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

WORKGROUP REPORT | OCTOBER 2022 - AUGUST 2023



FEMA



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







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

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

October 2023

The President  
The White House  
Washington, D.C.

Dear Mr. President:

It is my honor to present the recommendations of America's fire service to address the tremendous scourge of fire on our nation. These comprehensive and actionable solutions were developed over the past year by six workgroups created at the 2022 U.S. Fire Administrator's Summit on Fire Prevention and Control to provide a strategic approach to implementing the National Fire Strategy.

This report comes a half-century after the National Commission on Fire Prevention and Control issued its seminal report "America Burning," which highlighted the need for a comprehensive and coordinated approach involving government agencies, industry, and the public to address the menace of fire. That original report also galvanized support for reforms such as the establishment of the U.S. Fire Administration (USFA) and its National Fire Academy under the Federal Fire Prevention and Control Act of 1974. Although substantial strides forward have been made over the past 50 years, there is still much work to be done as witnessed by the recent August 2023 fires in Maui, Hawaii.

Fire is a threat to individuals and our communities, and fire is also a threat to our homeland. Beyond whole-of-government **reactive responses** to fire tragedies and disasters, America also needs a proactive whole-of-government approach to our nation's fire problem. If the United States had the ability to prevent or stop hurricanes, we would. We have the ability to stop and prevent most fires. A **proactive and resourced whole-of-government approach** is needed to meet this challenge.

It requires national resources, coordination, collaboration, and standardization involving a range of stakeholders from government, industry, non-profit institutions, academia, and engaged citizens.

Now, more than ever, we have the means to address the fire-related challenges we face. This includes addressing wildfire due to climate change, improvements in codes and standards to protect our most vulnerable citizens, the reduction of cancer-causing chemicals affecting firefighters along with supporting the mental health of our first responders, and developing recruitment programs for a diverse and well-trained American fire service.

I urge all appropriate Federal government officials as well as leaders throughout our nation to study and help implement the recommendations outlined in this report. Innovative thinking, the willingness to use all available tools, and a concerted national effort are needed, because Fire Is Everyone's Fight.® Together, we can save lives. Together, we can prevent America from burning.

I look forward to discussing the way forward with you at the 2023 Summit on Fire Prevention and Control on October 10, 2023.

Sincerely and respectfully,

**Lori Moore-Merrell, DrPH, MPH**

U.S. Fire Administrator  
U.S. Fire Administration





# U.S. Fire Administrator’s Summit on Fire Prevention and Control Workgroup Recommendations

## Introduction

The 2022 U.S. Fire Administrator’s Summit on Fire Prevention and Control outlined a Fire Service National Strategy and set the strategic direction to address the fire-related challenges facing our nation. Six work-groups were established to develop comprehensive and actionable solutions focused on the following areas:

### **Impact of Climate Change**

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

### **Recruitment and Retention**

Invest in recruitment and retention initiatives and incentives to address the shortage of firefighters and make the fire service more diverse and inclusive.

### **Firefighter Cancer**

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

### **Mental Health and Well-Being**

Provide comprehensive mental health and well-being resources, including those focused on suicide prevention, for all fire and EMS personnel.

### **Codes and Standards**

Create safer communities by implementing and enforcing codes and standards, as created by a national consensus process, especially in the WUI and under-served and vulnerable populations in rural and urban areas; and provide affordable and fire-safe housing.

### **Whole-of-Government Approach**

Employ a proactive and fully resourced whole-of-government approach, with significant involvement by the fire service, to address threats — including fire — to the health and safety of our nation’s population.

The workgroups met throughout the remainder of 2022 and 2023. This report outlines their recommendations.



## Workgroup Summary

# Impact of Climate Change

### Overarching Goal:

Prepare all firefighters for the climate-driven increase in wildfires in the wildland urban interface (WUI) and in rural and suburban communities 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.

The increasing incidence of climate-driven wildfires that affect communities means that more municipal fire departments are responsible for wildland/WUI firefighting. 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 skillset.

According to the 2021 National Fire Protection Association's *Fifth Needs Assessment, of the U.S. Fire Service* document, 87% of fire departments in the U.S. are responsible for responding to wildland and urban interface fires, yet 78% of these departments that perform wildland and WUI firefighting operations have unmet training needs, and these needs are more pronounced in smaller departments. 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.

Fire departments cannot safely and effectively respond to wildland or WUI fires without proper personal protective equipment (PPE). Two-thirds of departments have unmet needs for wildland PPE for their firefighters, both men and women. Research, innovation, and standards for respirators purpose-fit for wildland and WUI firefighting as well as PPE for female firefighters are needed. There are significant risks associated with ill-fitting PPE because firefighters are not able to move as easily or as quickly as they need to.

If not addressed, the lack of wildfire/WUI training and appropriate PPE for all responding personnel in local fire departments will lead to an increase in firefighter injuries and deaths.

The wildland urban interface (WUI) is where suburban and rural areas merge with the wildland. About one-third of the U.S. population, 99 million people, live in the WUI and it is estimated that 45 to 46 million structures, nearly half of U.S. building stock, are in the WUI.

## Recommendations:

### Training

- ▶ Develop a searchable online database/knowledge base of available training courses in order to increase opportunities for all partners and practitioners to be able to locate and access training through a single platform.
- ▶ Identify gaps and opportunities in content and delivery.
- ▶ Prioritize identified gaps and opportunities to inform short-term actions to mitigate those gaps and maximize opportunities.
- ▶ Virtualize all courses and content offered by fire service partners.
- ▶ Modernize existing curriculum by partners such as the National Wildfire Coordinating Group (NWCG) and the U.S. Fire Administration (USFA) that includes such concepts as mitigation, fire adaptation, Cohesive Strategy, Community Wildfire Protection Plans, post-fire processes and needs, etc.
- ▶ Create new curriculum where needed.
- ▶ Publicize availability and importance of wildfire/WUI training courses to municipal fire departments.

### Personal Protective Equipment (PPE)

- ▶ All local (municipal) departments must have appropriate PPE for all personnel responding to wildland and WUI fires.
- ▶ Gain consensus between National Fire Protection Association (NFPA), National Institute for Occupational Safety and Health (NIOSH), and other federal and state occupational safety agencies on the definition of “WUI environment” for the purposes of defining the minimum requirements for respirators for wildland and WUI environments.
- ▶ Secure funding and establish public-private partnerships to complete necessary research and innovation for respirators purpose-fit for wildland and WUI firefighting.
- ▶ Secure funding and establish public-private partnerships to complete necessary research into design standards for PPE for female firefighters for structural as well as wildland and WUI fires.
- ▶ Incorporate design standards for PPE for female firefighters into official standards.
- ▶ Advocate for the design, manufacture, and purchase of PPE for female firefighters designed to the proper standard.

## Workgroup Summary

# Fire Service Recruitment and Retention

### Overarching Goal:

Invest in recruitment and retention programs to address the shortage of firefighters and 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.

Historically, the fire service hasn't had to recruit and retain members actively. There were usually too many applicants for career positions, and communities fully supported their local volunteer department generation after generation. But that has changed, and dramatically so over the past few years, due to retirements and the effects of the pandemic.

The National Fire Protection Association's 2022 U.S. Fire Department Profile estimated there are 1,041,200 career and volunteer firefighters in the United States, which is approximately 62,100 less than in 2010. In 2010, the rate of firefighters per 1,000 citizens was 3.57. In 2020, the rate of firefighters per 1,000 citizens was 3.14. At the same time, call volumes have more than tripled, primarily due to increased emergency medical calls. With firefighter shortages come response time delays, closed stations, firefighter safety issues, mandatory overtime, and financial impacts on municipalities.

The fire service also struggles to recruit and retain women and people of color. Women represent 11% of volunteer firefighters and 5% of career firefighters, according to the NFPA's 2022 U.S. Fire Department Profile. 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.

### Recommendations:

- ▶ Support the development of apprenticeship, cadet, internship, and supplemental education programs as a vehicle to recruit career and volunteer fire and EMS personnel.
- ▶ Continue to support efforts of the International Association of Fire Fighters (IAFF) which is working with U.S. Department of Labor to create a national apprenticeship program for the fire service and EMS.



- ▶ Support efforts of the National Volunteer Fire Council (NVFC) working with U.S. Department of Education and other entities on Comprehensive Technical Education (CTE) and cadet programs for the fire service and EMS.
- ▶ Create an online repository of best practices for recruitment and retention.
- ▶ Create national media campaign including Public Service Announcements (PSAs) that share what the fire service does, how individuals can serve as either career or volunteer members, and connects them with local opportunities (searchable by zip code).
- ▶ Create a nationwide “How to Become a Firefighter” portal showcasing new and existing recruitment resources and related social media sites.
- ▶ Explore ways to bridge EMS training for military medics while the individuals are still in the service.





## Workgroup Summary

# Firefighter Cancer

### Overarching Goal:

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. In 2022, 74% of firefighter line-of-duty deaths were due to cancer.

