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

Firefighter Fatalities in the United States in 2020

March 2022

FEMA

Firefighter Fatalities in the United States in 2020

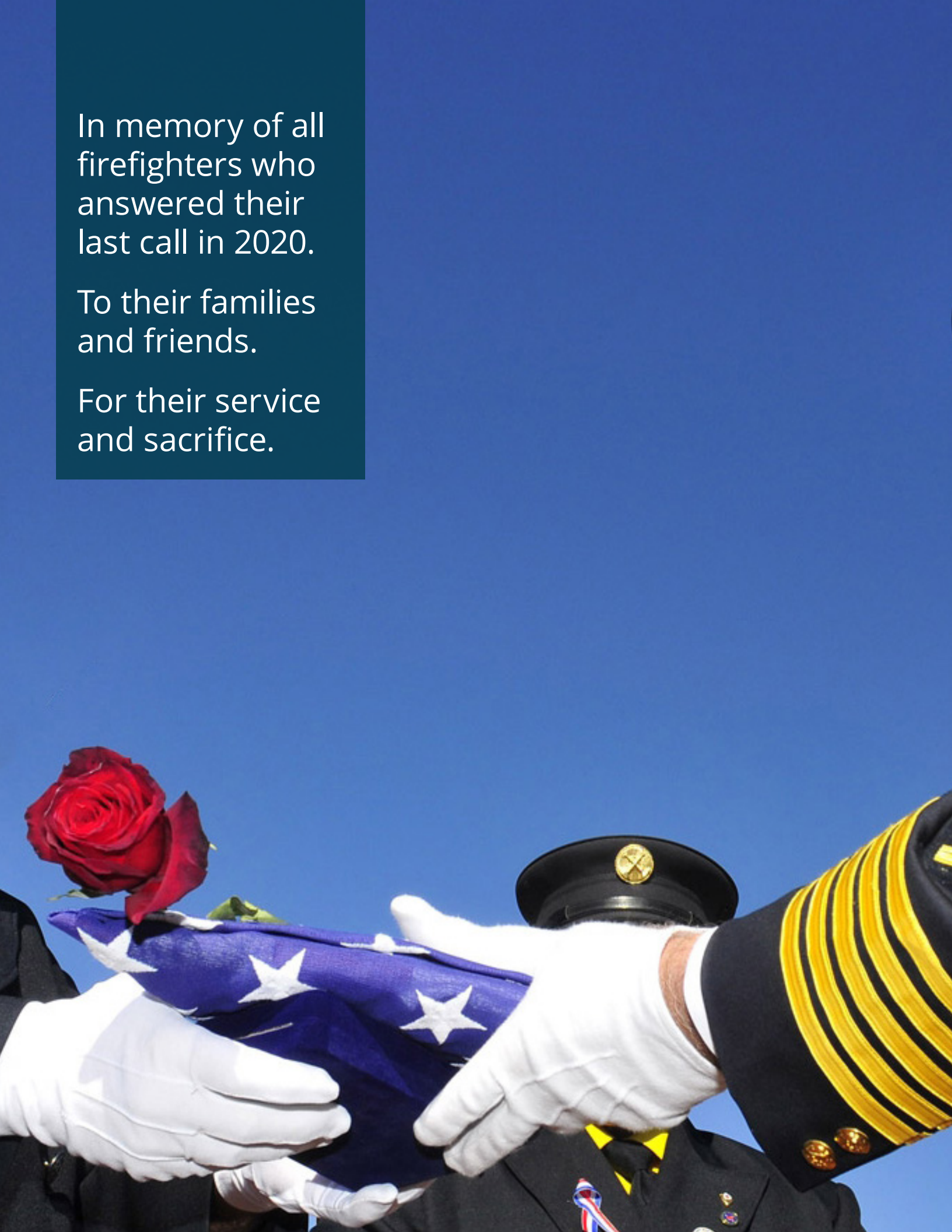
Prepared by

U.S. Department of Homeland Security
Federal Emergency Management Agency
U.S. Fire Administration (USFA)
National Fire Data Center
and
The National Fallen Firefighters Foundation (NFFF)
firehero.org

In memory of all firefighters who answered their last call in 2020.

To their families and friends.

For their service and sacrifice.



Mission Statement

We support and strengthen fire and emergency medical services and stakeholders to prepare for, prevent, mitigate and respond to all hazards.

U.S. Fire Administration

Working for a fire-safe America

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Acknowledgments

This study of firefighter fatalities would not have been possible without the cooperation and assistance of many members of the fire service across the United States. Members of individual fire departments; chief fire officers; wildland fire service organizations such as the U.S. Forest Service (USFS), the National Park Service (NPS), the Bureau of Land Management (BLM), the Bureau of Indian Affairs (BIA) and the U.S. Fish and Wildlife Service (FWS); the U.S. Department of Justice (DOJ); the National Fire Protection Association (NFPA); and many others contributed important information to this report.

The NFFF was responsible for compilation of a large portion of the information used in this report. Their cooperation and work toward reducing firefighter deaths is gratefully acknowledged.

The ultimate objective of this effort is to reduce the number of firefighter deaths through an increased awareness and understanding of their causes and how they can be prevented. Firefighting, rescue and other types of emergency operations are essential activities in an inherently dangerous profession, and unfortunate tragedies do occur. These are the risks that all firefighters accept every time they respond to an emergency incident. However, the risks can be greatly reduced through efforts to improve community risk reduction, training, emergency resource deployment, on-scene operations, and firefighter health and safety.

Background

Since 1976, the USFA has tracked the number of firefighter fatalities and conducted an annual analysis. Through the collection of information on the causes of firefighter deaths, the USFA can focus on specific problems and direct efforts toward finding solutions to reduce the number of firefighter fatalities in the future. This information is also used to measure the effectiveness of current programs directed toward firefighter health and safety. Several programs have been developed by the USFA in response to this annual report. For example, the USFA sponsors research to create safer operational environments for firefighters by increasing awareness about emergency vehicle operations safety, health

and safety of the female emergency responder, fire service risk management, fire station safety, and roadway incident safety. The data developed for this report are also widely used in other firefighter fatality prevention efforts.

In addition to performing this analysis, the USFA, working in partnership with the NFFF, develops a list of all on-duty firefighter fatalities and associated documentation each year. If certain criteria are met, the fallen firefighter's next of kin, as well as members of the individual's fire department, are invited by the NFFF to the annual National Fallen Firefighters Memorial Service. The service is held at the National Emergency Training Center (NETC) in Emmitsburg, Maryland, during National Fire Prevention Week in October of each year. The 40th Annual National Fallen Firefighters Memorial Weekend was held Oct. 2-3, 2021, and families who lost loved ones in 2019 and 2020 were invited to attend the ceremony. Additional information can be found at https://www.firehero.org/events/memorial-weekend/ or by calling the NFFF at 301-447-1365.

Other resources and information regarding firefighter fatalities, including current fatality notices, the National Fallen Firefighters Memorial database and links to the Public Safety Officer Benefits (PSOB) program, can be found at https://apps.usfa.fema.gov/firefighter-fatalities/.

Introduction

This report continues a series of annual studies initiated in 1986 by the USFA of on-duty firefighter fatalities in the U.S. The specific objective of this study is to identify all on-duty firefighter fatalities that occurred in the U.S. and its territories in 2020 and to analyze the circumstances surrounding each occurrence. The study is intended to help identify approaches that may reduce the number of firefighter deaths in future years.

Who is a firefighter?

For the purpose of this study, the term "firefighter" covers all members of organized fire departments with assigned fire suppression duties in all 50 states; the District of Columbia; and the territories of Puerto Rico, the Virgin Islands, American Samoa, the commonwealth of the Northern Mariana Islands, and Guam. It includes career and volunteer firefighters; full-time public safety officers acting as firefighters; fire police; state, Native American tribal authorities and federal government fire service personnel; and privately employed firefighters, including employees of contract fire departments and trained members of industrial fire brigades, including full time or part time. It also includes contract personnel working as firefighters or assigned to work in direct support of fire service organizations (e.g., air-tanker crews).

Under this definition, the study includes not only local and municipal firefighters, but also seasonal and full-time employees of the USFS, the NPS, the BLM, the BIA, the FWS, and other federal agencies, as well as state wildland agencies. The definition also includes prison inmates serving on firefighting crews; firefighters employed by other governmental agencies, such as the U.S. Department of Energy; military personnel performing assigned fire suppression activities; and civilian firefighters working at military installations.

What constitutes an on-duty fatality?

An on-duty fatality includes any injury or illness that was sustained while on duty and proves fatal. The term "on duty" refers to being involved in operations at the scene of an emergency, whether it is a fire or nonfire incident; responding to or returning from an incident; performing other officially assigned duties, such as training, maintenance, public education, inspection, investigations, court testimony or fundraising; and being on call, under orders or on standby duty (except at the individual's home or place of business). An individual who experiences a heart attack or other fatal injury at home while they prepare to respond to an emergency is considered on duty when the response begins. A firefighter who becomes ill while performing fire department duties and suffers a heart attack shortly after arriving home (or at another location) may be considered on duty since the inception of the heart attack occurred while the firefighter was on duty.

On Dec. 15, 2003, the president of the United States signed the Hometown Heroes Survivors Benefit Act of 2003 into law. After being signed by the president, the act became Public Law 108-182. This law presumes that a heart attack or stroke is in the line of duty if the firefighter was engaged in nonroutine, stressful or strenuous physical activity while on duty, and the firefighter became ill within 24 hours after engaging in such activity. The full text of the law is available at https://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ182.108.pdf.

The inclusion criteria for this study have been affected by this change in the law. Before Dec. 15, 2003, firefighters who became ill as the result of a heart attack or stroke after going off duty needed to register a complaint of not feeling well while still on duty to be included in this study. For firefighter fatalities after Dec. 15, 2003, firefighters are included in this report if they became ill as the result of a heart attack or stroke within 24 hours of a training activity or emergency response. Firefighters who became ill after going off duty, where the activities while on duty were limited to tasks that did not involve physical or mental stress, are not included.

A fatality may be caused directly by an accidental or intentional injury in either emergency or nonemergency circumstances, or it may be attributed to an occupationally related fatal illness. A common example of a fatal illness incurred on duty is a heart attack. Fatalities attributed to occupational illnesses also include a communicable disease, such as COVID-19, contracted while on duty that proved fatal when the disease could be attributed to a documented occupational exposure.

Firefighter fatalities are included in this report even when death is considerably delayed after the original incident. When the incident and the death occur in different years, the analysis counts the fatality as having occurred in the year in which the death took place.[1]

There is no established mechanism for identifying fatalities that result from illnesses, such as cancer, that develop over long periods of time and may be related to occupational exposure to hazardous materials or toxic products of combustion. It has proved to be very difficult to provide a complete evaluation of an occupational illness as a causal factor in firefighter deaths due to the following limitations: the exposure of firefighters to toxic hazards is not sufficiently tracked; the often-delayed, long-term effects of such toxic hazard exposures; and the exposures firefighters may receive while off duty.

[1]The USFA has changed the methodology for the "Firefighter Fatalities in the United States in 2020" report. With this report and all subsequent annual firefighter fatality reports, firefighter fatalities will be included based on the date of death as opposed to previous annual reports that included firefighter fatalities based on the date of occurrence of the injury that later resulted in death. All graphics in this "Firefighter Fatalities in the United States in 2020" report have been recalculated to reflect this change in methodology.

Sources of initial notification

As an integral part of its ongoing program to collect and analyze fire data, the USFA solicits information on firefighter fatalities directly from the fire service and from a wide range of other sources. These sources include the PSOB program administered by the DOJ, the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration, the U.S. Department of Defense, the National Interagency Fire Center, and other federal agencies.

The USFA receives notification of some deaths directly from fire departments, as well as from such fire service organizations as the International Association of Fire Chiefs, the International Association of Fire Fighters, NFPA, the National Volunteer Fire Council, state fire marshals, state fire training organizations, other state and local organizations, fire service internet sites, news services, and fire service publications.

