



U.S. Fire Administration

Fiscal Year 2020 Report to Congress

1/20/2022



FEMA

Message from the Acting U.S. Fire Administrator

1/20/2022

I am pleased to submit the U.S. Fire Administration's (USFA's) Annual Report for Fiscal Year 2020, as required by the *Federal Fire Prevention and Control Act of 1974* (Public Law No. 93-498). The reporting requirement is codified at 15 United States Code § 2215.



This report highlights the achievements of the USFA's activities during the period of Oct. 1, 2019 to Sept. 30, 2020.

The USFA supports the U.S. Department of Homeland Security and Federal Emergency Management Agency missions of preparedness, mitigation, response and recovery through our commitment to support and strengthen fire and emergency medical services and stakeholders through National Fire Academy training activities, public education and awareness initiatives, research and technology development, and data collection and analysis.

Pursuant to congressional requirements, this report can be found at www.usfa.fema.gov and is provided to the following members of Congress:

The Honorable Eddie Bernice Johnson
Chair, U.S. House Committee on Science, Space, and Technology

The Honorable Frank Lucas
Ranking Member, U.S. House Committee on Science, Space, and Technology

The Honorable Gary C. Peters
Chairman, U.S. Senate Committee on Homeland Security and Governmental Affairs

The Honorable Rob Portman
Ranking Member, U.S. Senate Committee on Homeland Security and Governmental Affairs

The Honorable Lucille Roybal-Allard
Chairwoman, Subcommittee on Homeland Security
U.S. House Committee on Appropriations

The Honorable Chuck Fleischmann
Ranking Member, Subcommittee on Homeland Security
U.S. House Committee on Appropriations

The Honorable Christopher Murphy
Chairman, Subcommittee on Homeland Security
U.S. Senate Committee on Appropriations

The Honorable Shelley Moore Capito
Ranking Member, Subcommittee on Homeland Security
U.S. Senate Committee on Appropriations

For questions regarding this report, please contact the FEMA Congressional Affairs Division
at 202-646-4500.



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

Executive Summary

Background

In 1971, our nation lost more than 9,000 civilians and 250 firefighters to fire. Consequently, to help decrease tragic losses and to promote professional development of the fire and emergency response community, Congress passed the Federal Fire Prevention and Control Act of 1974 (Public Law No. 93-498), which, among other things, established the United States Fire Administration (USFA). Thanks to the cooperation between the nation's fire service organizations and the USFA, the United States' fire losses have since been reduced significantly. There has been a reduction of more than 60 percent in the fatalities among civilians and firefighters. The USFA recognizes the serious threat that fires continue to pose to the nation, particularly in the wildland urban interface (WUI), and is committed to working with its partners to safeguard the U.S. and its citizens.

The U.S. Fire Administration Strategic Plan

The USFA five-year Strategic Plan for Fiscal Year (FY) 2019 to 2023¹, provides strategic and operational direction. The effectiveness of U.S. fire and emergency services relies on the USFA's efforts to lead on issues important to the nation. The USFA partners with fire and emergency services' organizations and stakeholders at the state, local, tribal, and territorial (SLTT) level to achieve the desired outcomes outlined in the strategic plan. The following performance goals provide the foundation for the USFA's strategic planning and desired future for a fire-safe country:

- Build a culture of preparedness in the fire and emergency medical services.
- Ready the nation's fire and emergency medical services for all hazards.
- Ensure the USFA is an innovative, knowledgeable, and responsive organization.

The USFA supports the above goals in partnership with the fire and emergency services community, strives for continuous improvements, and seeks positive results in our programs and initiatives. One performance metric for the USFA is a long-term evaluation of its courses which includes feedback from supervisors who report that the National Fire Academy's (NFA's) training improved their subordinate's job performance. In FY 2020, 92.25 percent of supervisors reported improved subordinate performance, which exceeds the 5-year target rate of 87 percent. Another performance measure, though not completely in USFA control, is the loss of life per million people due to fire in the U.S. This metric is used in strategic planning to identify opportunities for enhancements in the USFA's training, public education and fire prevention programs designed to address the nation's fire problem. The 5-year target goal was a reduction of the per capita loss of life to fewer than 10.9 fatalities per million population. This goal was not met in FY 2020, with an annual rate of 11.3 fire related civilian fatalities per million population. USFA will continue the pursuit to influence and curtail the U.S. fire fatality rate. Overall, USFA's collaborative process with industry stakeholders will continue yielding benefits to the nation.

¹ http://www.usfa.fema.gov/downloads/pdf/publications/strategic_plan_2019-2023.pdf.

Current State of Fire Problems

This has been a challenging year for the American fire service. The nation's fire service has been impacted by response to the COVID-19 pandemic, having experienced the on-duty loss of numerous firefighters attributed to COVID-19, a reduction of workforce due to exposure to the pandemic, including personal or family illness and quarantine, and marked depletion in appropriate personal protective equipment to aid in the drastic increases in responses. In addition to the pandemic, the fire service has been called upon to respond to violent civil unrest in many American cities. Natural disasters and major wildfires have also taxed the fire service at unprecedented levels. Additionally, there continues to be challenges with recruitment and retention in the volunteer fire departments that cover much of the rural landscape and population. These demands and challenges increase the risk of communities struggling to address all threats and hazards, with a direct impact on prevention, response, mitigation, and recovery. This situation increases the dependence of local government on the state, and federal government, for assistance after a disaster. The USFA has provided support and programmatic efforts to support the fire service in the areas noted in this report.

Analysis of various fire trends reveals remarkable progress in many aspects of the fire-related threats in the U.S. However, there remain several areas where additional efforts can reduce fire-related impacts. While fire-loss in absolute and per capita terms has declined substantially (by nearly half since the late 1970s), per-fire performance continues to be a concern. Fires requiring a fire department response continue to yield similar or higher rates of civilian casualties compared to a decade ago. Data also indicate that fires in wildland urban interface (WUI) locations continue to be a concern. Federal agency wildland fire data show a drastic increase in lives lost, acres burned, dollar losses, economic losses, and a negative impact to the landscape over a 10-year period. Homes built in or near WUI areas are increasing life and property risks and firefighting costs. During the past few years, WUI fires have destroyed entire communities including commercial, industrial, and residential structures, along with essential critical infrastructure in California, Colorado, Idaho, Montana, Oregon, Tennessee, Utah, Washington, and other states and tribal lands experiencing an expanding WUI risk. This trend could be mitigated by SLTT jurisdictions adopting the most current building codes (in conjunction with land use planning that accounts for WUI fire risk) and WUI codes requiring homeowner management of the immediate physical environment and surrounding vegetation. Furthermore, the trend could be mitigated by advocating for public policy that clearly communicates the inherent risk of building in WUI areas, and the public costs of financing emergency response and fire suppression.

The Federal Emergency Management Agency (FEMA) Administrator's 2020 Annual Planning Guidance, called for increased cooperation and response efforts as these fires pose a rapidly growing threat to lives, property, and the economy. The guidance directs the USFA to increase the Nation's ability to understand, respond to, and mitigate WUI fires through improved data collection and analysis, prevention outreach, and targeted training on WUI fires to our SLTT partners.

For the last ten years on average, eighty-two percent of fire deaths occurred at fires in residential structures. While the number of residential fire deaths has reduced substantially since the original America Burning report, most of these losses could be mitigated/eliminated through the

installation of the oldest and most reliable defensive technology, automatic fire sprinklers. Automatic fire sprinklers are commonplace in businesses and institutions but have not reached widespread use or maintenance in residential occupancies.

Adoption of the most current model codes by local jurisdictions would lead to expanded use of automatic fire sprinklers and result in more lives and property saved. Recent legislation granting tax relief for commercial business sprinkler installation should increase the use of this technology. The Tax Cuts and Jobs Act allows small businesses to fully deduct up to \$1 million for fire protection upgrades or expenses such as the retrofit of automatic sprinklers (Pub. L. 115-197 § 179 as amended). However, the provision applies only to commercial structures and cannot be used for retrofitting sprinklers into residential structures. While it may help prevent another large fatality commercial fire such as the February 2003 fire at The Station Nightclub in Rhode Island, it does not address the residential fire problem.

To further reduce the threat of fire in the U.S., the USFA is revisiting the Congressionally commissioned 'America Burning' report to study the progress and identify hurdles since the creation of this evolutionary doctrine. The USFA is committed to continuing its efforts working with federal and SLTT partners, as well as nongovernmental stakeholders, in collecting and analyzing data, administering National Fire Programs, and operating the National Fire Academy.



Table of Contents

Message from the U.S. Fire Administrator.....	1
Executive Summary	3
Table of Contents.....	6
I. Legislative Requirement	7
II. Background.....	8
III. The National Fire Problem (15 U.S.C. § 2215(a)).....	9
IV. Summary of Initiatives/Activities (15 U.S.C. § 2215).....	14
Section 4.1 — Research and Technology (15 U.S.C. § 2215(b)).....	14
Section 4.2 — The National Fire Academy (15 U.S.C § 2215(c)).....	18
Section 4.3 — Activities to Assist the Nation’s Fire Services (15 U.S.C. § 2215(d))	28
Section 4.4 — Public Education (15 U.S.C. § 2215(e))	32
Section 4.5 — Fire Safety Effectiveness Statements (15 U.S.C. § 2215(f))	37
Section 4.6 — Outstanding Problems (15 U.S.C. § 2215(g)).....	38
Section 4.7 — Suggested Improvements to Fire Prevention and Building Codes (15 U.S.C. § 2215(i))	41
V. Acronyms.....	42

I. Legislative Requirement

This document responds to the reporting requirements set forth in the *Federal Fire Prevention and Control Act of 1974* (Pub. L. No. 93-498), as amended, codified at 15 U.S.C. § 2215, which states:

The Administrator of FEMA shall report to the Congress and the President not later than ninety calendar days following the year ending September 30, 1980 and similarly each year thereafter on all activities relating to fire prevention and control, and all measures taken to implement and carry out this chapter during the preceding calendar year. Such report shall include, but need not be limited to:

- (a) a thorough appraisal, including statistical analysis, estimates, and long-term projections of the human and economic losses due to fire;
- (b) a survey and summary, in such detail as is deemed advisable, of the research and technology program undertaken or sponsored pursuant to this chapter;
- (c) a summary of the activities of the [National Fire] Academy for the preceding 12 months, including, but not limited to—
 - (1) an explanation of the curriculum of study;
 - (2) a description of the standards of admission and performance;
 - (3) the criteria for the awarding of degrees and certificates; and
 - (4) a statistical compilation of the number of students attending the Academy and receiving degrees or certificates;
- (d) a summary of the activities undertaken to assist the Nation's fire services;
- (e) a summary of the public education programs undertaken;
- (f) an analysis of the extent of participation in preparing and submitting Fire Safety Effectiveness Statements;
- (g) a summary of outstanding problems confronting the administration of this chapter, in order of priority;
- (h) such recommendations for additional legislation as are deemed necessary or appropriate; and
- (i) a summary of reviews, evaluations, and suggested improvements in state and local fire prevention and building codes, fire services, and any relevant federal or private codes, regulations, and fire services.