This report is dedicated in memory of all fire service members who have suffered from or succumbed to the ravages of cancer.

Occupational cancer in the fire service has moved from anecdotal discussions to a prominent place in health and safety considerations to protect firefighters adequately and consistently. An increase in research led by dedicated subject matter experts has, over the last two decades, more closely linked the hazards of the occupation with an increased risk of cancer in firefighters and others working in this hazardous environment.

Recently, the World Health Organization's International Agency for Research on Cancer (IARC) declared a firefighter's occupational exposure at the highest level, as a "Class 1 threat carcinogenic to humans." The IARC Working Group found "sufficient evidence" to connect occupational exposure as a firefighter with mesothelioma and bladder cancer. They also found "limited evidence" of a link between firefighting and colon, prostate and testicular cancer. This finding, the result of years of research, is a game-changing opportunity to further consolidate hard-won gains in research and knowledge into profound impacts. In 2010, the National Institute for Occupational Safety and Health (NIOSH) found firefighters have excess cancer risk compared to the general population for multiple cancers, including testicular, brain, prostate and colon cancers, as well as mesothelioma, multiple myeloma and leukemia.

Departments large and small, career and volunteer, structural and wildland, are taking steps to reduce this risk and educate their members, however, more help is needed. Much of the research on occupational cancer isn't making it to the street firefighter in language they can understand. Current firefighter cancer research efforts are not fully coordinated and the specific exposures and mechanisms leading to the increased cancer rates are not known. Existing cancer screening recommendations do not take into account that firefighting is a significant risk factor for cancer. PFAS, carcinogenic forever chemicals that degrade very slowly, are found in a firefighter's blood, their firehouses, some firefighting foams, and most concerning, bunker gear -- the very gear meant to protect firefighters. Next-generation PFAS-free bunker gear and PPE can remove this risk.

## Recommendations:

### Overall

- ▶ Develop a national-level comprehensive firefighter cancer strategy. A national strategy should include an awareness campaign, policy examples, chief officer support, and company officer training.
- ▶ Invest in research to expand our understanding of the mechanisms between occupational exposures and cancer, why firefighters are at heightened risk from some cancers, and better understand the cancer risks of our understudied populations, including women and minorities.
- ▶ Incorporate cancer mitigation strategies into training on operational strategies and tactics.
- ▶ It is imperative that the primary care community understand the risk factors for cancer among firefighters.

### Converting Research to Plain Language

*Convert research to plain language so fire service members have a better understanding of the risks and steps they can take to reduce their occupational exposure to carcinogens. Plain language materials make it easier for everyone to understand and use health information. Examples of such materials include infographics that are available in multiple languages; research summaries that have minimal technical jargon; short videos with worker testimonials; webinars; and misinformation alerts.*

- ▶ Identify the appropriate organization (perhaps the Firefighter Cancer Support Network) to coordinate the championing of efforts to translate firefighter cancer research into practice and disseminate information through existing organizational channels.
- ▶ Identify relatable fire service stories and personnel to share brief but hard-hitting and candid messages about cancer prevention, early detection, treatment management, and evidence-based recommendations in easily accessible formats (e.g., video, pictures).
- ▶ Form a coalition comprised of the First Responder Center for Excellence (FRCE), Firefighter Cancer Support Network (FCSN), National Fallen Firefighters Foundation (NFFF), International Association of Fire Fighters (IAFF), International Association of Fire Chiefs (IAFC), National Volunteer Fire Council (NVFC), Fire Department Safety Officers Association (FDSOA), and International Association of Arson Investigators (IAAI) research groups to produce “one voice” of plain language actionable devices (e.g., infographs, plain talk messaging).
- ▶ Create actionable approaches for translating research to practical actions for all layers of the fire service through engagement with a diverse range of stakeholders.
- ▶ Use technology to facilitate the translation of research into practice. This can include the development of mobile applications, online resources, and other tools that make it easier for firefighters and fire departments to access and implement evidence-based strategies.



- ▶ Explore what prevention messages have been successful in motivating engagement in other national marketing campaigns.
- ▶ Develop and secure funding for a targeted, co-branded marketing campaign to educate the fire service on current and emerging science related to the optimization of health for firefighters.

### **Firefighter Cancer Screening**

*Promote the advantages of and access to cancer screenings for all fire service members so indicators of cancer can be discovered at the earliest possible exam, improving survivability.*

- ▶ Seek and secure cancer screenings for all members of the fire service exposed to carcinogens and options for cancer screening for the families of the firefighters.
- ▶ Convene an advisory panel of experts to develop and regularly revise recommendations for screenings based on emerging literature.
- ▶ Support research on the sensitivity and specificity of screening approaches currently being used by the fire service.
- ▶ Provide resources for recruiting fire service centric healthcare providers and cancer researchers. Continue partnerships and foster relationships within the research community that promotes cancer screenings for firefighters.
- ▶ Develop an algorithm of screening recommendations by age, years of service, and other health risk factors.
- ▶ Determine the potential for funding cancer screenings through existing sources within the federal government (e.g. DHS) and disseminate possibilities to the fire service.
- ▶ Develop a roadmap for negotiating more aggressive cancer screening coverage with health insurance providers and disseminate the methodology nationally.
- ▶ Leverage National Firefighter Registry (NFR) data to understand patterns of developing cancer nationally.
- ▶ Leverage the data collected by payees of state cancer presumption legislation to identify trends in diagnosis.
- ▶ Capitalize on forthcoming IARC monograph to identify cancers at highest likelihood of diagnosis.
- ▶ Encourage the National Firefighter Registry (NFR) to conduct a regular survey of cancer screenings and outcomes to developed cancers.
- ▶ Encourage other studies to integrate cancer screenings as a data collection component to further the understanding of the utility of various screening approaches.
- ▶ Encourage all departments to provide annual medical exams to their personnel in accordance with NFPA 1582.

- ▶ Build a relationship with the national medical associations (e.g. American Medical Association) to educate providers on cancer development and treatment approaches for fire & EMS.
- ▶ Prioritize outreach and training to healthcare providers in occupational health settings, primary care, and specialties.
- ▶ Provide resources to develop a comprehensive approach to recruit, engage and support healthcare providers who work with firefighters.

### **PFAS and Toxicants**

*Increase funding for more research on the effects of PFAS and other toxicants on fire service member health outcomes.*

### **Policy Level**

- ▶ The USFA should support development of a central clearinghouse for firefighter PFAS exposure information.
- ▶ Fire service organizations and researchers should develop recommendations for serum PFAS screening programs in firefighters.
- ▶ The USFA should support efforts that engage firefighters in conducting scientific research focusing on PFAS and other toxicants screening.
- ▶ The USFA should support development of a consortium that fosters collaborative efforts among fire service organizations and research scientist in academic settings focusing on PFAS and other toxicant exposure and their effects on physiological disruptions holistically (e.g., cancer, liver toxicity, hormone disruption, mental health, resiliency, etc.).
- ▶ The USFA should support cross sectional and longitudinal academic research efforts focusing on identifying the biomarkers of effect due to PFAS and other toxicant exposures.
- ▶ The USFA should support the academic research efforts focusing on the effects of PFAS exposure and other toxicants on other health related issues in addition to cancer.
- ▶ The USFA should support research efforts that include engagements of health care providers as well as State and local representatives (education and outreach with higher impact).

### **Scientific Research**

- ▶ Connect data sets to elucidate exposure in firefighter histories (e.g., military exposures, Environmental Working Group (EWG) contamination maps).
- ▶ Compare PFAS screening tests to facilitate combining results from different labs
- ▶ Carry out cross sectional and longitudinal analysis of changes in firefighter serum PFAS

### **Environment**

- ▶ Identify additional sources of PFAS in the firefighting work environment (burning sofa, carpet, household items, dust, water, etc.).



- ▶ Quantify the presence of each PFAS.
- ▶ Identify the type of PFAS in different sources.

### **Exposure**

- ▶ Identify exposure pathways in firefighters.
- ▶ Quantify transdermal exposure vs. inhalation vs. ingestion.

### **Effect**

- ▶ Identify and elucidate biological mechanisms resulting from PFAS exposures (Genomic, Epigenomic, miRNA, Exposome, Oxidative stress assays, Chronic inflammation Markers, Telomere length, Immune functional assays, Metabolomic assays, Cell Proliferation assays).
- ▶ Expand list of biomarkers of effect studied in firefighters.
- ▶ Explore expansion of and new analytic methods to elucidate biological mechanisms that increases cancer risk in firefighters e.g. untargeted approaches, metabolomics, immune effects, mutational frequency, clonal expansion, long read sequencing, use of epi-genetic clocks as a risk factor.

### **PFAS Reduction and Elimination Interventions**

- ▶ Biomedical/clinical intervention.
- ▶ Environmental Intervention (water treatment, landfill, etc.).

### **Products of Combustion — Environment**

- ▶ Expand list of environmental analytics studied on the fire ground.
- ▶ Explore expansion of and new analytic methods to further characterize environmental contaminants e.g., untargeted approaches, NMR-MS.

