



U.S. Fire Administrator's Summit on Fire Prevention and Control Executive Summary

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FEMA



U.S. Fire Administration
Working for a fire-safe America



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Letter From the U.S. Fire Administrator to the President of the United States

Jan. 9, 2022

The President
The White House
Washington, D.C.

Dear Mr. President:

It is my honor to present the Proceedings Report from the 2022 U.S. Fire Administrator's Summit on Fire Prevention and Control, held Oct. 11, 2022, at the National Emergency Training Center (NETC) in Emmitsburg, Maryland. This historic meeting of governmental officials, fire service leaders and scientists convened to address America's fire problem.

The summit marked the 75th anniversary of President Truman's 1947 National Conference on Fire Prevention. The federal government has historically played a significant role in combating the "menace of fire," as President Truman described at the 1947 conference. This most recent summit identified the top issues and outlined a national strategy to address the fire problem currently facing our nation.

You continued President Truman's legacy with your virtual remarks illustrating your commitment to reducing the death toll caused by fires and your profound and personal respect for America's fire service. Thank you for being part of this historic summit and reminding firefighters that they are the "heart of the community."

Now, more than ever, we have the means to address the fire-related challenges we face, including wildfire due to climate change, improvements in codes and standards to protect our most vulnerable citizens, developing recruitment programs for a diverse and well-trained American fire service, and the reduction of cancer-causing chemicals affecting firefighters, as well as supporting the mental health of our first responders. Innovative thinking, the willingness to use all available tools, and, perhaps most importantly, the collaboration of all parties is necessary to meet these challenges. The summit was only the beginning of a comprehensive and strategic approach to addressing these challenges.

Since the summit, the U.S. Fire Administration (USFA) and national fire service organizations have been working together to develop comprehensive and actionable solutions. I look forward to discussing this progress with you at the 2023 Summit on Fire Prevention and Control, which will take place the week of Oct. 8, 2023.

Sincerely and respectfully,

Lori Moore-Merrell, DrPH, MPH
U.S. Fire Administrator
USFA

Executive Summary



Summit background

The mission of the USFA is to support and strengthen fire and emergency medical services (EMS) and stakeholders to prepare for, prevent, mitigate and respond to all hazards. The USFA is part of the U.S. Department of Homeland Security's (DHS's) Federal Emergency Management Agency (FEMA). An annual conference is authorized by 15 U.S.C. § 2213:

“The Administrator is authorized to organize, or to participate in organizing, an annual conference on fire prevention and control. He may pay, in whole or in part, the cost of such conference and the expenses of some or all of the participants. All of the Nation's fire services shall be eligible to send representatives to each such conference to discuss, exchange ideas on, and participate in educational programs on new techniques in fire prevention and control. Such conferences shall be open to the public.”

The 2022 U.S. Fire Administrator's Summit on Fire Prevention and Control was held on Oct. 11 at the NETC in Emmitsburg, Maryland. The summit included 4 segments:

1. National fire service leaders participated in an invitation-only National Roundtable to brief the Biden Administration, the DHS and FEMA on the fire service's critical issues.
2. National fire service and research experts presented the State of Science to an in-person and virtual audience.
3. Attendees of the National Roundtable were invited to participate in a facilitated discussion about the National Roundtable testimony.
4. Summit deliberations were held on Oct. 12 with key stakeholders representing national fire service organizations and academic and scientific partners.

The summit marked the 75th anniversary of President Harry S. Truman's Conference on Fire Prevention which took place in Washington, D.C. The summit also coincided with the 100th anniversary of the National Fire Protection Association's (NFPA's) Fire Prevention Week.

The topics of the National Roundtable testimony were based on recommendations from attendees at 2 previously held meetings hosted by the National Fallen Firefighters Foundation (NFFF). The Truman Fire Forum was held in August 2022 in Independence, Missouri. The National Firefighter Life Safety Summit was held in September 2022 in San Antonio, Texas. The reports from these 2 meetings are included in the QR code at the conclusion of this Executive Summary.