II. Background

On May 4, 1973, the National Commission on Fire Prevention and Control issued a report, “America Burning,” that focused attention on the nation’s fire problem and the needs of the fire services and allied professions. Much of the subsequent fire-prevention and response-enabling legislation was developed to address issues raised in “America Burning.” Consequently, to decrease tragic losses and to promote professional development of the fire and emergency response community, Congress passed the *Federal Fire Prevention and Control Act of 1974* (Pub. L. No. 93-498), which, among other things, established the United States Fire Administration (USFA).

Section 5 of the United States Fire Administration, AFG, and Staffing for Adequate Fire and Emergency Response Grant Program Reauthorization Act of 2017, Pub. L. 115–98 provides that the FEMA Administrator “may develop and make widely available an electronic, online training course for members of the fire and emergency response community on matters relating to the administration of grants.” Section 6 of that Act further provides that the FEMA Administrator “shall develop and implement a grant monitoring and oversight framework to mitigate and minimize risks of fraud, waste, abuse, and mismanagement relating to such grants programs” under sections 33 and 34 of the Federal Fire Prevention and Control Act of 1974 (15 U.S.C. 2229 and 2229a).” Both provisions require the FEMA Administrator to undertake the two provisions by acting through the USFA Administrator. USFA provides the subject matter expertise and necessary assistance for the FEMA Administrator’s successful fulfillment of the two provisions.

Under authorities of the FEMA Administrator, the USFA operates in support of FEMA’s 2018-2022 strategic goals² by: including all-hazard community risk reduction in NFA curriculum; providing first responders with the training and education to address all-hazard responses; staffing select positions in the National Response Coordination Center (NRCC); serving the emergency services sector through the operation of the Emergency Management and Response Information Sharing and Analysis Center; advocating “whole community” in all programs; and actively participating in Joint Counterterrorism Assessment Team events at the National Counterterrorism Center to ensure fire-service representation and collaboration with law enforcement.

² <https://www.fema.gov/strategic-plan>

III. The National Fire Problem (15 U.S.C. § 2215(a))

The USFA has contributed to remarkable progress in reducing the adverse effects of fire on the U.S. Most notably, civilian fire-related fatalities and total fires are less than half of what they were in the late 1970s.³ In addition, through partnerships with SLTT governments and private organizations, children up to 4 years of age are no longer a statistically high-risk group for fire-related fatalities.

Despite this progress in the reduction of fires and their adverse effects in the U.S., there is still a need to continue the work of lessening the fire problem. Although there has been an overall reduction of in the number of fires and casualties in absolute number, the U.S. still has similar rates of civilian casualties per reported fire dating back to the late 1970s. And, trend analysis over the past ten years indicates an increase of 24.1 percent in civilian fire deaths.”. Certain demographic groups remain at high risk, potentially driven by socioeconomic and physical conditions. For example, older adults (age 65 and older) experience age-related physical and mental disabilities which may decrease their chances of survival during a fire. This vulnerable population is also growing, which increases the percentage of the population who are at high risk during a fire.⁴

This section provides a portrait of the fire problem in the U.S., meeting the legislative requirement to provide a thorough appraisal, including statistical analysis and estimates of the human and economic losses due to fire. The primary sources of data are the USFA’s National Fire Incident Reporting System (NFIRS), a voluntary system that has had tremendous success as shown by the more than 24,000 fire departments who participate in submitting data, and the National Fire Protection Association’s (NFPA’s) Annual Survey of Fire Department Experience. Additional data sources include USFA’s National Fire Department Registry, the National Interagency Fire Center, the National Center for Health Statistics, and the U.S. Census Bureau. This report lags behind the data collection date due to challenges of receiving timely data input from states, tribes, and territories. Data are collected on a calendar year basis, and they must be released by the states and tribes prior to analysis. Therefore, some of the data elements collected in the NFIRS are not yet available for 2020, which explains why the most current statistical information contained in this report represents CY 2019. Some comparisons are made from 1977, which is the first year reliable data were available. The NFIRS individual state profiles for fire loss are available at <https://www.usfa.fema.gov/data/statistics/states/>.

The following are summaries of the nation’s fire problem:⁴

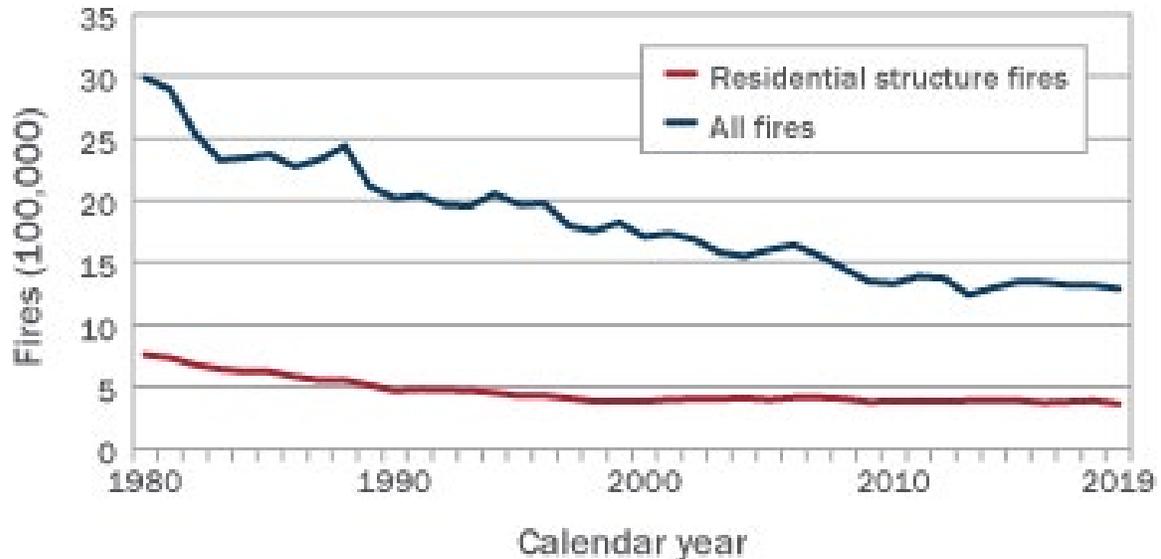
Total fires: The estimate for total fires during 2019 is 1,291,500 – a 2 percent reduction from the number of fires in 2018 (1,318,500). During the past 10 years (2010 to 2019), the U.S. has averaged 1.3 million fires per year; linear trend shows a 3.1 percent reduction in total fires during this period. **In 2019, there were 3,935 fires per million population – a 2.5 percent reduction from 2018 (4,036).** The estimate of total fires in 2019 is 60 percent lower than in 1977 (3,264,000); **fires per million population is 73 percent lower than in 1977 (14,820).**

³ Data sources: USFA’s National Fire Incident Reporting System (NFIRS); National Fire Protection Association’s (NFPA’s) annual Fire Experience survey; U.S. Census Bureau; National Interagency Fire Center (NIFC); and various National Fire Data Center staff analyses and reports.

⁴ Sources for statistics gathered in this section were taken from references noted in footnote 3.

Residential structure fires: The estimate for residential structure fires during 2019 is 361,500 – a 6.6 percent reduction in residential fires from 2018 (387,000). During the past 10 years (2010 to 2019), the U.S. has averaged 381,150 residential structure fires per year; linear trend shows a 3.5 percent decrease during this period. **In 2019, there were 1,101 residential structure fires per million population** – a 7 percent decrease from 2018 (1,185). The estimate for residential structure fires in 2019 is 52 percent lower than in 1977 (750,000); **residential structure fires per million population is 68 percent lower than in 1977 (3,405).**

Fires per year

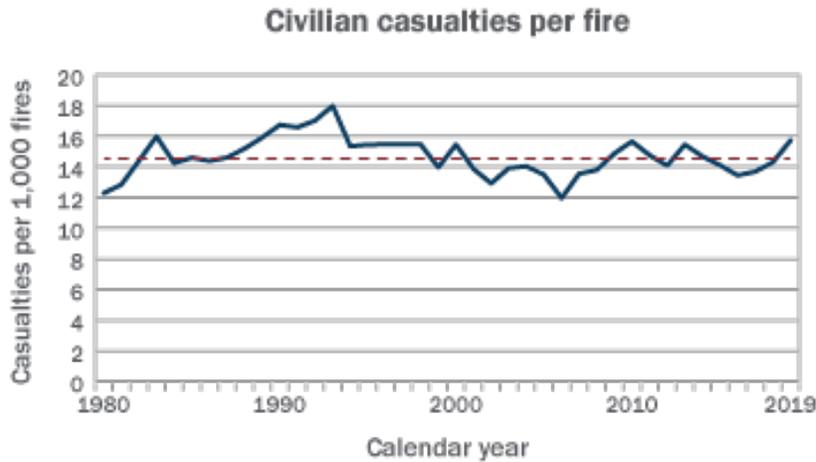


Civilian fire fatalities: The estimate for total civilian fire fatalities during 2019 is 3,704 – a 1.3 percent increase since 2018 (3,655). During the past 10 years (2010 to 2019), the U.S. has averaged 3,292 civilian fire fatalities per year; linear trend shows a 24.1 percent increase during this period. **In 2019, there were 11.3 civilian fire fatalities per million population** – a slight increase (.9 percent) from 2018 (11.2). The estimate for civilian fire fatalities in 2019 is 50 percent lower than in 1977 (7,395); **civilian fire fatalities per million population in 2019 is 66 percent lower than in 1977 (33.6).**

Civilian fire injuries: The estimate for total civilian fire injuries during 2019 is 16,600 – a 9.2 percent increase in injuries since 2018 (15,200). During the past 10 years (2010 to 2019), the average was 16,024 civilian fire injuries per year; linear trend shows a 12.5 percent decrease during this period. **In 2019, there were 50.6 civilian fire injuries per million population** – an increase of 8.7 percent from 2018 (46.5). The estimate for civilian fire injuries in 2019 is 47 percent lower than in 1977 (31,190); **civilian injuries per million population in 2019 is 64 percent lower than in 1977 (141.6).**

Civilian casualties (fatalities and injuries) per 1,000 fires: The estimate for civilian casualties (fatalities and injuries) per 1,000 fires in 2019 was 15.7, an increase of 9.9 percent since 2018

(14.3). During the past 10 years (2010 to 2019), the average was 14.6 civilian casualties per 1,000 fires. **The estimate for civilian casualties per 1,000 fires in 2019 is 33 percent higher than in 1977 (11.8).** The decline in civilian casualties over the past 40 years is due to a reduction in the number of fires. However, if a fire occurs, the risk of a civilian casualty is higher now than 40 years ago. This suggests we need to not only prevent fires, but also spend some research money in determining what factors can improve the chances of survival and lessen the chances of injury to civilians when a fire occurs.