### **Products of Combustion — Exposure**

- ▶ Expand list of biomarkers of exposure studied in firefighters.
- ▶ Explore expansion of and new analytic methods to better characterize firefighters' exposures e.g. untargeted approaches, PHE-T to measure exposure and CYP/EPHX pathway.

### **Products of Combustion — Effect**

- ▶ Expand list of biomarkers of effect studied in firefighters.
- ▶ Explore expansion of and new analytic methods to elucidate biological mechanisms that increases cancer risk in firefighters e.g., untargeted approaches, metabolomics, immune effects, mutational frequency, clonal expansion, long read sequencing, use of epi-genetic clocks as a risk factor.

### **Bunker Gear**

- ▶ Develop new standards for PFAS-free bunker gear and PPE.
- ▶ Develop, evaluate, and manufacture next-generation PFAS-free bunker gear and PPE as quickly as possible.

- ▶ Secure funding for and invest in well-fitting, PFAS-free bunker gear and PPE for every firefighter.
- ▶ Find a safe way to dispose of existing contaminated bunker gear and PPE so that we are not spreading PFAS contamination into the environment.

### **Human Factors**

*Study, identify, and provide strategies that consider human factors elements impacting fire service member response to cancer prevention — this includes considering complex organizational factors surrounding fire department processes and procedures, including leadership and communication around cancer prevention, and how these processes intersect with and influence individual firefighter practices.*

- ▶ Secure funding to develop and deliver cancer prevention messaging that is based on human factors.
- ▶ Increase training and messaging that focuses on how human factors influence firefighters' views of cancer prevention messaging.
- ▶ Revisit USFA programming to ensure cancer prevention messaging considers the role human factors play in how members of the fire service receive, process, and implement cancer prevention messages.
- ▶ Policy recommendations relative to improving human factors must be defined by current research.
- ▶ Human factor research and guidance should occur prior to tool/equipment/research (invest in people before we invest in things).
- ▶ Ensure currently known and vetted Human Factors information is widely disseminated, across a variety of platforms, at low or no cost.
- ▶ Seek Congressional funding to support research that considers the relationship between human factors and occupational firefighter cancer. Funding should include studying the particular the role of the company officer and how firefighters process cancer prevention messaging.
- ▶ Cancer-related research studies should include human factors components that identify barriers and potential solutions at the individual and fire company level.
- ▶ Cancer-related research studies should incorporate human factors components in interventions that help the fire service execute evidence-based practices at the individual and fire company level.

### **Developing High Priority Research Programs**

*Develop new or support existing nationally focused research programs to prioritize and address the most threatening cancer risks to fire service members.*

- ▶ Develop a National Fire & EMS Cancer Research and Prevention Program. Centralize data integration, leveraging existing efforts. Develop strategies to enhance national laboratory coordination along with standardized collection protocols.

- ▶ Support consistent and ongoing funding for the National Firefighter Registry (NFR), the Firefighter Cancer Cohort Study (FFCCS), and other programs trying to understand cancer and reduce exposures and adverse health effects at a national level.
- ▶ The USFA should work with federal funding agencies to establish a center to fund the Firefighter Cancer Cohort Study (FFCCS) and other national firefighter research initiatives and provide a mechanism for coordination among these studies and state funded initiatives. Within this center, funding and coordination should be provided to assist research studies or public health surveillance programs aimed at evaluating the effects of high-risk exposures such as large industrial fires and other manmade and natural disasters.
- ▶ Support the development and deployment of a national strategy for responding to large scale natural and manmade disasters to collect real time biological samples, and survey data to understand the short- and long-term impacts of major events that leverages fire service infrastructure and support and integrates research into standard response protocols within the national incident management structure.
- ▶ The USFA should develop a robust data collection system for identifying responders at an emergency incident and make the data available for research or public health surveillance. Such data is instrumental to understanding firefighters' unique exposures and evaluating how they relate to disease outcomes. Improve the nationwide system for identifying responders at emergency incidents, leveraging existing technology (e.g., computer aided dispatch, mobile devices, etc.) to remove some of the reporting burden on departments.
- ▶ Create a mechanism for providing data to the fire and EMS community, public health and medical communities, and other stakeholders in near real time. Coordination should be between all national data stewards to modernize data dissemination in an efficient and relevant way. Provide report back of biomarkers of exposure and effect (e.g., serum PFAS, DNA methylation) including dashboard, summary stats, education of fire service and link to incident level information/data, as is being carried out in the Firefighter Cancer Cohort Study (FFCCS). Use these reporting mechanisms to encourage implementation and utilization of empirically supported risk mitigation. The USFA can support and coordinate existing exposure and biological effect report-back programs.
- ▶ Support efforts to understand the intersection of other health outcomes with cancer (e.g., reproductive health) and, in doing so, leverage existing health outcome data sources (e.g., Medicaid/Medicare, stroke registry, NDI, NDBPS, FFCCS). Increase coordination and data sharing across systems that monitor health outcomes Congress should consider expanding the scope of the National Firefighter Registry (NFR) to include other health effects beyond cancer that may have similar risk factors.
- ▶ Research or public health surveillance programs should leverage fire service organizations to support community-engaged research that is focused on firefighters and other first responders. Leverage the fire service for data collection protocols — such as regional response teams — which can act as a force multiplier



for research and discovery. Cultivate and support firefighter research champions, providing the necessary background, training, clearances, etc. for them to assist with specific research or support activities.

### **Presumptive Laws & Public Safety Officer Benefit (PSOB)**

*Campaign for uniform national occupational cancer presumption and expansion of the Public Safety Officer Benefit (PSOB) Program to include occupational cancer for all fire service members.*

- ▶ The Public Safety Officers' Benefits (PSOB) program should be expanded to cover line-of-duty deaths and permanent disabilities that occur as a result of occupational cancer.
- ▶ A publicly available and consistently updated database of state cancer presumption laws should be made available to the fire service and hosted online. The database should include statutory references to improve ability to access reliable information.
- ▶ Model state cancer presumption legislation should be developed and shared with state and local fire service advocates with the goal of achieving uniform and universal coverage in all 50 states with coverage for all firefighters (career and volunteer). The 'uniformity' should be considered a 'floor' or starting point rather than a maximum. The model legislation should include a toolkit with resources for advocacy campaigns to enact the legislation.
- ▶ A continuous and ongoing process should occur to ensure coverage evolves as science is developed and/or new exposures are identified.

## Workgroup Summary

# Mental Health and Well-Being

### Overarching Goal:

Provide comprehensive mental health and well-being resources, including those focused on suicide prevention, for all fire and EMS personnel.

### Issue:

An increasing number of firefighters are dying by suicide, suffering from mental health issues, and struggling with post-traumatic stress from occupational exposures sustained while delivering services to the public. This report highlights the national awareness needed and the requirements for leadership to advocate for: culturally competent mental health specialists to address the unique fire and EMS personnel needs; ongoing research to develop and refine mitigation strategies to manage the impact of repeated, stressful occupational exposures, financial support for mental health services, compilation of best practices for building a supportive culture for normalizing mental well-being, gathering best practices for obtaining access to mental health and well-being resources, and identification of measurable outcomes and valid tools to assess progress toward the overarching goal.

Firefighters and other rescue personnel develop post-traumatic stress 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 approximately 20% of firefighters and paramedics meet the criteria for post-traumatic stress at some point during their careers. This compares to a 6.8% lifetime risk for the general population. The connection between post-traumatic stress and traumatizing rescue work is clear. The National Fallen Firefighters Foundation estimates there are between 100 and 200 firefighter deaths by suicide each year, double the rate of the general population. 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.

Although there is improvement in reducing the stigma around the topic of mental health in the fire service, much more attention and resources are needed. Data are needed to better understand and track the problem of firefighter mental health as there is no formal, national strategy for monitoring rates and predictors of occupational stress injuries and/or suicide within the fire service/EMS. There is also a need for an assessment and evaluation of the programs currently addressing firefighter mental health and well-being issues.

Mental health and well-being support, as part of an overall healthy well-being lifestyle, is not well integrated into the fire service culture. Further, Fire/EMS personnel often face barriers to care due to mental health provider shortages in many states throughout the U.S. and mental health clinicians often lack specialized professional training to deliver culturally effective care when treating clients in public safety occupations. In addition, there are no Z codes (medical codes used to report social, economic, and environmental determinants known to affect health and health-related outcomes) for issues related to work in the fire service/EMS, whereas there is a specific Z code (Z56.82) related to military deployments. This lack of an

appropriate, specific Z code may impact the ability of Fire/EMS personnel to qualify for reimbursed mental health treatment, even though their mental health stressor may be occupationally induced.

## **Recommendations:**

\*All recommendations should be sensitive to generational and time in service differences and coordinated with other sub-advisory panels as relevant.