The testimonies, delivered by national fire service leaders, were related to 6 identified problems in America's fire service and recommended solutions. These proposed solutions have become the Fire Service National Strategy, championed by the USFA. The strategies are:

1. Prepare all firefighters for the climate-driven increase in wildfires in the wildland urban interface (WUI) by providing them with the proper training and equipment.
2. Invest in a national apprenticeship program to address the shortage of firefighters and to make the fire service more diverse and inclusive.
3. Establish a comprehensive firefighter cancer strategy that invests in research, provides access to screening for firefighters, and reduces and eliminates PFAS exposure.
4. Provide behavioral health resources and suicide prevention initiatives for all firefighters.
5. Create safer communities by implementing and enforcing codes and standards, especially in the WUI and underserved and vulnerable populations providing affordable and fire-safe housing.
6. Elevate the fire service in federal policy development to an equal basis with law enforcement. (**Please note that this strategy was changed during the summit deliberations from "involve" to "elevate.")

National Roundtable

U.S. Fire Administrator Dr. Lori Moore-Merrell began the National Roundtable noting that there was only 1 day from Jan. 1 through Oct. 11 for which there was no reported loss of life from a residential fire. Dr. Moore-Merrell stated, "We should do everything we can on the federal, state and local levels to achieve a fire-safe America." She also noted that the fire service representatives at the National Roundtable were representing the fire service as a whole rather than their individual organizations.

The National Roundtable provided national fire service organizations representatives the opportunity to provide testimony to the following President Biden Administration representatives:

- 🔗 Alejandro Mayorkas, DHS Secretary (virtual remarks).
- 🔗 John Tien, DHS Assistant Secretary.
- 🔗 Deanne Criswell, FEMA Director.
- 🔗 Dr. Lori Moore-Merrell, U.S. Fire Administrator.

-
- Caitlin Durkovich, Special Assistant to the President and Senior Director for Resilience and Response for the National Security Council (NSC).

Highlights of their opening remarks include:

- DHS Secretary Alejandro Mayorkas: “The bottom line is that you all take care of us, and we must take care of you. You have my commitment to fight for the resources you need and deserve to make the progress that the firefighter community needs, to address the increasing challenges we face today.”
- DHS Deputy Secretary John Tien: “We know, as the secretary often will say, that we are a department of partnerships. We must be connected to all of you. And not just connected to all of you in understanding what you go through, but figuring out how we can resource, whether it’s through funding, whether it’s through offices, especially in terms of medical support through our new Office of Health Services or our chief medical officer, Dr. Pritesh Gandhi. We must determine ways to find out how we can support you specifically.”
- FEMA Administrator Deanne Criswell: “I just want to underscore that the work that we put forth today, and in the weeks and the months to come, is an investment towards the safety of our future generations. This was the vision that President Truman had when he held the first fire conference 75 years ago. And it will remain true 75 years from now. And I want everyone here to know that your voices and your perspectives, they matter, and that together we can meet the mission to advance fire and life safety for all Americans.”
- Senior Director for Resilience and Response for the NSC Caitlin Durkovich: “Whether it is a major disaster, a multialarm fire like has been mentioned in Philadelphia or in the Bronx, or a single emergency call, a wildfire, a mass casualty event, a hazmat spill, or a medical emergency, you are there. Firefighters are all-hazards responders, and local fire departments are foundational to the resilience of our communities. The president understands this implicitly, which is why he is such a strong supporter of the fire service and is committed to ensuring you have the resources and support you need to do your jobs.



The following National Roundtable participants represented the fire service and provided testimony related to the fire problem in America:

- ❖ Chief Donna Black, International Association of Fire Chiefs (IAFC).
Topic: “Impact of Climate Change”
- ❖ Chief Kevin Quinn, National Volunteer Fire Council (NVFC).
Topic: “Fire Service Apprenticeship Program”
- ❖ General President Edward Kelly, International Association of Fire Fighters (IAFF).
Topic: “Impact of Occupational Cancer”
- ❖ Chief Ernest Mitchell, Jr., NFFF.
Topic: “Impact of Behavioral Health and Equality with Law Enforcement in Federal Policy Development”
- ❖ Mr. James Pauley, NFPA.
Topic: “Impact of Codes and Standards”

Open discussion took place after each of the fire service representatives delivered their testimony. The federal representatives noted the importance of partnering with other federal agencies to work on the strategies. For example, Deputy Secretary Tien commented on the similar challenges the Veterans Administration faces in dealing with veterans exposed to toxic chemicals resulting in cancer. FEMA Administrator Criswell stated that she is committed to working with Dr. Moore-Merrell to support the USFA’s development of mental health and suicide prevention programs.

