programs
The majority of fire departments (72 percent) do not have programs to maintain basic firefighter fitness and health. Figure 1 shows that larger departments are more likely to have these programs than smaller departments.

Figure 1: Firefighter fitness and health programs (by size of community protected)
Figure 2 shows that among larger departments, fitness/health programs are more likely to be associated with the IAFC/IAFF Wellness-Fitness Initiative (WFI).

**Figure 2: Fitness and health programs associated with the IAFC/IAFF WFI (by size of community protected)**

![Bar chart showing the percentage of fire departments associated with the IAFC/IAFF Wellness-Fitness Initiative (WFI) by population size of the community they protect.](chart)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Yes</th>
<th>No</th>
<th>Departments Not Responding to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>9%</td>
<td>19%</td>
<td>72%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>4%</td>
<td>12%</td>
<td>85%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>6%</td>
<td>16%</td>
<td>79%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>9%</td>
<td>30%</td>
<td>62%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>19%</td>
<td>32%</td>
<td>49%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>34%</td>
<td>32%</td>
<td>34%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>59%</td>
<td>31%</td>
<td>10%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>61%</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>63%</td>
<td>25%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Medical/Physical Exams and Fitness Assessments

Most departments (61 percent) do not provide NFPA 1582-compliant medical and physical evaluations for all firefighters. While larger departments are more likely to provide these evaluations, roughly 20 percent of the departments that protect upwards of 25,000 people do not, as shown in Figure 3 below.

**Figure 3: Medical and physical evaluations for all firefighters (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>39% Yes, 61% No</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>24% Yes, 76% No</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>36% Yes, 64% No</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>53% Yes, 47% No</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>66% Yes, 34% No</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>77% Yes, 23% No</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>77% Yes, 23% No</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>78% Yes, 22% No</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>83% Yes, 17% No</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>83% Yes, 17% No</td>
</tr>
</tbody>
</table>
Figure 4 shows that most departments (57 percent) that provide physical and medical evaluations for firefighters do so every six months or annually. Nearly one-quarter (22 percent) of the departments only provide evaluations for new firefighters.

**Figure 4: Frequency of medical and physical evaluations in departments that provide them (by size of community protected)**
Even among departments that provide medical and physical evaluations, 43 percent do not include a fitness assessment for all firefighters, as shown in Figure 5.

**Figure 5: Provision of fitness assessments for all firefighters among departments providing medical and physical evaluations (by size of community protected)**

Among departments that conduct fitness assessments, two-thirds (66 percent) conduct them every six months or annually. Departments protecting larger communities tend to conduct assessments more frequently (Table 1).

**Table 1: How often do you conduct fitness assessments for all firefighters? (Only among departments that conduct fitness assessments)**

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Every Six Months or Annually</th>
<th>Every Two Years</th>
<th>Every Three Years</th>
<th>New Firefighters Only</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>84%</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>82%</td>
<td>18%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>90%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>84%</td>
<td>4%</td>
<td>1%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>77%</td>
<td>4%</td>
<td>1%</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>69%</td>
<td>6%</td>
<td>4%</td>
<td>19%</td>
<td>5%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>64%</td>
<td>7%</td>
<td>4%</td>
<td>22%</td>
<td>3%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>60%</td>
<td>12%</td>
<td>5%</td>
<td>19%</td>
<td>4%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>58%</td>
<td>18%</td>
<td>6%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>66%</td>
<td>10%</td>
<td>4%</td>
<td>17%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Behavioral Health

Nearly three-quarters (73 percent) of the departments do not have behavioral health programs. Larger departments are much more likely to have these programs than smaller ones (Figure 6). Only 14 percent of the smallest departments (those protecting less than 2,500 people) have behavioral health programs.

Figure 6: Behavioral health programs (by population of community protected)
Within departments that have behavioral health programs, post-traumatic stress support is the most common feature, with 90 percent of all departments offering this support. There is a significant drop-off for other features. The next most common feature offered is cancer prevention education, which is available in 51 percent of the departments with behavioral health programs (See Figure 7).

**Figure 7: Features of behavioral health programs (among departments that have them) (by size of community protected)**
Tables 2-A through 2-C show the frequency of the different types of behavioral health programs among departments of different sizes.

**Table 2-A Which of the following are included in your behavioral health program? (check all that apply)**
(only among departments with behavioral health programs)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Post-Traumatic Stress Support</th>
<th>Cancer Prevention Education</th>
<th>Suicide Prevention Education</th>
<th>Trained Peer Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>78%</td>
<td>87%</td>
<td>96%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>75%</td>
<td>69%</td>
<td>69%</td>
<td>69%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>91%</td>
<td>70%</td>
<td>53%</td>
<td>85%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>94%</td>
<td>72%</td>
<td>64%</td>
<td>74%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>90%</td>
<td>64%</td>
<td>59%</td>
<td>64%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>89%</td>
<td>55%</td>
<td>50%</td>
<td>49%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>91%</td>
<td>52%</td>
<td>52%</td>
<td>46%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>89%</td>
<td>42%</td>
<td>47%</td>
<td>42%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>90%</td>
<td>50%</td>
<td>48%</td>
<td>40%</td>
</tr>
<tr>
<td>All Departments</td>
<td>90%</td>
<td>51%</td>
<td>50%</td>
<td>45%</td>
</tr>
</tbody>
</table>

**Table 2-B Which of the following are included in your behavioral health program? (check all that apply)**
(only among departments with behavioral health programs)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Wellness Preventative Education</th>
<th>Behavioral Health Education</th>
<th>Fitness for Duty Evaluation</th>
<th>Heart Attack Prevention Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>78%</td>
<td>87%</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>63%</td>
<td>63%</td>
<td>63%</td>
<td>50%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>74%</td>
<td>59%</td>
<td>68%</td>
<td>42%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>70%</td>
<td>68%</td>
<td>69%</td>
<td>51%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>60%</td>
<td>57%</td>
<td>58%</td>
<td>43%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>52%</td>
<td>50%</td>
<td>50%</td>
<td>35%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>51%</td>
<td>42%</td>
<td>47%</td>
<td>37%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>35%</td>
<td>43%</td>
<td>40%</td>
<td>31%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>36%</td>
<td>35%</td>
<td>31%</td>
<td>39%</td>
</tr>
<tr>
<td>All Departments</td>
<td>42%</td>
<td>41%</td>
<td>39%</td>
<td>37%</td>
</tr>
</tbody>
</table>
Table 2-C Which of the following are included in your behavioral health program? (check all that apply) (only among departments with behavioral health programs)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Physical Health Education</th>
<th>Relationship with a Behavior Specialist</th>
<th>Volunteer Clinical Interventions</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>74%</td>
<td>78%</td>
<td>65%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>56%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>74%</td>
<td>58%</td>
<td>29%</td>
<td>5%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>63%</td>
<td>60%</td>
<td>30%</td>
<td>6%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>51%</td>
<td>50%</td>
<td>28%</td>
<td>4%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>39%</td>
<td>42%</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>39%</td>
<td>40%</td>
<td>23%</td>
<td>3%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>34%</td>
<td>33%</td>
<td>26%</td>
<td>0%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>33%</td>
<td>28%</td>
<td>28%</td>
<td>2%</td>
</tr>
<tr>
<td>All Departments</td>
<td>37%</td>
<td>34%</td>
<td>26%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Exposure Tracking, Decontamination, and Air Quality

Slightly more than half (52 percent) of all departments do not provide individual exposure tracking (either department-based or a mechanism for individuals). Table 3 shows that exposure tracking at the department level is much more common among larger departments than smaller ones.

Table 3: Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Yes, Both</th>
<th>Yes, Department Actively Tracks Exposure</th>
<th>Yes, Mechanism for Individuals</th>
<th>No, None of These</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>46%</td>
<td>38%</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44%</td>
<td>39%</td>
<td>17%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>30%</td>
<td>43%</td>
<td>20%</td>
<td>7%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>18%</td>
<td>51%</td>
<td>19%</td>
<td>12%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>18%</td>
<td>46%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>22%</td>
<td>36%</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>17%</td>
<td>30%</td>
<td>12%</td>
<td>41%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>11%</td>
<td>29%</td>
<td>10%</td>
<td>51%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>9%</td>
<td>14%</td>
<td>9%</td>
<td>68%</td>
</tr>
<tr>
<td>All departments</td>
<td>13%</td>
<td>24%</td>
<td>11%</td>
<td>52%</td>
</tr>
</tbody>
</table>
Two-thirds (67 percent) of departments have infection control/PPE decontamination programs for infectious and communicable diseases (Figure 8).

**Figure 8: Infection control/PPE decontamination programs (infectious and communicable disease) (by size of population protected)**
Sixty-three percent of departments have an exposure control/PPE decontamination program for carcinogens and other toxic hazards (Figure 9).

Figure 9: Exposure control/PPE decontamination program (carcinogens and other toxic hazards) (by size of community protected)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>63% Yes 37% No</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>47% Yes 53% No</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>66% Yes 34% No</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>79% Yes 21% No</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>86% Yes 14% No</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>93% Yes 7% No</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>94% Yes 6% No</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>96% Yes 4% No</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94% Yes 6% No</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>100% Yes 0% No</td>
</tr>
</tbody>
</table>
Most fire departments monitor carbon monoxide (66 percent) and oxygen levels (59 percent) at the fireground, but nearly one-third (31 percent) do not do any air quality monitoring. Fewer departments monitor cyanide (33 percent) and volatile organic compounds (17 percent). Figure 10 shows that smaller departments are less likely to monitor air quality.

**Figure 10: Air quality monitoring at the fireground (by size of population protected)**
Cancer Prevention

There is a range of best practices to help prevent cancer among firefighters and this edition of the needs assessment survey asked whether departments have applied these practices. The most common of these practices was providing cleaning wipes for the hands/face/neck, which two-thirds (66 percent) of departments have implemented. However, many departments lack cancer prevention best practices and only 10 percent have cancer screening programs. Figure 11 shows the percent of all the departments utilizing each of these best practices and Tables 4-A and 4-B show detailed breakdowns of the practices by the size of the population protected by a department.

Figure 11: Cancer prevention best practices in fire departments

Which of the following cancer prevention best practices does your department utilize? (check all that apply)

- Provide cleaning wipes for use on face/neck/hands: 66%
- SOPs/SOGs for cleaning gear after a fire: 64%
- Gross decontamination of gear at the fireground: 53%
- Prohibit structural firefighter gear in living quarters of fire stations: 52%
- Training to ‘shower within an hour’ after a fire: 42%
- Second set of structural firefighter gear for all firefighters: 22%
- None of these: 15%
- Cancer screening program: 10%
- Other: 2%
Table 4-A Which of the following cancer prevention best practices apply to your department? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Provide Cleaning Wipes for Use on Face/Neck/Hands</th>
<th>SOPs/SOGs for Cleaning Gear After a Fire</th>
<th>Gross Decontamination of Gear at the Fireground</th>
<th>Prohibit Structural Firefighter Gear in Living Quarters of Fire Stations</th>
<th>Training to Shower within an Hour After a Fire</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>100%</td>
<td>96%</td>
<td>100%</td>
<td>92%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94%</td>
<td>89%</td>
<td>83%</td>
<td>89%</td>
<td>72%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>91%</td>
<td>96%</td>
<td>94%</td>
<td>98%</td>
<td>73%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>93%</td>
<td>95%</td>
<td>85%</td>
<td>91%</td>
<td>79%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>89%</td>
<td>92%</td>
<td>85%</td>
<td>94%</td>
<td>73%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>82%</td>
<td>85%</td>
<td>76%</td>
<td>86%</td>
<td>62%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>74%</td>
<td>78%</td>
<td>71%</td>
<td>68%</td>
<td>53%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>68%</td>
<td>71%</td>
<td>57%</td>
<td>55%</td>
<td>42%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>55%</td>
<td>48%</td>
<td>35%</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>All Departments</td>
<td>66%</td>
<td>64%</td>
<td>53%</td>
<td>52%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Table 4-B Which of the following cancer prevention best practices does your department utilize? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Second Set of Structural Firefighter Gear for All Firefighters</th>
<th>Cancer Screening Program</th>
<th>Other</th>
<th>None of These</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>75%</td>
<td>71%</td>
<td>17%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>78%</td>
<td>28%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>72%</td>
<td>42%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>67%</td>
<td>40%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>61%</td>
<td>34%</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>50%</td>
<td>22%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>32%</td>
<td>15%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>18%</td>
<td>5%</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>8%</td>
<td>3%</td>
<td>1%</td>
<td>25%</td>
</tr>
<tr>
<td>All Departments</td>
<td>22%</td>
<td>10%</td>
<td>2%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Additionally, most fire stations in the study (56 percent) are not equipped for exhaust emissions control; this number rises to 82 percent in the smallest communities. For more information, see the “Facilities and Apparatus” module.
Additional Resources and Education About Firefighter Health and Wellness

- IAFF/Firefighter Cancer Support Network Firefighter Cancer Awareness Month: iaff.org/cancer-awareness-month
- IAFF COVID-19 Resources: iaff.org/coronavirus/
- CDC/NIOSH Firefighter Cancer Resources: cdc.gov/niosh/firefighters/health.html

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (www.nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix B.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were included in the target population. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
PART I. BASIC INFORMATION
Name of person completing form: __________________________
Rank/Title: _____________________________________________________________________
NFIRS/FDID: __________________________ E-mail address: ____________________________
Phone: (_____) ____________

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): __________
2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): __________
3. Number of buildings in community that are 3 or more stories in height (check one):
   - None
   - 1–4
   - 5–10
   - 11–24
   - 25–49
   - 50 or more
4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: __________% Fundraising: __________% Payment per call/Contract services: __________% Ambulance Billing: __________% Fees: __________% Insurance: __________% SAFER/AFG or similar grants: __________% Other: (specify) __________%

PART II. PERSONNEL AND THEIR CAPABILITIES
5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ______ Enforcement: ______ Education: ______ Risk Reduction: ______ Administration: ______
6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  ❑ Yes  ❑ No
7. Total number of full-time (career) uniformed firefighters: ______ (If none, go to Question 12):
   How many are female? ______
   Average number of full-time career / paid firefighters on duty available to respond to emergencies: ______
8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable
9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable
10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable
11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days ______ Nights ______
   During weekends: Days ______ Nights ______

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?
   If any, fill only those roles. Check all that apply:
   [ ] First aid  [ ] Directing traffic  [ ] Command post ops  [ ] Rehab  [ ] Water supply  [ ] Communications
   [ ] Logistics  [ ] Other (specify): ____________________________

   A. Is this a role your fire department performs? (check one), (If no, go to Question 15) [ ] Yes  [ ] No
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one) [ ] Yes  [ ] No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification _____%  b. EMR: Emergency Medical Responder _____%  c. EMT: Emergency Medical Technician_____%  
         d. AEMT: Advanced Emergency Medical Technician _____%  e. Paramedic _____%
   C. Does your community provide ambulance services? [ ] Yes: Fire Department Based Service  [ ] Yes: Government or Third Service  [ ] Yes: Hospital Based  [ ] Yes: Private  [ ] Yes: Other (specify) ____________  [ ] No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations? [ ] Yes  [ ] No

   A. Is this a service your fire department provides? (check one) [ ] Yes  [ ] No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification _____%  b. Awareness _____%  c. Operational_____%  d. Technician _____%

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one) [ ] Yes  [ ] No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?
      [ ] Yes  [ ] No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one) [ ] Yes  [ ] No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      [ ] None (0%)  [ ] Few (1–25%)  [ ] Some (26–50%)  [ ] Many (51–75%)  [ ] Most (76–99%)  [ ] All (100%)
   A. Is this a role your fire department performs? (check one) □ Yes □ No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)? □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%)

20. Active shooter response.
   A. Is this a role your fire department performs? (check one) □ Yes □ No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one) □ Yes □ No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one) □ Yes □ No

21. Traffic control.
   A. Is this a role your department performs? (check one) □ Yes □ No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)? □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%)

22. Basic firefighter fitness and health.
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one) □ Yes □ No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)? □ Yes □ No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters? □ Yes □ No (If no, skip to Question 23)
   D. How often? □ New firefighters only □ Every six months or annually □ Every two years □ Every three years □ Other _____
   E. Does this program include a fitness assessment for all firefighters? □ Yes □ No (if no, skip to question 23)
   F. How often? □ New firefighters only □ Every six months or annually □ Every two years □ Every three years □ Other _____