### **Overall**

- ▶ USFA shall be provided the legislative mandate to create an Advisory Panel on Mental Health and Well-being of the Fire Service. The function of the Advisory Panel should include, but is not limited to the following:
  1. Organize sub-advisory groups to include content experts to aid development of the recommendations.
  2. Provide oversight to sub-advisory groups.
  3. Provide comments and recommendations to the Fire Administrator regarding necessary resources to address the identified needs.
  4. Provide improvements and/or revisions to recommendations deemed appropriate.
  5. Review scientific research in the areas of mental health and well-being.
- ▶ Develop and implement a “Measures of Success” strategy. This strategy would indicate outcomes to define the mental health and well-being of the workforce and articulate the measured changes and results. Changes may include greater understanding of mental health needs and services, improved access to mental health services or programs, improvements in departmental policies, and a workforce exhibiting increased mental health resiliency to the occupational stressors of being a firefighter or EMS professional.

### **Culture**

- ▶ Convene an ongoing sub-advisory panel charged to:
  1. Identify existing and/or build new resources for department personnel of all ranks, to integrate into mental health and well-being culture initiatives.
  2. Identify how to assess the integration of the resources and identify the gaps to promote targeted research.
  3. Provide recommendations for funding research to build a culture supportive of seeking mental health and well-being resources throughout the life cycle of employment.
  4. Develop legislative tool kits for leadership to engage state and local governments for sustained funding.

### **Individual Values**

- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Develop and sustain an evidence-based, comprehensive social marketing



campaign to normalize mental health and well-being support as one component of an overall health and well-being lifestyle.

2. Identify barriers and drivers to seeking mental health and well-being support to reveal future research opportunities.
3. Identify possible research opportunities necessary to understand the lack of uptake of resources across the different times in service profile groups.
4. Develop routine and emergency policy templates for departments to provide immediate and on-going assistance to fire/EMS personnel who are seeking mental health and well-being support. Templates are needed for daily operations, high-risk events, and events with extended operational periods.

### **Providers**

- ▶ Support interstate licensing compacts for mental health treatment providers in all 50 states and territories.
- ▶ Develop and disseminate evidence-based standards for defining a trauma informed, culturally competent clinician.
- ▶ Advance a brief set of intake assessments for hospitals to determine if the patient is a firefighter and a secondary occupation question to capture if they are a volunteer firefighter.
- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Prepare educational materials for fire/EMS personnel to understand what mental health and well-being therapy is, how to access it, what to expect, the different types of therapies, the professional qualifications and skills of provider types, differences between experimental and certified best-practice approaches, and what to look for when seeking support.
  2. Identify and utilize funding sources for development of education materials.
  3. Identify and provide information about existing programs (i.e., 988) to support individuals in crisis as well as report those in need.
  4. Identify one source to host, publish and maintain the materials.
  5. Advance a national communication and dissemination strategy for all the mental health and well-being materials.
- ▶ Provide clinician training programs to enhance provider efficacy and treatment delivery for mental health clinicians interested in working with public safety occupations, including fire/EMS professionals. Include standards for number of hours of ride along time with EMS/firefighters to be considered culturally competent and trauma informed.

### **Interventions**

- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Develop criterion of “validated” mental health and well-being interventions

that include primary prevention, intervention and post intervention programs or strategies.

2. Identify currently available validated, evidence based mental health and well-being interventions, as well as those needing validation for fire service personnel addressing prevention, intervention, and post intervention programs or strategies.
3. Identify evidence-based mental health and well-being resources outside the fire service that can be adapted for fire/EMS.
4. Develop a summary document with the current science-based recommendations of evidence-based interventions and best practices for their implementation.
5. Develop “accreditation” standards supported by the USFA for programs that specifically target the fire service (i.e., they need to be validated for the fire service and meet national standards for utilization).
6. Develop educational materials to impact normalizing the seeking of mental health and well-being services and programs identifying the benefits and importance of empirically validated approaches for specific outcomes.
7. Identify one source(s) to host, publish and maintain a directory of validated mental health and well-being interventions and resources for fire/EMS personnel.
8. Advance a national coordinated strategy for dissemination of the directory of interventions and resources.

### **Monitor Predictors**

- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Develop criteria for validated measurement tools and a quality ranking of measures (until more research is done).
  2. Identify areas of research needed to develop measurement tools for monitoring rates and predictors of mental health and well-being parameters.
  3. Provide validated measurement tools to adequately predict occupational stress and subsequent injuries as well as those tools in process of being validated.
  4. Identify a source(s) to host, publish and maintain a directory of validated measurement tools of mental health and well-being parameters.
  5. Advance a national strategy for utilizing and expanding dissemination of the directory of measurement tools in coordination with other sub-advisory groups.
  6. Explore feasibility of tracking workers’ compensation claims in national aggregate to identify trends in claims over time related to occupational stress.

- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Identify key metrics for tracking mental health and well-being program utilization by having departments report information to a national database.
  2. Develop a national database for collecting and providing utilization data of mental health and well-being programs and services.
  3. Create a toolkit for departments to implement annual mental health and well-being screening guidelines using the existing NFPA1582 standard.
- ▶ Promote funding for analysis of large-scale, long term cohort studies to identify predictors (organizational, individual, environmental, and societal) of suicidal ideation, depression, anxiety, and substance use/abuse disorders among fire/EMS personnel.
- ▶ Promote research to describe the impact of incorporating changes to ICD 10-Z codes including the occupational stressors of fire/EMS personnel.

## **Funding**

- ▶ Convene an ongoing sub-advisory panel of stakeholders charged to:
  1. Recommend the types of funding needed to provide and monitor the success of infrastructure (access to programs, education for personnel, and dissemination) to embed mental health and well-being programs in fire/EMS departments and organizations.
  2. Identify sources of financial support for mental health and well-being programs of fire/EMS personnel not covered by health insurance, or state and regionally funded programs.
  3. Identify and recommend low or no cost strategies to immediately implement available evidence-based mental health and well-being programs.
  4. Provide a guidance publication for departments and organizations on how to develop a robust grant proposal to acquire mental health and well-being programs.
  5. Identify one source to host, publish and maintain the database of applicable grants for evidence-based mental health and well-being programs.
  6. Create legislative toolkits for state fire service leaders to advocate and request state and local sustained resourcing for firefighter mental health and well-being services and programs.





## Workgroup Summary

# Codes and Standards

### Overarching Goal:

Create safer communities by implementing and enforcing codes and standards, as created by a national consensus process, especially in the WUI and under-served and vulnerable populations in rural and urban areas; and provide 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 state and local jurisdictions for code implementation, inspection, and enforcement. This will increase fire and life safety in communities, especially in the WUI and among underserved and vulnerable populations.

A 2019 National Institute for Building Sciences report found that model building codes improve building resilience to natural disasters and save \$11 for every \$1 invested. 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. Nevertheless, the U.S. Department of Housing and Urban Development estimates that there are approximately 570,000 multifamily public housing units that were constructed before the sprinkler requirement was established. A significant portion of these units lack the protection offered by fire sprinklers putting millions of Americans at risk.

Through linking data with the Centers for Disease Control and Prevention's (CDC's) Social Vulnerability Index, we can see that socioeconomic status, household composition, racial and ethnic makeup, and housing status all play a role in a community's vulnerability to fire and the risks faced by firefighters. Fire disproportionately impacts our most vulnerable populations: older adults, children, people of color, low-income populations and people with disabilities. This is an equity issue. The single most significant impact on civilian loss of life due to fire is ensuring that any housing funded by the government is built and maintained with the minimum national building code.

In buildings with automatic fire sprinkler systems, the civilian fire death rate is 89% lower than nonsprinklered buildings and the injury rate is 27% lower. Furthermore, property damage decreases significantly in buildings protected by fire sprinklers. Nearly three out of five home fire deaths are caused by fires in properties without smoke alarms or smoke alarms that failed to operate.

Over 37,000 people have died in the US since 2010 in structural fires, less than 100 in buildings designed, built, and maintained to the latest national codes and standards that were protected with automatic fire sprinklers.



Residential fires burn hotter and faster than they did in the past. In a fire today, you have the least time to safely exit your home than at any point in history. The severity of these fires has grown incredibly. Fire-related fatalities in 1- and 2-family homes have increased by 20% since 1980. In the period between 2012 and 2019, this increase is 30%. There are several factors leading to the increased severity of residential fires. Homes constructed today tend to be larger than in the past, leading to more complex escape routes and increased evacuation times. New homes tend to have open spaces, making it easier for smoke and fire to spread. Modern furnishings are made from synthetics and plastics that burn hotter and release more toxins than traditional materials. Positive evolutions in construction have led to lighter building materials and more energy-efficient homes, but they have also led to heat capture. New technologies, such as lithium-ion batteries, can be new ignition sources in the home. All of this leads to faster fire propagation, shorter time to flashover, rapid changes in fire dynamics, shorter escape times, shorter time to collapse, and other new and unknown hazards. Depending on where you live in the nation, local fire department response time from the initial notification could be 6 or more minutes. In modern homes, flashover can occur in 3 to 5 minutes.