There was also a recognition of the 100th anniversary of Fire Prevention Week with a reading of the Fire Prevention Week Presidential Proclamation by Senior Director Caitlin Durkovich.

The transcript of the National Roundtable is included in the Proceedings Report. The video of the National Roundtable is included in the QR code at the end of this Executive Summary.

Facilitated discussion

Commissioner Adam Thiel, Philadelphia Fire Department, led a discussion with summit attendees immediately following the National Roundtable about the testimony delivered during the National Roundtable.

State of Science

The State of Science began with opening remarks from U.S. Fire Administrator Dr. Lori Moore-Merrell. She provided a summary of the National Roundtable discussions and emphasized that the National Roundtable fire service representatives spoke with one voice, the voice of the whole fire service. She also noted the importance of partnerships, both within the fire service and with federal partners, to tackle the challenges facing the fire service and the fire problem in America.

Chief Ron Siarnicki, executive director of the NFFF, was the next speaker. The NFFF was the co-host of the State of Science portion of the U.S. Fire Administrator’s Summit on Fire Prevention and Control. Chief Siarnicki acknowledged the more than 100 firefighter recruits from Prince George’s County, Maryland; Loudon County,



Virginia; and the District of Columbia who were in the audience for the State of Science. "You are the future of the American fire service," Siarnicki stated, "and being a part of this historic event is going to set you on a journey to learn so much about what's happening in your industry." Chief Siarnicki also thanked the sponsors of the State of Science, including the premier sponsor, the NFPA. Leading sponsors included the National Association of State Fire Marshals (NASFM), the National Fire Sprinkler Association (NFSA), and Underwriters Laboratories' (UL's) Fire Safety Research Institute. Supporters included the International Code Council (ICC) and Milliken.

President Joseph Biden provided virtual remarks at the State of Science discussing many of his administration's initiatives related to firefighters and the fire problem in America. For example, the Cancer Moonshot is addressing environmental and toxic exposures to prevent cancer. There is a special claims unit at the U.S. Department of Labor (DOL) that can now process federal firefighters' cancer claims more efficiently. The new Protecting America's First Responders Act extends the benefits under the Public Safety Officers' Death Benefits Program to the families of firefighters killed in training. The U.S. Department of Defense is using satellite imagery to detect wildland fires in the early stages. President Biden confirmed his lifelong commitment to the fire service by stating, "I want you to know that my administration is doing everything we can to make sure you have the resources you need to do your job as safely and effectively and efficiently as possible."

The format of the State of Science included presentations divided into 4 panels. Each presentation segment was introduced by a member of the summit planning team.

Impact on Communities

Introduced by Dr. Lori Moore-Merrell

Commissioner Adam K. Thiel, City of Philadelphia Fire Department
Topic: "Retrospective of Fire Fatalities in Philadelphia"

Deputy Assistant Chief Frank Leeb, City of New York Fire Department (FDNY)
Topic: "Twin Parks Fire (Jan. 2, 2022)"

Dr. Susan M. Moore, National Institute for Occupational Safety and Health (NIOSH)

Topic: "Impact on Firefighters Working in Underserved Communities"

Dr. Steve Kerber, Fire Safety Research Institute

Topic: "Risks in the Changing Built Environment"

Chief Shane Ray, NFSA

Topic: "A Fire Safe America: A Happy and Safe Quality of Life Through Fire Safety"

Climate Change Impact on the Fire Service

Introduced by Ms. Lorraine Carli, Vice President, Outreach and Advocacy, NFPA

Karl Fippinger, ICC

Topic: "Wildland Urban Interface (WUI) Codes and Standards"

Michele Steinberg, NFPA

Topic: "Wildfire Disasters: A Wicked Problem"

Rick Swan, IAFF

Topic: "Responding to the Interface: Training to Prepare Structural Firefighters for WUI"

Impact on Firefighter Recruitment, Retention and Training

Introduced by Ms. Vickie Pritchett, Executive Officer, NFSA

Chief John H. Oates, International Public Safety Data Institute

Topic: "Data-Informed Insights on Recruitment and Retention"