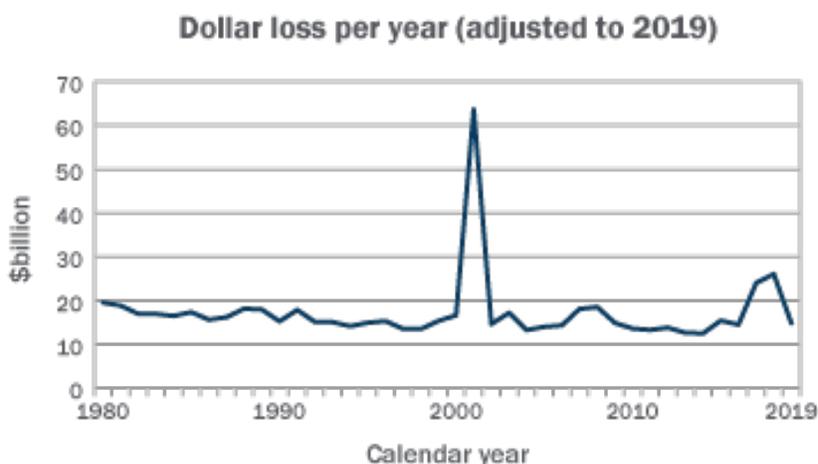


Firefighter fatalities: Sixty-two firefighters died while on duty in 2019 — a 31 percent decrease from 2010 (90). This is the lowest number since 1976 when the USFA began this study. The overall trend from during the past ten years (2010 to 2019) shows an 18 percent decrease in the number of on-duty firefighter fatalities. Note that potentially work-related cancer deaths are not included – see Cancer Among Firefighters under Section 4.1 below. The ten-year average (2010 to 2019) is 88 on-duty firefighter deaths per year. Firefighter fatalities in 2019 included 25 career firefighters, 34 volunteer firefighters, and three members of wildland or wildland contract fire agencies. A more in-depth analysis of on-duty firefighter deaths can be found in USFA’s “Firefighter Fatalities in the United States in 2019,” released in FY 2020⁵.

Property damage – dollar loss: The estimate for total dollar loss during 2019 was \$14.8 billion, a decrease of 43.2 percent from 2018 (\$26.1 billion, adjusted to 2019 dollars).⁶ During the past 10 years (2010 to 2019), the average was \$16.1 billion per year (in 2019 dollars).

⁵ https://www.usfa.fema.gov/data/statistics/ff_fatalities_reports.html.

⁶ The 2018 estimate of total dollar loss includes over \$12 billion loss in wildland fires.



Wildland fires: There were 50,477 wildland fires reported during 2019. This resulted in 4,664,364 acres burned – a 46.8 percent decrease from 2018 (8,767,4924 acres burned.) During the past 10 years (2010 to 2019), the average was 64,072 wildland fires and 6,846,857 acres burned.⁷

Emergency Medical Services: The growth of fire service-based emergency medical services (EMS) has had a significant impact on local fire departments requiring additional resources to address the increased scope of responsibilities. According to the latest data, 70.4 percent of the nation’s fire departments provide EMS.⁸

Fire risk to children: With the general population indexed at 1.0, the relative risk for child fire deaths (0 to 4 years of age) in 2018 was 0.7. In 2017, the relative risk for child fire deaths (0 to 4 years of age) was 0.6. Although the relative risk of dying in a fire in 2018 for children under 5 was lower than the overall U.S. population, children ages 0 to 4 had the highest fire death rates compared to children of all ages and, as a result, had a higher relative risk of dying in a fire compared to older children.⁹ In 1983, the relative risk for child fire deaths was 2.0, twice the risk of the general population.

Fire risk to older adults: With the general population indexed at 1.0, the relative risk for adults ages 65 and older who died in fires in 2018 was 2.6. In 1983, that relative risk was 2.5.¹⁰

Overall summary: Despite progress in detection and prevention, fires requiring fire department response continue to yield similar or higher rates of civilian injuries and deaths to the rates from more than a decade earlier. As indicated by collected data, fires in WUI locations continue to be a concern.

The USFA serves as a valuable catalyst for great progress in overcoming the fire problem across the nation; however, we recognize the need to increase efforts to further reduce the adverse impacts of fire in the U.S. (e.g., increased fire activity in the WUI). The FEMA Administrator in

⁷ https://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html.

⁸ USFA National Fire Department Registry, as of October 1, 2020.

⁹ https://www.usfa.fema.gov/data/statistics/fire_death_rates.html#tab-2a.

¹⁰ Ibid.

the Calendar Year 20 Annual Planning Guidance called for increased cooperation and response efforts supporting wildland-urban interface fires as these fires pose a rapidly growing threat to lives, property, and the economy. The guidance directs the USFA to increase the Nation's ability to understand, respond to, and mitigate WUI fires through improved data collection and analysis, prevention outreach, and by targeted training on WUI fires to our SLTT partners.

To further reduce the threat of fire in the U.S., the USFA is committed to continuing its efforts in working with federal, SLTT partners, as well as non-governmental stakeholders, in collecting and analyzing incident data, administering National Fire Programs (NFP), and operating the NFA.

IV. Summary of Initiatives/Activities (15 U.S.C. § 2215)

Section 4.1 — Research and Technology

(15 U.S.C. § 2215(b))

The USFA provides federal fire focus for applied research and technology. Studies and research are accomplished in partnership with a wide range of organizations that share the USFA’s mission in reducing the nation’s fire loss. The following activities are brief summaries of the USFA’s significant initiatives in research and technology for FY 2020. Additional details are available online at <https://www.usfa.fema.gov/>.

“America Burning” review: The USFA through a partnership with the International Association of Fire Chiefs (IAFC) continues the series of studies based on past USFA “America Burning” reports as well as current sources of data and information to examine and address the current American fire problem. The study includes fire deaths, injuries, and property loss of the public as well as occupational health and safety of the fire and EMS service, and how the USFA with its fire and non-fire service partners can find solutions. Since the last “America Burning” report in 2002, there is a need to examine what potential changes have occurred in the fire problem of the U.S., as well as its fire and emergency services.

NFIRS operation and modernization effort: The NFIRS is the largest incident-based system in the nation. The NFIRS is an invaluable resource to SLTT fire agencies and serves as a leading platform for collecting and analyzing a wide range of all-hazards data from the nation’s fire and emergency services. Today, the NFIRS receives over 28.5 million incident response reports annually, of which about 1.2 million are fire responses. The remaining 27.3 million reports are dominated by EMS responses and public service calls.

The NFIRS modernization effort was released in October 2020. This effort had specific objectives for several areas of the system: to update security components to meet DHS/FEMA information technology (IT) standards; to update the web applications to newer technology to support future improvements and feasibility of a future mobile-compatible application; and to remove old back-end system code that was interfering with security and requiring separate release efforts to maintain. The NFIRS applications' user interfaces were consolidated behind a single sign-on portal to improve the user experience. A rules engine re-design now allows changes to be made to the data validation rules without complex release work. These objectives achieved by the modernization effort places the NFIRS system in a mature IT stature that supports future expansion of the system. In the last year, the use of the NFIRS Data Warehouse reports tool grew among state and fire department users who submit data to the NFIRS. The USFA NFIRS staff has begun on-line training sessions. This training has shown to be tremendously helpful and popular with the NFIRS user community marking it as a success.

Coronavirus 2019 NFIRS special study and other pandemic initiatives: In 2020, the NFIRS system became a key component for a national level study on fire department responses involving Coronavirus Disease 2019 (COVID-19), collecting over 2.8 million responses in this first ever national NFIRS special study. The goal of the study is to determine if COVID-19 was a factor during responses and to use this information to educate and prepare emergency responders for all-hazard situations that impact their community. This study has also been used by non-

government and other federal entities addressing issues associated with COVID-19. The study provides near real-time analysis and a first time ever fire service incident analysis at the county level (using geocoded data). This study was used during the FEMA deployment to COVID-19 as part of the Pre-Hospital Task Force and was briefed to FEMA’s NRCC senior staff and FEMA regional administrators.

With the increased COVID-19 incidents and their effect on communities, the need for the fire and emergency medical response services to receive timely information was critical. Due to the growing concerns surrounding COVID-19 responses, the USFA took a leadership role in providing much needed information that had a direct impact on response capabilities. In an effort to provide timely information, the USFA created a resource section on our website for funding, planning, response, infection control and behavioral health information, implemented bi-weekly communications through widely distributed emails, and offered webinars to share and collect information essential to helping the SLTT response partners. This included information on personal protective equipment, data studies, response protocols, and public assistance. USFA also developed and shared the COVID-19 Research Guide on the National Emergency Training Center (NETC) library webpage. This provides a one-stop shop to help researchers, students, practitioners, and the general public find materials related to the COVID-19 pandemic. These actions resulted in an informed and better prepared emergency response community that had accurate information in order to make critical decisions. In FY 2020, USFA’s NFP personnel contributed nearly 7,500 staff hours in support of these initiatives.

Wildland Urban Interface fire operational requirements and capability analysis: The FEMA Administrator requested that the DHS Science and Technology Directorate (S&T) research new and emerging technology that could be applied to wildland fire incident response, given the loss of life that occurred in California during the fall of 2017 in Santa Rosa and Ventura. In response to the request, DHS S&T — in collaboration with FEMA, the USFA, and other key stakeholder experts — determined WUI incidents and life-saving functions as the optimal areas for DHS S&T to explore technology innovation. The findings of this effort were released in the May 2019 report “Wildland Urban Interface Fire Operational Requirements and Capability Analysis: Report of Findings¹¹.” USFA continues to work with DHS S&T, other Federal partners, as well as the wildland and structural fire service communities to disseminate the findings of this research as well as develop feedback on technologies to mitigate and suppress WUI fires.

National Fire Incident Reporting System outreach and marketing initiative: USFA continues its partnership with the IAFC to study and develop effective NFIRS outreach and marketing to include the content of tools and materials that can be used by USFA and other organizations. This project will also enhance the support and advocacy for NFIRS within the fire service to enhance its use and data accuracy.

Responder pandemic operations study: USFA began a project on Responder Pandemic Continuity of Response Operations, Health and Safety with the National Association of State EMS Officials which will provide guidance in this area to the emergency services – primarily fire service and EMS responders. The findings of this study will be incorporated into a report updating previous work of USFA.

¹¹ <https://www.dhs.gov/publication/st-wui-fire-operational-requirements-and-capability-analysis-report-findings>.

Emergency services ergonomics and wellness: USFA released a report providing the results of a study with the Oklahoma State University/International Fire Service Training Association. The report, “Emergency Services Ergonomics and Wellness,”¹² updates an older USFA document on ergonomics for the fire service.

Emergency vehicle and roadway operations safety: USFA initiated a study on Emergency Vehicle and Roadway Operations Safety in partnership with the IAFC. There have been numerous on-duty firefighter and emergency responder fatalities from vehicle crashes and roadway-struck-by incidents. The findings of this study will update a previous USFA report.

Study of volunteer firefighter retention and recruitment: The USFA continues its partnership with the National Volunteer Fire Council on a study of volunteer firefighter retention and recruitment. There has been an overall decline in the number of volunteer emergency responders nationwide. This research project will concentrate on the essential roles and responsibilities of local-level governments in this effort as well as other innovative retention and recruitment programs. Additionally, it will focus on development of effective recruitment and retention of underrepresented populations in the volunteer service including women and minorities. The findings of this study will update the 2007 USFA “Retention and Recruitment for the Volunteer Emergency Services: Challenges and Solutions” report.

Funding alternatives for fire and emergency medical services: The USFA continues the study, with the Oklahoma State University/International Fire Service Training Association, to update the USFA report “Funding Alternatives for Fire and Emergency Medical Services.”¹³ With tighter agency budgets, fewer government subsidies, fewer donations, etc., it is becoming increasingly harder for fire and EMS departments to meet greater and more complex demands for their services. This study will develop the most up-to-date information on grant and alternative funding for local-level fire and EMS departments.