Procedure for verifying and including a fatality in USFA's annual reports

In most cases, after notification of a fatal incident, the USFA initially contacts local authorities by telephone to verify the incident, its location, the jurisdiction, and the fire department or agency involved. Further information about the deceased firefighter and the incident may be collected from the chief or designee of the fire department over the phone or by other forms of data collection. After basic information is collected, a notice of the firefighter fatality is posted at the National Fallen Firefighters Memorial site in Emmitsburg, Maryland, as well as on the USFA website. A notice of the fatality is also transmitted by email to a large list of fire service organizations and fire service members.

Subsequently, more detailed information is routinely requested from fire departments that have experienced a fatality including National Fire Incident Reporting System (NFIRS)-1 (incident) and NFIRS-3 (fire service casualty) reports, the fire department's own incident and internal investigation reports, copies of death certificates and autopsy results, special investigative reports, law enforcement reports, photographs and diagrams, and newspaper or media accounts of the incident. Information on the incident may also be gathered from NFPA or NIOSH reports.

After obtaining this detailed information, a final determination is made as to whether the death qualifies as an on-duty firefighter fatality according to the previously described criteria. With the exception of firefighter deaths after Dec. 15, 2003, and the inclusion of the new communicable disease, COVID-19, the same criteria were used for this study as in previous annual studies. If needed, further detailed information may be requested by the USFA, either through follow-up with the fire department directly, from state vital records offices or other agencies. The final determination as to whether a fatality qualifies as an on-duty death for inclusion in its annual statistical analyses is made by the USFA.

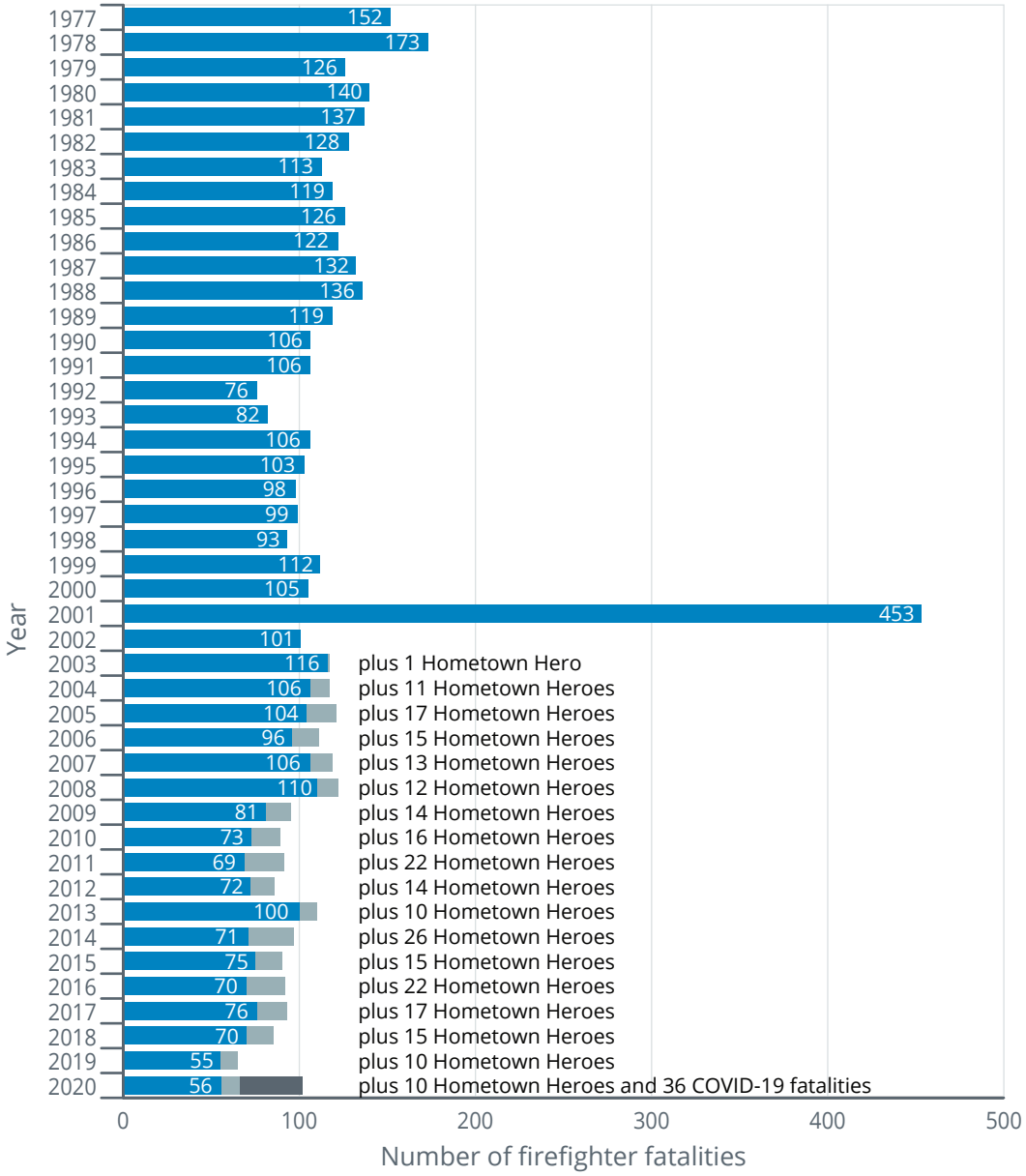
2020 Findings

102 firefighters died in 2020 from injuries sustained while on duty. This is 37 more than the 2019 total of 65 firefighter fatalities. The 2020 total includes 10 firefighters who died under circumstances that were part of inclusion criteria changes resulting from the Hometown Heroes Survivors Benefit Act. It also includes 36 firefighters who died from complications of COVID-19. When not including these fatalities, there were 56 firefighter fatalities in 2020 that were non-Hometown Hero and did not occur as a result of complications relating to COVID-19 (Figure 1).

An analysis of multiyear firefighter fatality numbers and trends needs to acknowledge the changes from the December 2003 Hometown Heroes Survivors Benefit Act as well as the inclusion of fatalities that occurred due to complications of COVID-19. As a result, some figures and tables in this report may not include the Hometown Heroes and COVID-19 fatalities in the total or may separate them. This does not, however, diminish the sacrifices made by any firefighter who dies while on duty, or the sacrifices made by their family and peers.

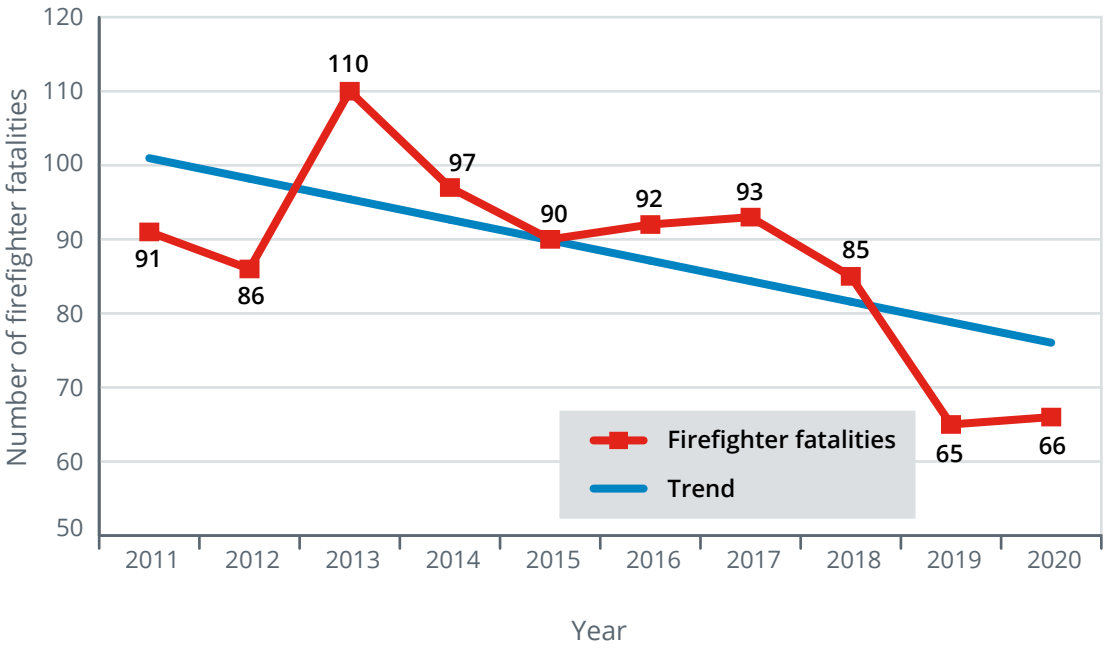
Figure 1 below shows the number of on-duty firefighter fatalities from 1977 through 2020.

Figure 1. On-duty firefighter fatalities (1977-2020)



From 2011 to 2020, there was a 27% decrease in on-duty firefighter fatalities (Figure 2).[2]

Figure 2. On-duty firefighter fatalities (2011-2020)

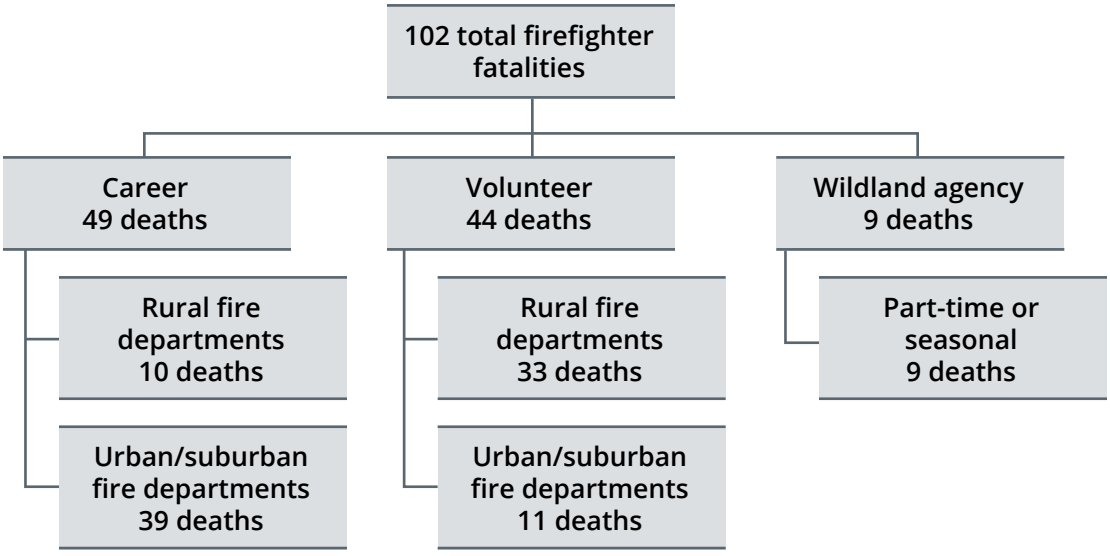


Note: Firefighter fatality counts include firefighters who died under circumstances that were part of inclusion criteria changes resulting from the Hometown Heroes Survivors Benefit Act but do not include COVID-19 fatalities for purposes of a trend analysis.

Career, volunteer and wildland agency fatalities

In 2020, firefighter fatalities included 49 career firefighters, 44 volunteer firefighters, and 9 part-time or full-time members of wildland or wildland contract fire agencies (Figure 3).

Figure 3. Career, volunteer and wildland agency firefighter fatalities (2020)



[2]This trend analysis does not include 36 firefighter fatalities in 2020 that occurred due to complications of COVID-19.

Gender

The gender of the firefighters who died while on duty in 2020 consisted of 1 female and 101 males.

Multiple firefighter fatality incidents

The 102 deaths in 2020 resulted from a total of 99 fatal incidents, including 3 multiple firefighter fatality incidents taking the lives of 6 firefighters (Table 1).