Chief John S. Butler, Fairfax County Fire and Rescue Department (Virginia)

Topic: "Recruitment Challenges for Career Departments Focused on Diversity, Equity, and Inclusion"

Chief Brita Horn, Rock Creek Volunteer Fire Department (Colorado)

Topic: "Recruitment Challenges for Volunteer Fire Departments"

Impact on Firefighters' Health

Introduced by Chief Tonya Hoover, Deputy U.S. Fire Administrator

Dr. Kenneth Fent, NIOSH

Topic: "National Firefighter Registry: The Missing Piece"

Dr. Jeff Burgess, University of Arizona Mel and Enid Zuckerman College of Public Health

Topic: "The Fire Fighter Cancer Cohort Study (FFCCS): A Scientist-Fire Fighter Collaboration"

Dr. Sara Jahnke, Center for Fire, Rescue & EMS Health Research

Topic: "Women Firefighters & Cancer"

Dr. Denise L. Smith, Skidmore College

Topic: "Firefighter Cardiovascular Health"

Patrick Morrison, IAFF

Topic: "Firefighter Behavioral Health"

State of Science highlights

- Despite our vast technological advances these truths remain –
 - ▶ During a fire today, you have the least amount of time to safely exit your burning home than at any time in history.
 - ▶ Your chance of dying in a fire today are higher than 40 years ago.
- Fire deaths, injuries and displacement disproportionately affects lower income communities and people of color. Safe and affordable housing should not be mutually exclusive.
- 99 million people or a third of the U.S. population now live in the WUI environment, yet most have no idea what WUI is or the dangers it poses.
- Fire departments across the United States, both career and volunteer, are experiencing dramatic personnel shortages. This situation is a national problem and without intervention will continue to worsen affecting the ability to meet emergency call volume demand in many areas.
- Technology including micro-mobility products powered by lithium ion batteries are providing a new wave of fire causes.
- Automatic fire suppression systems like sprinklers save lives, yet resistance for these devices remains.

The State of Science was livestreamed to a virtual audience representing every state in the U.S. and 18 countries. The PowerPoint presentations from the State of Science are included in the Proceedings Report.

Summit deliberations

The summit deliberations took place on Oct. 12, immediately following the Summit on Fire Prevention and Control. National fire service organizations and lead academic and scientific partners collaborated and committed to strategies to address the challenges discussed at the summit. There were 6 work groups formed based on the 6 topics from the National Roundtable. The work groups will meet during 2023 in preparation for the 2023 Summit on Fire Prevention and Control.

Impact of Climate Change



Prepare all firefighters for the climate-driven increase in wildfires in the wildland urban interface (WUI) by providing them with the proper training and equipment.

Issue

WUI fires are one of the most devastating fire problems in the United States. Currently, most structural firefighters receive little to no training on how to respond, remain safe, and/or how to operate effectively in an extremely dangerous and dynamic fire environment.

Impact Areas

Occurrence of Wildfire

According to a June 2022 U.S. Congressional Budget Office report, the intensity of wildfires has increased, as has the number of wildfires impacting the built environment over the past 30 years. As our nation continues to grow and develop in the WUI, our communities are faced with increased wildfire threats associated with:

- ▶ **Increased populations.**
- ▶ **Reduced land management practices.**
- ▶ **Dangerous increase of fuel buildup.**
- ▶ **Climate change.**

The fire service today is faced with three main fire types:

1. **Structural fires** — fires involving built construction where trained firefighters have specific strategies and tactics to maintain life safety and gain control of a fire, including interior attack, exterior attack, search and rescue, ventilation, salvage, and overhaul.
2. **Wildland fires** — fires typically involving trees and other vegetation where wildland trained firefighters use specific strategies and tactics to gain control and suppress the fire, including offensive (direct attack) and defensive (indirect attack), backfire burning, and trenching. These strategies use equipment and/or resources such as bulldozers, aircraft, hand crews, and fire engines to construct fire lines that provide control and containment of the fire.
3. **WUI fires** — fires occurring in the built (structural) environment directly adjacent to or intermixed with a wildland area. WUI fire operations have non-standardized and relatively new and different strategies and tactics when compared with either strictly structural or wildland firefighting. Firefighters operating in the WUI use primary and secondary tactics typically conducted by structural engine crews attempting to adapt these tactics to fit the wildland fire situation.