23. Does your department have a Behavioral Health Program? □ Yes □ No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)? □ Fitness for duty evaluation □ Post-Traumatic Stress support □ Relationship with a Behavior Specialist □ Cancer prevention education □ Trained behavioral peer support □ Volunteer clinical interventions □ Physical health education □ Behavioral health education □ Wellness preventative education □ Heart attack prevention education □ Suicide prevention education □ Other (please specify): __________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)? □ Yes—Department actively tracks □ Yes—Mechanism for individuals □ Yes—Both □ No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one) □ Yes □ No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one) □ Yes □ No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply) □ 02 (Oxygen) □ HCN (Cyanide) □ CO (Carbon Monoxide) □ Volatile Organic Compound (VOC) □ Other (please specify) __________ □ Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply) □ Cancer screening program □ Second set of structural firefighter gear for all firefighters □ SOPs/SOGs for cleaning gear after a fire □ Gross decontamination of gear at the fireground □ Provide cleaning wipes for use on face/neck/hands □ Training to ‘shower within an hour’ after a fire □ Prohibit structural firefighter gear in living quarters of fire stations □ Other (please specify) __________ □ None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment
   If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
     - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
     - Industrial chemical disasters
     - Transportation disasters
     - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) ________________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) ____________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Home safety visits
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) ____________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community’s demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: ________ Number of stations over 40 years old: ________
   Number of stations having backup power: ________
   Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): ________
   Number of stations with private or separate facilities for men and women: ________

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumper</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service Reserve</td>
<td>In Service Reserve</td>
<td>In Service Reserve</td>
<td>In Service Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)  ❑ Certification or specific training  ❑ Hands-on training using the actual vehicle  ❑ Demonstration of competency at least once a year  ❑ Formal driver’s training at least twice a year  ❑ None of these

40. Portable radios.
   A. What percentage of your on-duty emergency responders can be equipped with portable radios?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)

41. Self-contained breathing apparatus (SCBA).
   A. What percentage of your on-duty emergency responders can be equipped with SCBA?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)
   B. What percentage of your SCBA are 10 years old or older?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know

42. Personal alert safety system (PASS) devices.
   A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know

43. Personal protective clothing.
   A. How many of your emergency responders are equipped with personal protective clothing?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know
   B. How many of your department’s personal protective clothing is 10 years of age or older?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know
   C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)
       ❑ Yes  ❑ No  ❑ Don’t know
   D. Is your personal protective ensemble inspected and tested each year?
       ❑ Inspected only  ❑ Tested only  ❑ Inspected and tested  ❑ None of these
   E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?
       ❑ We have laundering facilities  ❑ We utilize an outside service  ❑ We have our own facilities and use an outside service  ❑ Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.
   A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)
       ❑ Yes  ❑ No  ❑ Don’t know
   B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?
       ❑ None (0%)  ❑ Few (1–25%)  ❑ Some (26–50%)  ❑ Many (51–75%)  ❑ Most (76–99%)  ❑ All (100%)  ❑ Don’t know

46. Dispatch.
   A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?
       ❑ PSAP that answers police, fire, and EMS calls  ❑ PSAP that answers fire and EMS calls  ❑ Police department  ❑ Fire department  ❑ Private company
   B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?
       ❑ Yes  ❑ No, the call is transferred to another center to be processed
   C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?
       ❑ Yes  ❑ No, we typically have call takers and separate dispatchers
   D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?
       ❑ Yes  ❑ No, sometimes we cut back to one person on duty  ❑ No, we never have two persons on duty
   E. Do you also have a backup dispatch facility? (check one)
       ❑ Yes  ❑ No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      □ Yes    □ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      □ 1    □ 2–5    □ 6–20    □ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      □ Less than 1 acre    □ 1–10 acres    □ 11–50 acres    □ 51–100 acres    □ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough    □ Regional    □ State    □ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough    □ Regional    □ State    □ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough    □ Regional    □ State    □ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      □ Yes, written agreement    □ Yes, informal    □ Yes, other (specify) ____________________________    □ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581? □ Yes □ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581? □ Yes □ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%) □ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%) □ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. ____________________________________________
2. ____________________________________________
3. ____________________________________________
Needs Assessment of the United States Fire Service: Facilities and Apparatus

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

The needs assessment survey asked questions about fire department facilities and apparatus to see if departments in the US have what they need.

Facilities address a wide set of needs for fire departments; for example, fire stations may be strategically located to provide quick response to a community. A fire department facility might also include living quarters, training areas, and storage and maintenance areas. According to a 2019 NFPA report, Renovation Needs of the US Fire Service, the total renovation needs of US fire stations is estimated at between $70 billion and $100 billion.

Apparatus are an effective means of conveyance for firefighters and their tools, such as water, hoses, PPE, medical equipment, etc. Apparatus must be available and kept in good repair. As different types of apparatus may be necessary to mitigate different hazards, they are often specialized or address multiple risks.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-Facilities/Apparatus
Survey Responses and Defining Unmet Need

The needs assessment study, as it has in the past, defines unmet need as not having the resources required to provide a service. For some questions, the survey asked about the extent of the need within the department. For example:

Question: How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. Unmet need is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

Department Size and Nomenclature

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

Table A. Total number of survey responses by community size

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).

Needs Assessment of the United States Fire Service
Facilities and Apparatus, December 2021
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    Survey Structure and Analysis ................................................................................................................ 11
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Survey Results: Facilities and Apparatus

What we looked at: The Fifth Fire Service Needs Assessment survey measured the availability and age of fire department facilities and apparatus, as well as the features of facilities. To see the changes in these categories from study to study, see the “Changes Over Five Studies” module.

Key Takeaways:
- Nearly half (44 percent) of fire stations in the departments surveyed are over 40 years old.
- More than half (52 percent) of fire stations do not have separate or private facilities for men and women.
- More than half (56 percent) of fire stations do not have exhaust emission control.
- Nearly half (49 percent) of the engines/pumpers in the departments surveyed are 15 or more years old.

Stations and Facilities

Table 1 shows the number of stations that are either over 40 years old or lacking in certain features, such as backup power, exhaust emission control, and private or separate facilities for men and women.

Table 1: Estimated number of fire stations that are over 40 years old or lacking certain features

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Stations Over 40 Years Old</th>
<th>Stations WITHOUT Backup Power</th>
<th>Stations WITHOUT Exhaust Emission Control (e.g., Diesel Exhaust Extraction)</th>
<th>Stations WITHOUT Private or Separate Facilities for Men and Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>1,200</td>
<td>370</td>
<td>520</td>
<td>650</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>450</td>
<td>60</td>
<td>130</td>
<td>120</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>1,110</td>
<td>380</td>
<td>620</td>
<td>980</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>1,060</td>
<td>310</td>
<td>500</td>
<td>980</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>1,440</td>
<td>680</td>
<td>1,440</td>
<td>1,600</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>2,780</td>
<td>1,150</td>
<td>2,230</td>
<td>2,680</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>2,600</td>
<td>1,340</td>
<td>3,170</td>
<td>3,060</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>3,090</td>
<td>2,810</td>
<td>5,280</td>
<td>4,500</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>7,980</td>
<td>8,390</td>
<td>13,610</td>
<td>11,230</td>
</tr>
<tr>
<td>Total</td>
<td>21,710</td>
<td>15,490</td>
<td>27,500</td>
<td>25,800</td>
</tr>
</tbody>
</table>

These estimates are statistical projections to all fire departments with both emergency response and record-keeping responsibilities in the US based on the 2,969 departments that responded to the 2020 needs assessment survey.
Table 2 shows the percentage of stations that are either over 40 years old or lacking in certain features, such as backup power, exhaust emission control, and private or separate facilities for men and women.

An estimated 44 percent of fire stations are over 40 years old, a number that has grown slightly since 2015 (see the “Changes Over Five Studies” module for more information). Smaller departments are somewhat more likely to have older stations, but many larger departments have older stations as well. In addition, many older stations were not designed with health and safety priorities in mind, like a place to take off dirty gear before entering office and living spaces or laundry facilities for cleaning dirty gear.

Stations without backup power are much more common among smaller departments. Half of the stations for departments protecting communities of 2,500 or less lack backup power, while this number is under 25 percent in all the population strata above 5,000 people.

Most fire stations (56 percent) are not equipped for exhaust emission control. This problem is especially acute in very small departments (those protecting 2,500 people or less) where 82 percent of the stations do not have exhaust emission control.

Slightly more than half (52 percent) of fire stations do not have private or separate facilities for men and women. In general, these facilities are more likely to be available in departments protecting larger populations than in smaller departments.

Table 2: Percent of fire stations that are over 40 years old or lacking certain features (by population stratum and total)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Average Number of Stations</th>
<th>Stations Over 40 Years Old</th>
<th>Stations WITHOUT Backup Power</th>
<th>Stations WITHOUT Exhaust Emission Control (e.g., Diesel Exhaust Extraction)</th>
<th>Stations WITHOUT Private or Separate Facilities for Men and Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>41.5</td>
<td>47%</td>
<td>15%</td>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>19.1</td>
<td>38%</td>
<td>5%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>11.0</td>
<td>38%</td>
<td>13%</td>
<td>21%</td>
<td>33%</td>
</tr>
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<td>50,000 to 99,999</td>
<td>5.5</td>
<td>39%</td>
<td>11%</td>
<td>18%</td>
<td>36%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>3.7</td>
<td>35%</td>
<td>17%</td>
<td>35%</td>
<td>39%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>2.2</td>
<td>44%</td>
<td>18%</td>
<td>35%</td>
<td>42%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>1.5</td>
<td>47%</td>
<td>24%</td>
<td>57%</td>
<td>55%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>1.5</td>
<td>43%</td>
<td>39%</td>
<td>73%</td>
<td>62%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>1.3</td>
<td>48%</td>
<td>51%</td>
<td>82%</td>
<td>68%</td>
</tr>
<tr>
<td>Total</td>
<td>NA</td>
<td>44%</td>
<td>31%</td>
<td>56%</td>
<td>52%</td>
</tr>
</tbody>
</table>
Apparatus

Because different departments respond to different incident types, a variety of apparatus and vehicle types are necessary to effectively respond to emergencies. The number and type of apparatus vary by community size. Table 3 shows the average number of engines/pumpers, ladders, tankers, and ambulances/other transport vehicles in service by the population protected.

Table 3: Average number of apparatus in service by population protected

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Engines/ Pumpers in Service</th>
<th>Ladders/ Aerials in Service</th>
<th>Tankers/ Tenders in Service</th>
<th>Ambulances or Other Transport Vehicles in Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>44.0</td>
<td>13.0</td>
<td>4.2</td>
<td>28.2</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18.6</td>
<td>4.7</td>
<td>2.5</td>
<td>8.8</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>11.0</td>
<td>3.2</td>
<td>1.4</td>
<td>4.7</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>5.0</td>
<td>1.7</td>
<td>0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>3.7</td>
<td>1.2</td>
<td>0.8</td>
<td>1.8</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>2.7</td>
<td>0.9</td>
<td>0.8</td>
<td>1.6</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>2.4</td>
<td>0.5</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>2.3</td>
<td>0.3</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>2.1</td>
<td>0.1</td>
<td>1.2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Apparatus aging and replacement

Even if departments have apparatus, they may be out of date or unreliable. Tables 4 through 7 show the breakdown of apparatus by age and community size. Table 4 shows that about half (49 percent) of engines/pumpers overall are 15 or more years old. This issue is more pronounced in smaller departments. Nearly two-thirds (64 percent) of the engines/pumpers in the smallest communities are at least 15 years old, while among departments that protect at least 50,000 people, 13 to 14 percent of the engines/pumpers are 15 years or older.

Table 4: Engines/pumpers in service by age of apparatus and community size

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>0–14 Years Old</th>
<th>15–19 Years Old</th>
<th>20–29 Years Old</th>
<th>30+ Years Old</th>
<th>Unknown Age</th>
<th>Total 15+ Years Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>86%</td>
<td>8%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>87%</td>
<td>4%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>87%</td>
<td>6%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>86%</td>
<td>10%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>73%</td>
<td>13%</td>
<td>11%</td>
<td>2%</td>
<td>0%</td>
<td>26%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>64%</td>
<td>17%</td>
<td>15%</td>
<td>4%</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>52%</td>
<td>20%</td>
<td>24%</td>
<td>5%</td>
<td>0%</td>
<td>48%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>43%</td>
<td>21%</td>
<td>26%</td>
<td>9%</td>
<td>0%</td>
<td>57%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>35%</td>
<td>22%</td>
<td>26%</td>
<td>16%</td>
<td>0%</td>
<td>64%</td>
</tr>
<tr>
<td>Total</td>
<td>51%</td>
<td>19%</td>
<td>21%</td>
<td>9%</td>
<td>0%</td>
<td>49%</td>
</tr>
</tbody>
</table>
Table 5 shows that 41 percent of ladders/aerials in service overall are more than 15 years old, with 25 percent being over 20 years old. Older ladder trucks are particularly prevalent in smaller communities.

### Table 5. Ladders/aerials in service by age of apparatus and community size

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>0–14 Years Old</th>
<th>15–19 Years Old</th>
<th>20–29 Years Old</th>
<th>30+ Years Old</th>
<th>Unknown Age</th>
<th>More Than 15 Years Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>81%</td>
<td>9%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>86%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>85%</td>
<td>9%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>15%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>85%</td>
<td>8%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>68%</td>
<td>17%</td>
<td>14%</td>
<td>2%</td>
<td>0%</td>
<td>32%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>56%</td>
<td>17%</td>
<td>22%</td>
<td>4%</td>
<td>0%</td>
<td>43%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>46%</td>
<td>21%</td>
<td>25%</td>
<td>7%</td>
<td>0%</td>
<td>53%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>34%</td>
<td>16%</td>
<td>32%</td>
<td>18%</td>
<td>0%</td>
<td>66%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>45%</td>
<td>22%</td>
<td>21%</td>
<td>12%</td>
<td>0%</td>
<td>55%</td>
</tr>
<tr>
<td>Total</td>
<td>58%</td>
<td>16%</td>
<td>19%</td>
<td>6%</td>
<td>0%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Most (58 percent) tankers/tenders in service are at least 15 years old, including two-thirds (65 percent) of the tankers/tenders in departments protecting less than 2,500 people.

### Table 6: Tankers/tenders in service by age of apparatus and community size

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>0–14 Years Old</th>
<th>15–19 Years Old</th>
<th>20–29 Years Old</th>
<th>30+ Years Old</th>
<th>Unknown Age</th>
<th>More Than 15 Years Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>73%</td>
<td>19%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>23%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>63%</td>
<td>31%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>38%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>69%</td>
<td>15%</td>
<td>13%</td>
<td>3%</td>
<td>0%</td>
<td>31%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>58%</td>
<td>16%</td>
<td>21%</td>
<td>5%</td>
<td>0%</td>
<td>42%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>48%</td>
<td>19%</td>
<td>24%</td>
<td>11%</td>
<td>0%</td>
<td>53%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>50%</td>
<td>22%</td>
<td>21%</td>
<td>8%</td>
<td>0%</td>
<td>50%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>52%</td>
<td>21%</td>
<td>20%</td>
<td>7%</td>
<td>0%</td>
<td>48%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>44%</td>
<td>18%</td>
<td>23%</td>
<td>13%</td>
<td>1%</td>
<td>55%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>35%</td>
<td>21%</td>
<td>22%</td>
<td>22%</td>
<td>0%</td>
<td>65%</td>
</tr>
<tr>
<td>Total</td>
<td>42%</td>
<td>20%</td>
<td>22%</td>
<td>16%</td>
<td>0%</td>
<td>58%</td>
</tr>
</tbody>
</table>

One-quarter (26 percent) of all ambulances are over 15 years old. Newer ambulances are more common in larger departments.

### Table 6: Ambulances or other transport vehicles in service by age and population protected

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>0–14 Years Old</th>
<th>15–19 Years Old</th>
<th>20–29 Years Old</th>
<th>30+ Years Old</th>
<th>Unknown Age</th>
<th>More Than 15 Years Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>250,000 to 499,999</td>
<td>98%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>98%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>94%</td>
<td>3%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>92%</td>
<td>6%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>87%</td>
<td>9%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>79%</td>
<td>14%</td>
<td>6%</td>
<td>1%</td>
<td>0%</td>
<td>21%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>69%</td>
<td>16%</td>
<td>11%</td>
<td>4%</td>
<td>0%</td>
<td>31%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>49%</td>
<td>21%</td>
<td>20%</td>
<td>10%</td>
<td>0%</td>
<td>51%</td>
</tr>
<tr>
<td>Total</td>
<td>73%</td>
<td>13%</td>
<td>9%</td>
<td>4%</td>
<td>0%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Many departments also have some apparatus in reserve. Table 8 shows the average number of apparatus in reserve for each department by type of apparatus and population protected.