Table 1. Multiple firefighter fatality incidents (2011-2020)

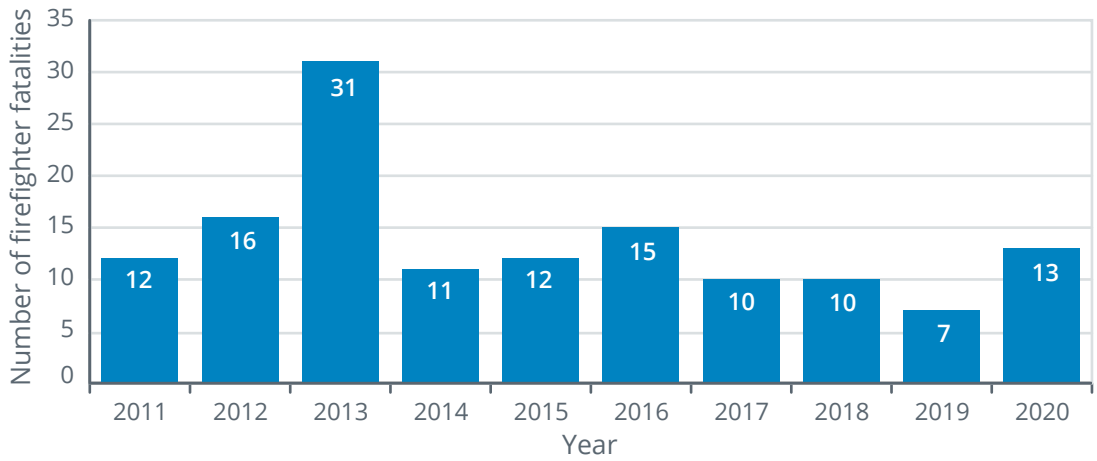
Year	Number of multiple firefighter fatality incidents	Number of firefighter fatalities resulting from multiple firefighter fatality incidents
2020	3	6
2019	0	0
2018	2	4
2017	1	3*
2016	3	7
2015	3	7
2014	2	4
2013	4	34*
2012	4	10
2011	3	6
10-year average	3	8

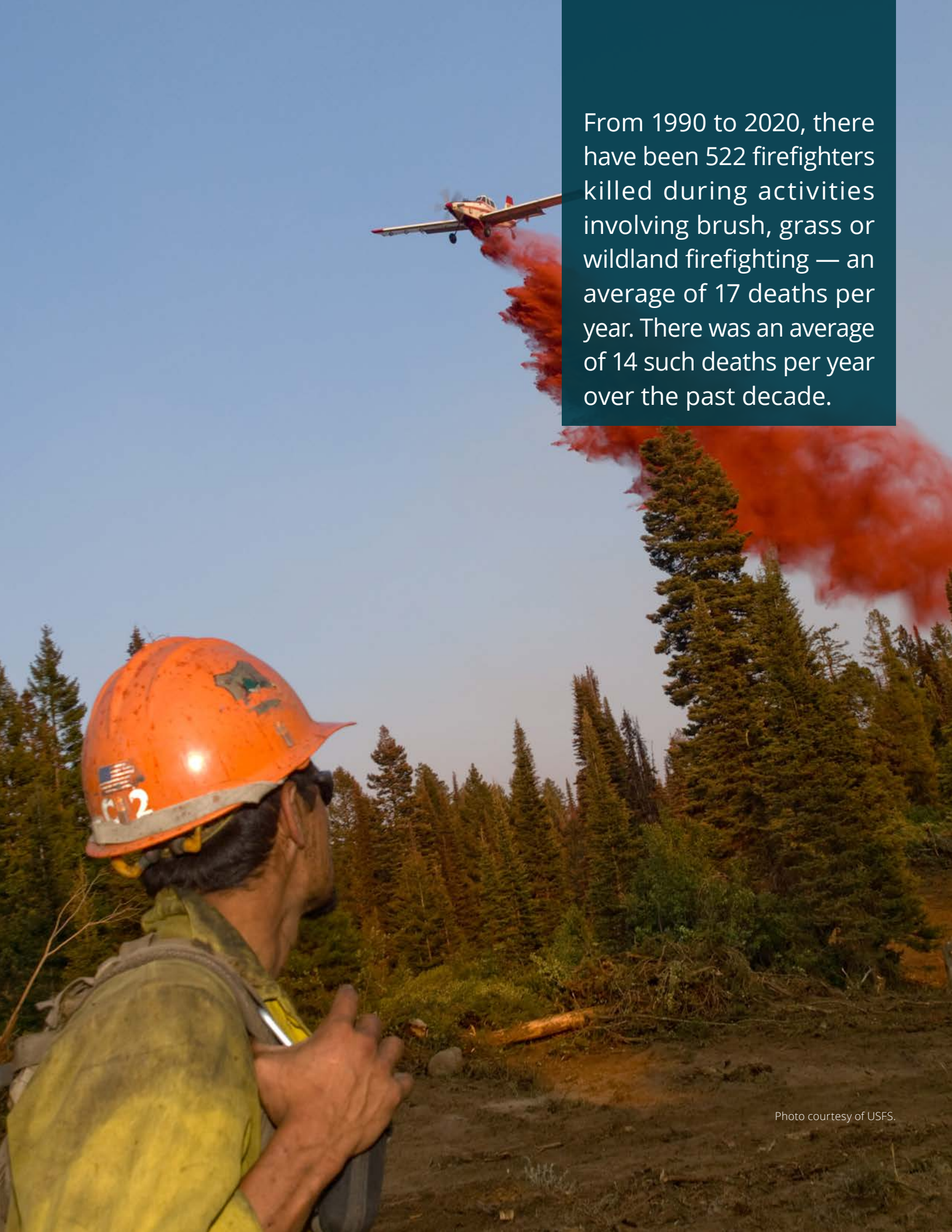
*In 2013, there were 4 multiple firefighter fatality incidents that resulted in the deaths of 35 firefighters. Of these firefighters, 34 died in 2013 and 1 died in 2017.

Wildland firefighting fatalities

In 2020, 13 firefighters were killed during activities involving brush, grass or wildland firefighting. This total includes part-time and seasonal wildland firefighters, full-time wildland firefighters, and municipal or volunteer firefighters whose deaths are related to a wildland fire (Figure 4).

Figure 4. Firefighter fatalities related to wildland firefighting (2011-2020)





From 1990 to 2020, there have been 522 firefighters killed during activities involving brush, grass or wildland firefighting — an average of 17 deaths per year. There was an average of 14 such deaths per year over the past decade.

Photo courtesy of USFS.

In 2020, there was 1 incident related to wildland firefighting that resulted in multiple firefighter fatalities when 2 aircraft (helicopters) collided (Tables 2 and 3).

Table 2. Firefighter fatalities associated with wildland firefighting (2011-2020)

Year	Number of firefighter fatalities related to wildland firefighting	Number of fatal incidents related to wildland firefighting	Number of firefighters killed in multiple-fatality incidents related to wildland firefighting
2020	13	12	2
2019	7	7	0
2018	10	10	0
2017	10	10	0
2016	15	13	4
2015	12	9	5
2014	11	11	0
2013	31	13	19
2012	16	12	6
2011	12	11	2
10-year average	14	11	4

Table 3. Aircraft firefighter fatalities associated with wildland firefighting (2011-2020)

Year	Number of aircraft firefighter fatalities related to wildland firefighting	Number of aircraft fatal incidents related to wildland firefighting
2020	6	5
2019	1	1
2018	0	0
2017	0	0
2016	0	0
2015	2	1
2014	2	2
2013	0	0
2012	2	1
2011	0	0
10-year average	1	1

Type of Duty

Activities related to emergency incidents resulted in the deaths of 72 firefighters (71%) in 2020 (Figure 5). This includes all firefighters who died responding to an emergency or at an emergency scene, returning from an emergency incident, and during other emergency-related activities. Nonemergency activities accounted for 30 firefighter fatalities (29%). Nonemergency duties include training, administrative activities and performing other functions that are not related to an emergency incident.

A multiyear historical perspective relating to the percentage of firefighter deaths that occurred during emergency duty is presented in Table 4.

Figure 5. Firefighter fatalities by type of duty (2020)

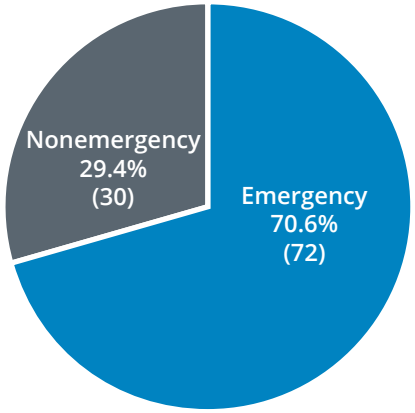
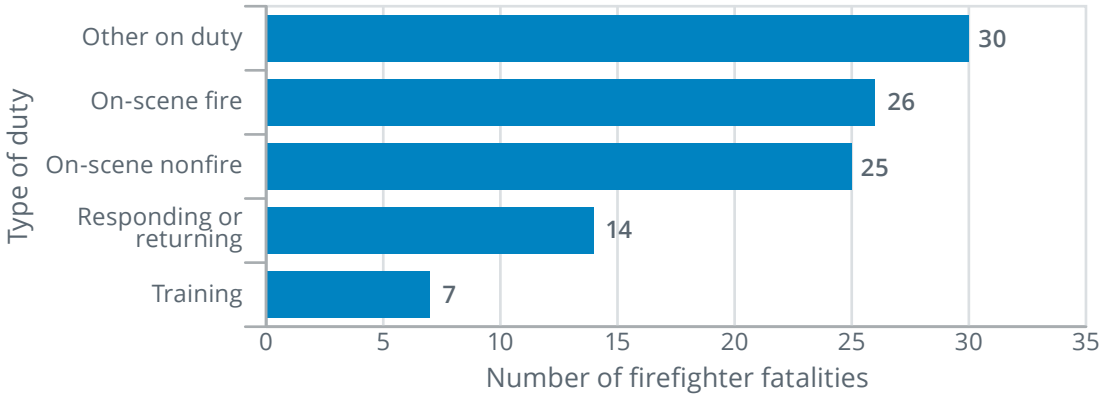


Table 4. Emergency duty firefighter fatalities (2011-2020)

Year	Percentage of total firefighter fatalities
2020	70.6
2019	61.5
2018	52.9
2017	48.4
2016	41.3
2015	47.8
2014	45.4
2013	70.0
2012	53.5
2011	53.8
10-year average	54.5

The number of deaths by type of duty being performed for 2020 is shown in Figure 6.

Figure 6. Firefighter fatalities by type of duty (2020)



Fireground operations

26 firefighters experienced fatal injuries during fireground operations (on-scene fire) in 2020. Of these fatalities, 14 were at the scene of a structure fire, and 12 were at the scene of a wildland or outside fire. The average age of the firefighters killed during fireground operations was 46 years old, with the youngest being 23 years old and the oldest being 67 years old. 11 of those killed were volunteer, 9 were wildland firefighters and 6 were career firefighters. The nature of fatal injury while engaged in fireground operations for 10 of the firefighter deaths was heart attack (38%). The nature of fatal injury for the remaining 16 deaths were trauma (6), asphyxiation (5), burns (2), crushed (1), cerebrovascular accident (CVA) (1) and COVID-19 (1).

Type of fireground activity during fireground operations

Table 5 shows the types of fireground activities in which firefighters were engaged when they sustained their fatal injuries or illnesses during fireground operations. This total includes all firefighting duties on the fireground, such as wildland firefighting and structural firefighting. In 2020, the most common type of on-scene fire activity was advancing hoselines.

Table 5. Type of fireground activity (2020)

Type of fireground activity	Number of firefighter fatalities
Advance hoselines	15
Support	3
Other	3
Search and rescue	2
Pump operations	1
Scene safety	1
Water supply	1

Fixed property use for structural firefighting fatalities

Of the fatalities that occurred during fireground operations in 2020, 14 were firefighters who became ill or injured while on the scene of a structure fire. Of these fatalities, 10 (71%) occurred while on the scene of a residential structure fire. Table 6 shows the distribution of these deaths by fixed property use.

Table 6. Structural firefighting fatalities by fixed property use (2020)

Type of structure	Number of firefighter fatalities
Residential	10
Commercial	4

Responding/returning

In 2020, as shown in Table 7, 14 firefighters died or experienced an onset of symptoms while responding to or returning from incidents. Specifically, 10 were responding to, and 4 were returning from, an incident.

The average age of the 14 firefighters was 48 years old. The youngest was 20 years old, and the oldest was 66 years old.