Study of emergency vehicle warning lighting systems: The USFA continues its project with the Cumberland Valley Volunteer Firemen’s Association’s Emergency Responder Safety Institute to study emergency vehicle warning lighting systems with a goal to effectively mitigate the disorientation of motorists caused by modern emergency warning lighting.

Emergency medical services responder safety study: With the International Association of Fire Fighters, USFA continues the study on the occupational safety of EMS responders. This partnership will update older USFA reports on this topic.

Cancer among firefighters: The USFA is continuing its long-term partnership with the National Institute for Occupational Safety and Health to advance our collective understanding of occupational cancer in firefighting as part of their National Occupational Research Agenda Program, and most recently, as part of the new National Firefighter Registry Program. The most recent partnership focuses on supporting the development and implementation of a national firefighter cancer registry to characterize cancer risk and occupational risk factors among all firefighters, including under-studied populations of firefighters like women and minorities.¹⁴

¹² <https://www.usfa.fema.gov/downloads/pdf/publications/emergency-services-ergonomics-and-wellness.pdf>.

¹³ https://www.usfa.fema.gov/downloads/pdf/publications/fa_331.pdf.

¹⁴ Additional information on this study may be found on the NIOSH web site: <https://www.cdc.gov/niosh/firefighters/health.html>.

Flashover prevention system study: The USFA is working in partnership with the Underwriters Laboratories on the second phase of a flashover prevention system study to continue the development of a residential fire control system that can be retrofitted into existing homes by homeowners with moderate construction skills.

National Fire Department Registry: USFA’s National Fire Department Registry provides a current directory of registered fire departments with basic information such as address, department type, website, and number of stations. USFA uses the registry to conduct special studies that guide program decision making and improve direct communication with individual fire departments. The number of fire departments registered decreased by 33 departments — from 27,207 in FY 2019 to 27,174 in FY 2020 (due to departments merging or disbanding). The registered departments represent 91 percent of the NFPA-estimated 29,705 departments in the U.S. in 2018.

Other reports: In FY 2020, the USFA published the Fire in the United States (2008-2017) 20th edition report.¹⁵ This edition covers the 10-year period from 2008 to 2017 with a primary focus on 2017. The report addresses the overall national fire problem and provides the fire service and others with information that motivates corrective action, sets priorities, targets specific fire programs, serves as a model for state and local analyses of fire data, and provides a baseline for evaluating programs. The USFA also published the “USFA Fire Estimate Summary Series (2009-2018) for residential and nonresidential building fires and losses.”¹⁶ Each summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. In addition to these reports, the USFA created and disseminated the 2018 NFIRS fire and hazmat incident and the 2018 NFIRS all-incident Public Data Release files.¹⁷

Wildfire-Related Data Projects: The USFA initiated two new wildfire-related data projects in FY 2020. The first project, Analysis of Selected Named Wildfires as Reported to NFIRS, will seek to understand how named wildfires are recorded in NFIRS and how that data compares to data reported by the media or other data sources. Additionally, it will attempt to answer the question — what practices can be put into place to improve NFIRS reporting for large wildfires? The second project, Wildfire Analyst’s Toolkit, will create a catalog that can be used by analysts to examine aspects of the wildfire problem. This resource is also a first step toward creating the first nationwide data warehouse for wildfire information.

¹⁵ https://www.usfa.fema.gov/data/statistics/reports/fius_2008-2017.html.

¹⁶ https://www.usfa.fema.gov/downloads/pdf/statistics/res_bldg_fire_estimates.pdf (residential) and https://www.usfa.fema.gov/downloads/pdf/statistics/nonres_bldg_fire_estimates.pdf (nonresidential).

¹⁷ https://www.usfa.fema.gov/data/statistics/order_download_data.html.

Section 4.2 — The National Fire Academy

(15 U.S.C. § 2215(c))

The NFA delivers classes and programs that are not readily available throughout the nation for reasons of economy, scale, or demand. Students are selected for participation in NFA classes based on their current job responsibilities and the completion of prerequisite training (which varies from course to course). The NFA courses are externally reviewed, validated, and recommended for college credit by the American Council on Education (ACE), as the NFA is not a degree granting institution. Certificates of completion are issued to students who meet the requirements of the respective course.

USFA’s National Fire Academy enjoys partnerships with several national organizations that focus on fire and EMS safety and health including the International Association of Fire Chiefs Safety & Health Section, International Association of Fire Fighters, International Association of Fire Service Instructors, National Volunteer Fire Council, National Fallen Firefighters Association, National Fire Protection Association, First Responder Center of Excellence, and others.

The NFA continued its efforts to close out the FY 2019 state fire-training assistance grant program for the 45 states that participated in the FY 2019 program.

In FY 2020, the NFA provided 1,816 course offerings, reaching 84,389 students, and resulting in 126,336 student days of instruction. This was accomplished through the strong and far-reaching delivery system of NFA-sponsored courses held on campus at the NETC, off-campus courses held at state and local sites, state and local partner-sponsored courses, technology-based (instructor-led and self-study) courses, and higher education courses delivered in cooperation with 116 colleges and universities. This is a reduction from last year as a result of the COVID-19 pandemic. Due to travel and jurisdictional restrictions and state mandates to quarantine, the NETC campus was closed for resident training for half of the fiscal year.

One of the NFA’s most popular learning venues, “Coffee Break Bulletin,”¹⁸ delivers short, one-topic training messages directly to students through the Listserv technology. The NFA delivered 127,710 noncredit subscription learning opportunities via this initiative.

Included in the NFA overall delivery system are the NFA-Approved State Courses. This cooperative effort adds state-developed courses to the NFA curriculum, thereby reducing some development costs. This adds curriculum content that is otherwise unavailable to other state and local training partners. The NFA delivered 913 of these courses to 13,095 students, resulting in 41,544 student days of instruction.

The FY 2020 NFA training data for all modes of delivery by individual states is available at <https://www.usfa.fema.gov/training/nfa/about/profiles>.

Executive Fire Officer Program: The Executive Fire Officer (EFO) Program is an executive level education program for senior fire executives and other mid-level managers. The program is undergoing revisions to meet the changing needs of senior fire executives. The EFO Program is

¹⁸ https://www.usfa.fema.gov/training/coffee_break.

transitioning from a four-year traditional in-classroom design delivered to a two-year cohort with a blended format. The first participants in the revised EFO Program began in December 2019, while students in the existing legacy program will complete their course of studies with an anticipated close-out of the legacy program in FY 2021.

In FY 2020, the EFO Legacy Program had 62 graduates. This reduction of students was due to COVID-19 class suspensions. The balance of students were moved to FY 2021 offerings. There are currently 210 legacy students enrolled in a virtual “Executive Leadership” course for FY 2021. There are 134 students enrolled in the revised EFO Program and over 450 applicants for 150 seats in cohorts starting in FY 2022. During the 32 years the EFO Program has been in existence, 4,407 executives have graduated from the program, both American and international students.

Each year, the NFA holds an EFO Program symposium. This two-day symposium provides cutting-edge topics for fire and emergency services leaders. Due to COVID-19 pandemic, the FY 2020 EFO Symposium was canceled.

Managing Officer Program: The Managing Officer Program is a two-year program for first-level or mid-level officers/supervisors. The purpose of the program is to engage emergency service leaders in professional development earlier in their careers and to instill within the student the whole community risk-reduction model. For FY 2020, there were 242 students in their first or second year. In FY 2020, 53 students completed the program requirements including a capstone project and have received their Managing Officer certificates.

College- and University-based course deliveries: With a strong connection to the nation’s colleges and universities, 563 NFA courses were offered to 4,275 students resulting in 22,429 student days of instruction.

Fire and Emergency Services Higher Education: The Fire and Emergency Services Higher Education (FESHE) Program is an acknowledgment that a collegiate emergency services degree program meets the minimum standards of excellence established by FESHE professional development committees and the NFA.

These regionally or nationally accredited colleges and universities deliver a standard curriculum using standard syllabi and course titles, easing credit transfer when students change schools. It is a competency-based curriculum that standardizes what a “fire degree” means to the student and employer. As a result of the FESHE Program, all fire textbook publishers produce texts that comport with the syllabi and curriculum. The standard degree program concentrates on fire engineering, prevention and mitigation, emergency response, fire administration, and EMS management. Currently there are 121 colleges/universities (12 more than last year) from 34 states recognized through this program.

North American Fire Training Directors: In FY 2020, the USFA, in partnership with FEMA’s Emergency Management Institute (EMI), hosted the North American Fire Training Directors (NAFTD) at the NETC. The meeting was held in conjunction with the training provided to the State Fire Training Directors, during which time USFA staff discussed emerging issues, provided updates on curriculum and campus improvement projects, and hosted a question-and-answer session. Stipend reimbursements were provided to participants from each

state fire training agency. In addition to the joint training in FY 2020, USFA began hosting Quarterly Calls with NAFTD and state representatives to provide updates and address any questions or concerns. With this partnership, there is representation from 45 states, as well as Canada.

Training evaluation: The NFA continually evaluates the outcome of its training using the Kirkpatrick Training Evaluation Model. This model helps the NFA to measure the effectiveness of training in an objective way. Through the NFA evaluation process, three of the four levels are measured (reaction, learning, and behavior) from student and supervisor evaluations. This is a systematic study of resident courses soliciting anonymous feedback from students and their supervisors to determine long-term training effectiveness. During FY 2020, 788 students and 609 supervisors responded. As with responses from previous years, students indicated that they were able to transfer the training and learning skills to their jobs, and supervisors reported improved performance as follows:

Long-term evaluation reporting elements	2019	2020
Students reporting that they were able to apply NFA training at home	94.3%	93.9%
Students reporting that NFA training improved their job performance	96.3%	96.4%
Students reporting that they shared NFA training with their peers	95.1%	97.2%
Students reporting that they conducted formal courses with NFA material	23.6%	24.2%
Students reporting that they established new policies and procedures based on NFA training	72.5%	70.8%
Supervisors reporting improved performance from NFA training	89.4%	92.3%
Supervisors reporting improved departmental performance	86.9%	91.4%
Supervisors who say that they will recommend NFA training to others	96.4%	96.9%
Supervisors reporting that NFA benefits outweigh costs	92.4%	95.2%

Note: Reported data were derived from NFA Long-Term Evaluation forms sent to both students and their supervisors four to six months after the NFA training class ended.

NFA Online: The NFA Online self-study training catalog currently includes 53 web-based courses and exams. This includes 27 NFA self-study courses and 26 courses and exams offered in conjunction with the National Wildfire Coordinating Group (NWCG). In FY 2020, the NFA released five new self-study courses and pilot tested two other courses that will be released early next year. In FY 2020 there were 60,251 course completions. The NFA Online Self-Study program saw a considerable increase in both new users and course completions as a result of COVID-19 and the resulting training activity shutdowns around the country.

In FY 2020, the NFA went forward with a plan to migrate its mediated courses from a Desire to Learn (D2L) BrightSpace Learning Management System (LMS) to a Blackboard Learn LMS. This migration was initiated to enhance security (meeting Federal Risk and Authorization Management Program requirements) and to ensure NFA students are given the best possible learning experience.