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Engines/Pumpers in Reserve</th>
<th>Ladders/Aerials in Reserve</th>
<th>Tankers/Tenders in Reserve</th>
<th>Ambulances or Other Transport Vehicles in Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>16.6</td>
<td>5.3</td>
<td>0.7</td>
<td>13.8</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>7.9</td>
<td>2.3</td>
<td>0.1</td>
<td>3.7</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>4.4</td>
<td>1.4</td>
<td>0.1</td>
<td>2.2</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>2.4</td>
<td>0.7</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>1.3</td>
<td>0.3</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>0.7</td>
<td>0.1</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>0.2</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>0.2</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Figure 1 shows that only 38 percent of all fire departments plan and budget for apparatus replacement on a regular schedule, while 31 percent have a plan but no budget. Larger departments are more likely to have a plan and budget. Among the smallest departments, 45 percent have no plan or budget.

Figure 1: Apparatus replacement plans and budget (by size of community protected)
Additional Resources and Education about Facilities and Apparatus

- Fire Industry Education Resource Organization (FIERO): fieroonline.org
- Renovation Needs of the US Fire Service (based in part on previous needs assessment studies):

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix B.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
PART I. BASIC INFORMATION
Name of person completing form: ____________________________
Rank/Title: __________________________________________
NFIRS/FDID: __________________________________________
E-mail address: ____________________________ Phone: (_________)

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): ________

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): __________

3. Number of buildings in community that are 3 or more stories in height (check one):
   □ None    □ 1–4    □ 5–10    □ 11–24    □ 25–49    □ 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   Taxes: _________%    Fundraising: _________%
   Payment per call/Contract services: _________%    Ambulance Billing: _________%    Fees: _________%
   Insurance: _________%    SAFER/AFG or similar grants: _________%    Other: (specify) _________%

PART II. PERSONNEL AND THEIR CAPABILITIES
5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   Firefighters: ________    Enforcement: ________    Education: ________    Risk Reduction: ________    Administration: ________

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?
   □ Yes    □ No

7. Total number of full-time (career) uniformed firefighters: ________ (If none, go to Question 12):
   How many are female? ________
   Average number of full-time career / paid firefighters on duty available to respond to emergencies: ________

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   □ 1    □ 2    □ 3    □ 4    □ 5+    □ Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   □ 1    □ 2    □ 3    □ 4    □ 5+    □ Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    □ 1    □ 2    □ 3    □ 4    □ 5+    □ Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    □ 1    □ 2    □ 3    □ 4    □ 5+    □ Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays:  Days ______  Nights ______  During weekends:  Days ______  Nights ______

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?
   If any, fill only those roles. Check all that apply.
   - First aid
   - Directing traffic
   - Command post ops
   - Rehab
   - Water supply
   - Communications
   - Logistics
   - Other (specify): __________________________

   A. Is this a role your fire department performs? (check one), (If no, go to Question 15)  
      - Yes  
      - No
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one)  
      - Yes  
      - No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      - No certification ______ %
      - EMR: Emergency Medical Responder ______ %
      - EMT: Emergency Medical Technician ______ %
      - AEMT: Advanced Emergency Medical Technician ______ %
      - Paramedic ______ %
   C. Does your community provide ambulance services?  
      - Yes: Fire Department Based Service
      - Yes: Government or Third Service
      - Yes: Hospital Based
      - Yes: Private
      - Yes: Other (specify) ______
      - No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations?  
      - Yes  
      - No

   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      - No certification ______ %
      - Awareness ______ %
      - Operational ______ %
      - Technician ______ %

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?  
      - Yes  
      - No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 18)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)  

20. Active shooter response.
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)  
      - Yes  
      - No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
      - Yes  
      - No

21. Traffic control.
   A. Is this a role your department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)  

22. Basic firefighter fitness and health.
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)  
      - Yes  
      - No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?  
      - Yes  
      - No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?  
      - Yes  
      - No (If no, skip to Question 23)
   D. How often?  
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other _____
   E. Does this program include a fitness assessment for all firefighters?  
      - Yes  
      - No (If no, skip to question 23)
   F. How often?  
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other _____

23. Does your department have a Behavioral Health Program?  
   - Yes  
   - No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)?
   - Fitness for duty evaluation  
   - Cancer prevention education  
   - Physical health education  
   - Heart attack prevention education  
   - Post-Traumatic Stress support  
   - Trained behavioral peer support  
   - Behavioral health education  
   - Suicide prevention education  
   - Relationship with a Behavior Specialist  
   - Volunteer clinical interventions  
   - Wellness preventative education  
   - Other (please specify): __________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?  
   - Yes—Department actively tracks  
   - Yes—Mechanism for individuals  
   - Yes—Both  
   - No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one)  
   - Yes  
   - No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one)  
   - Yes  
   - No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply)
   - 02 (Oxygen)  
   - HCN (Cyanide)  
   - CO (Carbon Monoxide)  
   - Volatile Organic Compound (VOC)  
   - Other (please specify) __________  
   - Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply)
   - Cancer screening program  
   - Second set of structural firefighter gear for all firefighters  
   - SOPs/SOGs for cleaning gear after a fire  
   - Gross decontamination of gear at the fireground  
   - Provide cleaning wipes for use on face/neck/hands  
   - Training to ‘shower within an hour’ after a fire  
   - Prohibit structural firefighter gear in living quarters of fire stations  
   - Other (please specify) ________  
   - None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
- Construction plans review  
- Permit approval  
- Permit inspections (for new construction)  
- Certificate of occupancy  
- Pre-incident planning  
- Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)  
- Hazard Mitigation Planning Assessment

If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
- Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)  
- Industrial chemical disasters  
- Transportation disasters  
- No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
- Full-time fire department inspectors  
- In-service (on duty) firefighters  
- Separate inspection bureau  
- Building department  
- State department/fire prevention bureau  
- No one  
- Other (please specify) ________________

32. What percentage of commercial or inspectable properties are inspected once a year?
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  
- Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
- Fire department fire investigator  
- Regional/state fire task force investigator  
- Incident command or other front line or company fire officer  
- Police department  
- Contract investigator  
- Insurance investigator  
- Other (please specify) ________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
- Youth firesetter program  
- School fire safety education program based on a national model curriculum  
- Car seat installation  
- Home fire sprinkler education  
- Cardiopulmonary Resuscitation (CPR) instruction  
- Wildfire safety program based on a national model program  
- Older adult fire safety program based on a national model program  
- Fire Prevention Week™ activities  
- Free distribution of home smoke alarms  
- Free installation of home smoke alarms  
- Other prevention program (please specify) ________________  
- No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
- Based on a Community Risk Assessment  
- Ensure diversity & inclusion based on your community’s demographics  
- Collect data on number of people reached  
- Measure impact over time  
- None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: _______  
Number of stations over 40 years old: _______

Number of stations having backup power: _______

Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): _______

Number of stations with private or separate facilities for men and women: _______

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumpers</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
- Yes, plan and budget  
- Plan only  
- No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle?
(check all that apply)  
- Certification or specific training
- Hands-on training using the actual vehicle
- Demonstration of competency at least once a year
- Formal driver’s training at least twice a year
- None of these

40. Portable radios.
A. What percentage of your on-duty emergency responders can be equipped with portable radios?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)

41. Self-contained breathing apparatus (SCBA).
A. What percentage of your on-duty emergency responders can be equipped with SCBA?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. What percentage of your SCBA are 10 years old or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

42. Personal alert safety system (PASS) devices.
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

43. Personal protective clothing.
A. How many of your emergency responders are equipped with personal protective clothing?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. How many of your department’s personal protective clothing is 10 years of age or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know
C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)
- Yes
- No
- Don’t know
D. Is your personal protective ensemble inspected and tested each year?  
- Inspected only
- Tested only
- Inspected and tested
- None of these
E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?
- We have laundering facilities
- We utilize an outside service
- We have our own facilities and use an outside service
- Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)
- Yes
- No
- Don’t know
B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

46. Dispatch.
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?
- PSAP that answers police, fire, and EMS calls
- PSAP that answers fire and EMS calls
- Police department
- Fire department
- Private company
B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?
- Yes
- No, the call is transferred to another center to be processed
C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?
- Yes
- No, we typically have call takers and separate dispatchers.
D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?
- Yes
- No, sometimes we cut back to one person on duty
- No, we never have two persons on duty
E. Do you also have a backup dispatch facility? (check one)
- Yes
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      □ Yes  □ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      □ 1  □ 2–5  □ 6–20  □ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      □ Less than 1 acre  □ 1–10 acres  □ 11–50 acres  □ 51–100 acres  □ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough  □ Regional  □ State  □ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough  □ Regional  □ State  □ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      □ Local would be enough  □ Regional  □ State  □ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      □ Yes, written agreement  □ Yes, informal  □ Yes, other (specify) ________________  □ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581?  □ Yes  □ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581?  □ Yes  □ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)  □ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)  □ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. ________________________________

2. ________________________________

3. ________________________________
PERSONAL PROTECTIVE EQUIPMENT

as part of

The Fifth Needs Assessment of the
US Fire Service

DECEMBER 2021
needs assessment of the united states fire service: personal protective equipment

fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. while department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials. the personal protective equipment (ppe) firefighters use must meet the needs of this ever-expanding list of roles, responsibilities, and missions.

much of firefighters’ work is dangerous, often exposing them to a wide variety of hazardous conditions and substances. the ppe needs of fire departments can range from traditional structural firefighting bunker gear to wildland ensembles and specialized safety equipment, such as personal alert safety system (pass) devices. fire departments not only need to have enough of this equipment to meet the needs of their firefighters, but they must also ensure that it can be properly maintained, cleaned, and stored. to help illustrate the changes in fire department best practices, we have included the response data related to cancer prevention and ppe in this module.

the covid-19 pandemic also impacted firefighters. this year’s survey included special questions to address how fire departments responded to this challenge.

understanding the survey
this fifth fire service needs assessment survey was conducted by nfpa beginning in 2020 and concluding in 2021. it follows earlier surveys completed in 2001, 2005, 2010, and 2015.

the goal of the survey was to identify the major needs of the us fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

survey responses were received from 2,969 fire departments of all sizes. you can learn more about the survey’s structure and analysis in appendix a.

all report sections:

- staffing and operations
- community risk reduction
- health and wellness
- facilities and apparatus
- wildland and wui firefighting
- changes across five studies
- personal protective equipment
- training and certification
- executive summary

needs assessment of the united states fire service
personal protective equipment, december 2021

nfpa research, quincy, ma
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehlmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-PPE
Survey Responses and Defining Unmet Need

The needs assessment study, as it has in the past, defines unmet need as not having the resources required to provide a service. For some questions, the survey asked about the extent of the need within the department. For example:

**Question: How many of your emergency responders are equipped with wildland fire personal protective clothing?**

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. *Unmet need* is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying appendix.

**Department Size and Nomenclature**

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
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Survey Results: Personal Protective Equipment

What we looked at: The Fifth Fire Service Needs Assessment Survey measured the availability and maintenance of PPE in the fire service. For information on the changes that have been made from study to study, please see our “Changes over Five Studies” module.

Key Takeaways:
- Across the fire service there are many unmet PPE-related needs, particularly in departments serving smaller communities.
- Overall, nearly two-thirds of departments have firefighters wearing personal protective clothing that is 10 years old or older. This unmet need can be found in departments serving communities of all sizes, including one-third of the large departments (which protect a population of half a million people or more). Among the smallest departments, more than three-quarters (76 percent) have at least some personal protective clothing that is 10 years of age or older.
- One-fifth (21 percent) of departments neither test nor inspect their personal protective ensembles each year, and only 13 percent both inspect and test their ensembles.

Providing Personal Protective Clothing

Most fire departments can equip all their emergency responders with personal protective clothing, but among smaller departments, there is still some need. Figure 1 below shows that 13 percent of all departments are unable to equip all their responders with personal protective clothing. Table A-1 in the appendix has detailed information on the responses to this survey question.

Figure 1: Departments’ ability to provide all responders with personal protective clothing (by size of community protected)
Replacing Personal Protective Equipment

Protecting emergency responders is not just about providing protective equipment; it is also about replacing equipment on a regular basis, and many firefighters are wearing personal protective equipment that is 10 years of age or older. The metric of 10 years of age or older is based on retirement schedules described in NFPA 1851, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.

While larger departments generally have newer personal protective clothing (PPC), there is unmet need across all departments. Figure 2 below and Table A-2 in the appendix show the extent of the problem. For example, 35 percent of all departments have no personal protective clothing that is 10 years of age or older, while the remaining 65 percent have at least some quantity of personal protective clothing that is 10 years of age or older or do not know how old their equipment is. For 6 percent of departments, all of their personal protective clothing is 10 years of age or older.

The need for newer equipment is prevalent across departments of all sizes, including nearly one-third of the large departments (which protect a population of half a million people or more). Among the smallest departments, the need is more pronounced: three-quarters (75 percent) of these departments have at least some personal protective clothing that is 10 years of age or older.

Figure 2: Departments with at least some personal protective clothing that is 10 years of age or older (by size of community protected)
Many departments also lack reserve personal protective clothing. As shown in Figure 3 below, half (50 percent) of the smallest departments do not have enough personal protective clothing in reserve, and there is at least some unmet need for reserves among departments of all sizes.

**Figure 3: Percent of departments lacking sufficient protective clothing to equip 10 percent of their emergency responders**

![Graph showing the percentage of departments lacking reserve personal protective clothing by population category.](image)

**Maintaining Personal Protective Equipment**

In addition to simply having enough PPE and making sure it is not outdated, departments must maintain their PPE in support of various firefighter health and safety initiatives. The survey looked at several areas of concern, such as inspection and testing, laundering, infection control programs, and cancer prevention best practices. The survey results show that many departments do not have the resources to properly maintain PPE.

**Inspection and Testing**

One-fifth (21 percent) of the departments indicated that they neither test nor inspect their personal protective ensembles each year, and only 13 percent indicated that they both inspect and test ensembles (See Figure 4).
Laundering

PPC (personal protective clothing) must also be cleaned regularly, as firefighters and their equipment can come into contact with hazardous materials that might linger on PPC without proper cleaning. Most departments have in-house laundering capabilities for PPC, but some (particularly smaller departments) do not. Table 1 shows that 80 percent of departments of all sizes either have their own facilities, use an outside service, or both. However, among the smallest departments, one-third (34 percent) do not have access to internal or external PPC laundering facilities or services.

Table 1: Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?

<table>
<thead>
<tr>
<th>Size of Department</th>
<th>We have our own facilities and use an outside service</th>
<th>We have laundering facilities</th>
<th>We utilize an outside service</th>
<th>Neither facilities nor outside service</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>48%</td>
<td>43%</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44%</td>
<td>56%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>33%</td>
<td>59%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>32%</td>
<td>65%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>22%</td>
<td>74%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>16%</td>
<td>77%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>13%</td>
<td>73%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>11%</td>
<td>66%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>4%</td>
<td>47%</td>
<td>15%</td>
<td>34%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>10%</td>
<td>59%</td>
<td>12%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Figure 4: Inspection and testing of protective ensembles by size of community protected
**Infection Control Programs**

PPE should also be decontaminated as part of exposure and infection control for firefighters, but many departments do not have the requisite programs or facilities for decontamination. Figures 5 and 6 below show that one-third of departments do not have an infection control/PPE decontamination program (infectious and communicable disease). This is an improvement from the 39 percent that did not have one of these programs in 2015.

**Figure 5: Fire departments with and without infection control/PPE decontamination programs (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>73</td>
<td>27</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>99</td>
<td>1</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94</td>
<td>6</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

*Percent of Fire Departments*
Thirty-seven percent of departments do not have an exposure control/PPE decontamination program (carcinogens and other toxic hazards), an improvement from 44 percent in the 2015 survey. The proportion of departments facing needs related to both types of decontamination is greater in smaller communities.

**Figure 6: Departments with and without exposure control/PPE decontamination programs (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>Yes: 63%  No: 37%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>Yes: 47%  No: 53%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>Yes: 66%  No: 34%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>Yes: 79%  No: 21%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>Yes: 86%  No: 14%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>Yes: 93%  No: 7%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>Yes: 94%  No: 6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>Yes: 96%  No: 4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>Yes: 94%  No: 6%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>Yes: 100%  No: 0%</td>
</tr>
</tbody>
</table>
Cancer Prevention Best Practices

PPE cleaning, decontamination, and storage are cancer prevention best practices for firefighters; however, many departments do not currently have the resources to engage in these practices. Figure 7 illustrates the use of PPE-related cancer prevention best practices by community size. Smaller departments, in particular, have many needs in this area. In addition, ensuring the availability of a second set of gear remains a challenge for all departments to varying degrees. This information was not collected in previous editions of the survey, so comparisons over time are not available.