Table 7. Firefighter fatalities while responding to or returning from an incident (2011-2020)

Year	Number of firefighter fatalities that occurred while responding to or returning from an incident
2020	14
2019	8
2018	11
2017	12
2016	13
2015	8
2014	14
2013	14
2012	17
2011	11
10-year average	12

Training

In 2020, 7 firefighters died while engaged in training activities (Table 8). 2 of the 7 firefighters died from heart attacks, 2 from COVID-19, 1 from asphyxiation, 1 from trauma and 1 from "other," whose cause of death is still under investigation.

Of the 7 firefighters who died while engaged in training activities, 3 firefighters died while performing fire department-mandated physical fitness training, 2 died when they contracted COVID-19 while attending training exercises, 1 died while involved in an equipment drill, and 1 died during a dive training exercise.

The average age of the 7 firefighters was 51 years old. The youngest was 29 years old, and the oldest was 70 years old.

Table 8. Firefighter fatalities while engaged in training (2011-2020)

Year	Number of firefighter fatalities that occurred during training
2020	7
2019	5
2018	9
2017	12
2016	9
2015	7
2014	10
2013	7
2012	8
2011	8
10-year average	8

Other on duty

"Other on duty" refers to firefighters engaged in activities related to nonemergency situations, such as in-station duties, arson investigations and attending fire department-mandated meetings. In 2020, 30 firefighters died under these circumstances.

- 18 firefighters died from exposure.
- 8 firefighters died from stress or overexertion.
- 2 firefighters died whose causes of death have not yet been determined.
- 1 firefighter died in a vehicle collision while performing a maintenance check on a tanker.
- 1 firefighter was shot and killed while performing an arson investigation.

The average age of the 30 firefighters was 57 years old. The youngest was 27 years old, and the oldest was 88 years old.

Nonfire emergencies

In 2020, 25 firefighters were killed during emergency duties not related to fire. These response calls included 19 EMS calls, 3 motor vehicle accidents, 1 hazmat incident, 1 rescue/extrication and 1 firefighter who died from a water rescue.

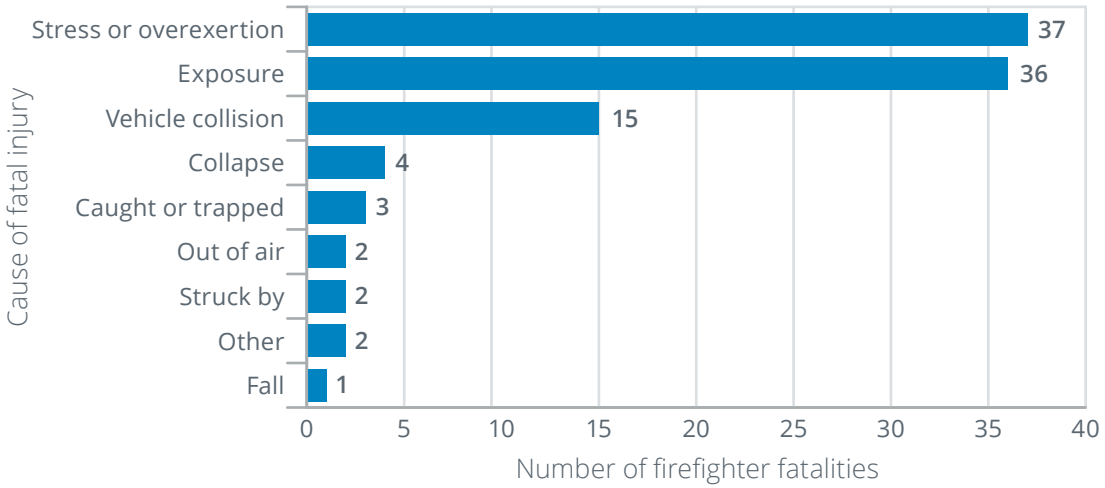
15 of the 25 firefighters died from COVID-19, 7 from heart attacks, 1 from trauma, 1 from asphyxiation and 1 from an aortic dissection. The average age was 52 years old. The youngest was 28 years old, and the oldest was 72 years old.

Cause of Fatal Injury

The term "cause of fatal injury" refers to the action, lack of action or circumstances that directly resulted in the fatal injury. The term "nature of fatal injury" refers to the medical cause of the fatal injury or illness, which is often referred to as the physiological cause of death. A fatal injury is usually the result of a chain of events, the first of which is recorded as the cause.

Figure 7 shows the distribution of deaths by cause of fatal injury or illness in 2020. In 2020, the leading cause of fatal injury was stress or overexertion followed closely by exposure.

Figure 7. Firefighter fatalities by cause of fatal injury (2020)



Stress or overexertion

Firefighting is extremely strenuous work, and it can be one of the more physically demanding of human activities. Stress or overexertion is a general category that includes all firefighter deaths that are cardiac or cerebrovascular in nature, such as heart attacks and strokes, as well as other events, such as extreme climatic thermal exposure. Classification of a firefighter fatality in this "cause of fatal injury" category does not necessarily indicate that a firefighter was in poor physical condition.

In 2020, 37 firefighters died due to stress or overexertion:

- 29 firefighters died due to heart attacks.
- 4 firefighters died from "other" causes (2 from aortic aneurysms; 1 from multiple complications, including a blood clot, kidney damage, CVAs and a heart attack; and 1 from a pulmonary hemorrhage).
- 3 firefighters died due to CVAs.
- 1 died from asphyxiation due to drowning.

In addition, of the firefighters that died due to stress or overexertion, 10 (27%) were Hometown Heroes.

Table 9. Firefighter fatalities caused by stress or overexertion (2011-2020)

Year	Number of firefighter fatalities caused by stress or overexertion	Percentage of firefighter fatalities caused by stress or overexertion	Number of Hometown Hero fatalities caused by stress or overexertion
2020	37	36.3	10
2019	37	56.9	10
2018	37	43.5	13
2017	54	58.1	16
2016	44	47.8	22
2015	61	67.8	15
2014	62	63.9	25
2013	40	36.4	10
2012	49	57.0	14
2011	54	59.3	21
10-year average	48	52.7	16

Exposure

In early 2020, the COVID-19 pandemic spread to the United States. According to the Centers for Disease Control and Prevention, the pandemic has killed over 700,000 individuals in the United States.[3] This pandemic has spared no one, including first responders. In 2020, 36 firefighters lost their lives due to exposure. Exposure was the second leading cause of fatal firefighter injuries for the year. All 36 firefighters died from complications of COVID-19.[4] Table 10 shows the cities and states where these firefighters were stationed.

[3]https://www.cdc.gov/coronavirus/2019-ncov/index.html

[4]The USFA counts those firefighters that contracted COVID-19 while on duty and died due to complications of the disease. All on-duty COVID-19 deaths have been verified with the fire department of which the firefighter was a member.

Table 10. COVID-19 on-duty firefighter fatalities, 2020

City/State	Number of fatalities
Houston, Texas	3
Chicago, Illinois	2
Converse, Texas	2
Harrisburg, Pennsylvania	2
Bay Head, New Jersey	1
Bristol, Tennessee	1
Clayton, North Carolina	1
Detroit, Michigan	1
Forsyth, Georgia	1
Fort Worth, Texas	1
Hollywood, Florida	1
Kansas City, Missouri	1
Los Angeles, California	1
Naples, Florida	1
Nauvoo, Alabama	1
New Rochelle, New York	1
Oklahoma City, Oklahoma	1
Passaic, New Jersey	1
Philadelphia, Pennsylvania	1
Poynette, Wisconsin	1
River Grove, Illinois	1
Rothbury, Michigan	1
Ruleville, Mississippi	1
Salem, West Virginia	1
Scranton, Pennsylvania	1
Shepherdsville, Kentucky	1
Sylva, North Carolina	1
Terre Haute, Indiana	1
Valley Stream, New York	1
Warren, Ohio	1
White Plains, New York	1
	Total: 36

Vehicle crashes

In 2020, 15 firefighters (6 wildland, 5 volunteer and 4 career) lost their lives due to vehicle crashes. Vehicle crashes were the third leading cause of fatal firefighter injuries for the year. 4 deaths involved privately owned vehicles, 3 deaths involved helicopters, 3 deaths involved fixed wing aircraft, 3 deaths involved fire department engines, 1 death involved a tanker (water tender) and 1 death involved a staff support vehicle.

- A captain was responding to a barn fire in his personal vehicle, a 2003 Chevrolet Impala. On a gravel portion of the roadway, he lost control and his vehicle rolled several times. He was not wearing a seatbelt and was fatally injured in the crash.

- A firefighter was responding to a report of a residential structure fire. He was the driver and sole occupant of a 1996 Chevrolet Silverado pickup truck. As he responded, his vehicle left the right-hand side of the roadway in a curve. He attempted to regain control, but the vehicle skidded and rolled over. He was ejected in the rollover and sustained fatal injuries.

- A chief and the members of his fire department were dispatched to a grass fire. The assistant chief responded in a 2003 Chevrolet Silverado pickup that was equipped with emergency lights. During the response, he entered a curve and lost control of his vehicle as it entered the curve in the roadway. The vehicle entered a broadside skid, left the left-hand side of the roadway, and came to rest on its roof in a ditch. The crash was not witnessed and was not reported. Early the next morning, 2 other fire departments were dispatched to a report of a vehicle crash. When they arrived on scene, firefighters discovered that the assistant chief was deceased in his vehicle. He was wearing a seatbelt. Unsafe speed was cited as a factor in the law enforcement crash report.

- A firefighter was returning home after a 48-hour shift that included a ladder training class. He was the driver and sole occupant of a 2001 Ford SUV. For reasons unknown, his vehicle crossed the center line in a curve and hit an oncoming vehicle head-on. The estimated speed of both vehicles was the posted speed limit, 55 miles per hour. The firefighter, who was wearing his seatbelt, was killed in the collision. In addition, the airbags in his vehicle deployed.

- A pilot was operating a Kaman K-1200 helicopter in support of the White River Fire in the Mount Hood National Forest in Montana. He was using a 140-foot-long line and water bucket to dip water from the White River for water drops when the helicopter crashed. Wreckage of the helicopter was found near a designated dip site on the river, and the pilot was killed in the crash.

- A pilot was operating a Bell UH-1H helicopter in support of firefighters fighting the Polles Fire in the Tonto National Forest near Payson, Arizona. He was transporting supplies by longline to a drop location to support hotshot firefighters. He had made 3 trips and successfully delivered supplies. On the fourth trip, people on the ground observed the helicopter wobble in the air, recover temporarily and then crash. The pilot was killed in the crash. A cause for the crash has not yet been established.

- A pilot was operating an Arrow-Falcon Exporters, Inc. UH-1H helicopter in support of firefighting efforts on the Hill Fire near Coalinga, California. He departed his base early in the morning and followed another helicopter. Both helicopters were carrying refillable bamboo water buckets on long lines. Each helicopter filled and then discharged water on the fire approximately 7 times. The pilot reported abnormal noises and vibrations with his helicopter, and subsequently planned a precautionary landing. The other helicopter followed with the intent of helping him locate an acceptable landing site. The pilot began to have trouble controlling his helicopter and declared a mayday. He crashed shortly thereafter and was killed in the crash.

- A firefighter/pilot was supporting firefighting operations at the Schill Fire near Emmett, Idaho. He was the pilot of an Air Tractor AT-802A single engine air tanker (SEAT). He was in the process of making a fire-retardant drop. As he approached the drop site, according to a witness, he did not release his load of retardant and began to climb to avoid terrain. Unfortunately, the aircraft was not able to climb sufficiently, and it impacted the terrain near the peak of the ridgeline. The firefighter/pilot was killed in the crash.

- 2 pilots were operating Air Tractor AT-802A SEATs. Both aircraft had completed 2 fire-retardant drops that day in support of firefighting efforts at the Bishop Fire in southeastern Nevada. The aircraft were headed out for their third drop. The aircraft operated in tandem with 1 following close behind the other. During flight, the following aircraft got fire retardant from the leading aircraft on its windshield, impacting the following pilot's ability to see. The following aircraft made a rapid climb and a turn to the left and collided with the leading aircraft. Both aircraft crashed, and both pilots were killed.