During the COVID-19 pandemic, the NFA continues to rapidly adapt resident courses to alternate formats for a variety of deliveries using distance learning technologies. The diverse formats allow for both synchronous and asynchronous instructor led classes, allowing NFA to reach a broad audience of emergency responders.

In FY 2020, the NFA Online mediated program hosted 18 mediated offerings reaching 354 students; 22 blended/resident course offerings reaching 478 students (Note: resident courses were suspended from mid-March through the end of the calendar year); and assisted in the delivery of 6 Zoom offerings reaching 163 students. This is currently the fastest growing delivery modality at the NFA, increasing its offerings by over 300% from last fiscal year.

American Council on Education: The FY 2020 annual review was conducted in November 2020. A virtual review was held for 21 courses. All the courses will receive college credit recommendations transferrable to local degree programs.

Continuing Education Units: In late 2019, the NFA submitted its own application to the International Association for Continuing Education and Training. In first quarter 2020 the NFA was notified of a successful application and the ability to assign continuing education units under its own recognition. The application reviewing committee conveyed how impressed they were with the NFA's documentation and the robustness of courses. All NFA courses are recognized for continuing education unit (CEU) credit promoting a core mission of providing professional development.

International Code Council: The NFA is an approved Preferred Provider with the International Code Council (ICC). This program recognizes and promotes ICC-approved educational opportunities as they relate to codes, standards, building construction, and other subject-related areas. Nine NFA courses have been approved for CEUs through the ICC and are listed in their catalog at <https://ppp.iccsafe.org>.

Significant curriculum enhancements: The NFA continues to use recommendations from national level sources and subject matter experts to ensure its curriculum is both current and relevant for today and future needs. Needs assessments finalized in six curriculum areas during FY 2019 resulted with recommendations to the NFA Curriculum Management Committee (CMC). With this action, the CMC approved the recommendations with nine course developments funded for FY 2020 and an additional seven course developments being funded for FY 2021.

Emergency Medical Services curriculum: In FY 2020, the NFA continued review and revision of its EMS curriculum and program pursuant to Congressional directives. The data reported in the USFA Topical Fire Report "Fire Department Overall Run Profile (2017)" reflected that 64 percent of reported calls to fire departments required emergency medical services and rescue services. This program's goal is to promulgate more effective EMS program management by the nation's emergency response community while not competing with state medical authorities and local training organizations that are very successful at delivering hands on out of hospital emergency medical clinical interventions and field skills. Continued course revisions and developments were refocused with virtual and online educational delivery model opportunities based on educational outcome requirements.

The NFA recognizes future challenges for EMS; these include pre-incident planning for EMS aspects of medium to large-scale disasters, evolving partnerships among different emergency planning and response disciplines, EMS management considerations as part of a national health care strategy, and the challenges of EMS service delivery in tight economic times through evidence-based change. These challenges will continue to be incorporated into curriculum during the on-going course updating.

Fire and Investigative Sciences curriculum: With an emphasis on the convergence of science, law, and investigative responsibility, courses and instructors ensure learners receive exceptional education and training. Conducted in cooperation with the Bureau of Alcohol, Tobacco, Firearms

and Explosives, Underwriters Laboratories, and professional associations, the NFA continues to lead the nation in the delivery of fire investigation, forensic and fire science, arson investigation, interviewing and courtroom testimony education and training.

The programs feature extensive student activities, hands-on participation, live burns, scene processing, mock testimony, and an instructor/mentor student interaction that is unparalleled and consistently results in highly positive feedback from the students. Operations are underway after a major refurbishment of the NFA Burn Lab, including a 15- by 36-foot complex burn building and eight new burn rooms. This practical exercise area is used by students in the program and other stakeholders. A complete renovation and rebuild of the burn buildings is nearly complete, increasing capacity for student activities.

Our partnership with the DHS S&T continued and was strengthened in FY 2020, which resulted in combined use of the Burn Lab for cross-directorate training and testing.

Beginning in FY 2018 and continuing into FY 2021, the entire curriculum is under extensive revision. Unfortunately, the global COVID-19 pandemic impacted our ability to complete the revisions under the proposed schedule. The final result, expected in FY 2021, will be a fire investigation program updated with student activities and content unmatched by any other program in the country.

Fire Prevention — Management curriculum: This curriculum area offers a wide array of courses intended for individuals new to fire prevention/community risk reduction and up to the senior fire officers. The curriculum addresses how to manage fire-prevention programs for a new fire marshal or those responsible for a program area within a fire-prevention/risk reduction bureau, community risk reduction for mid-management, using public policy to address risk, and developing programs to prevent and intervene in youth fire-setting. These courses are offered on and off campus.

Acting on recommendations from the 2017 comprehensive curriculum review, the NFA developed new courses to supplement the Public Education and Fire Prevention Management curricula. “Introduction to Strategic Community Risk Reduction” and “Community Risk Assessment” are online self-study courses currently available online and accepting enrollments. Both courses are entry points for the NFA risk reduction curriculum, managing officer program and executive officer experience so students enter with a strong baseline knowledge of what constitutes strategic risk reduction.

Fire Prevention — Public Education curriculum: This curriculum area offers courses for a person newly assigned to fire and life safety education and/or community risk reduction, as well as those seeking ways to evaluate their programs. The third online course nearing completion is an online mediated offering entitled “Fire and Life Safety Educator Fundamentals.” This course will empower learners with the knowledge, skills, and abilities to deliver programs that facilitate measurable learning outcomes resulting in behavioral change. It will feature a section on how to strengthen partnerships with local schools, so fire and life safety education becomes a key component of an educational institution’s essential core curriculum and is evaluated accordingly. A pilot offering of this course was successfully conducted from April-June 2020.

Fire Prevention — Technical curriculum: The NFA’s Fire Prevention: Technical curriculum provides education, leadership, and vision for the fire safety providers to reduce the risk of injury, loss of life, and property in their communities through effective and comprehensive fire prevention and fire protection/risk management efforts. In today’s built environment, there are ever changing technologies that result in new challenges for the fire service.

The education is heavily application-based; the techniques and evaluative skills taught within the courses directly reflect lessons learned. These lessons learned are incorporated into the development and implementation of the latest editions of building and fire codes and standards. The NFA Fire Prevention: Technical curriculum consists of five primary core educational elements:

- Building Construction for Fire Protection
- Fire Behavior and Combustion
- Fire Prevention and Mitigation
- Fire Protection and Life Safety Systems
- Community Risk Reduction

Currently, there is a growing interest in tall buildings constructed from mass timber materials. This practice brings into question the structural integrity of the material during a fire situation. The model building code has changed to allow this new construction practice and the curriculum is attempting to modify its teaching courses to educate the responders with the benefits and potential issues or concerns.

The curriculum addresses all levels and complexities of building design, use and occupancy, and the many complex fire protection features and systems that are found in today’s built environment. The goal of this program is to develop a national corps of fire and building code officials highly trained and prepared to make informed decisions about life safety and fire protection issues that directly impact community safety.

In keeping with the ever-changing landscape, the curriculum has revamped the Water-Based Fire Protection Systems Plans Review course into a more robust and updated Commercial Fire Sprinkler Plans Review course. The course changes reflect the updated requirements of sprinkler system design and installation practices. These changes are made through a nationally recognized consensus standard process every three years, thus requiring the courses to be modified on a regular basis.

Hazardous Materials curriculum: In 2020, the USFA’s NFA encountered several challenges associated with the COVID-19 pandemic, including delayed contractual course revision and development, delayed pilot deliveries, and constant changes and cancellations to the course schedule. The USFA’s NFA continued to support the interagency partnership with the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration of the Department of Transportation (DOT). This partnership provides for the input and informational needs to have a positive impact on the safety of our communities and responders. The USFA/NFA continues to assist the Hazardous Materials Emergency Planning Grant Process as well as PHMSA Crude by Rail and Liquefied Natural Gas by Rail products, including Liquefied Natural Gas Town Hall Meetings. The most current agreement provides for collaboration and participation with the PHMSA to host the annual Hazardous Materials

Roundtable Meetings. These meetings assist in identifying gaps, needs, and emerging issues related to planning, training, and response within the hazardous materials response community.

The USFA and the NFA continue to support and participate in the development of output products, as data become available, associated with the DHS S&T Jack Rabbit project — a field project in collaboration with DHS S&T Chemical Security Analysis Center, Department of Defense’s Defense Threat Reduction Agency, DOT PHMSA and others analyzing the large-scale, catastrophic release of toxic industrial chemicals in urban areas — and incorporating relevant information into our current curriculum. A third phase of testing is being planned for FY 2021 and FY 2022. The USFA and NFA continue to evaluate the data from the trials to affect change in planning, response, and training associated with catastrophic bulk carrier releases of compressed liquefied gases in an urban environment. The lessons learned are currently being disseminated nationally and continue to be incorporated into training programs across the nation.

In 2020, two courses were revised, and the initial pilot draft was completed for one new course, “Management and Safety in Response to Hazardous Materials/WMD Incidents.” The pilot deliveries have been cancelled due to COVID-19 concerns and are being rescheduled in CY 2021. There are an additional two courses in revision — “Hazardous Materials Code Enforcement” and “Hazardous Materials for Inspectors.” Educational developments continue to be focused on current, emergent, and relevant trends associated with hazardous materials/weapons of mass destruction response. The NFA continues its participation in consolidation of the NFPA hazardous materials response documents. The USFA continues its participation in the Interagency Coordinating Committee on Oil Pollution Response and the Interagency Board.

Incident Management curriculum The Incident Management curriculum is an important component of the NFA training program, and with over 20,000 completions, is one of the most successful and popular of the NFA curricula offered. One of the many reasons for the success of this curriculum is the currency of the materials and the applicability to the day-to-day duties of the students. In FY 2020, NFA incorporated new visions toward how we lead during incidents and address community lifelines in a whole community, integrated environment simulations to reflect the current best practices as related to complex incidents as well as the current relevant national standards.

Simulations were enhanced to reflect current trends from incidents nationwide. Increased technology use has provided a higher degree of image fidelity and better display. The NFA also introduced a virtual capability that allows us to engage audiences around the nation to discuss some of the nation’s critical yet infrequent incidents. This allows us to remain current yet control costs. The scenarios have also been enhanced to account for changes in building construction and student learning points, which allow for a better understanding of actual fire progression and the impacts of each action taken.

The NFA continued to update courses to reflect the refreshed National Incident Management System (NIMS) doctrine and Emergency Operations Center skillsets. NIMS provides a common nationwide approach to enable the whole community to work together to manage all threats and hazards. NIMS applies to all incidents, regardless of cause, size, location or complexity. These concepts and principles are integrated within the entire Incident Management curriculum to include lessons learned from incidents and whole community approaches and best practices.

Staff analyzed data regarding risks and capabilities with the SLTT communities. Curriculum was updated to include techniques and strategies to increase effectiveness in incident and disaster operations to better position jurisdictions to respond to catastrophic incidents. Updates also incorporated FEMA's Community Lifelines and how they promote the importance of situational awareness, prioritization of response efforts, and decision-making processes during a disaster response to work toward incident stabilization.