Figure 7: Fire departments’ cancer prevention practices (by size of community protected)
Other Types of PPE

In addition to personal protective clothing for structural firefighting, there are other types of equipment that can help keep firefighters safe in dangerous environments. Not all departments are able to provide their members with this equipment.

Portable Radios

Figure 8 and Table A-3 show that only half of all US fire departments can equip all on-duty first responders with portable radios. This has remained relatively consistent since 2010 (See the “Changes over Five Studies” module.

Figure 8: Departments able and unable to equip all on-duty emergency responders with portable radios (by size of community protected)
Self-Contained Breathing Apparatus

Self-Contained Breathing Apparatus (SCBA) protect firefighters from smoke and airborne hazardous materials and are crucial for safe, effective operations on the fireground and other incident scenes. However, many departments do not have enough SCBA for all their on-duty responders.

Figure 9 and Table A-4 show that more than half (53 percent) of all fire departments cannot equip all of their on-duty emergency responders with SCBA. Departments protecting under 10,000 people have the highest rates of unmet need for SCBA.

**Figure 9: Departments able and unable to equip all on-duty emergency responders with SCBA (by size of community protected)**
Many departments use SCBA that is 10 years of age or older. As with other types of personal protective equipment and clothing, SCBA that is 10 years of age or older should be replaced per NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*. Figure 10 shows that more than half of departments use at least some SCBA that is 10 years of age or older. See Table A-5 in the Appendix for more information.

**Figure 10: Departments with at least some SCBA that is 10 years of age or older (by size of community protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Need Met</th>
<th>Unmet Need</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>39%</td>
<td>58%</td>
<td>2%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>29%</td>
<td>68%</td>
<td>3%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>42%</td>
<td>57%</td>
<td>2%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>47%</td>
<td>51%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>57%</td>
<td>42%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>63%</td>
<td>36%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>66%</td>
<td>32%</td>
<td>2%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>62%</td>
<td>35%</td>
<td>4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>78%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>500,000 or More</td>
<td>71%</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>
Personal Alert Safety System (PASS) Device

Overall, 26 percent of departments say they cannot equip all their on-duty emergency responders with personal alert safety system (PASS) devices. Figure 11 and Table A-6 show this need by the size of the community protected. The need for PASS devices is particularly pronounced among smaller departments. This need may be reflective of departments using older SCBA, as newer units feature an integrated PASS device. The results of this question are consistent with those from the 2015 survey; however, due to a change in the question format, we were unable to make direct comparisons over time.

**Figure 11: Departments able and unable to equip all firefighters who work in immediately dangerous to life or health (IDLH) environments with a PASS device (by size of community protected)**
Specialized PPE

There are certain operations where specialized PPE is required to respond to an incident safely and effectively.

Wildland

One such incident type is a wildland or WUI fire. The survey responses from departments that indicated that they do not respond to these types of fires were not included in this section. Figure 12 and Table A-7 indicate that while not all departments respond to wildland fires, there are many departments who do respond but cannot provide all firefighters with wildland personal protective clothing. Figure 12 shows that unmet need for wildland fire personal protective clothing can be found consistently across departments of all sizes.

Figure 12: Departments able and unable to equip all emergency responders with wildland fire personal protective clothing (by size of community protected)
Medical calls

Medical calls, particularly those where infectious diseases may be involved, also require specialized PPE to ensure firefighter safety. The COVID-19 pandemic brought this need into sharp focus. This year’s needs assessment survey asked departments about their ability to provide medical PPE to responders, both at the beginning of the pandemic and at the time the survey was taken. The survey did not contain an exhaustive list of examples or definitions of what exactly constitutes medical PPE because there is such a wide variety. As survey responses were submitted between September 2020 and February 2021, they generally came in six months to one year after the beginning of the pandemic in the United States. While there was an improvement between early 2020 and the time the survey was in the field, nearly half of all departments still had unmet needs for medical PPE at the time they completed the survey. Figures 13–14, Table 2, and Tables A-8–A-9 in the Appendix show the ability of departments to outfit responders with PPE at the beginning of the COVID-19 outbreak and when the survey was taken.

Figure 13: Ability of departments to equip all emergency responders with medical PPE at the beginning of the COVID-19 outbreak (by size of community)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Need Met</th>
<th>Unmet Need</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>37%</td>
<td>62%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>25%</td>
<td>73%</td>
<td>2%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>29%</td>
<td>70%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>42%</td>
<td>57%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>60%</td>
<td>39%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>75%</td>
<td>25%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>85%</td>
<td>15%</td>
<td>1%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>89%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Figure 14: Ability of departments to equip all emergency responders with medical PPE at the time of the survey (September 2020–February 2021) (by Size of Community)

Table 2: Change in departments that could outfit all of their responders with medical PPE from the beginning of the COVID-19 outbreak to the time of the survey (September 2020–February 2021)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Departments with Need Met (Beginning)</th>
<th>Departments with Need Met (Time of Survey)</th>
<th>Percentage Point Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>100%</td>
<td>+4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94%</td>
<td>100%</td>
<td>+6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>89%</td>
<td>96%</td>
<td>+7%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>85%</td>
<td>96%</td>
<td>+11%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>75%</td>
<td>91%</td>
<td>+16%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>60%</td>
<td>79%</td>
<td>+19%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>42%</td>
<td>63%</td>
<td>+21%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>29%</td>
<td>50%</td>
<td>+21%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>25%</td>
<td>39%</td>
<td>+14%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>37%</td>
<td>53%</td>
<td>+17%</td>
</tr>
</tbody>
</table>
Additional Resources and Education about PPE

NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, has information on the best practices for the selection, care, and maintenance of PPE.

NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, provides information on the minimum levels of protection required during structural and proximity firefighting operations to protect against thermal, physical, environmental, and bloodborne pathogen hazards.

The US Fire Administration (USFA) partners with the National Institute of Standards and Technology (NIST) on research projects to improve the protective qualities of clothing and equipment used by firefighters in operational situations. Information on current and recent projects is available on the USFA website: usfa.fema.gov/operations/ops_ppe.html. Additional information is also available on NIST’s website: nist.gov/el/fire-research-division-73300/firegov-fire-service/personal-protective-equipment.

The National Volunteer Fire Council has a series of educational videos about a wide variety of PPE-related topics: youtube.com/playlist?list=PLEhK0BfDztvdKr1c1IDtemsoyBy1-Lcm2.

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (www.nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix C.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
# Appendix B: Supporting Tables

## Table A-1: How many of your emergency responders are equipped with personal protective clothing?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>99%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>98%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>95%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>92%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>85%</td>
<td>11%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>83%</td>
<td>11%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>87%</td>
<td>9%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

## Table A-2: How many of your department’s personal protective clothing is 10 years of age or older?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>None (0%)</th>
<th>Few (1–25%)</th>
<th>Some (26–50%)</th>
<th>Many (51–75%)</th>
<th>Most (76–99%)</th>
<th>All (100%)</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>67%</td>
<td>29%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>72%</td>
<td>22%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81%</td>
<td>11%</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>77%</td>
<td>19%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>65%</td>
<td>22%</td>
<td>6%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>54%</td>
<td>27%</td>
<td>10%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>41%</td>
<td>29%</td>
<td>15%</td>
<td>8%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>35%</td>
<td>31%</td>
<td>15%</td>
<td>11%</td>
<td>6%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>24%</td>
<td>25%</td>
<td>17%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>35%</td>
<td>26%</td>
<td>15%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Table A-3: What percentage of your on-duty emergency responders can be equipped with portable radios?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>96%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>96%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>87%</td>
<td>8%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>77%</td>
<td>12%</td>
<td>5%</td>
<td>5%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>58%</td>
<td>17%</td>
<td>9%</td>
<td>11%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>46%</td>
<td>21%</td>
<td>15%</td>
<td>11%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>37%</td>
<td>18%</td>
<td>13%</td>
<td>16%</td>
<td>15%</td>
<td>1%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>50%</td>
<td>17%</td>
<td>11%</td>
<td>12%</td>
<td>9%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table A-4: What percentage of your on-duty emergency responders can be equipped with SCBA??

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>98%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>98%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>92%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>83%</td>
<td>10%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>61%</td>
<td>20%</td>
<td>11%</td>
<td>6%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>44%</td>
<td>22%</td>
<td>19%</td>
<td>13%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>28%</td>
<td>19%</td>
<td>21%</td>
<td>20%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>47%</td>
<td>18%</td>
<td>16%</td>
<td>13%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Table A-5: What percentage of your SCBA are 10 years old or older?

<table>
<thead>
<tr>
<th>Answers</th>
<th>None (0%)</th>
<th>Few (1–25%)</th>
<th>Some (26–50%)</th>
<th>Many (51–75%)</th>
<th>Most (76–99%)</th>
<th>All (100%)</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>71%</td>
<td>0%</td>
<td>4%</td>
<td>4%</td>
<td>13%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>78%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>62%</td>
<td>11%</td>
<td>5%</td>
<td>2%</td>
<td>5%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>66%</td>
<td>11%</td>
<td>4%</td>
<td>1%</td>
<td>2%</td>
<td>15%</td>
<td>2%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>63%</td>
<td>8%</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>57%</td>
<td>7%</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
<td>22%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>47%</td>
<td>9%</td>
<td>5%</td>
<td>4%</td>
<td>6%</td>
<td>27%</td>
<td>2%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>42%</td>
<td>7%</td>
<td>7%</td>
<td>4%</td>
<td>8%</td>
<td>31%</td>
<td>2%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>29%</td>
<td>9%</td>
<td>8%</td>
<td>5%</td>
<td>7%</td>
<td>40%</td>
<td>3%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>39%</td>
<td>8%</td>
<td>7%</td>
<td>4%</td>
<td>6%</td>
<td>32%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table A-6: How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>99%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>99%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>97%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>93%</td>
<td>3%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>83%</td>
<td>6%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>78%</td>
<td>5%</td>
<td>7%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>58%</td>
<td>9%</td>
<td>6%</td>
<td>8%</td>
<td>6%</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>72%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Table A-7: How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Wildland Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>54%</td>
<td>4%</td>
<td>0%</td>
<td>4%</td>
<td>8%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>22%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>31%</td>
<td>2%</td>
<td>0%</td>
<td>1%</td>
<td>12%</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>30%</td>
<td>2%</td>
<td>1%</td>
<td>5%</td>
<td>10%</td>
<td>13%</td>
<td>38%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>20%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>6%</td>
<td>19%</td>
<td>43%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>23%</td>
<td>6%</td>
<td>3%</td>
<td>5%</td>
<td>9%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>26%</td>
<td>12%</td>
<td>5%</td>
<td>6%</td>
<td>13%</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>28%</td>
<td>13%</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>34%</td>
<td>14%</td>
<td>8%</td>
<td>9%</td>
<td>11%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>30%</td>
<td>12%</td>
<td>7%</td>
<td>8%</td>
<td>11%</td>
<td>20%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table A-8: At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94%</td>
<td>0%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>89%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>85%</td>
<td>7%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>75%</td>
<td>9%</td>
<td>5%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>60%</td>
<td>10%</td>
<td>6%</td>
<td>11%</td>
<td>9%</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>42%</td>
<td>13%</td>
<td>7%</td>
<td>14%</td>
<td>16%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>29%</td>
<td>13%</td>
<td>10%</td>
<td>16%</td>
<td>19%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>25%</td>
<td>7%</td>
<td>7%</td>
<td>14%</td>
<td>25%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>37%</td>
<td>9%</td>
<td>7%</td>
<td>13%</td>
<td>19%</td>
<td>13%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Table A-9: What percent of your emergency responders can you currently outfit with medical PPE?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>96%</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>96%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>91%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>79%</td>
<td>10%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>63%</td>
<td>12%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>50%</td>
<td>15%</td>
<td>9%</td>
<td>11%</td>
<td>9%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>39%</td>
<td>12%</td>
<td>8%</td>
<td>14%</td>
<td>14%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>53%</td>
<td>12%</td>
<td>7%</td>
<td>10%</td>
<td>10%</td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>
**PART I. BASIC INFORMATION**

Name of person completing form: 

Rank/Title: 

NFIRS/FDID: 

E-mail address: 

Phone: ( )

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): 

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): 

3. Number of buildings in community that are 3 or more stories in height (check one):
   - None
   - 1–4
   - 5–10
   - 11–24
   - 25–49
   - 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: 
   - Fundraising: 
   - Payment per call/Contract services: 
   - Ambulance Billing: 
   - Fees: 
   - Insurance: 
   - SAFER/AFG or similar grants: 
   - Other: (specify) 

**PART II. PERSONNEL AND THEIR CAPABILITIES**

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, '0' for no change, and a positive number for gains.)
   - Firefighters: 
   - Enforcement: 
   - Education: 
   - Risk Reduction: 
   - Administration: 

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices? 
   - Yes
   - No

7. Total number of full-time (career) uniformed firefighters: 
   (If none, go to Question 12):
   - How many are female? 
   - Average number of full-time career / paid firefighters on duty available to respond to emergencies: 

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one): 
   - 1
   - 2
   - 3
   - 4
   - 5+ 
   - Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one): 
   - 1
   - 2
   - 3
   - 4
   - 5+ 
   - Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one): 
    - 1
    - 2
    - 3
    - 4
    - 5+ 
    - Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one): 
    - 1
    - 2
    - 3
    - 4
    - 5+ 
    - Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ____
   How many are female? ____
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days _____ Nights _____
   During weekends: Days _____ Nights _____

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities? ______
   If any, fill only those roles. Check all that apply.
   □ First aid  □ Directing traffic  □ Command post ops  □ Rehab  □ Water supply  □ Communications
   □ Logistics  □ Other (specify): ___________________________

   A. Is this a role your fire department performs? (check one)  □ Yes  □ No
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one)  □ Yes  □ No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification ______%  b. EMR: Emergency Medical Responder ______%  c. EMT: Emergency Medical Technician ______%  d. AEMT: Advanced Emergency Medical Technician ______%  e. Paramedic ______%
   C. Does your community provide ambulance services?  □ Yes: Fire Department Based Service  □ Yes: Government or Third Service  □ Yes: Hospital Based  □ Yes: Private  □ Yes: Other (specify) ______  □ No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations?  □ Yes  □ No

   A. Is this a service your fire department provides? (check one)  □ Yes  □ No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification ______%  b. Awareness ______%  c. Operational ______%  d. Technician ______%

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one)  □ Yes  □ No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?  □ Yes  □ No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one)  □ Yes  □ No (If no, go to Question 18)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      □ None (0%)  □ Few (1–25%)  □ Some (26–50%)  □ Many (51–75%)  □ Most (76–99%)  □ All (100%)
   A. Is this a role your fire department performs? (check one)  
      □ Yes □ No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
      □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%)

20. Active shooter response.
   A. Is this a role your fire department performs? (check one)  
      □ Yes □ No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)  
      □ Yes □ No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
      □ Yes □ No

21. Traffic control.
   A. Is this a role your department performs? (check one)  
      □ Yes □ No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
      □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%)

22. Basic firefighter fitness and health.
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)  
      □ Yes □ No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?  
      □ Yes □ No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?  
      □ Yes □ No (If no, skip to Question 23)
   D. How often?  
      □ New firefighters only □ Every six months or annually □ Every two years □ Every three years □ Other ______
   E. Does this program include a fitness assessment for all firefighters?  
      □ Yes □ No (if no, skip to question 23)
   F. How often?  
      □ New firefighters only □ Every six months or annually □ Every two years □ Every three years □ Other ______

23. Does your department have a Behavioral Health Program?  
      □ Yes □ No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)?
   □ Fitness for duty evaluation □ Post-Traumatic Stress support □ Relationship with a Behavior Specialist
   □ Cancer prevention education □ Trained behavioral peer support □ Volunteer clinical interventions
   □ Physical health education □ Behavioral health education □ Wellness preventative education
   □ Heart attack prevention education □ Suicide prevention education □ Other (please specify): __________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?  
      □ Yes—Department actively tracks □ Yes—Mechanism for individuals □ Yes—Both □ No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one)  
      □ Yes □ No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one)  
      □ Yes □ No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply)
   □ 02 (Oxygen) □ HCN (Cyanide) □ CO (Carbon Monoxide) □ Volatile Organic Compound (VOC)
   □ Other (please specify) __________ □ Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply)
   □ Cancer screening program □ Second set of structural firefighter gear for all firefighters
   □ SOPs/SOGs for cleaning gear after a fire □ Gross decontamination of gear at the fireground
   □ Provide cleaning wipes for use on face/neck/hands □ Training to ‘shower within an hour’ after a fire
   □ Prohibit structural firefighter gear in living quarters of fire stations □ Other (please specify) __________ □ None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment
     - If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
       - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
       - Industrial chemical disasters
       - Transportation disasters
       - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) ________________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) ________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Home safety visits
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) ______________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community's demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: ________
   - Number of stations over 40 years old: ________
   - Number of stations having backup power: ________
   - Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): ________
   - Number of stations with private or separate facilities for men and women: ________

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumpers</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)  
- Certification or specific training  
- Hands-on training using the actual vehicle  
- Demonstration of competency at least once a year  
- Formal driver’s training at least twice a year  
- None of these

40. Portable radios.  
A. What percentage of your on-duty emergency responders can be equipped with portable radios?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

41. Self-contained breathing apparatus (SCBA).  
A. What percentage of your on-duty emergency responders can be equipped with SCBA?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

B. What percentage of your SCBA are 10 years old or older?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

42. Personal alert safety system (PASS) devices.  
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

B. Is your personal protective ensemble inspected and tested each year?  
- Inspected only  
- Tested only  
- Inspected and tested  
- None of these

43. Personal protective clothing.  
A. How many of your emergency responders are equipped with personal protective clothing?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

B. How many of your department’s personal protective clothing is 10 years of age or older?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)  
- Yes  
- No  
- Don’t know

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.  
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)  
- Yes  
- No  
- Don’t know

B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?  
- None (0%)  
- Few (1–25%)  
- Some (26–50%)  
- Many (51–75%)  
- Most (76–99%)  
- All (100%)  

46. Dispatch.  
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?  
- PSAP that answers police, fire, and EMS calls  
- PSAP that answers fire and EMS calls  
- Police department  
- Fire department  
- Private company

B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?  
- Yes  
- No, the call is transferred to another center to be processed

C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?  
- Yes  
- No, we typically have call takers and separate dispatchers.