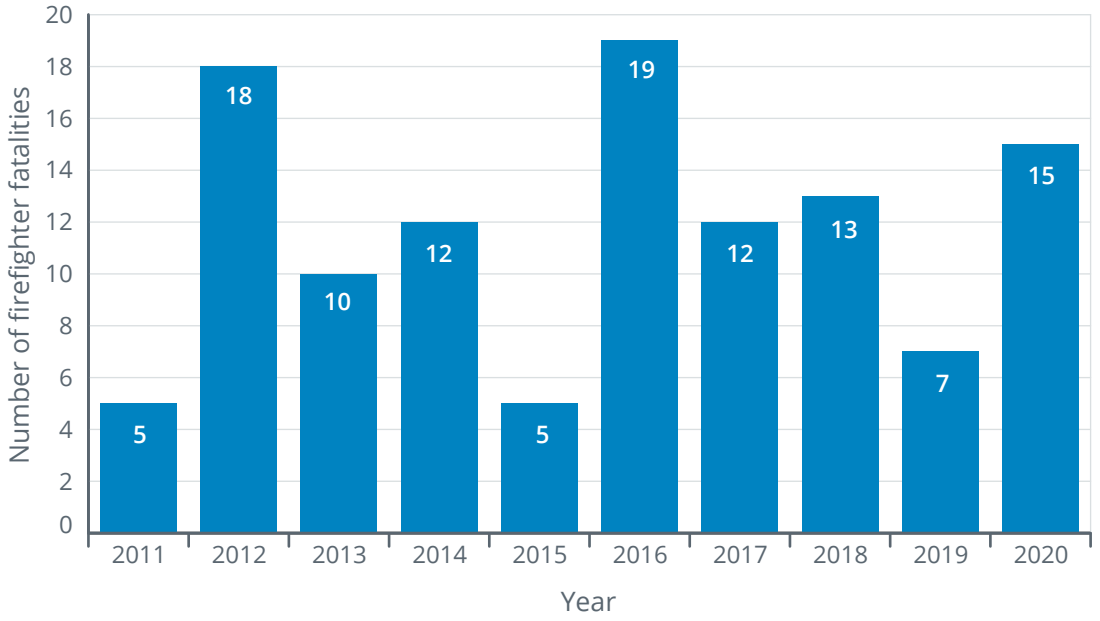
- A firefighter was a front-seat passenger in an engine responding to a structure fire. For unknown reasons, as the engine responded, it left the right side of the roadway in a curve. The engine struck a boulder on the right side of the road, reentered the roadway, crossed the center line, left the roadway to the left, overturned on a steep embankment, and rolled onto its top. The firefighter was killed in the collision. He was wearing his seatbelt properly.

- 2 captains were returning to the fire station after responding to a residential fire when their fire apparatus crashed at a sharp curve coming down a mountain road. The captain driving the apparatus was pronounced deceased at the scene. The other captain was pronounced deceased shortly after his arrival at the hospital emergency room.

- A chief was driving a 2000-gallon tanker (tender) on a weekly maintenance check. The tanker left the right-hand side of the roadway. He applied the brakes and steered to the left to get back on the road. The vehicle entered a counterclockwise side skid across the roadway and overturned. The chief was not wearing a seatbelt and was ejected. He died of traumatic injuries.

- A fire marshal was returning from the scene of a structure fire in a staff support vehicle. For reasons unknown, the vehicle left the roadway and struck a tree. He was killed instantly.

Figure 8. Firefighter fatalities in vehicle collisions (including aircraft) (2011-2020)



Collapse

In 2020, 4 firefighters were killed during structure collapses.

- A firefighter responded to a report of a structure fire in a duplex. He was operating in the interior of the structure when a floor collapse occurred and was pinned between floor joists. A rapid intervention crew (RIC) was immediately activated, and the firefighter was removed in approximately 7 minutes. He was unconscious and, despite treatment, could not be resuscitated. His death was caused by positional asphyxia.

- In the late morning, an emergency call was received for a structure fire. The fire was reported to be in the laundry room of the home. The fire department arrived on the scene, and firefighters immediately were assigned to interior fire suppression/fire attack. During fire suppression activities, the captain of another unit reported that a ceiling collapsed, separating him from a firefighter. A mayday was called at that time. Fire conditions were rapidly deteriorating, and intense smoke was pushing out of the structure under pressure. Firefighters from a neighboring agency were assigned to locate and rescue the firefighter. The fire company assigned to rescue this firefighter, however, became trapped and also called a mayday. They were able to self-extract from the entrapment, removing themselves from the structure. Additional crews were sent into the structure to locate the firefighter who was still missing. Additional agencies arrived on scene and began additional rescue operations. The firefighter was located in the basement of the structure, having apparently fallen through the floor. He was found approximately 90 minutes after he became separated from his crew and was in cardiac arrest. Life-saving efforts were performed, and he was transported by ambulance to a regional medical center where he was pronounced deceased. His death was caused by asphyxiation due to the inhalation of toxic gases.

- A senior airman/firefighter responded to a mutual aid call for a barn fire. He was killed while battling the blaze when a beam fell on him. The cause of the fire has been determined to be arson and is under investigation. His death was caused by traumatic injuries.

- Firefighters were dispatched to a report of a house fire. When firefighters arrived on the scene, they found a well-involved house fire with reports of a person trapped and a burn injury to the other occupant of the home. A firefighter was directed to operate a 1-3/4-inch hoseline from a defensive position. A collapse of the home's heavy timber roof occurred, trapping the firefighter under the roof. Firefighters were able to crawl under the collapse and locate him; he was unconscious. Due to the weight of the roof, however, firefighters were not able to lift it by hand. Eventually, extrication tools, ladders and lumber were used to lift the roof enough to remove the firefighter. He was treated by on-scene paramedics, but he could not be revived. His cause of death was listed as asphyxia and smoke inhalation/thermal burns.

Caught/trapped

Being caught or trapped covers firefighters in wildland and structural fires who were unable to escape due to rapid fire progression and the byproducts of smoke, heat, toxic gas and flames. This classification may also include firefighters who drowned and those who were trapped and/or crushed.

In 2020, 3 firefighters died from being caught or trapped.

- An engine boss and her crew were assigned to a task force working the Complex Fire. Prior to the emergency, the firefighters were working to fight fire outside of the engine at the roadside. The engineer was inside the apparatus. Fire conditions changed rapidly, and the engine was directed to leave the area. The engineer honked the horn and attempted to communicate with his crew on the need to leave. The engineer exited the engine and directly communicated the need to leave. The crew headed for the engine. The engineer jumped in the back seat of the cab, the firefighter ran from the scene on foot, and the engine boss ended up in the driver's seat. In a very stressful and confusing situation, she operated the engine in reverse, and it went off the roadway and down an embankment that was involved in fire. When the engine came to rest against a tree, the engineer was able to leave the engine and escape, but the engine boss was unable to exit. The engine became engulfed in flames. She died of asphyxiation due to smoke inhalation. The fire eventually consumed the engine.

- A firefighter was assigned to the El Dorado Fire in the San Bernardino National Forest as a member of the Big Bear Interagency Hotshot Crew, from the San Bernardino National Forest. While conducting suppression efforts, the firefighter was burned over by the fire and passed away.

- Fire department personnel responded to a call for a water rescue on the beach. A firefighter entered the water in rough surf conditions to rescue a man and a juvenile. He was swept up by the strong surf/current. The firefighter was rescued from the water and taken to the Weems Memorial Hospital where he was pronounced dead due to saltwater drowning.

Out of air

In 2020, 2 firefighters died from being "out of air," equal in the number of fatalities with the categories of "Struck by" and "Other."

A captain and a firefighter were dispatched along with other fire department units to a report of a structure fire in a public library. The captain led a crew of 3 assigned to Engine 71. The captain reported heavy smoke conditions. The company was directed to initiate a fire attack by the on-scene command officer. While preparing to initiate fire attack, the captain received information from a police officer that a physically handicapped person was trapped on the second floor. The captain and a firefighter entered the library without a hoseline or a tag line to initiate a search. Shortly thereafter, the captain initiated a mayday and stated that he and the firefighter were on the upper level, that they were low on air, were looking for the stairwell, and were activating their Personal Alert Safety System devices. A RIC entered the building to search for both the captain and the firefighter. The captain was located by firefighters. He was unconscious and removed from the building. He was transported by ambulance to the hospital but was unable to be revived. Due to low visibility and structural collapse, all interior operations were halted, and the fire was fought in a defensive mode. Urban Search and Rescue resources were called to the scene overnight. The firefighter was located and removed from the structure early the next morning. The cause of death for both the captain and the firefighter were asphyxiation and smoke inhalation.

Struck by object

In 2020, 2 firefighters died from being struck by an object.

- A lieutenant and the members of his fire company were dispatched to a vehicle crash on an interstate highway. While they were on the scene of the crash in the northbound lanes, a southbound vehicle lost control, crossed the median, and struck the lieutenant, a police officer and another firefighter. Firefighters on the scene treated the lieutenant. He was transported to a local hospital where he was pronounced deceased. His death was caused by traumatic injuries. The injured police officer also died as a result of his injuries.

- An arson investigator was on duty and engaged in surveillance related to the investigation of several recent arson fires. He was attempting to obtain information from a vehicle when he encountered a suspect. The suspect fired upon him, fatally injuring him.

Other

In 2020, 2 firefighters died from causes of fatal injuries not previously categorized.

- A firefighter/medic was working a shift at the fire department. When he failed to respond to a call, his co-workers became concerned and went to check on him. They found him unresponsive. They immediately performed CPR, and he was transported to a hospital where he was pronounced deceased. The cause of his death was found to be an accidental drug overdose.

- A firefighter/chaplain became ill while on duty and died. The nature of his death has not been disclosed.

Fall

In 2020, 1 firefighter was killed from an injury sustained in a fall.

A firefighter and the members of his engine company went out of service to the Division of Training to conduct a probationary firefighter pump drill. The intended drill was to practice for the standpipe evaluation for a probationary member of the crew. Due to COVID-19 restrictions, the drill was conducted by only this engine company. During the drill, the firefighter was working on the third floor. He returned to the fire escape and inadvertently opened the gate on the side of the wye attached to the pressurized standpipe which did not have a hose line attached to it. The stream of water coming from the wye struck him in the chest, knocking him backwards into the fire escape railing, causing him to fall backwards off the fire escape. He was treated on scene for critical, traumatic injuries and transported to the closest trauma center where he succumbed to his injuries.

Nature of Fatal Injury

Figure 9 shows the distribution of the 102 firefighter deaths that occurred in 2020 by the medical nature of the fatal injury or illness. In 2020, COVID-19 was the most common type of fatal injury. Figure 10 shows the percentage distribution of nature of fatal injury.