Globally, we are experiencing extreme weather events and significant shifts in temperature. Wildfires encountered by today's fire service are unlike those of a generation ago. Severe droughts and longer periods of hot weather alternating with bouts of heavy precipitation contribute to vegetation growth. Fluctuations between an overabundance of rain and severe droughts with extreme high temperatures result in that vegetation becoming dead and dry, contributing to fire intensity and spread. To further exacerbate this situation, many communities in the WUI are facing water shortages, impacting their ability to conduct fire suppression. These impacts, along with the decisions our society has made about using and managing landscapes, have created today's wildfire disaster potential.

According to the National Interagency Coordination Center, in 2022, there were 68,988 wildfires in the U.S., which burned over 7.57 million acres and destroyed 2,717 structures, of which 1,261 were residences. Despite this, FEMA reports only 25% of hazard-prone jurisdictions in the U.S. have adopted the latest 2 editions of hazard-resistant building codes.

A McClatchy analysis of the 2018 Camp Fire in California found that a 2008 building code designed for California's fire-prone regions requiring fire-resistant roofs, siding and other safeguards appears to have protected more than 100 homes in the path of that fire. Of the 350 single-family homes in the path of the Camp Fire that were built after 2008, 51% were left undamaged by the fire. By contrast, only 18% of the 12,100 homes built before 2008 escaped damage.

Current building and fire codes are based on three-year cycles. State adoption of these national model codes can lag further behind. This creates the scenario where new technologies, such as large-capacity battery systems, or building materials utilized to promote building energy performances, are out-pacing the ability of the national codes to keep pace with fire protection designs and requirements. This lag in the ability of the model codes to keep pace with technology has impacted the fire service's ability to develop appropriate response models or tactical protocols.

The inability of the model codes to provide current provisions for emerging issues often places the onus of approval on local officials. Often times local officials are judging the ability of the proposed system to meet the intent of performance required under the model code. Unfortunately, in many cases public officials are challenged with the information provided to them by the proponent. Does the proponent provide relevant test data? Is it the applicable test for the application? Does the local official have the technical expertise to evaluate the test results that are supplied? These are valid and concerning questions.

Currently research for the fire service is conducted by a small handful of organizations that have the capability and funding to undertake these projects. Organizations with the capability and funding to conduct larger scale testing is even a smaller pool. Many times the fire service is relying on small grant funded projects to provide information piecemeal. This results in a lengthy process and fire service representatives being forced to connect the dots between grant projects and results.

Unfortunately, in recent years, the National Institute of Standards and Technology (NIST) has taken a step back from the fire testing industry. This step back from the national fire testing arena has left a void for the fire service. NIST has the unique capabilities to provide an unbiased testing facility with the ability to conduct large-scale testing, or research, and act as the facilitator of collaborative testing and discussion as these emerging technologies come to the market. If NIST is choosing to remain sidelined, then a replacement organization, which USFA can partner with, must be identified.

In a review of the Fire Prevention and Control Act, the U.S. Fire Administrator has the authority to review, evaluate and suggest changes to codes as well as to provide that information in an annual report. In recent years, the codes process has realized an increase of participation from FEMA representatives. These representatives have actively participated in the submittal of proposed code changes and advocacy for the adoption or rejection of code change proposals. Their areas of activities have mainly focused on flood plain and weather pattern designations, but it demonstrates the value of federal participation in the process as opposed to a federal control of the process.

## **Recommendations:**

- ▶ Promote the adoption, implementation, and enforcement of fire and building codes/standards as created by national consensus processes.
- ▶ Provide a database of all jurisdictions that have adopted the minimum building and fire codes.
- ▶ Provide a database and repository of information on the jurisdictions that have adopted codes and standards above the minimum.
- ▶ Work with FEMA to amend the document “Building Codes Save: A Nationwide Study” (November 2020) to include structural fires and fires in the wildland urban interface.
- ▶ Provide current research or identify research that shows the cost benefit of adopting modern building codes and how that integrates into a comprehensive fire prevention and response approach to life safety.



- ▶ Research the data gap to tell the right story — the Fire Service story — regarding Codes and Standards. Establish a workgroup to identify specific areas of research gaps related to, but not limited to:
  - ▶ Energy Storage Systems
  - ▶ EV and Modern vehicle fuel loads in modern parking garages. Required fire protection and suppression fire response.
  - ▶ Residential construction: Emerging construction products, i.e., T-studs, etc.
  - ▶ Energy efficient homes, specific to insulation and impact on fire performance.
  - ▶ Net Zero homes
  - ▶ The evaluation of the applicability of current Test Standards, i.e., NFPA 285, ASTM E119, NFPA 13R, etc.
  - ▶ Automated Storage Systems
  - ▶ Plastic building materials
- ▶ USFA initiate efforts to meet with the developers of the model codes to promote fire service participation and to reduce barriers for participation.
- ▶ USFA engage with NIST to identify testing and research needs of the fire service and define steps on how to move forward.
- ▶ U.S. Fire Administrator appoint a Commission or Ad Hoc Committee to develop recommendations for USFA to meet the intent of Section 12 of the Fire Prevention and Control Act to review, identify, and recommend processes, that may allow the Administrator to utilize the authority to review, evaluate, and suggest improvement in State and local fire prevention codes, building codes, and any relevant Federal or private codes and regulations. This Commission shall consider resources internally or externally available and/or additional funding requirements to meet the intent of the Act specific to Section 12. To potentially counter the efforts at State governments to evaluate code changes based on cost, the Fire Administrator, or designee, shall consider the human impact of code requirements, standards, or provisions in terms of comfort and habitability for residents or employees, as well as the fire prevention and control value or potential of each such requirement, standard or provision.
- ▶ Coordinate with other research partners to develop a research agenda to test broader theories in building codes for life safety cost/benefit.
- ▶ Encourage federally funded housing fire and life safety initiatives to implement current law and add fire sprinklers.

## Workgroup Summary

# Whole-of-Government Approach

### Overarching Goal:

Employ a proactive and fully resourced whole-of-government approach, with significant involvement by the fire service, to address threats — including fire — to the health and safety of our nation's population.

### Issue:

The fire service must be included in federal policy development when federal agencies develop policies and programs related to public safety, such as first responder mental health, building and fire codes, and the five mission areas of the National Preparedness Goal (prevention, protection, mitigation, response, and recovery).

In 2011, fire departments responded to just over 30 million calls; in 2021, fire departments ran more than 36 million calls per year — a 22% increase. These calls are not just for structural fire, but wildfire and other natural disasters; emergency medical response, mutual aid, hazardous materials response, water rescue, active shooter and hostile events, and much more.

The National Fire Protection Association estimates the total cost of fire in the United States (the collective of all net expenditure on fire protection and all net losses due to fire incidents) in 2014 was \$328.5 billion, which was 1.9% of the U.S. Gross Domestic Product (GDP). Losses that year were \$55.4 billion.

Between 2012 and 2021, 35,995 people in the United States died from fire.

The August 2023 Maui fire was the deadliest in modern history and early estimates indicate rebuilding could cost over \$5.5 billion with the overall economic toll estimated as high as \$16 billion.

Beyond whole-of-government reactive responses to fire and other disasters, America also needs a proactive, resourced whole-of-government approach to our nation's fire problem. The most effective way to achieve this goal is through the United States Fire Administration (USFA), the lead federal agency, which represents over one million firefighters and emergency services personnel who serve a most vital role in protecting our communities from fire and other threats.

Nearly every department and agency in the federal government touches upon fire and emergency services. These departments have a responsibility to engage with fire service stakeholders — inside and outside of the federal government — when developing policies and procedures impacting fire and life safety. Despite the fire service's significant footprint within these departments' missions, there is a lack of coordination and cohesive policy development among these agencies.

A whole-of-government approach to fire could best be achieved by USFA coordinating these policies and ensuring that the fire service stakeholders can effectively operate at the national level. The United States needs a multidisciplinary response, preparedness, and mitigation fire agency with USFA elevated within FEMA

and the Department of Homeland Security. The USFA must be fully funded and appropriately staffed in order to execute its mission. As many response agencies already have, each FEMA region should have a dedicated USFA specialist to assist in the planning and response to disasters.

Protecting our nation from fire and other threats to our citizens cannot be addressed in silos, it must be addressed holistically and proactively.

## Recommendations:

### United States Fire Administration

- ▶ Need to develop an awareness campaign within the federal government and for the public of the United States Fire Administration.

**Background:** There is a lack of awareness about the United States Fire Administration. The United States Fire Administration was authorized as the National Fire Prevention and Control Administration by the Fire Prevention and Control Act of 1974. Domiciled initially in the U.S. Department of Commerce, the agency had its name changed in 1978 and one year later was relocated to the newly formed Federal Emergency Management Agency in 1979. In 2002, Congress relocated USFA to the newly formed U.S. Department of Homeland Security when it approved legislation establishing the agency.