D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?  
- Yes  
- No, sometimes we cut back to one person on duty  
- No, we never have two persons on duty

E. Do you also have a backup dispatch facility? (check one)  
- Yes  
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      ☐ Yes ☐ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      ☐ 1 ☐ 2–5 ☐ 6–20 ☐ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      ☐ Less than 1 acre ☐ 1–10 acres ☐ 11–50 acres ☐ 51–100 acres ☐ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough ☐ Regional ☐ State ☐ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough ☐ Regional ☐ State ☐ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      ☐ Local would be enough ☐ Regional ☐ State ☐ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      ☐ Yes, written agreement ☐ Yes, informal ☐ Yes, other (specify) ____________________________ ☐ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581? ☐ Yes ☐ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581? ☐ Yes ☐ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
      ☐ None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%) ☐ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
      ☐ None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%) ☐ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. __________________________________________________________

2. __________________________________________________________

3. __________________________________________________________
COMMUNITY RISK REDUCTION

as part of

The Fifth Needs Assessment of the US Fire Service

DECEMBER 2021

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Needs Assessment of the United States Fire Service: Community Risk Reduction

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

Fire departments are increasingly responsible not only for responding to emergencies but for preventing them as well. Community risk reduction is a process for identifying and prioritizing local risks and ensuring the integrated and strategic investment of resources to reduce their occurrence and impact (NFPA 1300, 2020, 3.3.4). Community risk reduction activities take many forms, as they are all specific to a community’s characteristics, needs, and capacity. Some common community risk reduction activities include code inspections and public education. These tasks often require specialized skills and training that fall outside of normal emergency response duties.

This report analyzes fire departments’ responsibility for and ability to train and equip their personnel for various community risk reduction activities.

Understanding the Survey
This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehlmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-CRR
**Survey Responses and Defining Unmet Need**

The needs assessment study, as it has in the past, defines *unmet need* as not having the resources required to provide a service. For some questions, the survey asked about the *extent* of the need within the department. For example:

**Question:** How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. *Unmet need* is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

**Department Size and Nomenclature**

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
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Survey Results: Community Risk Reduction

What we looked at: The Fifth Fire Service Needs Assessment measured the resources of United States fire departments to see if they have what they need to conduct community risk reduction (CRR) activities. To see the changes in these categories from study to study, please see the “Changes Over Five Studies”.

Key Takeaways:
- Most fire departments (77 percent) engage in fire prevention (preparedness and mitigation) activities, but only 37 percent are responsible for code enforcement.
- One-third of all departments have a hazard mitigation planning risk assessment program that includes natural disasters, while fewer departments have plans for transportation and industrial/chemical disasters.
- Fire Prevention Week activities are the most common public education activity overall, with nearly two-thirds (65 percent) of the departments participating.

Fire Prevention
More than three-quarters (77 percent) of the fire departments in the United States engage in fire prevention (preparedness and mitigation) activities. Nearly all departments protecting 25,000 or more people conduct these activities, as do about two-thirds (65 percent) of the smallest departments (Figure 1).

Figure 1: Departments responsible for fire prevention (preparedness and mitigation) (by size of population protected)

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Is this a role your fire department performs? - Fire prevention (preparedness &amp; mitigation).</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>77%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>65%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>80%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>89%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>93%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>98%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>99%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>99%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>100%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>100%</td>
</tr>
</tbody>
</table>

Percent of Fire Departments

Yes □ No ■
Despite fire prevention being a common responsibility of fire departments, most have not formally trained all of their responsible personnel. Even in the largest departments (those protecting 500,000 or more people), nearly three in ten (29 percent) have not trained everyone. See Figure 2 below and Table A-1 in the Appendix.

**Figure 2: Departments that have formally trained all of their personnel responsible for fire prevention (by size of population protected)**

Table 1 below shows engineering programs that some departments conduct. About 56 percent of all departments have a pre-incident planning program, the most common programs asked about in the survey. One-third (33 percent) of the departments engage in construction plans review. Three in ten (31 percent) do not conduct any of the listed activities. Table A-2 in the Appendix has more detailed information about the responses to this question by community size.

**Table 1: Which of the following engineering programs or activities does your department conduct? (check all that apply)**

<table>
<thead>
<tr>
<th>Engineering Program</th>
<th>Percent of All Departments with Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-incident planning</td>
<td>56%</td>
</tr>
<tr>
<td>Construction plans review</td>
<td>33%</td>
</tr>
<tr>
<td>Hazard mitigation planning assessment</td>
<td>25%</td>
</tr>
<tr>
<td>Permit inspections (for new construction)</td>
<td>24%</td>
</tr>
<tr>
<td>Certificate of occupancy</td>
<td>22%</td>
</tr>
<tr>
<td>Permit approval</td>
<td>21%</td>
</tr>
<tr>
<td>Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)</td>
<td>20%</td>
</tr>
<tr>
<td>None of these</td>
<td>31%</td>
</tr>
</tbody>
</table>
One-third of the departments with hazard mitigation planning risk assessment programs have plans for natural disasters, while fewer departments have plans for transportation and industrial/chemical disasters.

**Figure 3: Departments with different types of hazard mitigation programs (by size of population protected)**

If you have a hazard mitigation planning risk assessment program, which incidents are included?

- Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
- Transportation disasters
- Industrial chemical disasters
- No such engineering programs
Code Enforcement and Fire Investigations

Figure 4 shows that 37 percent of fire departments perform code enforcement. This activity is much more common among larger departments.

**Figure 4: Departments responsible for code enforcement (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Percent of Fire Departments</th>
<th>Is this a role your fire department performs? - Code enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>81%</td>
<td>19%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>92%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Even among departments that have code enforcement responsibilities, many have not formally trained all of their responsible staff, as shown in Figure 5 and Table A-3 in the Appendix.

Figure 5: Departments that have formally trained all of their personnel responsible for code enforcement (by size of population protected)

Table 2 shows who conducts fire code inspections in communities by the size of the population protected. Overall, a state department/fire prevention bureau is most commonly responsible for inspections (24 percent); however, in larger departments, full-time inspectors are much more common.

Table 2: Who conducts fire code inspections in your community? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>State Department/ Fire Prevention Bureau</th>
<th>Full-Time Fire Department Inspectors</th>
<th>Building Dept.</th>
<th>In-Service (On-Duty) Firefighters</th>
<th>Separate Inspection Bureau</th>
<th>Other</th>
<th>No One</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>8%</td>
<td>92%</td>
<td>17%</td>
<td>29%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>50%</td>
<td>11%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>10%</td>
<td>95%</td>
<td>17%</td>
<td>27%</td>
<td>7%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>14%</td>
<td>87%</td>
<td>18%</td>
<td>41%</td>
<td>11%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>13%</td>
<td>77%</td>
<td>25%</td>
<td>33%</td>
<td>8%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>15%</td>
<td>56%</td>
<td>23%</td>
<td>34%</td>
<td>11%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>24%</td>
<td>28%</td>
<td>25%</td>
<td>27%</td>
<td>14%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>25%</td>
<td>10%</td>
<td>22%</td>
<td>20%</td>
<td>11%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>27%</td>
<td>7%</td>
<td>15%</td>
<td>9%</td>
<td>13%</td>
<td>12%</td>
<td>26%</td>
</tr>
<tr>
<td>All Departments</td>
<td>24%</td>
<td>22%</td>
<td>19%</td>
<td>18%</td>
<td>12%</td>
<td>11%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Needs Assessment of the United States Fire Service
Community Risk Reduction, December 2021
CRR-9
NFPA Research, Quincy, MA
Table 3 shows that most departments (88 percent overall) do not inspect all commercial inspectable properties once a year. Smaller departments are much less likely to be responsible for conducting inspections.

Table 3: What percentage of commercial or inspectable properties are inspected once a year?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>Not Responsible for Conducting Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>4%</td>
<td>17%</td>
<td>17%</td>
<td>38%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>11%</td>
<td>33%</td>
<td>28%</td>
<td>22%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>14%</td>
<td>16%</td>
<td>23%</td>
<td>30%</td>
<td>15%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>22%</td>
<td>22%</td>
<td>16%</td>
<td>25%</td>
<td>12%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>16%</td>
<td>24%</td>
<td>18%</td>
<td>24%</td>
<td>12%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>17%</td>
<td>27%</td>
<td>14%</td>
<td>18%</td>
<td>15%</td>
<td>1%</td>
<td>9%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>14%</td>
<td>14%</td>
<td>12%</td>
<td>13%</td>
<td>19%</td>
<td>4%</td>
<td>24%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>13%</td>
<td>10%</td>
<td>6%</td>
<td>11%</td>
<td>19%</td>
<td>8%</td>
<td>33%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>10%</td>
<td>6%</td>
<td>4%</td>
<td>7%</td>
<td>18%</td>
<td>15%</td>
<td>41%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>12%</td>
<td>11%</td>
<td>8%</td>
<td>11%</td>
<td>17%</td>
<td>10%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Table 4 shows that the responsibility for determining if a fire was deliberately set varies from community to community. Two-thirds (68 percent) of the departments indicated that a regional or state fire task force investigator makes the determination. Thirty-eight percent said that a fire department investigator determines if a fire was deliberately set, a role more common among larger departments.

Table 4: Who determines if a fire was deliberately set? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Regional/State Fire Task Force Investigator</th>
<th>Fire Department Investigator</th>
<th>Incident Command or Other Frontline or Company Fire Officer</th>
<th>Police Dept.</th>
<th>Contract Investigator</th>
<th>Insurance Investigator</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>17%</td>
<td>96%</td>
<td>17%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>17%</td>
<td>100%</td>
<td>22%</td>
<td>6%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>23%</td>
<td>95%</td>
<td>23%</td>
<td>25%</td>
<td>2%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>40%</td>
<td>94%</td>
<td>29%</td>
<td>28%</td>
<td>1%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>47%</td>
<td>85%</td>
<td>22%</td>
<td>32%</td>
<td>3%</td>
<td>14%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>60%</td>
<td>73%</td>
<td>34%</td>
<td>27%</td>
<td>2%</td>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>69%</td>
<td>48%</td>
<td>36%</td>
<td>24%</td>
<td>5%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>69%</td>
<td>34%</td>
<td>36%</td>
<td>22%</td>
<td>4%</td>
<td>21%</td>
<td>8%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>74%</td>
<td>21%</td>
<td>30%</td>
<td>18%</td>
<td>2%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>All Departments</td>
<td>68%</td>
<td>38%</td>
<td>32%</td>
<td>21%</td>
<td>3%</td>
<td>18%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Public Education

Fire departments engage in a variety of public education activities to help keep their communities safe from fire and other hazards. These activities are not uniform across the US fire service, as some are more common than others. Figure 6 shows that Fire Prevention Week activities are the most common public education activity overall, with nearly two-thirds (65 percent) of the departments participating.

Figure 6: Education programs conducted by fire departments

Public education activities vary by the size of the population protected by a department. For example, 88 percent of the departments protecting at least 500,000 people have a youth firesetter program, but only 5 percent of the departments protecting fewer than 2,500 people do. Three-quarters (75 percent) of the departments protecting at least 500,000 people have an older adult fire safety program, while only 3 percent of the departments protecting 2,500 people or less do. Tables 5-A through 5-C show the proportion of the departments with various public education programs by the population protected. Table 5-A shows the most common programs, while Tables 5-B and 5-C show less common programs.
Table 5-A: Which of the following education programs or activities does your department conduct? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Fire Prevention Week Activities</th>
<th>School Fire Safety Education Program Based on a National Model Curriculum</th>
<th>Free Distribution of Home Smoke Alarms</th>
<th>Free Installation of Home Smoke Alarms</th>
<th>Cardiopulmonary Resuscitation (CPR) Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>96%</td>
<td>92%</td>
<td>88%</td>
<td>96%</td>
<td>58%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>83%</td>
<td>83%</td>
<td>72%</td>
<td>78%</td>
<td>67%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>90%</td>
<td>69%</td>
<td>80%</td>
<td>80%</td>
<td>65%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>85%</td>
<td>75%</td>
<td>75%</td>
<td>78%</td>
<td>68%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>90%</td>
<td>71%</td>
<td>74%</td>
<td>79%</td>
<td>65%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>85%</td>
<td>70%</td>
<td>64%</td>
<td>67%</td>
<td>56%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>77%</td>
<td>63%</td>
<td>55%</td>
<td>58%</td>
<td>49%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>71%</td>
<td>49%</td>
<td>48%</td>
<td>47%</td>
<td>38%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>51%</td>
<td>32%</td>
<td>33%</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>All Departments</td>
<td>65%</td>
<td>47%</td>
<td>46%</td>
<td>45%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Table 5-B: Which of the following education programs or activities does your department conduct? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Home Safety Visits</th>
<th>Youth Firesetter program</th>
<th>No Education Program</th>
<th>Car Seat Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>67%</td>
<td>88%</td>
<td>0%</td>
<td>38%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>33%</td>
<td>72%</td>
<td>0%</td>
<td>50%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>33%</td>
<td>67%</td>
<td>0%</td>
<td>31%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>39%</td>
<td>63%</td>
<td>1%</td>
<td>42%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>38%</td>
<td>55%</td>
<td>1%</td>
<td>35%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>40%</td>
<td>35%</td>
<td>2%</td>
<td>34%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>27%</td>
<td>19%</td>
<td>4%</td>
<td>19%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>21%</td>
<td>9%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>12%</td>
<td>5%</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td>All Departments</td>
<td>21%</td>
<td>15%</td>
<td>14%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Table 5-C: Which of the following education programs or activities does your department conduct? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Older Adult Fire Safety Program Based on a National Model Program</th>
<th>Wildfire Safety Program Based on a National Model Program</th>
<th>Home Fire Sprinkler Education</th>
<th>Other Prevention Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>75%</td>
<td>38%</td>
<td>42%</td>
<td>38%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44%</td>
<td>28%</td>
<td>17%</td>
<td>28%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>30%</td>
<td>14%</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>39%</td>
<td>11%</td>
<td>26%</td>
<td>13%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>32%</td>
<td>9%</td>
<td>23%</td>
<td>11%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>22%</td>
<td>8%</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>17%</td>
<td>9%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>8%</td>
<td>8%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>3%</td>
<td>10%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>All Departments</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Some public education programs incorporate elements designed around the needs of the community. However, most fire departments do not incorporate these elements into their programs. Less than one-quarter (24 percent) of all departments base their public education programs on community risk assessments. Only 15 percent of departments indicated that their public education programs ensure diversity and inclusion and only 13 percent collect data on the number of people reached. These elements are more likely to be incorporated into the programs of larger departments than smaller ones (Figure 7).