Figure 9. Firefighter fatalities by nature of fatal injury (2020)

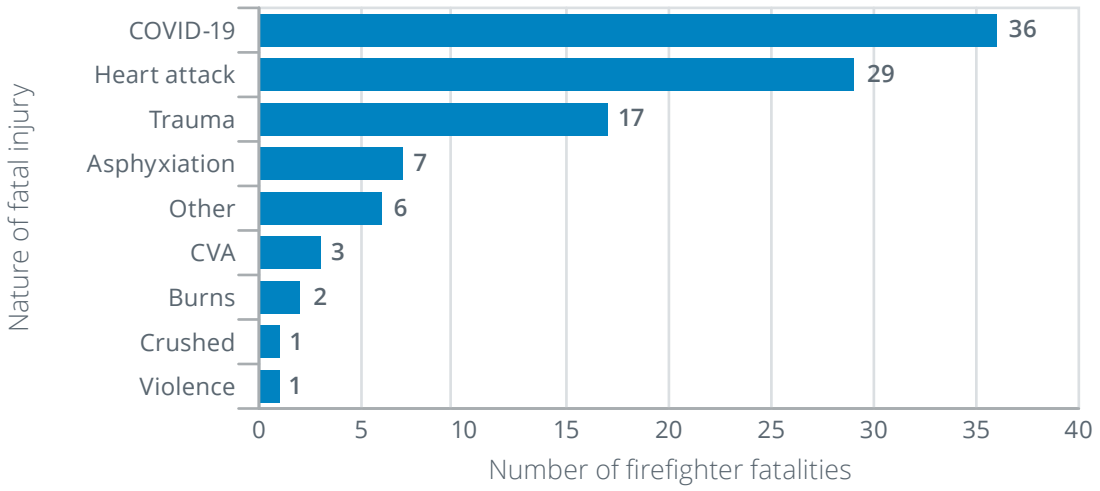


Figure 10. Percentage distribution of firefighter fatalities by nature of fatal injury (2020)

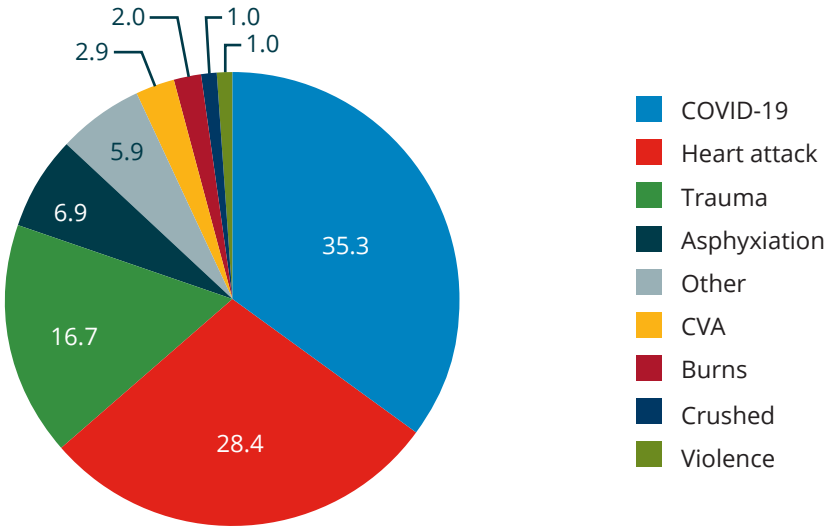


Figure 11 shows the type of duty involved for the 36 firefighters who died due to COVID-19.

Figure 11. COVID-19 by type of duty (2020)

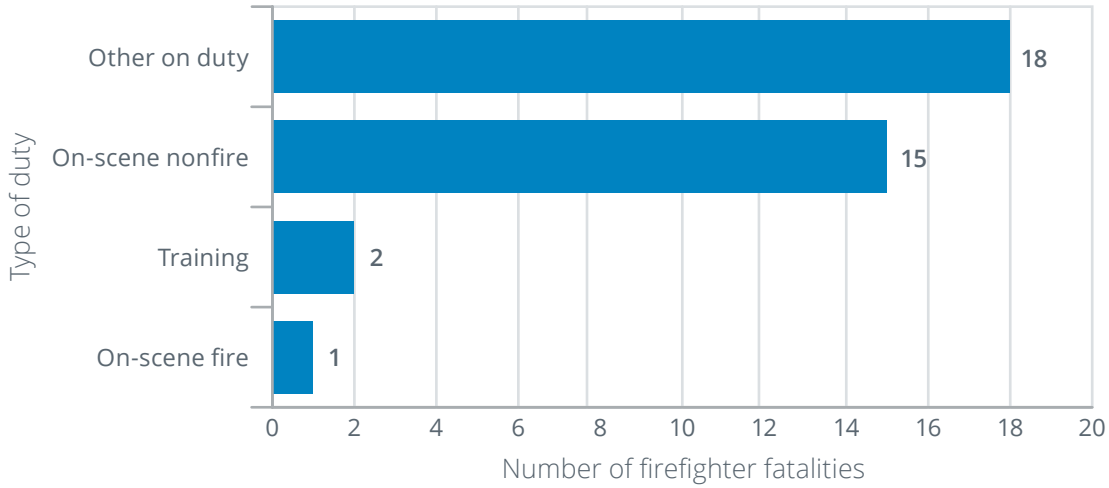
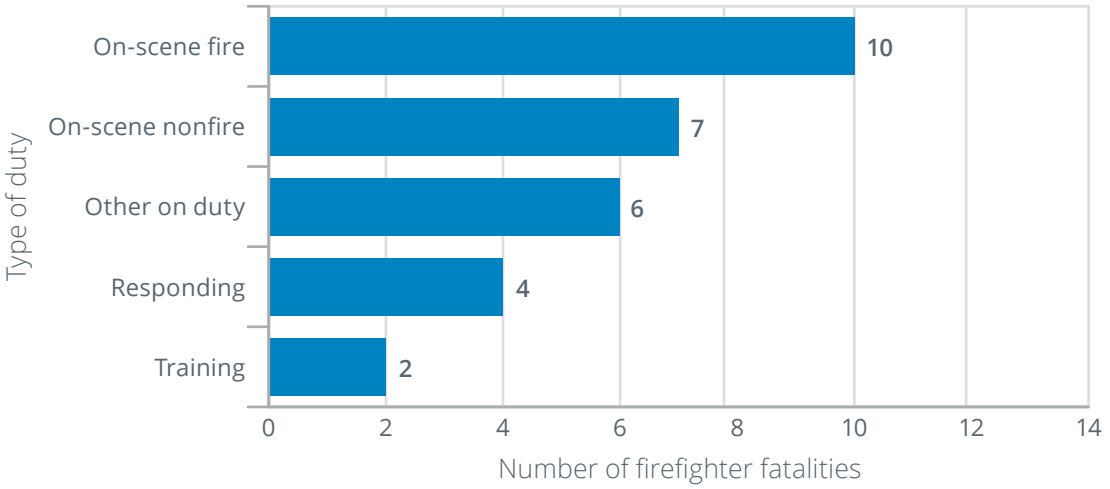


Figure 12 shows the type of duty involved for the 29 firefighters who died of a heart attack.

Figure 12. Heart attacks by type of duty (2020)



Firefighter Ages

Figure 13 shows the distribution of firefighter deaths by age at the time of death. Table 11 provides a count of firefighter fatalities by age and the nature of the fatal injury.

Figure 13. Firefighter fatalities by age at death (2020)

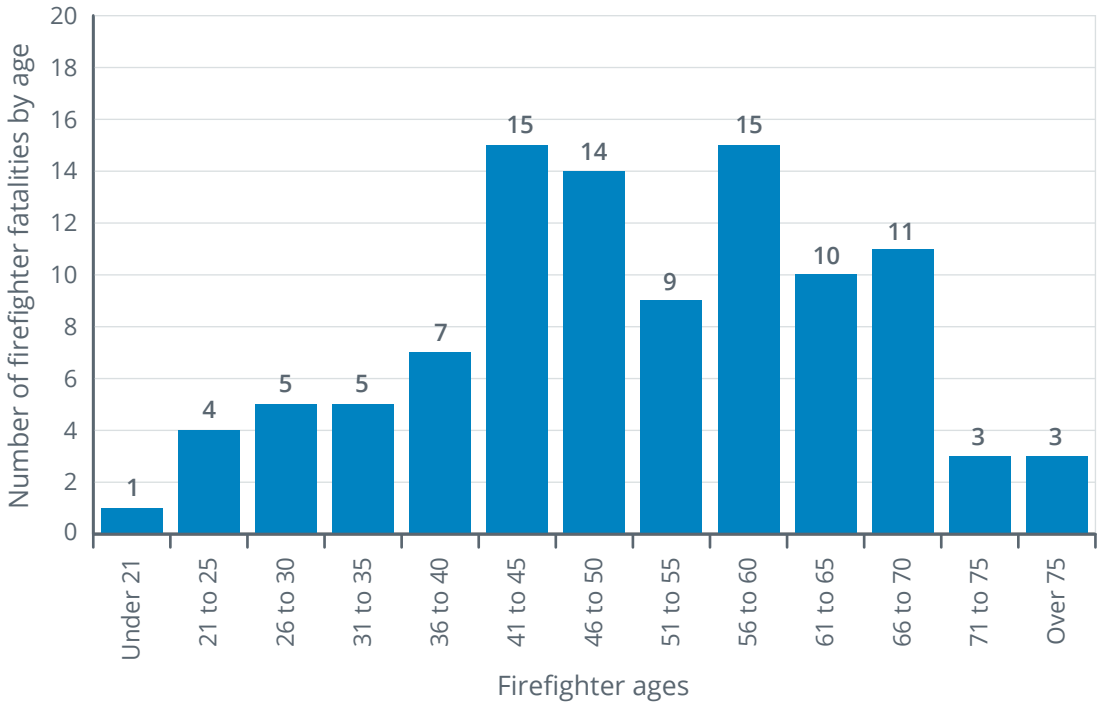


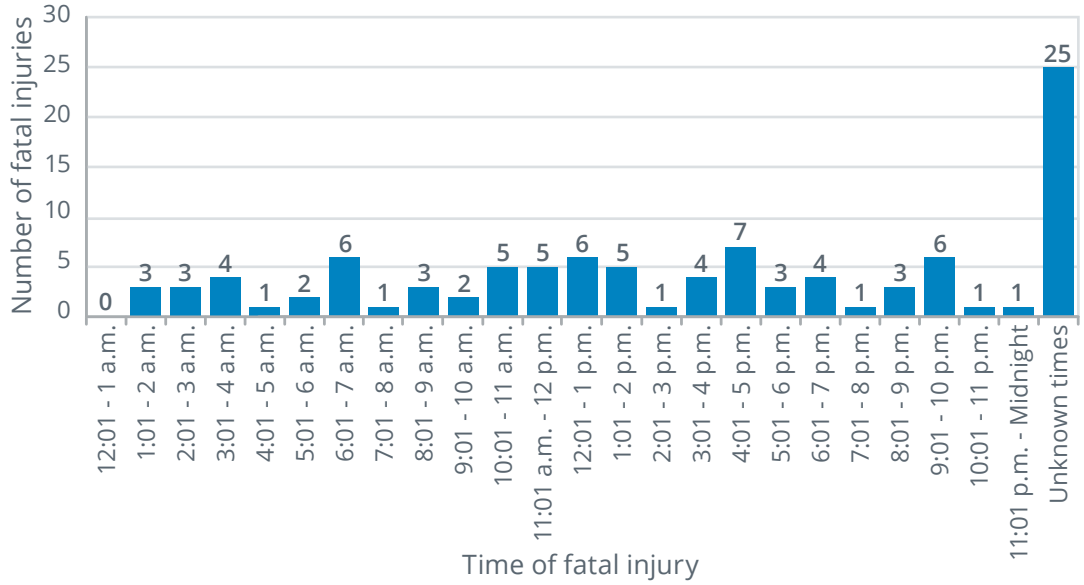
Table 11. Firefighter fatalities by age and nature of fatal injury (2020)

Age	Number of firefighter fatalities caused by trauma/ asphyxiation/other	Number of firefighter fatalities caused by COVID-19	Number of firefighter fatalities caused by heart attack/CVA
Under 21	1	0	0
21 to 25	3	0	1
26 to 30	4	1	0
31 to 35	3	1	1
36 to 40	4	1	2
41 to 45	5	6	4
46 to 50	2	5	7
51 to 55	3	4	2
56 to 60	4	7	4
61 to 65	4	3	3
66 to 70	0	4	7
71 to 75	1	1	1
Over 75	0	3	0

Deaths by Time of Injury

For 2020, the distribution of firefighter deaths, according to the time of day when the fatal injury occurred, is illustrated in Figure 14. Primarily due to the unknown time that firefighters contracted COVID-19 while on duty, the time of fatal injury for 25 firefighters was unknown.