USFA represents over one million firefighters and emergency services personnel. Its leadership team possesses a broad range of experience and backgrounds in disaster response. Further, the training it provides to members of the fire and emergency services through the National Fire Academy increases our nation's capabilities to respond to all disasters that threaten our homeland. Despite the importance of USFA's mission to the security of our country, the agency and its leaders have been underutilized at the federal policy level since its inception. The United States Fire Administration deserves proper stature at the federal level because of its mission and the critical roles performed by its one million constituents in protecting our homeland.

USFA also needs to exert more effort in educating the public about its mission and the all-hazards role of our nation's fire and emergency services. Each day, the public witnesses fire apparatus and EMS vehicles responding to emergency calls. Nevertheless, they lack an understanding of the staffing, training, and equipment needed to respond to approximately 37 million emergency calls each year, and the costs associated with maintaining a fire department.

### Research

- ▶ USFA should host a publicly accessible repository of fire prevention and safety research, including research funded through the Assistance to Firefighters Grant (AFG) and Staffing for Adequate Fire and Emergency Response (SAFER) grants focused on firefighter health and safety, fire prevention and life safety, and recruitment and retention.

**Background:** The Federal Emergency Management Agency released a report in December 2022 titled "Fire Prevention and Safety (FP&S) Grant Program Research and Development (R&D) Activity: Project Abstracts." The beginning of the report provides general information about the grant program, including the number of

research projects funded from FY05 through FY21 (137) and the aggregate amount of grant funding awarded (\$140,635,997). The report then provides abstracts of all the research projects, including potential outcomes stated by the applicants. At the time of publication, 31 of the 137 projects were active, while 106 were designated as closed. A repository that includes the results of this research with links to published papers would be of great value to the federal government, the fire and emergency services, and the general public.

The same applies to Fire Prevention and Safety grants: The FEMA grants office or the United States Fire Administration should develop a repository of fire prevention and safety programs funded with AFG grants. By creating such a repository, USFA can facilitate the dissemination of essential safety programs, fostering advancements in prevention programs and potentially reducing the number of deaths and injuries caused by fire.

- ▶ Proposal for an interagency committee chaired by the U.S. Fire Administrator, to enhance coordination of federal fire programs within various federal agencies.

**Background:** There are different interagency committees in the federal government that focus on specific issues. There are interagency committees for the wildland-urban interface, EMS, and environmental changes in public safety. Nevertheless, no committee provides coordination and cohesion for the broad spectrum of federal fire programs among the various federal agencies.

The report presented at the 2022 U.S. Fire Administrator’s Summit on Fire Prevention and Control showed a list of federal agencies overseeing federal fire programs. These programs impact all aspects of fire and emergency responses. An interagency committee that can facilitate communications among the various agencies administering federal fire programs would strengthen the federal government’s role in supporting local first responders and create greater efficiencies in allocating federal resources to local first responders.

### **Federal Emergency Management Agency**

- ▶ The U.S. Fire Administrator, who holds the position of senior advisor to the FEMA Administrator, must be treated accordingly. Inclusion in policy discussions and pre-disaster and disaster-response meetings with the FEMA Administrator and other senior advisors is vital.

**Background:** “FEMA’s mission is helping people before, during, and after disasters.” That is the first line of its mission statement. At the local level, firefighters and emergency services personnel primarily perform this mission. Therefore, the FEMA Administrator should engage the U.S. Fire Administrator in the highest-level discussions on policy matters and pre- and post-disaster response meetings.

- ▶ USFA should have a senior staff member assigned to each FEMA regional office to serve as USFA’s liaison with state and local fire agencies to facilitate the delivery of federal programs and resources that support the mission of state and local fire agencies.

**Background:** The Federal Emergency Management Agency has ten regional offices in different parts of the country, supporting state and local communities with pre-



disaster planning and post-disaster recovery. They link local and state emergency operations and FEMA's headquarters, facilitating communications between FEMA leadership and local and state emergency response operations. USFA should have a senior staff member assigned to each regional office, working directly with local fire and emergency response agencies to ensure that these agencies receive the federal resources needed to respond to large-scale disasters.

- ▶ The United States Fire Administrator should accompany the FEMA Administrator whenever the Administrator travels to disaster areas that require the deployment of firefighters and emergency services personnel in the response efforts.

**Background:** Quite often, when a large-scale disaster strikes a community, a high-ranking Administration official is dispatched to the scene to send a message to the public about the Administration's commitment to the recovery efforts. During their visits, they meet with local and state officials and conduct interviews with local media to discuss the federal government's role in the recovery efforts.

The U.S. Fire Administrator should accompany the FEMA Administrator whenever the latter travels to communities devastated by disasters, especially when firefighters and emergency response personnel are extensively involved in the rescue and recovery efforts. With access to resources and USFA personnel trained in recovering operations and incident command, the Fire Administrator can serve an essential function in recovery operations while offering support and technical information to the FEMA Administrator during meetings and media interviews.

### Department of Homeland Security

- ▶ Cybersecurity and Infrastructure Security Agency (CISA): Need better coordination between the agency and USFA on critical infrastructure programs and cyber and data security for fire departments and EMS agencies.

**Background:** The fire and emergency service falls under the Emergency Services Sector (Emergency Services Sector | Cybersecurity and Infrastructure Security Agency CISA), one of the 16 areas of critical infrastructure covered by the Department of Homeland Security's Cybersecurity & Infrastructure Security Agency. CISA focuses on cybersecurity and also public safety communications interoperability through SAFECOM (SAFECOM | CISA). Fire departments continue to work to improve communications and interoperability and are at risk of cyber attacks. USFA should strive to develop a closer relationship with CISA to develop training and alert systems to help fire and EMS departments prepare for 21st Century threats.

- ▶ Science and Technology Directorate: The Directorate should maintain its commitment to disseminating information to the fire service regarding new research and technologies that benefit the firefighters and emergency services personnel.

**Background:** The mission of the Science and Technology Directorate is to "enable effective, efficient, and secure operations across all homeland security missions by applying scientific, engineering, analytic, and innovative approaches to deliver timely solutions and support departmental acquisitions." The operative work for the fire and emergency services is "timely." With emerging threats placing greater responsibilities on local fire departments to protect their communities, it is imperative that the Department of Homeland Security, through the Science and

Technology Directorate, continue its commitment to disseminate research and information on new technologies to the fire service on a “timely” basis.

### Department of Agriculture

- ▶ ESF-4 Emergency Support Function (ESF) #4 — The national fire organizations support USFA’s initiative to explore how USFA can assume a more significant role in ESF-4.

**Background:** Emergency Support Functions are part of the National Response Framework which outlines how the nation responds to all types of disasters and emergencies. ESF-4 addresses coordinating firefighting activities and providing personnel, equipment, and supplies in support of local, state, tribal, territorial, and insular area agencies involved in wildland, rural, and urban firefighting operations. The United States Forest Service is the lead federal agency for implementing ESF-4.

For many years, USFA has expressed reasons why USFA should assume a more prominent role in ESF-4, primarily for fires in which structural firefighting crews are deployed. On May 1, 2023, USFA Administrator Moore-Merrell conducted a meeting to discuss USFA’s role in ESF-4. Representatives for local, state, and national fire organizations attended, as did FEMA and the U.S. Forest Service representatives. Fire representatives agreed that USFA should assume a more significant role, citing USFA’s understanding and experience with mutual aid and interstate agreements.

- ▶ The United States Forest Service and the United States Fire Administration need to increase collaboration in providing information to the fire and emergency services about the Federal Excess Personal Property Program (FEPP) and the Firefighter Property Program (FPP).

**Background:** FEPP and FPP can provide fire departments with specific types of excess federal equipment and resources. It includes vehicles (pick-up trucks, sports utility vehicles, 2½ ton trucks), fire trucks, generators, trailers, hoses, nozzles, pumps, air compressors, and other equipment used by fire departments. Even though the U.S. Forest Service is the lead federal agency administering both programs, the U.S. Fire Administration should assume a facilitating role to make fire departments aware of both programs.

### Department of Commerce

- ▶ The United States Fire Administration and the National Institute of Standards and Technology (NIST) need to continue their collaboration in developing and implementing a research agenda and distributing research findings to the fire and emergency services. Furthermore, the two agencies need to continue pursuing opportunities with the research community to leverage resources and share data, which will have a far-reaching impact on advancing the field of fire research in our nation.

**Background:** On November 5, 1997, representatives of the U.S. Fire Administration and the National Institute of Standards and Technology signed a Memorandum of Understanding. The purpose of the MOU was to improve and enhance the effectiveness of the cooperation between USFA and NIST in establishing research priorities, conducting the research, and sharing information about the research between the two agencies and the fire safety community. Twenty-five years later, on July 17, 2023, the two agencies reaffirmed their commitment to work together by signing another MOU.