Figure 7: Public education program features (by size of population protected)
Additional Resources and Education About Community Risk Reduction

- NFPA community risk reduction (CRR) resources: nfpa.org/crr
- NFPA 1300, *Standard on Community Risk Assessment and Community Risk Reduction Plan Development*: nfpa.org/1300
- USFA fire prevention resources: usfa.fema.gov/prevention
- Vision 20/20 CRR Connect: strategicfire.org/crr

Previous studies are available at nfpa.org/needsassessment, as well as through NFPA’s Library (nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix C.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
### Table A-1: What percentage of the personnel who perform this duty (Fire Prevention) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>71%</td>
<td>4%</td>
<td>0%</td>
<td>8%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>39%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>53%</td>
<td>7%</td>
<td>5%</td>
<td>10%</td>
<td>21%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>42%</td>
<td>6%</td>
<td>8%</td>
<td>7%</td>
<td>36%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>31%</td>
<td>7%</td>
<td>6%</td>
<td>15%</td>
<td>35%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>20%</td>
<td>8%</td>
<td>8%</td>
<td>13%</td>
<td>43%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>10%</td>
<td>5%</td>
<td>6%</td>
<td>16%</td>
<td>43%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>7%</td>
<td>3%</td>
<td>6%</td>
<td>15%</td>
<td>38%</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
<td>12%</td>
<td>28%</td>
<td>13%</td>
<td>35%</td>
</tr>
<tr>
<td>All Departments</td>
<td>10%</td>
<td>4%</td>
<td>6%</td>
<td>13%</td>
<td>34%</td>
<td>10%</td>
<td>23%</td>
</tr>
</tbody>
</table>
Table A-2: Which of the following engineering programs or activities does your department conduct? (check all that apply)

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>Pre-Incident Planning</th>
<th>Construction Plans Review</th>
<th>Hazard Mitigation Planning Assessment</th>
<th>Permit Inspections (for New Construction)</th>
<th>Certificate of Occupancy</th>
<th>Permit Approval</th>
<th>Routine Testing of Active Automatic Systems (e.g., Fire Sprinkler, Detection/Alarm, Smoke Control)</th>
<th>None of These</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>83%</td>
<td>83%</td>
<td>50%</td>
<td>92%</td>
<td>75%</td>
<td>79%</td>
<td>54%</td>
<td>0%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>94%</td>
<td>83%</td>
<td>72%</td>
<td>83%</td>
<td>61%</td>
<td>83%</td>
<td>56%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>86%</td>
<td>88%</td>
<td>58%</td>
<td>84%</td>
<td>64%</td>
<td>78%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>90%</td>
<td>91%</td>
<td>53%</td>
<td>81%</td>
<td>65%</td>
<td>74%</td>
<td>60%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>84%</td>
<td>84%</td>
<td>45%</td>
<td>68%</td>
<td>61%</td>
<td>59%</td>
<td>54%</td>
<td>3%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>78%</td>
<td>73%</td>
<td>40%</td>
<td>58%</td>
<td>51%</td>
<td>47%</td>
<td>43%</td>
<td>5%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>68%</td>
<td>52%</td>
<td>28%</td>
<td>35%</td>
<td>30%</td>
<td>26%</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>62%</td>
<td>28%</td>
<td>26%</td>
<td>18%</td>
<td>17%</td>
<td>16%</td>
<td>18%</td>
<td>28%</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>41%</td>
<td>11%</td>
<td>16%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>9%</td>
<td>47%</td>
</tr>
<tr>
<td>All Departments</td>
<td>56%</td>
<td>33%</td>
<td>25%</td>
<td>24%</td>
<td>22%</td>
<td>21%</td>
<td>20%</td>
<td>31%</td>
</tr>
</tbody>
</table>
Table A-3: If yes, what percentage of the personnel who perform this duty (Code enforcement) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Code Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>67%</td>
<td>8%</td>
<td>0%</td>
<td>4%</td>
<td>13%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>28%</td>
<td>0%</td>
<td>6%</td>
<td>11%</td>
<td>33%</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>44%</td>
<td>10%</td>
<td>4%</td>
<td>5%</td>
<td>19%</td>
<td>1%</td>
<td>17%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>39%</td>
<td>4%</td>
<td>3%</td>
<td>5%</td>
<td>30%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>33%</td>
<td>7%</td>
<td>4%</td>
<td>7%</td>
<td>31%</td>
<td>0%</td>
<td>18%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>20%</td>
<td>5%</td>
<td>2%</td>
<td>10%</td>
<td>33%</td>
<td>1%</td>
<td>29%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
<td>8%</td>
<td>29%</td>
<td>1%</td>
<td>51%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>23%</td>
<td>2%</td>
<td>64%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>13%</td>
<td>1%</td>
<td>81%</td>
</tr>
<tr>
<td>All Departments</td>
<td>8%</td>
<td>2%</td>
<td>1%</td>
<td>4%</td>
<td>20%</td>
<td>1%</td>
<td>63%</td>
</tr>
</tbody>
</table>
PART I. BASIC INFORMATION

Name of person completing form: ____________________________

Rank/Title: ____________________________________________

NFIRS/FDID: __________________________________________

E-mail address: ____________________________ Phone: (____)_____

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): __________

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): __________

3. Number of buildings in community that are 3 or more stories in height (check one):
   - None
   - 1–4
   - 5–10
   - 11–24
   - 25–49
   - 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: __________
   - Fundraising: __________
   - Payment per call/Contract services: __________
   - Ambulance Billing: __________
   - Fees: __________
   - Insurance: __________
   - SAFER/AFG or similar grants: __________
   - Other: (specify) __________

PART II. PERSONNEL AND THEIR CAPABILITIES

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ______
   - Enforcement: ______
   - Education: ______
   - Risk Reduction: ______
   - Administration: ______

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  
   - Yes  
   - No

7. Total number of full-time (career) uniformed firefighters: ______ (If none, go to Question 12):
   - How many are female? ______
   - Average number of full-time career / paid firefighters on duty available to respond to emergencies: ______

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - 1
   - 2
   - 3
   - 4
   - 5+
   - Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    - 1
    - 2
    - 3
    - 4
    - 5+
    - Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: ______
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days ______ Nights ______
   During weekends: Days ______ Nights ______

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?
   If any, fill only those roles. Check all that apply.
   - First aid
   - Directing traffic
   - Command post ops
   - Rehab
   - Water supply
   - Communications
   - Logistics
   - Other (specify): _______________________________

   A. Is this a role your fire department performs? (check one), (If no, go to Question 15) Yes ☐ No ☐
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one) Yes ☐ No (skip to 15C) ☐
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      - No certification _______%
      - EMR: Emergency Medical Responder _______%
      - EMT: Emergency Medical Technician _______%
      - AEMT: Advanced Emergency Medical Technician _______%
      - Paramedic _______%
   C. Does your community provide ambulance services? Yes: Fire Department Based Service ☐ Yes: Government or Third Service ☐ Yes: Hospital Based ☐ Yes: Private ☐ Yes: Other (specify) _______ ☐ No ambulance service ☐
   D. Does your fire department provide Tactical EMS for law enforcement operations? Yes ☐ No ☐

   A. Is this a service your fire department provides? (check one) Yes ☐ No (If no, go to Question 17) ☐
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      - No certification _______%
      - Awareness _______%
      - Operational_______%
      - Technician_______%

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one) Yes ☐ No (If no, go to Question 18) ☐
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training? Yes ☐ No ☐
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one) Yes ☐ No ☐
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      - None (0%) ☐ Few (1–25%) ☐ Some (26–50%) ☐ Many (51–75%) ☐ Most (76–99%) ☐ All (100%)
19. **Code enforcement.**
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)  

20. **Active shooter response.**
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)
      - Yes  
      - No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
      - Yes  
      - No

21. **Traffic control.**
   A. Is this a role your department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)  

22. **Basic firefighter fitness and health.**
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)
      - Yes  
      - No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?
      - Yes  
      - No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?
      - Yes  
      - No
   D. How often?
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other
   E. Does this program include a fitness assessment for all firefighters?
      - Yes  
      - No (if no, skip to question 22)
   F. How often?
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other

23. **Does your department have a Behavioral Health Program?**  
   - Yes  
   - No (If no, go to Question 25)

24. **Which of the following are included in your behavioral health program** (check all that apply)?
   - Fitness for duty evaluation  
   - Cancer prevention education  
   - Physical health education  
   - Heart attack prevention education  
   - Post-Traumatic Stress support  
   - Trained behavioral peer support  
   - Behavioral health education  
   - Suicide prevention education  
   - Relationship with a Behavior Specialist  
   - Volunteer clinical interventions  
   - Wellness preventative education  
   - Other (please specify): __________

25. **Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?**  
   - Yes—Department actively tracks  
   - Yes—Mechanism for individuals  
   - Yes—Both  
   - No—None of these

26. **Does your department have an Infection Control / PPE Decontamination Program** (infectious and communicable disease hazards)? (check one)
   - Yes  
   - No

27. **Does your department have an Exposure Control / PPE Decontamination Program** (carcinogen and other toxic hazards)? (check one)
   - Yes  
   - No

28. **Which of the following air quality measures does your department monitor at the fireground?** (check all that apply)
   - Oxygen (Oxygen)  
   - HCN (Cyanide)  
   - CO (Carbon Monoxide)  
   - Volatile Organic Compound (VOC)  
   - Other (please specify) __________  
   - Do not monitor

29. **Which of the following cancer prevention best practices apply to your department?** (check all that apply)
   - Cancer screening program  
   - Second set of structural firefighter gear for all firefighters  
   - SOPs/SOGs for cleaning gear after a fire  
   - Gross decontamination of gear at the fireground  
   - Provide cleaning wipes for use on face/neck/hands  
   - Training to ‘shower within an hour’ after a fire  
   - Prohibit structural firefighter gear in living quarters of fire stations  
   - Other (please specify) __________  
   - None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - Construction plans review
   - Permit approval
   - Permit inspections (for new construction)
   - Certificate of occupancy
   - Pre-incident planning
   - Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - Hazard Mitigation Planning Assessment
     - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
     - Industrial chemical disasters
     - Transportation disasters
     - No such engineering programs

   If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
   - Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
   - Industrial chemical disasters
   - Transportation disasters
   - No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - Full-time fire department inspectors
   - In-service (on duty) firefighters
   - Separate inspection bureau
   - Building department
   - State department/fire prevention bureau
   - No one
   - Other (please specify) ________________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - Fire department fire investigator
   - Regional/state fire task force investigator
   - Incident command or other front line or company fire officer
   - Police department
   - Contract investigator
   - Insurance investigator
   - Other (please specify) ________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - Youth firesetter program
   - School fire safety education program based on a national model curriculum
   - Car seat installation
   - Home fire sprinkler education
   - Home safety visits
   - Cardiopulmonary Resuscitation (CPR) instruction
   - Wildfire safety program based on a national model program
   - Older adult fire safety program based on a national model program
   - Fire Prevention Week™ activities
   - Free distribution of home smoke alarms
   - Free installation of home smoke alarms
   - Other prevention program (please specify) ________________
   - No education program

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - Based on a Community Risk Assessment
   - Ensure diversity & inclusion based on your community’s demographics
   - Collect data on number of people reached
   - Measure impact over time
   - None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: _______  Number of stations over 40 years old: _______

   Number of stations having backup power: _______

   Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): _______

   Number of stations with private or separate facilities for men and women: _______

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumpers</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
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<tr>
<td>20–29</td>
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<tr>
<td>30+</td>
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<tr>
<td>Unknown</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - Yes, plan and budget
   - Plan only
   - No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)
- Certification or specific training
- Hands-on training using the actual vehicle
- Demonstration of competency at least once a year
- Formal driver’s training at least twice a year
- None of these

40. Portable radios.
A. What percentage of your on-duty emergency responders can be equipped with portable radios?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)

41. Self-contained breathing apparatus (SCBA).
A. What percentage of your on-duty emergency responders can be equipped with SCBA?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. What percentage of your SCBA are 10 years old or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

42. Personal alert safety system (PASS) devices.
A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

43. Personal protective clothing.
A. How many of your emergency responders are equipped with personal protective clothing?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
B. How many of your department’s personal protective clothing is 10 years of age or older?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know
C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)
- Yes
- No
- Don’t know
D. Is your personal protective ensemble inspected and tested each year?
- Inspected only
- Tested only
- Inspected and tested
- None of these
E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?
- We have laundering facilities
- We utilize an outside service
- We have our own facilities and use an outside service
- Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.
A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)
- Yes
- No
- Don’t know
B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?
- None (0%)
- Few (1–25%)
- Some (26–50%)
- Many (51–75%)
- Most (76–99%)
- All (100%)
- Don’t know

46. Dispatch.
A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?
- PSAP that answers police, fire, and EMS calls
- PSAP that answers fire and EMS calls
- Police department
- Fire department
- Private company
B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?
- Yes
- No, the call is transferred to another center to be processed
C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?
- Yes
- No, we typically have call takers and separate dispatchers.
D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?
- Yes
- No, sometimes we cut back to one person on duty
- No, we never have two persons on duty
E. Do you also have a backup dispatch facility? (check one)
- Yes
- No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      □ Yes □ No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      □ 1 □ 2–5 □ 6–20 □ 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      □ Less than 1 acre □ 1–10 acres □ 11–50 acres □ 51–100 acres □ Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized
      training and equipment for this incident? (check one) □ Local would be enough □ Regional □ State □ National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized
      training and equipment for this incident? (check one) □ Local would be enough □ Regional □ State □ National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with
      specialized training and equipment for this incident? (check one) □ Local would be enough □ Regional □ State □ National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      □ Yes, written agreement □ Yes, informal □ Yes, other (specify) ________________________ □ No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581? □ Yes □ No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581? □ Yes □ No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%) □ Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    □ None (0%) □ Few (1–25%) □ Some (26–50%) □ Many (51–75%) □ Most (76–99%) □ All (100%) □ Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. ________________________

2. ________________________

3. ________________________
WILDLAND & WUI FIREFIGHTING

as part of

The Fifth Needs Assessment of the US Fire Service

DECEMBER 2021

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Needs Assessment of the United States Fire Service: Wildland and WUI Firefighting

Fire departments are an essential part of public safety, responding to an ever-expanding list of hazards in our communities. While department members continue to fight fires and engage in activities to prevent fires from occurring, beyond these traditional roles, fire departments work to mitigate other risks, from providing fall prevention education to addressing the opioid crisis. Firefighters provide emergency medical services, rescue people from a wide variety of dangerous situations, and mitigate incidents involving hazardous materials.

In recent years, wildland and wildland-urban interface (WUI) firefighting have emerged as major issues for the fire service throughout the country. Major wildfires have caused serious property damage and loss of life and, in some cases, destroyed entire communities.

To respond to these incidents, fire departments need training, equipment, and the ability to quickly access resources from other fire departments, as well as the state and federal government. This report identifies the resources fire departments need to safely and effectively fight wildland and WUI fires.

Understanding the Survey

This Fifth Fire Service Needs Assessment Survey was conducted by NFPA beginning in 2020 and concluding in 2021. It follows earlier surveys completed in 2001, 2005, 2010, and 2015.

The goal of the survey was to identify the major needs of the US fire service by comparing what departments actually have with what existing consensus standards, government regulations, and other nationally recognized guidance documents state they need to have to be safe and effective.

Survey responses were received from 2,969 fire departments of all sizes. You can learn more about the survey’s structure and analysis in Appendix A.

All Report Sections:
- Staffing and Operations
- Community Risk Reduction
- Health and Wellness
- Facilities and Apparatus
- Wildland and WUI Firefighting
- Changes Across Five Studies
- Personal Protective Equipment
- Training and Certification
- Executive Summary
NFPA gratefully thanks the many fire departments that responded to the Fifth Fire Service Needs Assessment Survey for again providing us with the data necessary to make national estimates of fire department resources and capabilities. We also greatly appreciate the many contributions made by the following participants in our stakeholder advisory meetings and follow-ups:

Center for Public Safety Excellence: Debbie Sobotka
Fire Department Safety Officers Association: Eric Valliere and Rich Marinucci
International Association of Black Professional Firefighters: Malcolm Alston
International Association of Fire Chiefs: Rob Brown
International Association of Fire Fighters: Pat Morrison
International Fire Marshals Association: David Lynam and Kevin Sehlmeyer
International Association of Wildland Fire: Kelly Martin
Metropolitan Fire Chiefs Association: Edward “Loy” Senter, Jr.
National Association of State Fire Marshals: Philip Oakes
National Association of State Foresters: Dan Smith
National Fallen Firefighters Foundation: Allan Graves and Gamaliel Baer
National Volunteer Fire Council: Dave Finger, Joe Maruca, and Kevin Quinn
US Fire Administration/National Fire Data Center: Richard Patrick and Bill Troup
Women in Fire: Amy Hanifan

Within NFPA, many people helped to make this report possible. Melissa Knight coordinated all stakeholder communication and feedback and was the key author of each module. Ben Evarts analyzed the data. Frank Deely, Jay Petrillo, and Steve Belski processed and entered data from the surveys, in addition to helping with questions from fire departments and contributing to the research questions. Nancy Schwartz provided invaluable support during the entire project from survey redesign to the final product. Doug Sternberg did the graphic design for the report covers. Maeghan Connor provided an editorial review of each module.