Figure 14. Firefighter fatalities by time of fatal injury (2020)

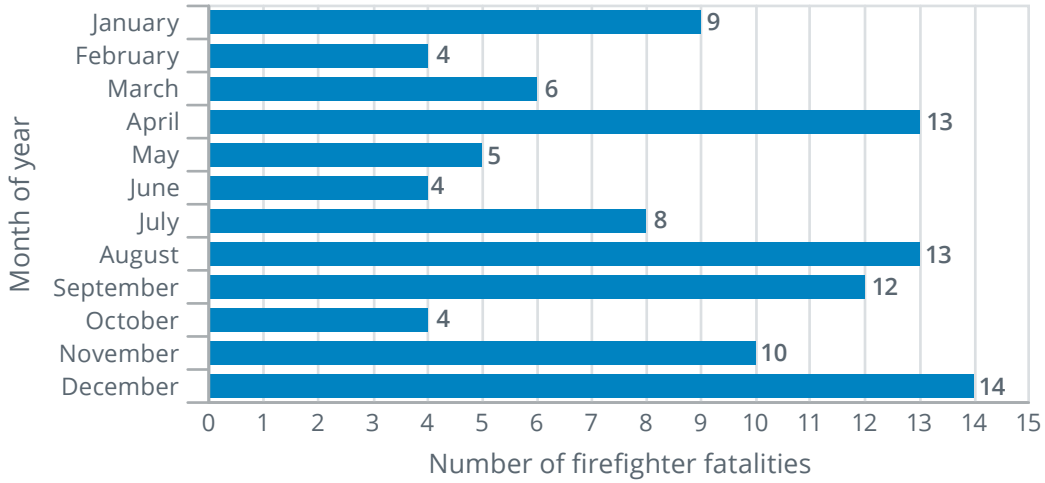


Note: The time of fatal injury for 25 firefighters was unknown. Times are shown using the following formula: 12:01-1:00 a.m.; 1:01-2:00 a.m.; 2:01-3:00 a.m., etc.

Firefighter Fatality Incidents by Month of Year

Figure 14 illustrates when the 2020 firefighter fatalities occurred by month of year. Most fatalities occurred in the month of December, followed by the months of April and August.

Figure 15. Firefighter fatalities by month of year (2020)



State and Region

The distribution of firefighter deaths in 2020 by state is shown in Table 12. Firefighters based in 36 states died in 2020.

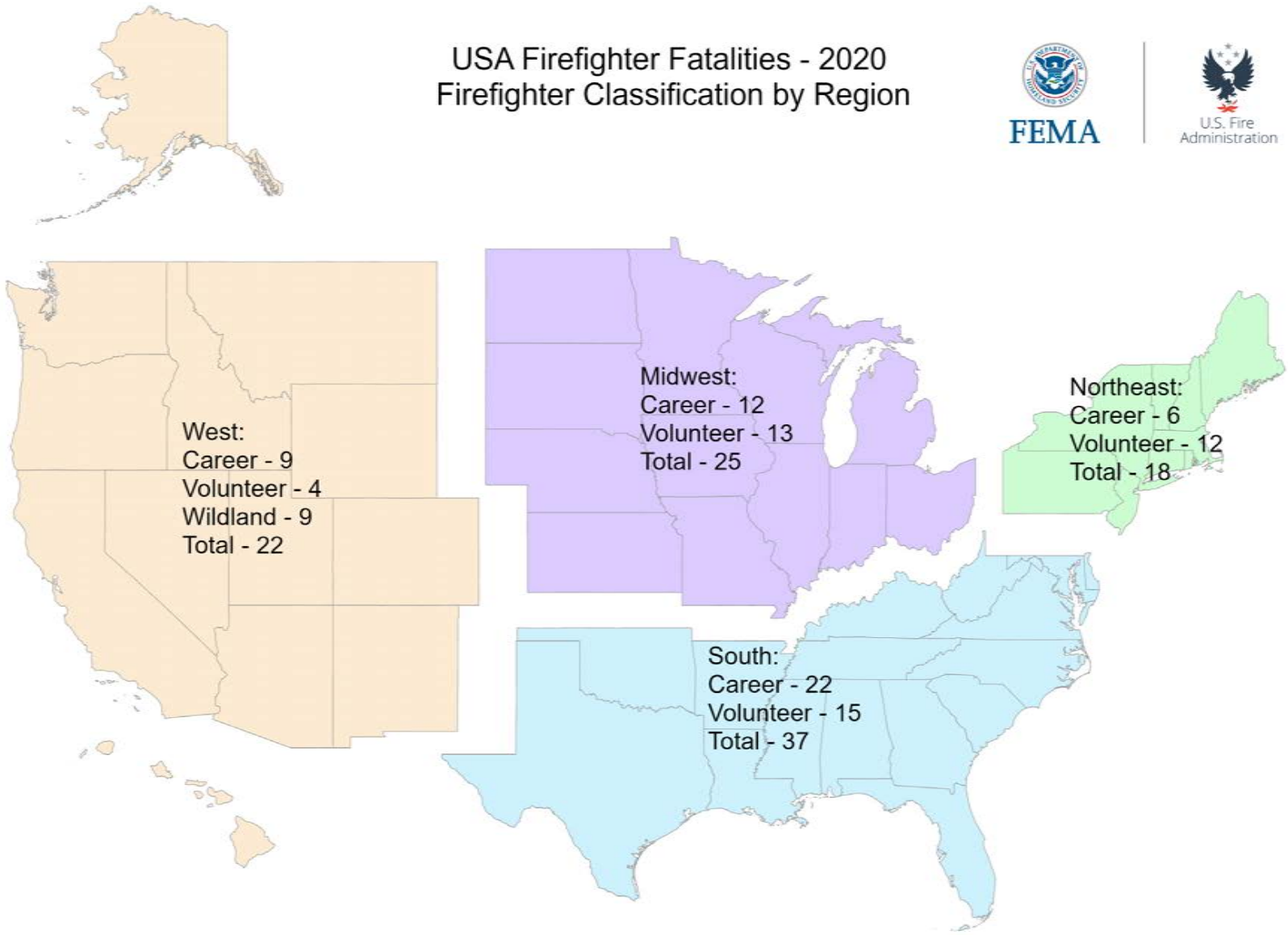
The highest number of firefighter deaths in 2020 (based on the location of the fire service organization) occurred in Texas, with 12 losses. California and Pennsylvania had 8 deaths each, followed by the state of Michigan which experienced 7 losses.

Table 12. Firefighter fatalities by state based on location of fire service (2020)*

State	Number of firefighter fatalities	Percentage of firefighter fatalities
Texas	12	11.8
California	8	7.8
Pennsylvania	8	7.8
Michigan	7	6.9
West Virginia	6	5.9
Illinois	5	4.9
North Carolina	5	4.9
New York	5	4.9
Georgia	4	3.9
Missouri	4	3.9
Florida	3	2.9
Indiana	3	2.9
Alabama	2	2.0
American Samoa	2	2.0
Arizona	2	2.0
Colorado	2	2.0
New Jersey	2	2.0
Ohio	2	2.0
Oregon	2	2.0
Tennessee	2	2.0
Alaska	1	1.0
Connecticut	1	1.0
Hawaii	1	1.0
Idaho	1	1.0
Kansas	1	1.0
Kentucky	1	1.0
Maine	1	1.0
Minnesota	1	1.0
Mississippi	1	1.0
Montana	1	1.0
Nebraska	1	1.0
New Hampshire	1	1.0
Oklahoma	1	1.0
Virginia	1	1.0
Washington	1	1.0
Wisconsin	1	1.0
Total	102	100.0

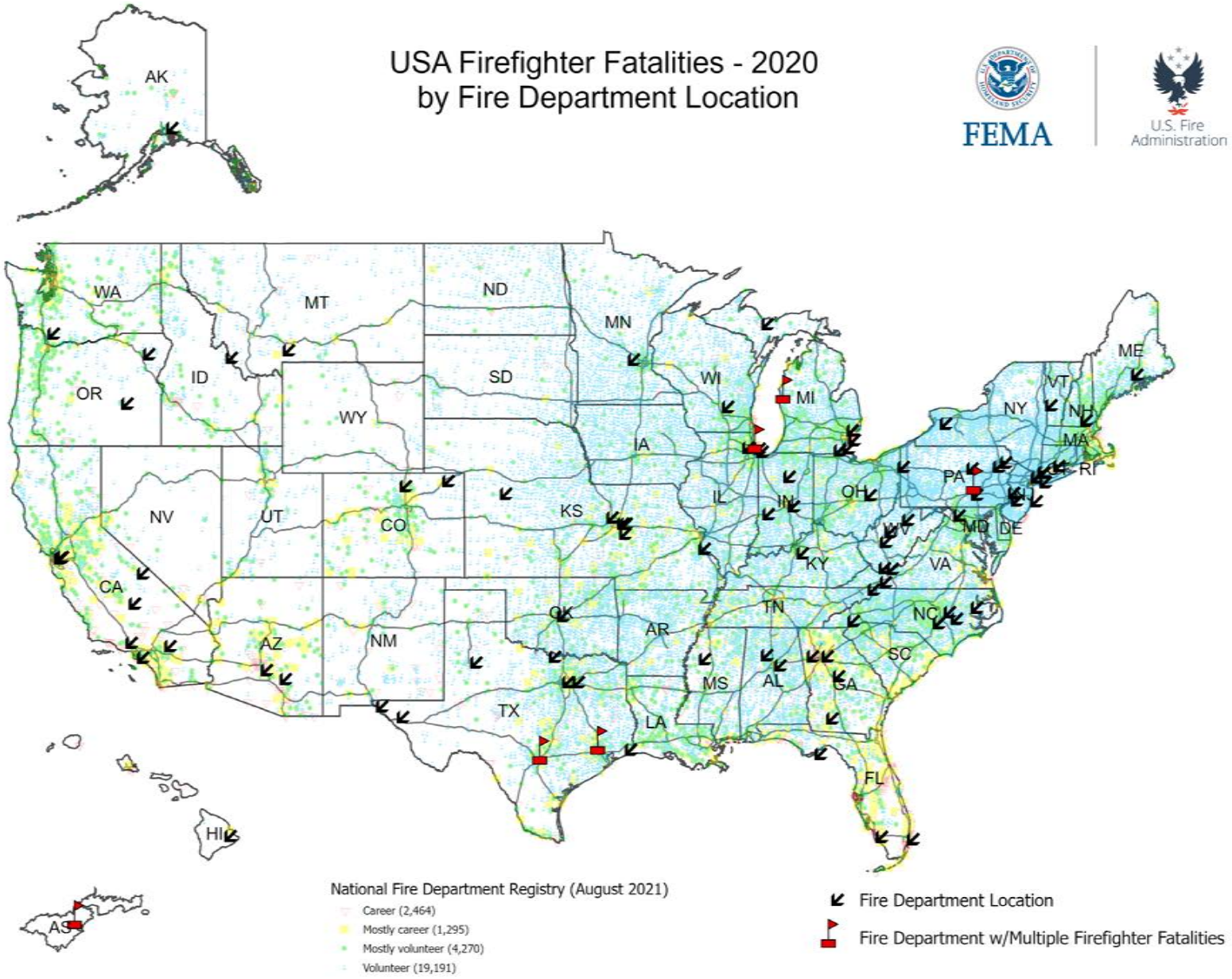
*This list attributes the deaths according to the state in which the fire department or unit was based, as opposed to the state in which the death occurred. They are listed by those states for statistical purposes and for the National Fallen Firefighters Memorial at the NETC.

Figure 16.