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Firefighting Resources

Wildfire knows no boundaries. Fires can start and burn across federal, tribal, state, local, and private lands. That means fires are often fought with a combination of agencies and firefighters from different training backgrounds and employers. These differences include seasonal federal and state wildland firefighters, state and local career firefighters, and volunteer firefighters from community-based fire stations. While some firefighters trained to operate in the built environment are also specifically trained to engage in wildland firefighting, the majority have little to no training for operating in an urban or suburban conflagration with multiple structures burning simultaneously.

Advances in command and coordination, especially at large, long-duration wildland and WUI fire events, have improved resource deployment and operations on the ground. However, these resources often take time to get into place. Therefore, initial response often comes from state and local fire departments, many of which are already dealing with limited and overworked staff.

Training, Equipment, and Water

Local fire department responders are typically trained as structural firefighters given that single family dwellings are the most common fire risk they encounter. Structural firefighters, accustomed to fighting one structure fire at a time, are now being confronted with multiple structures burning simultaneously. They must react and respond with uncharacteristic tactics and strategies to successfully mitigate the event by reducing or eliminating fire spread. The reality is that they must add urban interface wildfire strategies and tactics to their operational repertoire.

As the risk of losing entire communities from wildfire extends to a year-round threat, staffing resources, proper training, and equipment are necessary to fight these WUI fires.

Training and Equipment

Communities across the nation are experiencing an increasing number of larger and more destructive wildland, urban interface, and suburban conflagration fires. Because these fires are occurring more often in both suburban and rural areas adjacent to or intermixed with the wildland, structural firefighters are regularly involved in suppression efforts and responsible for defending homes and critical infrastructure. According to the National Fire Protection Association Needs Assessment, 88% of structural fire departments in the U.S. respond to urban interface fires, but only 40 percent of those fire departments provide training on urban interface strategy and tactics.

Additionally, there is often difficulty accessing wildland firefighting equipment including PPE and proper footwear, for both women and men who attend training and are involved in WUI firefighting.

Water Access

Particularly in the West, water is a limited and often contested resource. Drought conditions elsewhere in the country are causing similar effects to spread eastward. Scarcity of water has a severe impact on firefighting efforts. Additionally, fire in watershed areas and burn scars following a fire can contaminate water resources as debris and other contaminants affect both availability of potable water and treatment efforts.

More Information



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Fire Service Apprenticeship Program



Invest in a national apprenticeship program to address the shortage of firefighters and to make the fire service more diverse and inclusive.

Issue

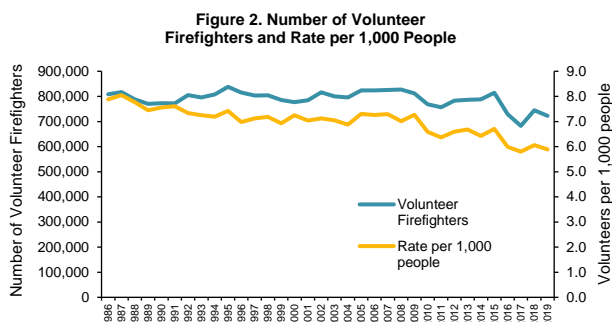
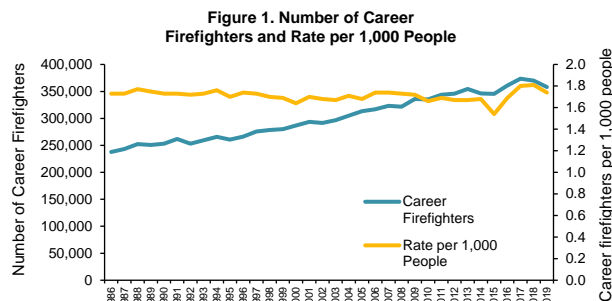
In recent years there has been a steady decline in the number of firefighters in the nation. This decline is impacting both career and volunteer departments, leaving the communities they serve vulnerable to threats, and increasing the stresses among firefighters and the municipalities. It is imperative that we invest in programs to incentivize individuals to join volunteer and career fire departments.