To learn more about research at NFPA, visit nfpa.org/research.
Email: research@nfpa.org

NFPA No. USS120-WUI
Survey Responses and Defining Unmet Need

The needs assessment study, as it has in the past, defines unmet need as not having the resources required to provide a service. For some questions, the survey asked about the extent of the need within the department. For example:

Question: How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Percent of Fire Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (100%)</td>
<td>30%</td>
</tr>
<tr>
<td>Most (76–99%)</td>
<td>12%</td>
</tr>
<tr>
<td>Many (51–75%)</td>
<td>7%</td>
</tr>
<tr>
<td>Some (26–50%)</td>
<td>8%</td>
</tr>
<tr>
<td>Few (1–25%)</td>
<td>11%</td>
</tr>
<tr>
<td>None (0%)</td>
<td>20%</td>
</tr>
<tr>
<td>Department does not perform wildland firefighting</td>
<td>13%</td>
</tr>
</tbody>
</table>

For this question, detailed information on the level of need is required. Unmet need is found by adding together the departments that perform wildland firefighting and cannot equip ALL their emergency responders with wildland firefighting equipment (in this case, a total of all the rows highlighted in yellow, or 57 percent). In some cases in this study, both the detailed survey responses and the aggregated unmet need numbers are shown to provide clarity to the reader. In other cases, detailed survey responses may be available in the accompanying Appendix.

Department Size and Nomenclature

The 2020 needs assessment survey was sent to fire departments of all sizes, from those protecting very large communities (500,000 people or more) to those protecting very small communities (fewer than 2,500 people). Table A below shows the total number of survey responses by community size.

Table A. Total number of survey responses by community size

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Number of Departments That Responded to the Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>24</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>18</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>81</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>171</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>299</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>571</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>464</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>453</td>
</tr>
<tr>
<td>Fewer than 2,500</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>2,969</td>
</tr>
</tbody>
</table>

The survey results throughout this report are often broken out by community size, as departments of different sizes have different operational capacities and needs. In some cases, departments may be grouped together across these strata (i.e., departments protecting more than 25,000 people would include the top 5 tiers of community size).
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Survey Results: Wildland and WUI Firefighting

What we looked at: The Fifth Fire Service Needs Assessment Survey measured the resources of United States fire departments to determine if they have what they need to fight wildland (brush, grass, and forest) and wildland-urban interface (WUI) fires.

Key Takeaways:

- Most fire departments (87 percent) are responsible for wildland and WUI firefighting, particularly larger and smaller departments.
- Overall, 78 percent of the departments that perform wildland and WUI firefighting operations have unmet training needs, and these needs are more pronounced in smaller departments.
- Two-thirds of departments have unmet needs for wildland personal protective clothing for their firefighters.
- Overall, three-quarters (75 percent) of departments are specifically responsible for protecting structures in the wildland-urban interface (WUI); small departments and large departments are most likely to have this responsibility.
- Seven out of ten (71 percent) departments would have to go to at least the state level to obtain the resources necessary to deal with a wildfire incident affecting more than 20 structures.

Wildland and Wildland-Urban Interface (WUI) Firefighting

Overall, 87 percent of US fire departments perform wildland and WUI firefighting. This duty is more common among very large and very small departments. Those departments protecting between 25,000 and 49,000 people are least likely to be responsible for wildland and WUI firefighting. Figure 1 below shows wildland and WUI responsibility by department size.

Figure 1: WUI/Wildland firefighting responsibility (by size of population protected by department)
Wildland and WUI Firefighting Training

Figure 2 shows the share of departments with unmet need for wildland and WUI firefighting training by the size of the population protected. Any department that has responsibility for wildland and WUI firefighting that has not trained all of its personnel is considered to have unmet need. Note: Please see Page 2 for more information regarding how unmet need is defined. Overall, 78 percent of departments that perform wildland and WUI firefighting operations have some need in this area, and the need is more pronounced in smaller departments. Table A-1 in the Appendix contains a more detailed breakdown of the responses to this question, including those from departments that do not perform wildland firefighting.

Figure 2: Fire departments responsible for WUI/wildland firefighting who have (and haven’t) formally trained all responsible personnel (by size of population protected)
Even among departments that do have access to wildland training for their firefighters, many programs lack specialized WUI operations training. Figure 3 shows that nearly half (47 percent) of the departments that perform wildland and WUI firefighting operations indicated that their training does not include specialized WUI firefighting operations training.

**Figure 3: Departments with access to WUI/wildland training that includes specialized WUI firefighting operations training (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Does this training include specialized Wildland-Urban Interface firefighting operations training?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>Yes: 53%  No: 47%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>Yes: 51%  No: 49%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>Yes: 56%  No: 44%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>Yes: 52%  No: 48%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>Yes: 48%  No: 52%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>Yes: 59%  No: 41%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>Yes: 78%  No: 22%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>Yes: 69%  No: 31%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>Yes: 94%  No: 6%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>Yes: 80%  No: 20%</td>
</tr>
</tbody>
</table>
Equipment

In addition to training, firefighters need the proper equipment to safely and effectively combat wildland and WUI fires. Figure 4 shows that two-thirds of departments have unmet needs for wildland personal protective clothing for their firefighters. There is need even among the largest departments (those protecting a population of 500,000 people or more), with 35 percent unable to equip all of their responsible personnel. Table A-2 in the Appendix has a more detailed breakdown of the responses to this question.

Figure 4: Departments that are responsible for wildland and WUI firefighting and are able (or unable) to equip all responsible personnel with wildland fire personal protective clothing (by size of population protected)
Ability to Handle Challenging Wildland and WUI Incidents

Structures

Overall, three-quarters (75 percent) of departments are specifically responsible for protecting structures in the WUI. Small departments and large departments are most likely to have this responsibility. Figure 5 shows a breakdown of the responsibility by population size.

Figure 5: Responsibility for protecting structures in the WUI (by size of population protected)
Note: Figures 6–11 include only those departments responsible for protecting structures in the WUI.

Figure 6 shows that nearly half (48%) of all fire departments responsible for protecting structures in the WUI cannot handle a fire involving more than one structure on their own. Ninety seven percent (97%) of departments cannot handle an incident involving more than 5 structures on their own.

**Figure 6: Departments responsible for protecting structures in the WUI by how many structures involved in a wildfire event they can handle alone (by size of population protected)**
Most departments (58 percent) could handle a wildfire incident involving 2–5 structures with only local resources, and the vast majority (95 percent) would only need to go to the regional level to get the resources they would need, as shown in Figure 7.

**Figure 7: How far departments responsible for protecting structures in the WUI would have to go to get the resources required to handle an incident involving 2–5 structures (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Local would be enough</th>
<th>Regional</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>58%</td>
<td>38%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>59%</td>
<td>37%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>60%</td>
<td>37%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>56%</td>
<td>40%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>47%</td>
<td>49%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>62%</td>
<td>37%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>63%</td>
<td>33%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>61%</td>
<td>32%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>73%</td>
<td>27%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>500,000 or More</td>
<td>95%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident?
Figure 8 shows that most departments would need to go to at least the regional level to handle a wildfire incident involving 6–20 structures, and nearly one-third (30 percent) would need to go to the state level, as regional help would not be enough.

**Figure 8: How far departments responsible for protecting structures in the WUI would have to go to get the resources required to handle an incident involving 6–20 structures (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Local would be enough</th>
<th>Regional</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>10%</td>
<td>59%</td>
<td>30%</td>
<td>1%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>11%</td>
<td>59%</td>
<td>29%</td>
<td>1%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>10%</td>
<td>59%</td>
<td>30%</td>
<td>1%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>11%</td>
<td>61%</td>
<td>28%</td>
<td>1%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>6%</td>
<td>51%</td>
<td>41%</td>
<td>1%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>8%</td>
<td>63%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>15%</td>
<td>65%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>23%</td>
<td>64%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>20%</td>
<td>67%</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>53%</td>
<td>42%</td>
<td>11%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Seven out of ten (71 percent) fire departments would have to go to at least the state level to obtain the resources necessary to deal with a wildfire incident involving more than 20 structures (see Figure 9).

**Figure 9: How far departments responsible for protecting structures in the WUI would have to go to get the resources required to handle an incident involving more than 20 structures (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>Local would be enough</th>
<th>Regional</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>32%</td>
<td>5%</td>
<td>21%</td>
<td>42%</td>
</tr>
</tbody>
</table>
More than half (53 percent) of the fire departments responsible for protecting structures in the WUI can handle a wildland fire between 1 and 10 acres on their own. Eleven percent can only handle wildfires that cover less than an acre. The size of a wildland incident that departments can handle on their own is relatively steady between small and midsize departments. Figure 10 below shows a breakdown of the responses by population protected.

**Figure 10: Departments responsible for protecting structures in the WUI by how many acres involved in a wildfire event they can handle alone (by size of population protected)**

<table>
<thead>
<tr>
<th>Population Protected by Department</th>
<th>What is the maximum area of a wildfire (acres) your department could handle alone?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL departments</td>
<td></td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>11% 53% 21% 9% 6%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>12% 50% 21% 10% 7%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>10% 57% 19% 10% 5%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>12% 59% 18% 7% 4%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>12% 55% 23% 9% 3%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>11% 54% 31% 9% 3%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>4% 50% 18% 14% 11%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>7% 20% 0% 47%</td>
</tr>
<tr>
<td>500,000 or More</td>
<td>5% 26% 26% 42%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent of Fire Departments</th>
<th>Less than 1 acre</th>
<th>1-10 acres</th>
<th>11-50 acres</th>
<th>51-100 acres</th>
<th>Greater than 100 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>20%</td>
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<td></td>
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<tr>
<td>30%</td>
<td></td>
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</tr>
<tr>
<td>40%</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Obtaining Assistance**
Most departments (63 percent) have a written agreement for obtaining assistance during a wildfire, and 29 percent have an informal agreement, as shown in Figure 11.

**Figure 11: Departments responsible for protecting structures in the WUI by plan for obtaining assistance from others during a wildfire (by size of population protected)**

![Bar chart showing the percentage of departments with plans for obtaining assistance during a wildfire, categorized by population size.]

**Additional Resources and Education About Wildland and WUI Firefighting**
- The National Wildfire Coordinating Group provides national leadership to enable interoperable wildland fire operations between federal, state, local, tribal, and territorial partners. [nwcg.gov](http://nwcg.gov)
- The National Interagency Coordination Center at the National Interagency Fire Center compiles annual wildland fire statistics for federal and state agencies. This information is gathered from incident management situation reports, which have been in use for several decades. It is reported by federal, state, local, and tribal land management agencies through established reporting channels. [nifc.gov/fire-information/statistics](http://nifc.gov/fire-information/statistics)

Previous studies are available at [nfpa.org/needsassessment](http://nfpa.org/needsassessment), as well as through NFPA’s Library (nfpa.org/library).
Appendix A: Survey Structure and Analysis

Survey Structure and Analysis

The survey used in the first four studies was developed by NFPA in collaboration with an ad hoc technical advisory group consisting of representatives from national organizations associated with the management of fire and related hazards and risks in the US. For the 2020 cycle, parts of the survey were redesigned to better reflect the current roles and responsibilities of the fire service. The content was revised based on input from representatives from the following organizations:

- Center for Public Safety Excellence
- Fire Department Safety Officers Association
- International Association of Black Professional Firefighters
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Fire Marshals Association
- International Association of Wildland Fire
- Metropolitan Fire Chiefs Association
- National Association of State Fire Marshals
- National Association of State Foresters
- National Fallen Firefighters Foundation
- National Volunteer Fire Council
- US Fire Administration/National Fire Data Center
- Women in Fire

While new questions were added, many of the original survey questions did not change, enabling responses to be compared across the years. Any comparison where the question was changed is noted in the text. A copy of the survey is included in Appendix C.

The survey was sent out as a census, meaning that it was sent to all the US fire departments with administrative and fire response responsibilities who were listed in the NFPA fire service inventory. In 2020, 26,258 fire departments were sent the survey. In addition to mailing out a paper version of the questionnaire, the survey was offered online for the first time.

A total of 2,969 fire departments responded to the survey, with approximately 75 percent responding online and 25 percent filling out the paper version. Overall, the response rate was 11 percent, ranging from a 7 percent response from fire departments protecting populations of less than 2,500 to a 39 percent response from fire departments protecting populations of 500,000 or more. Some fire departments that responded in 2020 had not responded in previous years, while some that did respond in past years did not. Consequently, this report estimates overall fire department needs, but not the needs of an identical group over time, as the survey responses did not come from exactly the same fire departments for each of the four surveys.
Appendix B: Supporting Tables

Table A-1: What percentage of the personnel who perform this duty (WUI/wildland firefighting) have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Wildland Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>46%</td>
<td>8%</td>
<td>0%</td>
<td>13%</td>
<td>13%</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>44%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>33%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>33%</td>
<td>10%</td>
<td>2%</td>
<td>6%</td>
<td>10%</td>
<td>6%</td>
<td>32%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>27%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
<td>12%</td>
<td>4%</td>
<td>38%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>23%</td>
<td>8%</td>
<td>3%</td>
<td>4%</td>
<td>13%</td>
<td>5%</td>
<td>43%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>22%</td>
<td>13%</td>
<td>6%</td>
<td>8%</td>
<td>14%</td>
<td>8%</td>
<td>27%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>21%</td>
<td>20%</td>
<td>10%</td>
<td>11%</td>
<td>14%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>21%</td>
<td>23%</td>
<td>13%</td>
<td>11%</td>
<td>17%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>15%</td>
<td>22%</td>
<td>14%</td>
<td>15%</td>
<td>21%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>19%</td>
<td>20%</td>
<td>12%</td>
<td>12%</td>
<td>18%</td>
<td>6%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table A-2: How many of your emergency responders are equipped with wildland fire personal protective clothing?