Since 1997, the research community has assumed a more significant role in establishing the research agenda and performing the research. The shift can partly be attributed to the authorization of the Assistance to Firefighters Grant Program in 2000, which created a grant program for fire research. Since then, the grant program has awarded over \$140 million in federal grants to universities and research facilities for conducting research on firefighter health and safety. Separate from the AFG program, research facilities, such as UL's Fire Safety Research Institute and the National Development Research Institutes' affiliate, NDRI-USA, Inc., have been conducting research of their own, looking for solutions to existing fire safety threats with considerable success. And to their credit, UL's Fire Safety Research Institute has sponsored the National Fallen Firefighters Foundation's initiative to develop a national fire research agenda. NFFF has now published the 4th edition of its research agenda. As two leading federal agencies for fire research, both USFA and NIST should assume a more active role in this initiative.

### **Department of Defense**

- ▶ The Department of Defense needs to address the issue of civilian firefighters employed at military installations not being reimbursed for travel costs to attend National Fire Academy classes or backfill stations.

**Background:** Currently, military installations will not cover travel costs for civilian firefighters to attend classes at the National Fire Academy, nor will they cover costs to backfill their stations when these firefighters attend classes.

- ▶ The Department of Defense needs to establish a formal dialogue with the United States Fire Administration to explore opportunities for technology transfers and surplus property transfers that can benefit the fire and emergency services.

**Background:** The Department of Defense, through the five branches' various research and training centers and the Defense Advanced Research Project Agency (DARPA), among other offices, conducts extensive research to develop new technologies and training for our nation's military. This includes technologies that can track personnel movement and weather patterns, enhance communications at disaster scenes, detect chemical agents, and optimize resource deployment. This same technology can find applications in the fire service, giving firefighters next-generation equipment that will enable them to perform their work safely. First, however, the Department of Defense and the U.S. Fire Administration must lay the groundwork for a dialogue to initiate discussions on Department of Defense technologies that can benefit our nation's fire and emergency services.

- ▶ The Department of Defense should partner with USFA to ensure that active-duty military personnel who separate from military service are aware of opportunities in the fire and emergency services and that such career changes can be facilitated as seamlessly as possible — including waivers for transferable skills and certifications.

**Background:** Military veterans possess several skills and attributes that make them highly qualified to be firefighters and EMS providers. To help our veterans transition from military careers, the Department of Defense and USFA should develop either a marketing campaign or program that makes veterans aware of opportunities in the fire service. Furthermore, the two agencies should develop a review process to waive course requirements for Firefighter 1 certification based on specific skills acquired

during military service as well as ensure military-trained EMS personnel are eligible to obtain National Registry certification.

### **Department of Education**

- ▶ The United States Fire Administration and the Department of Education need to increase collaboration in tracking and releasing data on incidents involving on- and off-campus student housing fires and carbon monoxide incidents.

**Background:** Both USFA and the Department of Education provide information and statistical data about fires on college campuses on their respective websites. USFA's information focuses primarily on fire prevention, whereas the Department of Education, by law, must compile annual reports of crimes and fires on college campuses using information submitted by colleges and universities.

Fire on college campuses is no longer the threat it once was due to smoke detector and sprinkler requirements in on-campus housing and classrooms; however, the threat of fire remains serious in off-campus housing. The challenge for public safety is determining just how great a threat it is. There is no reporting system for off-campus housing fires, and this problem needs to be addressed if we are to understand the true threat of fire on college campuses. In addition, we need to develop fire safety programs for colleges and local fire departments aimed at off-campus housing, using the synergy of the United States Fire Administration and Department of Education to carry out this initiative.

- ▶ Any action taken by the Administration or Congress to forgive student loans must include loan forgiveness for students employed or volunteering in public service, including the fire and emergency services.

**Background:** If the Biden Administration continues to pursue student loan forgiveness following the Supreme Court ruling, forgiveness should apply to loans held by individuals in public service, including fire and emergency services.

### **Department of Health and Human Services**

- ▶ USFA must assume a more substantial role in the decision-making process for releasing all COVID and future pandemic- and disaster-related resources from the Strategic National Stockpile.

**Background:** During the pandemic, the national fire organizations worked together to communicate the needs of the fire services to minimize the health and safety risks of COVID-19 to our nation's firefighters and emergency services personnel. They deserved priority access to pandemic-related resources from the national stockpile because they worked on the front lines treating COVID-19 patients, but they did not always receive it. USFA needs to assert itself more in future discussions and implementation of federal policy regarding pandemic response to ensure that our firefighters have a stronger voice at the federal level and acquire the resources they need to protect themselves when the next pandemic strikes.

- ▶ With the passage of the Empowering the United States Fire Administration Act (PL 117-246), the National Institute of Occupational Safety and Health (NIOSH) and USFA will need to coordinate efforts to investigate large-scale fires and develop reports of their joint findings.



**Background:** PL 117-246 states the U.S. Fire Administrator is authorized to “send incident investigators, which may include safety specialists, fire protection engineers, codes and standards experts, researchers, and fire training specialists, to the site of the fire to conduct a fire safety investigation...” The law requires the Administrator to work in cooperation with other federal agencies that also have investigative authority. Although the law does not cite specific agencies, the National Institute of Occupational Safety and Health and the Bureau of Alcohol, Tobacco, Firearms and Explosives are two agencies that have such authority. USFA will need to work with these agencies and other agencies with similar investigative authority to ensure that they collaborate and avoid actions that may impede and negatively impact ongoing investigations.

- ▶ There is a sense among the national fire organizations that the Centers for Medicare and Medicaid Services (CMS) does not grasp the full operations of the emergency medical services system; therefore, USFA and CMS should formalize lines of communication between the two agencies to enhance the latter’s understanding of the fire-service based EMS system in the continuum of emergency medical care.

**Background:** CMS continues to deny reimbursement to EMS agencies unless the patient is transported to a hospital. This failure to recognize the ability of EMS personnel to either treat patients on scene or transport them to alternative destinations of care forces fire departments to perform increasingly high amounts of unreimbursed care. Reimbursing EMS as a form of patient care, rather than simply a mode of transportation to a hospital, would allow fire departments to care for low-acuity patients in a more appropriate and economical manner. The Department of Health and Human Services (HHS) as a whole should also give greater consideration to how EMS agencies, and specifically fire-based EMS agencies, are included in pre-emergency planning through the Assistant to the Secretary for Preparedness and Response as well as all other HHS entities. HHS recognition of the fact that fire departments are EMS agencies, and thus critical components of the overall healthcare system, is an essential component to improving both the day-to-day healthcare system as well as large-scale emergency plans.

- ▶ Emergency Support Function 8 (Public Health and Medical Services Annex): ESF-8 “provides the mechanism for coordinated Federal assistance to supplement state, tribal, and local resources in response to a public health and medical disaster, potential or actual incidents requiring a coordinated Federal response, and/or during a developing potential health and medical emergency.” While FEMA assumes the primary role within DHS to provide support in distributing medical supplies and transporting patients requiring medical aid, ESF-8 does not mention USFA. Yet, at the federal level, USFA represents the most extensive emergency medical delivery system: fire service-based EMS. ESF-8 needs to establish a role for USFA in coordinating and dispatching fire service-based EMS services.

**Background:** In 2007, the Fire Service-Based EMS Advocates released a report titled “PREHOSPITAL EMERGENCY MEDICAL RESPONSE: The Role of the United States Fire Service in Delivery and Response.” Five national fire organizations formed the foundation of the Advocates: the Congressional Fire Services Institute (CFSI), International Association of Fire Fighters (IAFF), International Association of Fire Chiefs (IAFC), National Fire Protection Association (NFPA), and National Volunteer Fire

Council (NVFC). Summarizing the role of the fire service in delivering emergency medical care, the abstract stated:

Prehospital 9-1-1 emergency response is one of the essential public safety functions provided by the United States fire service in support of community health, security, and prosperity. Fire service-based emergency medical services (EMS) systems are strategically positioned to deliver time-critical response and effective patient care. Fire service-based EMS provides this pivotal public safety service while also emphasizing responder safety, competent and compassionate workers, and cost-effective operations. As the federal, state, and local governments consider their strategic plans for an 'all hazards' emergency response system, EMS should be included in those considerations and decision-makers should recognize that the U.S. fire service is the most ideal prehospital 9-1-1 emergency response agency.

The abstract offers a compelling reason why USFA ESF-8 should clarify a role for USFA in the coordination and dispatch of fire service-based EMS services: the entity that USFA represents at the federal level — the American fire and emergency services — is the largest provider of emergency medical services in the nation and the first agency to respond to public health and medical disasters.

### **Department of Housing and Urban Development**

- ▶ The Department of Housing and Urban Development (HUD) and USFA need to increase their communication and collaboration to address fire and life safety in federally funded and insured housing.

**Background:** In 2022, two fires in federally-funded housing properties claimed the lives of 29 victims, raising public concern about the existential threat of fire in public housing across the nation. These two fires prompted USFA to conduct a whistle-stop tour with national media events in New York City and Philadelphia to raise greater awareness about the threat of fire in public housing.