The incident management curriculum staff are major participants in the lessons learned project. These activities support our efforts to maintain current and relevant training and education by learning from real world incidents and the successes, best practices, and issues associated with those events. This program will allow continuous improvement of NFA's courses and advances the NFA's ability to enhance the delivery of programs, services, and support in a manner that can measurably improve outcomes for the fire and emergency services community. Curriculum updates based on lessons learned from the 2018-2019 hurricane and wildfire seasons continued with case study development and exercise-based training implementation. These enhancements integrated contemporary topics and issues relevant to today and the future of societies as it relates to fire, emergency services, and emergency management. Students assess major incidents/disasters from both domestic and international viewpoints and theorize about impacts and effects on the community. Discussions also include implications of these types of events in their communities one year, five years, and ten years from now.

The Incident Management staff continued to update courses and incorporate real world events. Staff deployed to events and gained valuable insight from those incidents. The data gathered, along with best practices and lessons learned, were used to better inform the NFA and supported our mission and the commitment to America's responders. Reports developed from staff deployments include research from publicly available documents, interviews with responders, reviews of similar recent incidents, and in-person analysis of the incident site and surrounding area that is impacted. As a result of this project, speakers were brought in to address classes both in person and virtually to speak about best practices, lessons learned, and unique problem sets faced during these incidents. Incidents represented include past wildfires, active shooter, mudslides, flooding, and large-scale building fires.

The Incident Management area expanded its partnership with National Institute of Science and Technology allowing the NFA to integrate Virtual and Augmented reality into its Incident Management curriculum using educative 360-degree video from a wildfire and structure fire. The footage allows the learner to immerse themselves in the scene and see different aspects of the fire. NFA continued to bolster its partnership with DHS S&T with participation in the Enhanced Dynamic Geo-Social Environment, Predictive Modeling, Next Generation First Responder, and the DHS First Responder Group to include testing current technologies as well as integrating a school setting and other simulated environments to enhance learning. This partnership allows NFA to strengthen our stakeholders' abilities to respond to events in an all hazards environment. As the coordinating element for NFA, the Incident Management program area has utilized this partnership to maximize efficiencies crossing over to other curriculum areas that include Arson/Fire Investigation and Firefighter Safety.

Leadership and Executive Development curriculum: The delivery methodology for 16 courses in the Leadership and Executive Development curriculum continue to be revised, moving from an instructor-led lecture format to a facilitator-led Socratic method.

In FY 2020, the “Administration of Public Assistance for Community Recovery” course, which supports communities recovering from disasters, continues to be revised to meet changes with the FEMA Public Assistance Policy and Program Guide. Thirteen students completed the course in early FY 2020 on campus, and another 13 students completed the course as a regional offering in Oklahoma.

In FY 2019 a curriculum development project, “Effective Communications for Fire and EMS Success” was piloted. This was the first truly blended course development whereby students participated in both online mediated and in-classroom environments. In FY 2020, a second pilot of the online mediated portion was conducted; however, the in-classroom portion was postponed because of COVID-19 restrictions.

A new 6-day course “New Executive Chief Officer,” developed and piloted in FY 2019, was released for implementation in FY 2020. Prior to COVID-19 restrictions, 42 students completed the course.

Planning and Information Management curriculum: Two online mediated courses which were piloted and released in 2018 (“Decision Making” and “Financial Management and Geographic Intelligence for Fire and Emergency Services Leaders”) have met with considerable success. Both courses were offered several times in 2019 and 2020 with hundreds of applicants unable to be placed.

The online self-study course “Introduction to the National Fire Incident Reporting System 5.0” remains in development due to lead program capabilities. The online self-study course, “Management Tools for Fire and Emergency Services Leaders” was released from pilot and has met with success as a means of providing fire and emergency services leaders with skills needed to organize and analyze data, creating actionable intelligence to guide their decisions.

Responder Health and Safety curriculum: Firefighting is a very dangerous profession, and the USFA is committed to reducing the fatal and non-fatal injuries and illnesses that occur while firefighters are serving their communities. The latest USFA on-duty firefighter fatality statistics indicate a positive pattern of decline in on-duty deaths. USFA’s “Firefighter Fatalities in the United States in 2019,” released in FY 2020, reported that sixty-two firefighters died while on duty in 2019 — a 31 percent decrease from 2019 (90). This is the lowest number since 1976 when the USFA began this study.

The revised development of the “Application of Leadership in the Culture of Safety” course was completed and offered this fiscal year. This course is part of NFA’s Managing Officer Program and targets the first line supervisor, considered the most important link in changing the fire and EMS safety culture. Significant changes have been made to the following courses in light of current and emerging trends and lessons learned: “Safety Program Operations,” “Department Wellness Program,” and “Empowering Responder Wellness” (online). Two new online mediated courses are pilot ready: “Health and Wellness” and “Safety Program Operations.”

Training Program curriculum: The 2-day “Training Operations for Small Departments” course underwent a complete review and rewrite and has been released for pilot as “Training Supervision.” The course focus remains on small department training officers and ensuring that they have the knowledge and skills to manage the training function in their organizations.

Facilities and support: The National Emergency Training Center (NETC) Management, Operations, and Support Services (MOSS) Division is responsible for managing, operating, and providing administrative and emergency support services for all USFA activities (which includes the NFA and the NFP Division) and FEMA’s Emergency Management Institute (EMI) located on the 107-acre campus in Emmitsburg, Maryland.

In FY 2020, the NETC MOSS division provided numerous facilities and support services for 200 federal employees, 200 federal contractors, and approximately 400 students each week from across the nation. Operations and support consisted of, but were not limited to, the following: facility operations and maintenance; renovation and improvements; food services; security; information technology; and student admissions, housing and transportation for NFA, EMI, and FEMA students. Due to the COVID-19 pandemic, NETC resident training was drastically curtailed from April through September. On campus in FY 2020 4,627 students completed resident training (NFA 2,854; EMI 1,773 (of which 366 were FEMA students); and special groups training 37.)

The NETC MOSS Division oversees and maintains an installation master plan, a deferred maintenance and capital improvement plan as well as a process to achieve NETC's vision of a historic, state-of-the-art, multiuse, student-focused campus. The master plan lays out the existing state of and vision for NETC in a comprehensive and graphic manner that can be referenced when expansion or reconfiguration is necessary. The plan establishes a planning framework with specific recommended solutions for identified issues, and it outlines planning standards to help create a sense of place and a destination that presents a professional image and fosters a supportive working environment.

In 2020, NETC MOSS continued to install various energy efficient products on campus to achieve substantial energy cost savings and reduce environmental impacts associated with the facility resulting in greater efficiency and sustainability. The installation of the new fire alarm system in four buildings was completed as part of Phase 2. Heating, ventilation, and air conditioning upgrades were completed in Buildings H, R and E. The installation of energy efficient lighting campus-wide has been completed. Attic insulation was installed in Buildings H and G. Solar panels were installed on Building S. All work complied with the Maryland State Historic Preservation and FEMA programmatic agreement.

Section 4.3 — Activities to Assist the Nation’s Fire Services

(15 U.S.C. § 2215(d))

The USFA provided support and assistance to the nation’s fire services operations and response through the following activities in FY 2020.

COVID-19 Response Support: USFA’s NFP Division provided extensive fire, EMS, and data subject matter expertise for the Health and Human Services/FEMA COVID-19 Healthcare Resilience Task Force, Prehospital Working Group. Three NFP staff who are certified paramedics were deployed to the Task Force for 110 days and remain engaged with the working groups to assure fire and emergency medical service equities are represented. These deployed individuals as well as other NFP staff providing pandemic support contributed over 7,500 personnel hours in FY 2020. Contributions included development of guidance for first responders on Personal Protective Equipment, First Responder Testing, Crisis Standards of Care, Data, Stakeholder Engagement Cross-cutting, Telemedicine, and Response Best Practices.

USFA Response to Assistance to Firefighters Grant (AFG) Monitoring and Oversight Requirement, §6 of the Reauthorization Act: USFA and AFG Program Office staff have been working collaboratively to address this requirement. USFA review of the FY 2018 FEMA Monitoring Plan (Plan) determined that actions called for in this Plan meet the legislative requirement for oversight and monitoring of the AFG program. The Plan identifies two areas for monitoring activities – programmatic and financial. Two opportunities for USFA engagement and contribution fall within the programmatic monitoring area. The first is for USFA staff to assist the AFG Program Office when conducting targeted post-panel reviews. USFA staff began assisting the AFG PO during the FY 2017 Fire Prevention and Safety (FP&S) Grant Program review process and in 2019 continued to assist with the review of FY 2018 FP&S Research and Development applications prior to award. In the second opportunity, USFA and AFG Program Office staff will work collaboratively to develop an AFG grants management training program that will be hosted on the USFA Learning Management System.

National Fire Academy Board of Visitors: The NFA Board of Visitors (BOV) plays an important role in supporting the academic stature of the NFA. The BOV is charged with the annual review of the NFA programs, and it also provides advice and recommendations to the USFA.

In FY 2020, the NFA BOV:

- Acknowledged the NFA’s ability to provide online and mediated learning opportunities when COVID-19 caused the suspension of in-person, on campus training, while also identifying a technology gap in some rural and tribal communities impacting their ability to participate in technology-based training opportunities;
- Assessed the NFA facility and recommended several technology updates such as the need for a campus-wide wireless system to include unrestricted Wi-Fi, file sharing capabilities, and access to information via cloud-based solutions, in addition to a dedicated Chief Information Officer at NFA;
- Maintained sub-committees and conducted activities addressing the NFIRS, and the NFA’s Professional Development Initiative;

- Supported the enhanced emphasis on WUI to include the pursuit of funded positions, development of an additional training curriculum, and enhanced delivery;
- Conducted four meetings which were efficiently supported by using online conferencing technology and one in-person meeting at the NETC. The annual in-person meeting was held online due to COVID-19; and
- Developed their annual report.

The culmination of the year's activities included numerous recommendations for the enhancement of the NFA's educational program, upgrades and expansion of the NETC physical facility, specific technology needs, and support for budgetary increases.

Federal Fire Working Group: The Federal Fire Working Group (FFWG) provides an opportunity for federal agencies to share and discuss one another's programs, research, and additional resources to promote coordination and collaboration among federal partners. It is the only interagency group within the Federal Government with a focus only on fire and life safety. The FFWG was established in 2001. The USFA is required to provide federal agency coordination and information exchange activities under Sections 8(e), 12, and 21(e) of Public Law 93-498, October 29, 1974, the Federal Fire Prevention and Control Act. The FFWG provides the forum for USFA to lead that coordination.

Federal Interagency Committee on Emergency Medical Services: The USFA is a statutory member of the Federal Interagency Committee on Emergency Medical Services (FICEMS), established by Congress in 2005 through the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, to ensure coordination among federal agencies supporting local, regional, state, tribal, and territorial EMS and 911 systems. The FICEMS was also created to improve the delivery of EMS throughout the nation.

Wildland and wildland urban interface coordination: The USFA has worked with respected agency partners and non-government organizations to coordinate wildfire safety efforts and innovations to help firefighters, emergency managers, and community leaders create neighbors and cities that are better prepared for a wildfire event and recover more quickly. USFA facilitates the collaboration between the NIOSH Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) and the FFWG to investigate wildland firefighter fatalities. This year USFA assisted NWCG with developing protocols for wildfire response due to COVID-19 which made wildfire response more difficult.