Impact Areas

Local communities are facing numerous challenges when it comes to staffing local fire departments. The COVID-19 pandemic, civil unrest, active shooter, and mass casualty events have all contributed to recruitment and retention challenges for career and volunteer fire departments. In addition, increasing emergency call volumes, greater time demands, time-consuming training requirements, aging communities, and the physical and behavioral risks of the occupation create further challenges to fire departments struggling to maintain sufficient staffing levels.

The fire service struggles to recruit and retain women and people of color. The most recent data from the Bureau of Labor Statistics in 2019 reported that 11.6% of career firefighters were Hispanic or Latino, 8.5% were African American, and 1.3% were Asian-Pacific Islanders. Women represent 11% of volunteer firefighters and 5% of career firefighters, according to the NFPA's 2022 "U.S. Fire Department Profile" report based on 2020 data.

The creation of a National Fire Service Apprenticeship program would assist local communities in addressing the shortage of firefighters in both career and volunteer departments and help make the fire service become a more diverse and inclusive vocation. The fire service apprenticeship program should be designed to mirror the Department of Labor's Registered Apprenticeship and the Industry-Recognized Apprenticeship Programs.



NFPA. US Fire Department Profile 2019 Rita Fahy, Ben Evarts and Gary P. Stein, December 2021. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/osfdprofile.pdf>

More Information



Impact of Occupational Cancer



Establish a comprehensive firefighter cancer strategy that invests in research, provides access to cancer screening for firefighters, and reduces and eliminates PFAS exposure.

Issue

Firefighters have a 9% higher risk of developing cancer and a 14% higher risk of dying from cancer compared to the general public.

Impact Areas

Research

Greater investment in research will expand our understanding of the mechanisms between occupational exposures and cancer, why firefighters are at heightened risk from some cancers, and to better understand the cancer risks of our under-studied populations, including women and minorities.

Access to cancer screenings

Preventive screenings can identify cancer in its earliest stages when positive treatment outcomes are more likely. However, it remains difficult for individual firefighters to receive early screenings as current screening guidance does not account for their occupational exposures. Revised screening guidance can help medical professionals and insurance companies understand the need to screen firefighters based on their higher cancer risk.

Reduce and eliminate PFAS exposures

PFAS are likely carcinogenic chemicals that degrade very slowly, earning the label "forever chemicals." PFAS are found in a firefighter's blood, their firehouses, some firefighting foams, and perhaps most concerning, bunker gear. These chemicals are intensifying exposures, even though it is coming from the very gear meant to protect firefighters. Next-generation PPE can remove this risk.

CANCER RESEARCH

Fire Fighter Routes of Cancer Exposure



Inhalation

From breathing contaminants due to not wearing a SCBA, or to ill-fitting or defective SCBA



Absorption

From contaminants going through, around, or under gear and contacting the skin



Ingestion

From touching contaminated gear and not washing hands properly

Fire Service: Increase training and education about safe work practices to reduce cancer exposures.



Source: https://www.cdc.gov/niosh/publications/occupational_cancer_firefighters.pdf

More Information



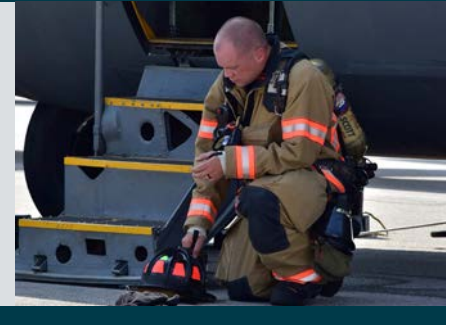
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Impact of Behavioral Health



Provide behavioral health resources and suicide prevention initiatives for all firefighters.

Issue

An increasing number of firefighters are dying by suicide suffering from behavioral health issues, including post-traumatic stress, from exposures that they have suffered while delivering emergency medical services to the public. There is a lack of culturally competent behavioral health specialists to assist firefighters, and local Employee Assistance Programs are ill-equipped to assist first responders.

Impact Areas

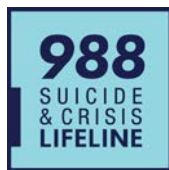
Firefighters and other rescue personnel develop PTSD at a similar rate to military service members returning from combat, according to an August 2016 study from the Journal of Occupational Health Psychology. The report reveals that approximately 20 percent of firefighters and paramedics meet the criteria for PTSD at some point during their career.¹ This compares to a 6.8 percent lifetime risk for the general population. The connection between PTSD and traumatizing rescue work is clear.