<table>
<thead>
<tr>
<th>Population Protected</th>
<th>All (100%)</th>
<th>Most (76–99%)</th>
<th>Many (51–75%)</th>
<th>Some (26–50%)</th>
<th>Few (1–25%)</th>
<th>None (0%)</th>
<th>No Wildland Firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>500,000 or More</td>
<td>54%</td>
<td>4%</td>
<td>0%</td>
<td>4%</td>
<td>8%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>250,000 to 499,999</td>
<td>56%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>22%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>100,000 to 249,999</td>
<td>31%</td>
<td>2%</td>
<td>0%</td>
<td>1%</td>
<td>12%</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>30%</td>
<td>2%</td>
<td>1%</td>
<td>5%</td>
<td>10%</td>
<td>13%</td>
<td>38%</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>20%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>6%</td>
<td>19%</td>
<td>43%</td>
</tr>
<tr>
<td>10,000 to 24,999</td>
<td>23%</td>
<td>6%</td>
<td>3%</td>
<td>5%</td>
<td>9%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>5,000 to 9,999</td>
<td>26%</td>
<td>12%</td>
<td>5%</td>
<td>6%</td>
<td>13%</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>2,500 to 4,999</td>
<td>28%</td>
<td>13%</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 2,500</td>
<td>34%</td>
<td>14%</td>
<td>8%</td>
<td>9%</td>
<td>11%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>ALL departments</td>
<td>30%</td>
<td>12%</td>
<td>7%</td>
<td>8%</td>
<td>11%</td>
<td>20%</td>
<td>13%</td>
</tr>
</tbody>
</table>
PART I. BASIC INFORMATION

Name of person completing form: ____________________________

Rank/Title: ______________________________________________

NFIRS/FDID: ____________________________________________

E-mail address: ____________________________ Phone: (______)

1. Population (permanent residents) your department has primary responsibility to protect (exclude mutual aid areas): _________

2. Area (in square miles) your department has primary responsibility to protect (exclude mutual aid areas): _________

3. Number of buildings in community that are 3 or more stories in height (check one):
   - None
   - 1–4
   - 5–10
   - 11–24
   - 25–49
   - 50 or more

4. What share (%) of your budgeted revenue is from (total 100%)?
   - Taxes: ________
   - Fundraising: ________
   - Payment per call/Contract services: ________
   - Ambulance Billing: ________
   - Fees: ________
   - Insurance: ________
   - SAFER/AFG or similar grants: ________
   - Other: (specify) ________

PART II. PERSONNEL AND THEIR CAPABILITIES

5. What was the change in total full-time positions or full-time equivalents (FTE) in each of the following categories for your department since 2016? (Use a negative number for losses, ‘0’ for no change, and a positive number for gains.)
   - Firefighters: ________
   - Enforcement: ________
   - Education: ________
   - Risk Reduction: ________
   - Administration: ________

6. Does your department have a program to ensure diversity and inclusion in your hiring (or volunteer recruiting) and retention practices?  
   - Yes  
   - No

7. Total number of full-time (career) uniformed firefighters: ________  
   (If none, go to Question 12):
   - How many are female? ________
   - Average number of full-time career / paid firefighters on duty available to respond to emergencies: ________

8. Minimum number of on-duty career / paid personnel ASSIGNED to an engine / pumper (check one):
   - 1  
   - 2  
   - 3  
   - 4  
   - 5+  
   - Not applicable

9. Number of on-duty career / paid personnel TYPICALLY STAFFING an engine / pumper (may be the same as the number assigned) (check one):
   - 1  
   - 2  
   - 3  
   - 4  
   - 5+  
   - Not applicable

10. Minimum number of on-duty career / paid personnel ASSIGNED to a ladder truck / aerial (check one):
    - 1  
    - 2  
    - 3  
    - 4  
    - 5+  
    - Not applicable

11. Number of on-duty career / paid personnel TYPICALLY STAFFING a ladder truck / aerial (may be the same as the number assigned) (check one):
    - 1  
    - 2  
    - 3  
    - 4  
    - 5+  
    - Not applicable
12. Total number of active part-time (including call or volunteer) firefighters: _____
   How many are female? ______
   Average number of call / volunteer personnel available who respond to emergencies:
   During weekdays: Days _____ Nights _____
   During weekends: Days _____ Nights _____

13. How many active members of your fire department only fill support or auxiliary roles and have no direct firefighting activities?
   If any, fill only those roles. Check all that apply.
   - First aid
   - Directing traffic
   - Command post ops
   - Rehab
   - Water supply
   - Communications
   - Logistics
   - Other (specify): ____________________________

   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 15)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1001) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   C. What percentage of department personnel who perform this duty are certified to Firefighter Level I (NFPA 1001)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   D. What percentage of your fire department’s firefighters are restricted to exterior firefighting only?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)

15. Emergency medical service (EMS).
   A. Is this a service your fire department provides? (check one)  
      - Yes  
      - No (skip to 15C)
   B. If yes to 15A, what percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification _____
      b. EMR: Emergency Medical Responder _____
      c. EMT: Emergency Medical Technician _____
      d. AEMT: Advanced Emergency Medical Technician _____
      e. Paramedic _____
   C. Does your community provide ambulance services?
      - Yes: Fire Department Based Service
      - Yes: Government or Third Service
      - Yes: Hospital Based
      - Yes: Private
      - Yes: Other (specify) ________
      - No ambulance service
   D. Does your fire department provide Tactical EMS for law enforcement operations?
      - Yes  
      - No

   A. Is this a service your fire department provides? (check one)  
      - Yes  
      - No (If no, go to Question 17)
   B. What percentage of department personnel performing this duty are certified to the following levels? (For all that apply, include percentages for highest level. Total must equal 100%)
      a. No certification _____
      b. Awareness _____
      c. Operational _____
      d. Technician _____

17. Wildland-Urban Interface (WUI)/Wildland (brush, grass, forest) firefighting.
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 18)
   B. What percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1051) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   C. Does this training include specialized Wildland-Urban Interface firefighting operations training?
      - Yes  
      - No
   D. How many of your emergency responders are equipped with wildland fire personal protective clothing?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)

18. Fire prevention (preparedness & mitigation).
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 19)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1031 and 1033) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

20. Active shooter response.
   A. Is this a role your fire department performs? (check one)  
      - Yes  
      - No (If no, go to Question 21)
   B. If yes, does your department have SOPs (Standard Operating Procedures) / SOGs (Standard Operating Guidelines) in place addressing proper response and action taken at an active shooter event? (check one)  
      - Yes  
      - No
   C. Have your department’s personnel received multi-agency training (police, fire, EMS, Sheriffs, etc.) and been tested on the training and special equipment required? (check one)  
      - Yes  
      - No

21. Traffic control.
   A. Is this a role your department performs? (check one)  
      - Yes  
      - No (If no, go to Question 22)
   B. If yes, what percentage of the personnel who perform this duty have received formal training (for example, in a classroom or online that meet the qualifications of NFPA 1091) at the local, regional, or state level (not just on-the-job training)?
      - None (0%)  
      - Few (1–25%)  
      - Some (26–50%)  
      - Many (51–75%)  
      - Most (76–99%)  
      - All (100%)

22. Basic firefighter fitness and health.
   A. Does your department have a program to maintain basic firefighter fitness and health (e.g., NFPA 1500)? (check one)  
      - Yes  
      - No (If no, go to Question 22C)
   B. Is the program associated with the IAFC / IAFF Wellness-Fitness Initiative (WFI)?  
      - Yes  
      - No
   C. Do you provide medical and physical evaluations meeting NFPA 1582 for all firefighters?  
      - Yes  
      - No (If no, skip to Question 23)
   D. How often?  
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other
   E. Does this program include a fitness assessment for all firefighters?  
      - Yes  
      - No (if no, skip to question 23)
   F. How often?  
      - New firefighters only  
      - Every six months or annually  
      - Every two years  
      - Every three years  
      - Other

23. Does your department have a Behavioral Health Program?  
   - Yes  
   - No (If no, go to Question 25)

24. Which of the following are included in your behavioral health program (check all that apply)?
   - Fitness for duty evaluation  
   - Cancer prevention education  
   - Physical health education  
   - Heart attack prevention education  
   - Post-Traumatic Stress support  
   - Trained behavioral peer support  
   - Behavioral health education  
   - Suicide prevention education  
   - Relationship with a Behavior Specialist  
   - Volunteer clinical interventions  
   - Wellness preventative education  
   - Other (please specify): ____________

25. Does your department actively track exposures or have a mechanism for individual exposure tracking (including carcinogens, hazardous materials, and infectious diseases)?  
   - Yes—Department actively tracks  
   - Yes—Mechanism for individuals  
   - Yes—Both  
   - No—None of these

26. Does your department have an Infection Control / PPE Decontamination Program (infectious and communicable disease hazards)? (check one)  
   - Yes  
   - No

27. Does your department have an Exposure Control / PPE Decontamination Program (carcinogen and other toxic hazards)? (check one)  
   - Yes  
   - No

28. Which of the following air quality measures does your department monitor at the fireground? (check all that apply)
   - 02 (Oxygen)  
   - HCN (Cyanide)  
   - CO (Carbon Monoxide)  
   - Volatile Organic Compound (VOC)  
   - Other (please specify) ____________  
   - Do not monitor

29. Which of the following cancer prevention best practices apply to your department? (check all that apply)
   - Cancer screening program  
   - Second set of structural firefighter gear for all firefighters  
   - SOPs/SOGs for cleaning gear after a fire  
   - Gross decontamination of gear at the fireground  
   - Provide cleaning wipes for use on face/neck/hands  
   - Training to ‘shower within an hour’ after a fire  
   - Prohibit structural firefighter gear in living quarters of fire stations  
   - Other (please specify) ____________  
   - None of these
PART III. COMMUNITY RISK REDUCTION ACTIVITIES

30. Which of the following engineering programs or activities does your department conduct? (check all that apply)
   - [ ] Construction plans review
   - [ ] Permit approval
   - [ ] Permit inspections (for new construction)
   - [ ] Certificate of occupancy
   - [ ] Pre-incident planning
   - [ ] Routine testing of active automatic systems (e.g., fire sprinkler, detection/alarm, smoke control)
   - [ ] Hazard Mitigation Planning Assessment

   If you have a Hazard Mitigation Planning Risk Assessment program, does your plan include:
   - [ ] Natural disasters (hurricanes, wildfire, tornadoes, floods, earthquakes)
   - [ ] Industrial chemical disasters
   - [ ] Transportation disasters
   - [ ] No such engineering programs

31. Who conducts the fire code inspections in your community? (check all that apply)
   - [ ] Full-time fire department inspectors
   - [ ] In-service (on duty) firefighters
   - [ ] Separate inspection bureau
   - [ ] Building department
   - [ ] State department/fire prevention bureau
   - [ ] No one
   - [ ] Other (please specify) _________

32. What percentage of commercial or inspectable properties are inspected once a year?
   - [ ] None (0%)
   - [ ] Few (1–25%)
   - [ ] Some (26–50%)
   - [ ] Many (51–75%)
   - [ ] Most (76–99%)
   - [ ] All (100%)
   - [ ] Not responsible for conducting inspections

33. Who determines that a fire was deliberately set? (check all that apply)
   - [ ] Fire department fire investigator
   - [ ] Regional/state fire task force investigator
   - [ ] Incident command or other front line or company fire officer
   - [ ] Police department
   - [ ] Contract investigator
   - [ ] Insurance investigator
   - [ ] Other (please specify) ___________________________

34. Which of the following education programs or activities does your department conduct? (check all that apply)
   - [ ] Youth firesetter program
   - [ ] School fire safety education program based on a national model curriculum
   - [ ] Car seat installation
   - [ ] Home fire sprinkler education
   - [ ] Home safety visits
   - [ ] Cardiopulmonary Resuscitation (CPR) instruction
   - [ ] Wildfire safety program based on a national model program
   - [ ] Older adult fire safety program based on a national model program
   - [ ] Fire Prevention Week™ activities
   - [ ] Free distribution of home smoke alarms
   - [ ] Free installation of home smoke alarms
   - [ ] Other prevention program (please specify) ___________________________

35. Which of the following apply to the education programs or activities your department conducts? (check all that apply)
   - [ ] Based on a Community Risk Assessment
   - [ ] Ensure diversity & inclusion based on your community’s demographics
   - [ ] Collect data on number of people reached
   - [ ] Measure impact over time
   - [ ] None of these

PART IV. FACILITIES, APPARATUS, AND EQUIPMENT

36. Number of fire stations: ________
   Number of stations over 40 years old: ________
   Number of stations having backup power: ________
   Number of stations equipped for exhaust emission control (e.g. diesel exhaust extraction): ________
   Number of stations with private or separate facilities for men and women: ________

37. Number of each type of apparatus in service and reserves (numbers by age should sum to total):

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Engines / Pumper</th>
<th>Ladders / Aerials</th>
<th>Tankers / Tenders</th>
<th>Ambulances or Other Transport Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Service</td>
<td>Reserve</td>
<td>In Service</td>
<td>Reserve</td>
</tr>
<tr>
<td>0–14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>20–29</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>30+</td>
<td></td>
<td></td>
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<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Does your fire department have a plan for apparatus replacement on a regular schedule?
   - [ ] Yes, plan and budget
   - [ ] Plan only
   - [ ] No plan or budget
39. Which of the following does your department require prior to a member driving an emergency vehicle? (check all that apply)
   - Certification or specific training
   - Hands-on training using the actual vehicle
   - Demonstration of competency at least once a year
   - Formal driver’s training at least twice a year
   - None of these

40. Portable radios.
   A. What percentage of your on-duty emergency responders can be equipped with portable radios?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)

41. Self-contained breathing apparatus (SCBA).
   A. What percentage of your on-duty emergency responders can be equipped with SCBA?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   B. What percentage of your SCBA are 10 years old or older?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
      - Don’t know

42. Personal alert safety system (PASS) devices.
   A. How many responding firefighters who work in immediately dangerous to life or health (IDLH) environment are equipped with a PASS device?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
      - Don’t know

43. Personal protective clothing.
   A. How many of your emergency responders are equipped with personal protective clothing?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
   B. How many of your department’s personal protective clothing is 10 years of age or older?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
      - Don’t know
   C. Do you have reserve personal protective clothing sufficient to equip 10% of your emergency responders? (check one)
      - Yes
      - No
      - Don’t know
   D. Is your personal protective ensemble inspected and tested each year?
      - Inspected only
      - Tested only
      - Inspected and tested
      - None of these
   E. Does your department have laundering facilities or provide services (external) to clean contaminated personal protective clothing?
      - We have laundering facilities
      - We utilize an outside service
      - We have our own facilities and use an outside service
      - Neither facilities nor outside service

44. For what percentage of fireground incidents do you have a thermal imager / thermal imaging cameras available?
   - None (0%)
   - Few (1–25%)
   - Some (26–50%)
   - Many (51–75%)
   - Most (76–99%)
   - All (100%)
   - Don’t know

PART V. COMMUNICATIONS AND COMMUNICATIONS EQUIPMENT

45. Multi-agency communication.
   A. Can you communicate by radio on an incident scene with your local/state/federal emergency response partners (includes frequency compatibility)? (check one)
      - Yes
      - No
      - Don’t know
   B. If yes to 45A, how many of your partners (agencies/departments) can you communicate with at an incident scene?
      - None (0%)
      - Few (1–25%)
      - Some (26–50%)
      - Many (51–75%)
      - Most (76–99%)
      - All (100%)
      - Don’t know

46. Dispatch.
   A. Who has the primary responsibilities [i.e., public safety answering point (PSAP)] of answering 911 calls?
      - PSAP that answers police, fire, and EMS calls
      - PSAP that answers fire and EMS calls
      - Police department
      - Fire department
      - Private company
   B. If the 911 call is determined to be a fire call, is that call processed by the same center that answered the initial 911 call?
      - Yes
      - No, the call is transferred to another center to be processed
   C. Does the 911 center that processes the fire call typically have one person that processes and dispatch the same fire call?
      - Yes
      - No, we typically have call takers and separate dispatchers.
   D. If no to 46C, does the 911 center that processes the fire call typically have at least 2 people on duty at all times?
      - Yes
      - No, sometimes we cut back to one person on duty
      - No, we never have two persons on duty
   E. Do you also have a backup dispatch facility? (check one)
      - Yes
      - No
PART VI. ABILITY TO HANDLE UNUSUALLY CHALLENGING INCIDENTS

47. Wildland-Urban Interface (WUI) fire affecting structures.
   A. Is protecting structures in the Wildland-Urban Interface (WUI) a role your fire department performs? (check one)
      - Yes  - No (If no, go to Question 48.)
   B. What is the maximum number of involved structures during a wildfire event your department could handle alone?
      - 1  - 2–5  - 6–20  - 21+
   C. What is the maximum area of a wildfire (acres) your department could handle alone?
      - Less than 1 acre  - 1–10 acres  - 11–50 acres  - 51–100 acres  - Greater than 100 acres
   D. If you had a wildfire incident affecting 2–5 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      - Local would be enough  - Regional  - State  - National
   E. If you had a wildfire incident affecting 6–20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      - Local would be enough  - Regional  - State  - National
   F. If you had a wildfire incident affecting more than 20 structures how far would you have to go to obtain enough people with specialized training and equipment for this incident? (check one)
      - Local would be enough  - Regional  - State  - National
   G. Do you have a plan for obtaining assistance from others for a wildfire? (check one)
      - Yes, written agreement  - Yes, informal  - Yes, other (specify) ____________________________  - No

48. At the start of the COVID-19 outbreak, did your department have an infection control program that meets the qualifications of NFPA 1581?  - Yes  - No

49. Does your department currently have an infection control program that meets the qualifications of NFPA 1581?  - Yes  - No

50. At the start of the COVID-19 outbreak, what percent of your emergency responders could you outfit with medical PPE?
    - None (0%)  - Few (1–25%)  - Some (26–50%)  - Many (51–75%)  - Most (76–99%)  - All (100%)  - Don’t know

51. What percent of your emergency responders can you currently outfit with medical PPE?
    - None (0%)  - Few (1–25%)  - Some (26–50%)  - Many (51–75%)  - Most (76–99%)  - All (100%)  - Don’t know

PART VIII. YOUR TOP 3 NEEDS IN YOUR WORDS:

1. __________________________________________

2. __________________________________________

3. __________________________________________