The USFA collaborated with the NFPA and various FEMA components to promote the Wildfire Community Preparedness Day. This year marked the seventh anniversary for this activity. According to the NFPA, the purpose of the event is to improve a community's ability to withstand and recover from a wildfire, which may also improve the safety of firefighters. Almost 10 million Twitter followers were touched through various social media outreach efforts.

The USFA provides full-time staffing at the National Interagency Fire Center (NIFC) in Boise, Idaho, which enhances interagency functions and technical assistance programs that are critical to wildland firefighting operations. Working directly with the NIFC Office of Predictive Services, interagency partners, and Geographical Area Coordination Centers, the USFA provides technical support on numerous wildland firefighting resource management programs.

Additionally, the USFA has served as the Interagency Coordinator to interface various FEMA national and regional programs with existing programs from the interagency representation at NIFC. Serving as host, the USFA has supported various mitigation, planning, logistics, and grant meetings through the year.

The USFA maintained membership with the following interagency groups: Wildland Fire Leadership Council (the U.S. Fire Administrator is a principal member), NWCG, NWCG Fire Management Board, and NWCG WUI Mitigation Committee, and the NWCG Communication, Education, and Prevention Committee along with Fire-Adapted Communities Coalition, Fire Executive Council and Federal Fire Policy Council. Through these groups, the USFA represented SLTT structural fire and emergency services and encouraged collaboration on how the federal land management agencies and departments manage existing resources, research, technical development, training, qualifications, and mobilizations.

In collaboration with FEMA, DHS S&T, and other key stakeholders, the USFA worked to determine what new and emerging technologies could be applied to wildland fire response. Given the loss of life that occurred in the recent California wildfires, the FEMA Administrator asked what technology could be applied to save lives in the wildfire response. This collaborative effort developed a Wildland Urban Interface Fire Operational Requirements and Capability Analysis Report, May 31, 2019¹⁹ with key findings that will be shared with the broader fire and emergency response communities in an effort to deliver solutions and has resulted in the development process of a machine learning tool that can be used as a part of wildfire prevention outreach.

Federal operations and National Preparedness: During disaster activations, the USFA deployed staff filling the Emergency Services Group Supervisor position supporting FEMA's NRCC. This unprecedented year broke records with all 50 states, the District of Columbia, and five U.S. territories getting major disaster declarations for COVID-19 response. The Atlantic Basin also saw a record number of named storms and the most U.S. landfalls. USFA also provided subject matter experts in support of NRCC augmentation training and exercises preparing new FEMA staff for NRCC activations.

USFA staff coordinated and provided input and review for the National Contingency Preparedness Concept of Operations, FEMA NRCC Resource Support Section Standard Operating Procedure, Homeland Security Exercise and Evaluation Guide, and multiple other FEMA and DHS procedures, policies and doctrine.

USFA staff participated as a member of the FEMA Exercise Coordination Group and assisted in the planning and coordination of the National Level Exercise Binary Blackout, the FEMA Regional Biological Incident Exercise Scenario and exercises for new FEMA NRCC staff.

Type 3 All-Hazards Incident Management Teams: During 2020, the USFA continued to be the lead agency supporting All-Hazards Incident Management Teams (AHIMTs) by, for the first time, establishing competency standards for the teams to follow as they respond to national disasters. These standards will define what an AHIMT should be capable of in terms of administrative, operational, and logistical readiness. The USFA provided development assistance

¹⁹ https://www.dhs.gov/sites/default/files/publications/wui_fire_report_of_findings_july_24_2019v2_508.pdf.

for 22 USFA Type-3 AHIMT course deliveries that trained 498 students for the nation's emergency services. Currently, the USFA maintains contact with 71 AHIMTs throughout the country, representing SLTT incident management teams that establish a robust national capability for emergency services.

Critical Infrastructure Protection: The USFA's Critical Infrastructure Protection Program promotes information sharing and threat analysis with emergency services sector departments and agencies nationwide. The USFA manages the Emergency Management and Response-Information Sharing and Analysis Center (EMR-ISAC), which is a national clearinghouse for critical infrastructure protection and emergent threat information specifically targeted to the nation's emergency services sector personnel. The EMR-ISAC publishes a weekly InfoGram that addresses current issues impacting first responder operations, planning, health, and safety concerns and the challenges of responding during incidents of civil unrest and active shooter situations. In FY 2020, distribution of the weekly InfoGram increased 18 percent to more than 125,000 emergency services-sector personnel nationwide.

Additionally, the USFA-managed Emergency Services community of interest on the Homeland Security Information Network (HSIN) has vetted more than 27,000 emergency services sector leaders for access to current situation reports, emerging threat information, public health and safety bulletins, cyber and terrorism threats, and other critical "For Official Use Only" information. The USFA also hosts monthly informational webinars on developing trends with state and local fire service personnel that serve as liaisons with their state's fusion center.

National outreach: The USFA continues to refine the Daily National Operations Briefing providing an operational snapshot of significant information, emerging issues, all-hazard incidents/events, and hazardous weather. Additional information is available with hyperlinks that are implanted in the document, which allow subscribers to view details and to check for updates. The briefing is distributed to more than 28,000 subscribers; is available through the Homeland Security Information Network in two communities; and, is distributed to the National Council of ISACs distribution list.

Section 4.4 — Public Education

(15 U.S.C. § 2215(e))

In FY 2020, the USFA led or participated in the following activities to deliver public education materials and messages that were easily understood by the general public and specific at-risk groups, while emphasizing the whole community concept modeled by the Fire is Everyone’s Fight[®] initiative. Additional information is available at <https://www.usfa.fema.gov/prevention/outreach>.

Arson Awareness Week: “First Responders: Fire Investigations, Arson Laws and You!” was the theme for the Arson Awareness Week and set the stage for significant outreach on this important topic during the week. Incendiary fires often present unique identifiers that can be easily distorted during suppression efforts by the personnel on the scene. Some indicators may be missed during the response as the focus quickly adapts to the unfolding situation. The main purpose of Arson Awareness Week this year, is to have first responders be more aware of their surroundings as they arrive and extinguish the fire and to garner a basic understanding of local or state arson laws utilized to punish the offenders.

The impact was for first responders to have a sense of inclusion and greater purpose than just putting out the fire. Understanding the investigation begins with the call for service, not only when the fire investigator arrives. Observance of activities enroute, such as vehicles and/or people on or leaving the scene, items of special interest during and after extinguishment are all important factors with the scene investigation. This information will help ensure better evidence procurement and protection at the scene whether the fire is determined to be accidental or intentional.

The USFA 2020 Arson Awareness Week webpage had 6,137 visits.

Emergency Medical Services Week: “Ready Today. Preparing for Tomorrow” was the theme of the annual Emergency Medical Services Week. EMS Week offers an important opportunity for EMS and fire departments to recognize the dedication of all EMS personnel and the showcase their commitment to protect the health and safety of all Americans. The USFA is proud to support, train, and recognize the accomplishments of all EMS personnel. Additional information is available at https://www.usfa.fema.gov/operations/ops_ems.html.

National Emergency Training Center library: The NETC library focused on a “research-to-practice” initiative that involved writing brief summaries and capturing key actionable takeaways from recent research articles. The target audience for the research summaries was fire and EMS personnel. The topics included violence towards EMS personnel, wildfire risk mitigation, firefighter cancer screening, assessing cardiovascular disease risk in firefighters, community paramedicine, and nanotechnologies to minimize fire risk. The complete set of content is posted at: https://www.usfa.fema.gov/current_events.

NETC library staff developed and shared the COVID-19 Research Guide on the NETC library webpage²⁰. This provides a one-stop shop to help researchers, students, practitioners, and the general public find materials related to the COVID-19 pandemic.

²⁰ <https://www.usfa.fema.gov/data/library/libguides/covid-19/index.html>.

The library provides short training sessions that help students further hone their ability to find, evaluate, effectively use, and cite needed information. Topics include an introduction to the research process — how to cite a reference in accordance with the *Publication Manual of the American Psychological Association*, sixth edition, accessing full-text scholarly articles and e-books via the library's online database, creating an online search strategy, establishing a research topic, and more.

The library undertook a major collection maintenance project to economize space and remove many hundreds of old, outdated books. This improved management of our space will allow us in 2021 to integrate the operations of the campus publication center into the footprint of the library. Our intent is to transform the current space into a campus common area that houses enhanced and improved library services along with conveniently accessible publication center services. This one-stop shop will be an active draw to students who will have a reading lounge type of experience providing a wide array of print and electronic information products.

Home Fire Fatalities: The Prevention & Information Branch undertakes a daily media monitoring effort in order to capture and analyze in real time, news reports of home fire fatalities from around the country. The intent of this effort is to provide an estimate of deaths due to fire as well as demographic trends and fire causes in the United States. Guided by this data and analysis, the Prevention & Information Branch designs educational and informational prevention resources for distribution to the fire service and the public. These resources are also made available on the USFA website.

Fire and Life Safety Messages: The USFA is involved with a wide variety of outreach efforts in partnership with fire and life safety organizations and agencies. One unique initiative for this report is fire and life safety pictographs. These specially designed tools address the ever-increasing need from our constituents for messages for their at-risk public. We increased the reach of our pictographs by adding more life safety topics, such as bike safety, pool safety and wildfire/outdoor burning fire.

This year, the USFA released 29 new pictographs bringing the total that the USFA has published to 111. They assist fire departments and key fire and life safety stakeholders in teaching fire and life safety to people with low literacy and for those with limited English proficiency. Pictographs can help overcome literacy barriers by communicating messages with pictures. These pictographs help to communicate fire safety messages to high-risk populations. Each was tested nationally with people who have low literacy, as well as those who speak Chinese, Hindi, and Spanish — the nation's largest immigrant groups. The pictographs can be used in educational outreach materials such as flyers, posters, and banners. The USFA created templates to assist departments in creating these outreach materials and a how-to video to teach users how to use the templates. They are available on the USFA website and have been extremely well-received.

The Fire Marshal Interchange: The Fire Marshal Interchange (FMI) was established to provide a platform for fire marshals across the nation to safely communicate within the secure HSIN. Using this site allows for sharing knowledge outside jurisdictions to bring awareness of problems and trends that may threaten the lives of those they have sworn to protect from fire and life safety issues. The world of the fire marshal is always changing. This site is designed to advocate for positive reinforcement of the basic and often complex situations that arise.

The FMI is specifically designed for the fire marshal mindset. The USFA fully supports the collaboration of fire marshals throughout the nation and internationally in order to help better serve their communities.

Since its release in March 2019, the FMI has garnered 654 active members from federal, state, tribal, county and local municipalities, the Department of Defense, Canada and New Zealand. We are using various marketing tools to advertise the network to the fire marshal community including the USFA website, Gov Delivery, National Association of State Fire Marshals, HSIN, Certified Fire Investigator Trainer Network (CFITrainer.net), International Association of Arson Investigators, Community Risk Reduction (CRRNet), and LinkedIn.com to name a few.