The number of firefighter suicides is estimated to be at least 100 per year. According to the "Ruderman White Paper on Mental Health and Suicide of First Responders," the suicide rate for firefighters is 18 per 100,000 compared to 13 per 100,000 for the general public.

The federal government has a responsibility to protect those who protect us by investing in the protectors' mental health. Grant programs funding peer-supported behavioral health and wellness programs within fire departments should be established by Congress. Resources should be available to health care providers highlighting best practices for addressing post-traumatic stress among public safety officers. Accurate data on the prevalence and causes of post-traumatic stress and suicide with the fire service must be collected. According to evidence-based research, behavioral health awareness campaigns provide effective intervention methods. It is our collective responsibility to provide those who serve with the tools they need to help themselves and each other.

The FBI launched the Law Enforcement Suicide Data Collection on January 1, 2022.² to help improve understanding and prevent suicide among law enforcement officers. We applaud this effort, and a similar data collection model is needed at the U.S. Fire Administration.

It is our position, that we need to provide behavioral health resources and suicide prevention initiatives for all firefighters. Like other injuries, early detection, access to culturally competent behavioral health specialists and proper screening can help reduce the effects of post-traumatic stress. Many insurance providers cap the costs related to behavioral health assistance and treatment centers for behavioral health programs are often out of the reach of the average firefighter.



More Information



¹ <https://www.iaffrecoverycenter.com/blog/trauma-firefighting-and-ptsd/>

² <https://www.fbi.gov/services/cjis/ucr/law-enforcement-suicide-data-collection>



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Impact of Codes and Standards



Create safer communities by implementing and enforcing codes and standards, especially in the wildland urban interface (WUI) and under-served and vulnerable populations providing affordable and fire-safe housing.

Issue

State and local governments are responsible for promoting the use and enforcement of current codes and standards. The federal government can help by incentivizing compliance and providing funding to local jurisdictions for code implementation, inspection, and enforcement. This will increase fire and life safety in our communities, especially in the WUI and among under-served and vulnerable populations.

Impact Areas

Model building codes improve building resilience to natural disasters and save \$11 for every \$1 invested.¹

All nationally recognized modern building and fire codes require the use of life-saving technology, like smoke alarms, carbon monoxide alarms, and automatic fire sprinkler systems.

Nearly a million households live in public housing units in the United States,² and fire safety improvements in public housing must receive heightened attention. In 1992, Congress passed the Federal Fire Safety Act (15 USC 2227), requiring newly constructed multi-family housing units to have fire sprinklers. HUD estimates that approximately 570,000 multi-family public housing units are in their inventory that were constructed before the sprinkler requirement. A significant portion of these units lack the protection offered by fire sprinklers.

In buildings with automatic fire sprinkler systems, the civilian fire death rate is 89 percent lower than non-sprinklered buildings and the injury rate is 27 percent lower. Furthermore, property damage decreases significantly in buildings protected by fire sprinklers.³ Investments must be made in retrofitting public housing with fire sprinkler systems.

Nearly three out of five home fire deaths are caused by fires in properties without smoke alarms or smoke alarms that failed to operate.⁴ HUD must provide resources to public housing authorities to either retrofit housing units with hardwired smoke alarms or require the installation of tamper-resistant long-life battery-powered smoke alarms.



Philadelphia Fire Department units operating at January 2022 multi-fatality fire in the city's Fairmount neighborhood. Photo credit: PFD Community Action Team



January 9th 2022: Bronx, New York: FDNY units operating at the Twin Parks Fire. Tragically, 17 people died at this fire. However, many more were rescued by the FDNY. Photo credit: Frank Leeb

More Information



¹Natural Hazard Mitigation Saves: 2019 Report (National Institute for Building Sciences; December 1, 2019)

²U.S. Department of Housing & Urban Development, Office of Public and Indian Housing

³US Experience with Fire Sprinklers (NFPA; October 2021)

⁴Smoke Alarms in US Home Fires (NFPA; February 2021)



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16825 South Seton Ave.
Emmitsburg, MD 21727