As the administrator of federal housing programs in this country, the U.S. Department of Housing and Urban Development has primary responsibility at the federal level to oversee compliance with fire codes in federally funded housing properties; however, there is no reason why the United States Fire Administration cannot serve an important safety role, offering support with technical guidance, public safety education programs, fire data, and information about detection and suppression systems.

### **Department of Justice**

- ▶ The U.S. Fire Administrator should have a more significant role in the Public Safety Medal of Valor Program, including the annual awards presentation at the White House.

**Background:** The Public Safety Medal of Valor Program is the highest national award for valor presented to a public safety officer - firefighters, law enforcement officers, and emergency medical services. Awarded by the President of the United States, in the name of Congress, the Medal of Valor is presented to officers who have shown extraordinary valor beyond the call of duty. Despite being the nation's highest-ranking fire service official, the U.S. Fire Administrator plays little to no role in the annual ceremony. This is a disservice to the members of the fire service who are honored every year with this prestigious award.

- ▶ Establish a cooperative agreement between USFA and the Bureau of Justice Assistance to share information about firefighter deaths and injuries.

**Background:** Both the United States Fire Administration (USFA) and the Bureau of Justice Assistance (BJA) track firefighter line-of-duty deaths. Nevertheless, there is no formal interagency agreement to share information about line-of-duty deaths and injuries or the circumstances surrounding those incidents. A formal data-sharing agreement would help USFA and BJA identify causes of line-of-duty deaths and injuries, allowing the agencies to better determine best practices to avoid future deaths and injuries. A formal agreement will also enhance the review process for determining eligibility for being honored at the National Fallen Firefighters Memorial.

### Department of the Treasury

- ▶ Needs to partner with USFA to inform businesses of tax incentives that support fire sprinkler retrofits.

**Background:** In 2018, Congress approved the Tax Cut and Jobs Act. The legislation included key provisions of the Fire Sprinkler Incentive Act, which was first introduced in 2003 and would provide economic incentives to retrofit commercial properties with automatic fire sprinklers. National fire organizations developed the idea of the legislation following the Station Club fire in West Warwick, RI that claimed the lives of 100 victims.

There is plenty of data that demonstrates the efficacy of automatic fire sprinklers. Yet, there are a plethora of commercial properties across the country that lack sprinkler systems to protect against fires. The incentives are straightforward and financially beneficial. Working together, USFA and the Department of Treasury should develop an awareness campaign to alert eligible businesses about the incentive, which will save lives and property.

- ▶ Needs to partner with USFA to ensure fire and emergency services are aware of tax/retirement incentives for fire and EMS personnel (e.g., Volunteer Responder Incentive Protection Act).

**Background:** Smaller communities nationwide served by volunteer fire departments face a growing risk to their residents due to a shortage of volunteer personnel. There were just 676,900 volunteers in the U.S. in 2020, compared to 897,750 in 1984. Not only are there fewer volunteers, but the average age of volunteer firefighters continues to rise. According to NFPA, more than one-third of volunteers in small communities were over the age of 50 in 2020; in 1987, only 15.9% were.

To address this challenge at the federal level, Congress approved legislation that provides tax incentives for volunteer fire and EMS personnel, however (like the fire sprinkler incentive), there needs to be more awareness about the volunteer incentive. Utilizing their respective resources, USFA and the Department of Treasury should work together to promote the incentive to help the volunteer fire service with recruitment and retention campaigns.

## Department of Veterans Affairs

- ▶ The Department of Veterans Affairs (VA) should partner with USFA and the five military branches to ensure veterans are aware of fire and emergency services opportunities.

## White House

- ▶ Specifically, USFA should have a representative actively engaged with many of the offices/councils under the Executive Office of the President, including (but not limited to):
  - ▶ National Economic Council
  - ▶ National Security Council
  - ▶ Climate Policy Office
  - ▶ Office of Science and Technology Policy
  - ▶ Office of the National Cyber Director
  - ▶ National Space Council

**Background:** The roles and actions of firefighters and emergency services personnel are of consequential significance to our nation's economy, environment, and security. Nevertheless, policy offices within the White House have a history of not engaging the U.S. Fire Administrator in the discussions at the highest levels on policy proposals. It is in the best interest of an Administration — and our nation's economic security and safety — to engage the U.S. Fire Administrator in such policy discussions.

- ▶ Participation in the annual National Fallen Firefighters Foundation Memorial Weekend that honors firefighters killed in the line of duty should be a high priority for the President and Vice President.

**Background:** Since the first National Fallen Firefighters Memorial Ceremony in 1981, only two Presidents have attended — President George W. Bush in 2002 and 2007, and President Barack Obama in 2015 — and no Vice President has.





## Appendix:

# Summit Workgroups

*Bold indicates group lead(s)*

## Workgroup 1 Impact of Climate Change

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## Workgroup 2

### Recruitment and Retention

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Women in Fire

**Angela White**  
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**Brad Wardle**  
Utah Fire & Rescue Academy  
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## Workgroup 3

### Firefighter Cancer

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## **Workgroup 4**

# **Mental Health and Well-Being**

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## **Workgroup 6**

### **Whole-of-Government Approach**

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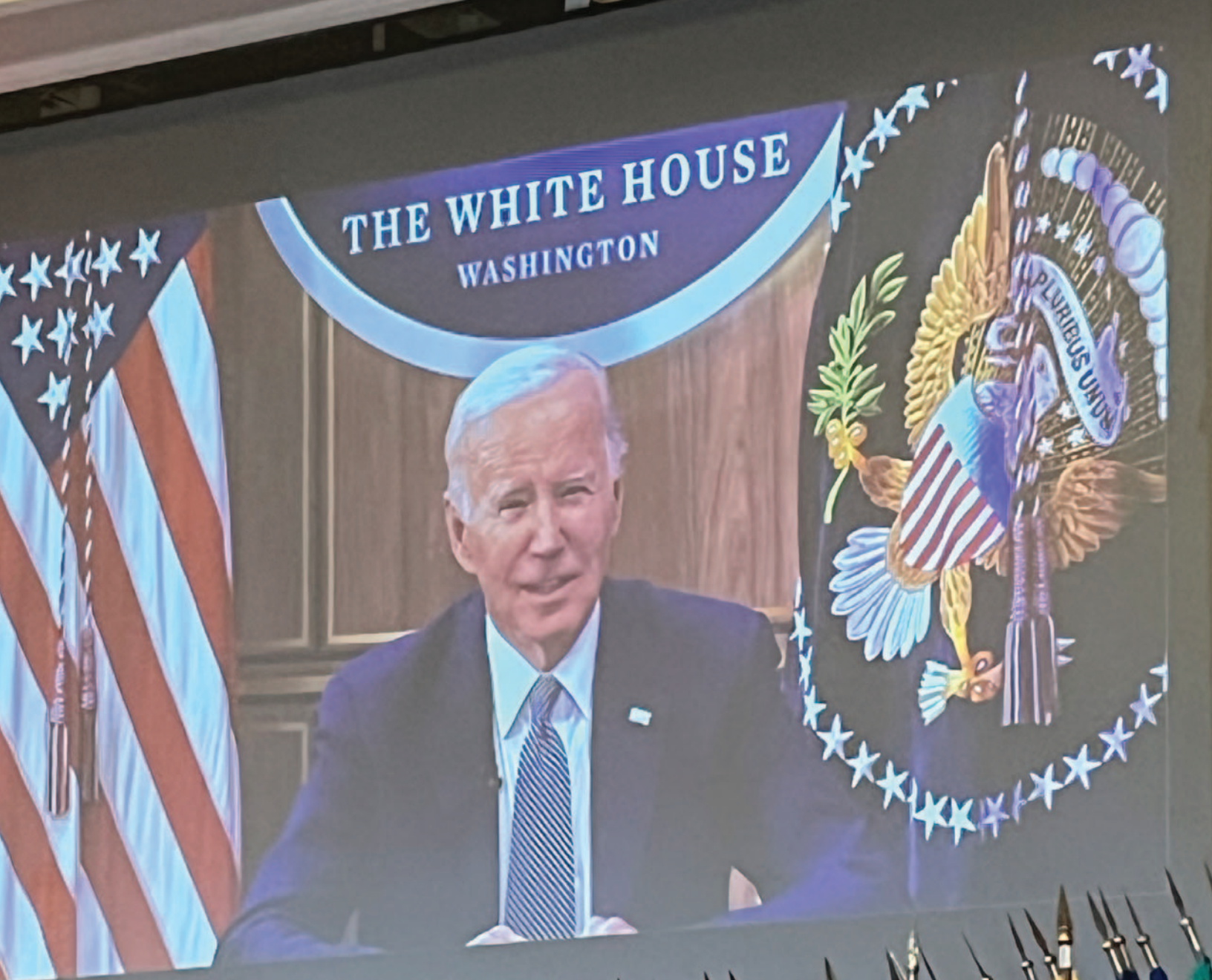
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Visit [firehero.org/usfa-summit](https://firehero.org/usfa-summit) to find additional resources, fact sheets, and full workgroup reports.



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