Hotel–Motel National Master List: The Hotel–Motel National Master List, published on the USFA website, is one of the fire and life safety assets created as a result of the “Hotel and Motel Fire Safety Act of 1990.” Properties that provide lodging to the public and meet the minimum fire safety requirements are approved for official travel by U.S. federal government employees. A property can apply to be on the list if it has at least one single-station, hard-wired smoke alarm in each guest room and all conference rooms. If the building is four or more stories tall, fire sprinklers must be in each guest room. The property receives a FEMA ID that can also be used for the Emergency Lodging Assistance Program funded by FEMA.

The Office of Management & Budget Collection 1660-0068, Federal Hotel & Motel Fire Safety Declaration Form is in place for the information collection. This renewal process keeps the information collection active on the Office of Management & Budget inventory for three years. The new expiration date is February 28, 2022.

We continue to send GovDelivery messages to approved properties in the Hotel-Motel database. The messages went out to all properties that have provided an email address; this was approximately 32,000 for each mailing. Our messaging included fire and life safety messages as well as encouraging property managers to ensure their National Master List information is up to date.

This year, the USFA added 3,888 new lodging properties to the list, bringing the number of properties on the National Master List to 52,973. The USFA partners with the General Services Administration to assist in maintaining accurate property information as part of our ongoing commitment to ensure fire safety for travel lodging.

Digital communications and social media: Our followers on the USFA’s Twitter account (@usfire) totaled 50,400 people. This year we posted over 600 tweets. Our likes on the USFA Facebook page are over 24,000, and we had 310 posts. The USFA LinkedIn channel currently has 14,300 followers and have posted over 100 times. In addition to supporting FEMA digital platforms by sharing/retweeting posts, we participated in several major campaigns on our platforms such as Hurricane Preparedness Week, Community Risk Reduction Week, Arson Awareness Week, and hurricane/severe storm safety.

USFA staff sent approximately 700 bulletins to GovDelivery subscribers on community risk reduction, fire prevention and life safety, and available USFA resources, including NFA training. The number of subscribers to one or more USFA email lists is 349,000.

U.S. Fire Administration’s website: The USFA’s website received 4.2 million visits from 3.1 million unique visitors during the reporting period. A variety of fire prevention outreach materials were added to the USFA’s website including animated social media cards in both English and Spanish, customizable home fire-safety handouts for local fire prevention campaigns and resources for Arson Awareness Week/Fire Prevention Week/EMS Week/National Preparedness Month. Also added to the site was content to inform communities about what to do before, during and after a WUI fire; a short, shareable video on the facts about fire; digital presentations on workplace safety and WUI success stories; and 29 pictographs – illustrations and animations to help overcome literacy barriers by communicating fire-safety messages with pictures.

The USFA continued to publish a series of articles on current events and emergent issues relevant to the fire service to increase national awareness about them. Other content added for fire and EMS included resource sections on COVID-19 and civil unrest planning and response, a guide to assist COVID-19 researchers, state fire and fire training profiles, and a statistical dashboard to support the NFIRS COVID-19 Special Study.

Fire is Everyone’s Fight®: The USFA’s branded prevention initiative, Fire is Everyone’s Fight®, works to unite the fire service, life safety organizations, and professionals to reduce home fire injuries, deaths and property loss by changing how people think about fire and fire prevention. All USFA prevention activities and resources bear this brand. At the end of FY 2020, 3,131 fire departments and other organization supporters had registered to use the brand. Supporters include all 50 state fire marshal offices, the District of Columbia, and government and non-government organizations from Australia, Canada, Denmark, Egypt, England, Guam, Mexico, New Zealand, and South Africa. Additionally, in FY 2020, two federally recognized tribes joined the initiative.

Publications Center: The center processed nearly 4,000 publication orders, accounting for the distribution of approximately 350,000 fire prevention and life safety items. The outreach products include booklets, manuals, technical reports, handouts, CDs, and DVDs – many provided in both English and Spanish. In addition to providing hard copy publications upon request, most of the USFA publications are searchable and available for electronic download through the USFA’s website as 508-compliant PDF files. Many of the electronic fire prevention and public education outreach publications can be customized by fire/EMS departments and community organizations for use within their local communities.

The Publications Center was moved from a previous location in I Building to a new location within the NETC Library. Students will now be able to have better access to the wide variety of publications that are offered in a more convenient location on campus.

The Media Production Center: The center creates a wide variety of communication graphics including 3D animated videos, posters, displays, animated social media messages, presentations, publications, etc., for display on the USFA’s website; in NFA courses, classrooms and on-campus locations; and at conferences, meetings, and course locations across the country. The Media Production Center also supports FEMA’s EMI with communication graphics, posters, displays, and online electronic assets.

U.S. Department of Homeland Security *Blue Campaign* on human trafficking: The USFA supported the *Blue Campaign* during Human Trafficking Awareness Month by distributing resources to enhance first-responder awareness of human trafficking. These materials are disseminated at the NETC campus and across the nation at various meetings where the USFA exhibits for first responders and the general public. In addition, our social media platforms regularly share human trafficking awareness for first responders as well as supporting the DHS Blue Campaign channels through shares and retweets.

Section 4.5 — Fire Safety Effectiveness Statements

(15 U.S.C. § 2215(f))

Although initially a reporting requirement for the USFA, the authority for code enforcement remains at the SLTT levels and is outside the federal purview. The code development and compliance process has evolved since the 1970s and essentially meets the need to provide fire safety standards to which buildings should comply. The USFA continues to support the promotion of current codes and compliance through training at the NFA and through staff involvement in the consensus standards process.

Section 4.6 — Outstanding Problems

(15 U.S.C. § 2215(g))

National Fire Incident Reporting System: While the NFIRS use continues to grow and collect more incidents than each previous year, there are challenges. Today, there is an increased demand for data/evidence-based decisions and solutions to complex problems; the fire problem in the U.S. is one such problem, especially in the WUI. Accurate, comprehensive, and current data are essential for pinpointing issues, forecasting trends, setting goals, and identifying actions and areas of focus.

The NFIRS also documents increased levels of service demand during disasters. Unfortunately, the NFIRS was not originally designed to collect data for such large national disasters. Expanding the ability to access and analyze the full data collection would improve the measurement of the national capacity for response and the operational effectiveness of SLTT emergency services. In addition, the resulting information would support FEMA and DHS information gathered on natural and man-made disasters.

The data environment has changed significantly since the creation of the NFIRS. The aging system (a FEMA legacy system) is expected to function in the DHS's high cyber security environment that was never envisioned when the NFIRS was created. Security and data protection mandates continuously evolve in response to safeguarding the system and its assets from vulnerabilities, and large modernization efforts are needed periodically to keep the system in step with agency IT processes. Emergent security requirements are continuous and demand that resources be first committed to addressing these needs while system enhancements become a secondary priority.

Obtaining complete incident information from firefighters is an ongoing challenge, and not something the NFIRS or the USFA can enforce or mandate. Participation in the NFIRS is voluntary. How well or completely the firefighters fill out their NFIRS report involves several factors, such as, how much information is available at the incident scene, proper training on entering NFIRS data reports, or efficiency of the department's software. Some NFIRS users will enter generic values just to "complete" a report, and the result is the slightly different issue of lesser data quality. In 2020, the USFA's NFIRS staff continued to promote and directly assist NFIRS users with a set of data quality reports from the NFIRS Data Warehouse. USFA staff worked in late FY 2020 in the production of the 2019 public NFIRS data, expected to be released in early FY 2021. Additionally, USFA offered training for state NFIRS program managers to help them expand the use of the Data Warehouse reports within their states. These measures alleviate specific issues or gaps in annual data quality.

State Fire Training Grants: National statistics indicate that approximately 70 percent of the nation's firefighters are volunteers and 85 percent of the nation's fire departments are all or mostly volunteer. Volunteer fire departments across the Nation are struggling to retain firefighters while trying to provide lifesaving and important training and education. The USFA has provided small grant funds to state fire training agencies. The 20,000 dollars per state has been critical in providing training to the Nation's emergency responders. Over time, the decrease in USFA funds has required the NFA to redirect funding from course development and delivery to funding this grant, jeopardizing the currency and relevancy of courses delivered through the NFA. In 2019, the USFA suspended grant funding due to increased costs within salary and

benefits, and curriculum development and delivery. In 2020, Congress mandated that the USFA provide the grant funding to each state fire training agency at the 2019 level without an increase to the USFA budget to support the grant release. Due to the mandate and no increase in funding to support the grants, the USFA will once again redirect funding from critical areas that support NETC campus maintenance and curriculum review, development, and delivery. To continue in this way will significantly impact the USFA's ability to support the FEMA mission to ready the nation for catastrophic disasters. In 2020, 45 states applied for and received funding through the State Fire Training Grant process.

Fire Data Collection and Aggregation for Analysis across all Disciplines

The USFA believes it is important to have data collection, aggregation, analysis, and reporting that is consistent, and addresses all fires including structural, wild land interface and wild lands. Currently there is no way to achieve this goal to provide a single assessment of the entire nation's fire risks.

Nothing to recommend at this time

Section 4.7 — Suggested Improvements to Fire Prevention and Building Codes

(15 U.S.C. § 2215(i))

The USFA continues to monitor the code change activities of the NFPA and the ICC on an ongoing basis and supports various initiatives with technical expertise as appropriate. The USFA regularly coordinates with our partners in the fire service and the fire prevention community in these efforts. The USFA recommends that local jurisdictions adhere to the latest edition of the model building and fire codes promulgated by either the NFPA or the ICC. The codes and standards promulgated by these two organizations include consensus requirements that adequately address home smoke and carbon monoxide alarms, residential fire sprinklers, and fire safety in the WUI using the whole community approach.

VI. Acronyms

AFG	Assistance to Firefighter Grants
AHIMT	All-Hazards Incident Management Team
BOV	Board of Visitors
CEU	Continuing Education Unit
CMC	Curriculum Management Committee
COVID-19	Coronavirus Disease 2019
CY	Calendar Year
DHS	U.S. Department of Homeland Security
DOT	Department of Transportation
EFO	Executive Fire Officer
EMI	Emergency Management Institute
EMR-ISAC	Emergency Management and Response-Information Sharing and Analysis Center
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
FESHE	Fire and Emergency Services Higher Education
FFFIPP	Fire Fighter Fatality Investigation and Prevention Program
FFWG	Federal Fire Working Group
FICEMS	Federal Interagency Committee on Emergency Medical Services
FMI	Fire Marshal Interchange
FP&S	Fire Prevention and Safety
FY	Fiscal Year
HSIN	Homeland Security Information Network

IAFC	International Association of Fire Chiefs
ICC	International Code Council
IT	Information technology
LMS	Learning Management System
MOSS	Management, Operations, and Support Services
NAFTD	North American Fire Training Directors
NETC	National Emergency Training Center
NFA	National Fire Academy
NFIRS	National Fire Incident Reporting System
NFP	National Fire Programs Division
NFPA	National Fire Protection Association
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NIOSH-FFFIPP	National Institute for Occupational Safety and Health - Fire Fighter Fatality Investigation and Prevention Program
NRCC	National Response Coordination Center
NWCG	National Wildfire Coordinating Group
PHMSA	Pipeline and Hazardous Materials Safety Administration
S&T	Science and Technology Directorate
SLTT	State, Local, Tribal, and Territorial
U.S.C.	United States Code
USFA	United States Fire Administration
WMD	Weapons of Mass Destruction
WUI	Wildland Urban Interface