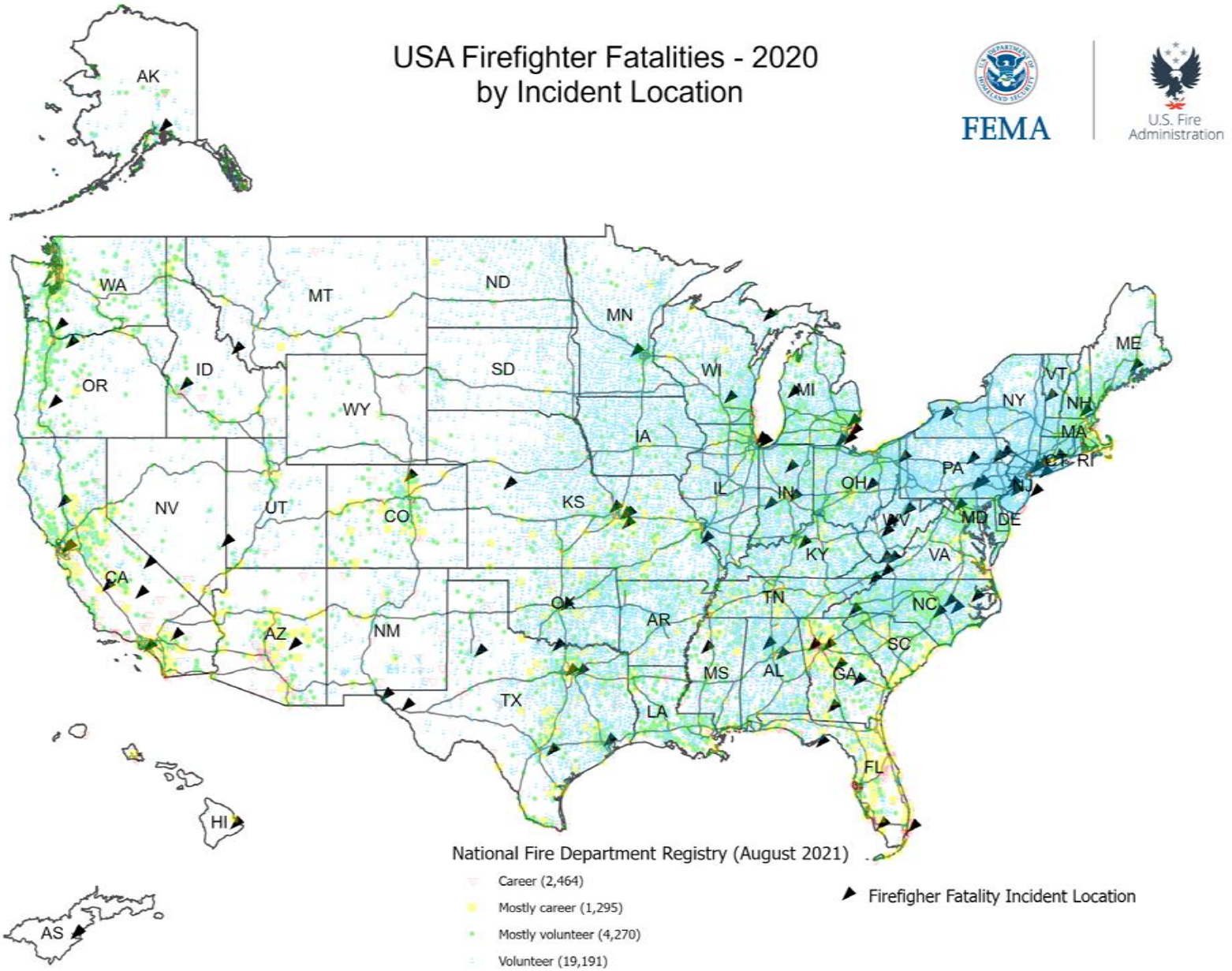
Source: USFA - National Fire Data Center, NFFF.

Figure 17.



Source: USFA - National Fire Data Center, NFFF.

Figure 18.



Source: USFA - National Fire Data Center, NFFF.

Analysis of Urban/Suburban/Rural Patterns in Firefighter Fatalities

The U.S. Census Bureau defines "urban" as a place having a population of at least 2,500 or lying within a designated urban area. "Rural" is defined as any community that is not urban. "Suburban" is not a census term, but may be taken to refer to any place, urban or rural, that lies within a metropolitan area defined by the Census Bureau, but not within 1 of the central cities of that metropolitan area.

Fire department areas of responsibility do not always conform to the boundaries used by the Census Bureau. For example, fire departments organized by counties or special fire protection districts may have both urban and rural coverage areas. In such cases, where it may not be possible to characterize the entire coverage area of the fire department as rural or urban, firefighter deaths were listed as urban or rural based on the particular community or location in which the fatality occurred.

The following patterns were found for 2020 firefighter fatalities. These statistics are based on responses from fire department personnel, and when no data from the departments were available, the data were based upon population and area served, as reported by the fire departments.

Table 13. Firefighter fatalities by coverage area type (2020)

Urban/suburban	Rural	Total
50	52	102

Appendix

Firefighter fatality inclusion criteria — national fire service organizations

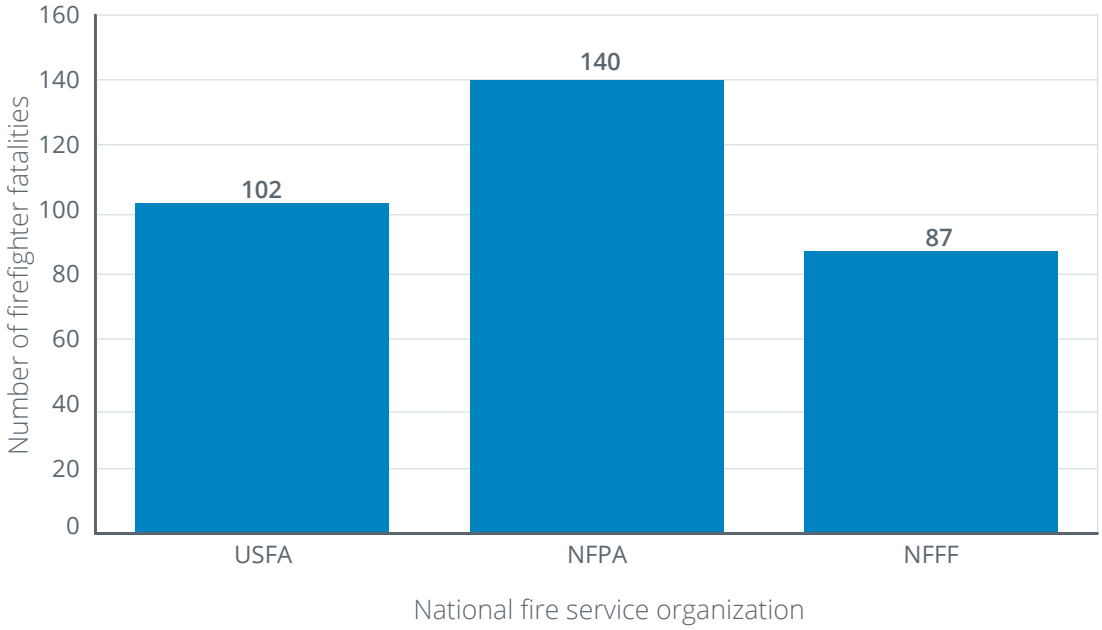
NFPA, NFFF, USFA and other organizations individually collect information on firefighter fatalities in the United States. Each organization uses a slightly different set of inclusion criteria that are based at least in part on the purposes of the information collection for each organization and data consistency.

As a result of these differing inclusion criteria, statistics about firefighter fatalities may be provided by each organization that do not coincide with one another. This section will explain the inclusion criteria for each organization and provide information about these differences.

The USFA includes firefighters in this report who died while on duty, became ill while on duty and later died, and firefighters who died within 24 hours of an emergency response or training regardless of whether the firefighter complained of illness while on duty. The USFA counts firefighter deaths that occurred in the 50 states, the District of Columbia, and United States protectorates such as Puerto Rico and Guam. Detailed inclusion criteria appear starting on page 6 of this report.

For 2020, the USFA reported 102 on-duty firefighter fatalities.

Firefighter fatalities in 2020*



*USFA methodology for the analyses of firefighter fatalities was changed in 2020. For this report and all annual reports to follow, firefighter deaths are counted in the year that the death occurred rather than the year that the fatal incident occurred.

Inclusion criteria for the National Fire Protection Association's annual firefighter fatality study

Introduction

Each year, the NFPA collects data on all firefighter fatalities in the United States that resulted from injuries or illnesses that occurred while the victims were on duty. The purpose of the study is to analyze trends in the types of illnesses and injuries resulting in deaths that occur while firefighters are on the job. This annual census of firefighter fatalities in its current format dates back to 1977. (Between 1974 and 1976, the NFPA published a study of on-duty firefighter fatalities that was not as comprehensive.)

What is a firefighter?

For the purpose of the NFPA study, the term "firefighter" covers all uniformed members of organized fire departments, whether career, volunteer or combination, or contract; full-time public service officers acting as firefighters; state and federal government fire service personnel; temporary fire suppression personnel operating under official auspices of 1 of the above; and privately employed firefighters including trained members of industrial or institutional fire brigades, whether full or part time.

Under this definition, the study includes, besides uniformed members of local career and volunteer fire departments, those seasonal and full-time employees of state and federal agencies who have fire suppression responsibilities as part of their job description, prison inmates serving on firefighting crews, military personnel performing assigned fire suppression activities, civilian firefighters working at military installations, and members of industrial fire brigades. Impressed civilians would also be included if called on by the officer in charge of the incident to carry out specific duties. The NFPA study includes fatalities that occur in the 50 states and the District of Columbia.

What does "on duty" mean?

The term "on duty" refers to being at the scene of an alarm, whether a fire or nonfire incident; being en route while responding to or returning from an alarm; performing other assigned duties such as training, maintenance, public education, inspection, investigations, court testimony and fundraising; and being on call, under orders or on standby duty other than at home or at the individual's place of business. Fatalities that occur at a firefighter's home may be counted if the actions of the firefighter at the time of injury involved firefighting or rescue.

On-duty fatalities include any injury sustained in the line of duty that proves fatal, any illness that was incurred as a result of actions while on duty that proves fatal, and fatal mishaps involving nonemergency occupational hazards that occur while on duty. The types of injuries included in the first category are mainly those that occur at an incident scene, in training or in accidents while responding to or returning from alarms. Illnesses (including heart attacks) are included when the exposure or onset of symptoms are tied to a specific incident of on-duty activity. Those symptoms must have been in evidence while the victim was on duty for the fatality to be included in the study.

Fatal injuries and illnesses are included even in cases where death is considerably delayed. When the onset of the condition and the death occur in different years, the incident is counted in the year of the condition's onset. Medical documentation specifically tying the death to the specific injury is required for inclusion of these cases in the study.

Categories not included in the study

The NFPA study does not include members of fire department auxiliaries, nonuniformed employees of fire departments, or emergency medical technicians who are not also firefighters, chaplains or civilian dispatchers. The study also does not include suicides as on-duty fatalities even when the suicide occurs on fire department property.

The NFPA recognizes that a comprehensive study of firefighter on-duty fatalities would include chronic illnesses (such as cardiovascular disease and certain cancers) that prove fatal and that arose from occupational factors. In practice, there is as yet no mechanism for identifying on-duty fatalities that are due to illnesses that develop over long periods of time. This creates an incomplete picture when comparing occupational illnesses to other factors as causes of firefighter deaths. This is recognized as a gap the size of which cannot be identified at this time because of the limitations in tracking the exposure of firefighters to toxic environments and substances and the potential long-term effects of such exposures.

2020 experience

In 2020, a total of 140 on-duty firefighter deaths occurred in the United States, according to the NFPA inclusion criteria. This total includes 78 firefighters that died in 2020 as a result of COVID-19 and its complications.[5]

[5]For firefighter deaths due to COVID-19, the NFPA is following inclusion criteria similar to what is used by the DOJ PSOB Program and the International Association of Fire Fighters. The Safeguarding America's First Responders Act allows PSOB to create a general presumption that a public safety officer who dies from COVID-19-related complications sustained a personal injury in the line of duty if the COVID-19 diagnosis occurred within 45 days of their last day on duty.

National Fallen Firefighters Foundation

In 1997, fire service leaders formulated new criteria to determine eligibility for inclusion on the National Fallen Firefighter Memorial. Line-of-duty deaths shall be determined by the following standards:

1. Deaths meeting the DOJ PSOB Program guidelines for a favorable determination.
2. Deaths directly resulting from traumatic injuries sustained during response to, at the scene of or during return from an emergency incident, including, but not limited to, fires, emergency medical calls, hazardous materials incidents, natural disasters, technical rescue incidents, and search and rescue missions.
3. Deaths directly resulting from traumatic injuries sustained while engaged in department-authorized training drill or activity that requires participants to be engaged in physical activity.
4. Deaths directly resulting from traumatic injuries sustained while engaged in a department-mandated physical exercise program administered by the agency, including, but not limited to, running or other types of physical exercise and annual recertification fitness or agility tests.
5. Deaths directly resulting from a cardiovascular event that occurs immediately after, or within 24 hours of, returning from an emergency response or being engaged in a department-mandated physical exercise or training activity as defined above.
6. Deaths directly resulting from cancer, disease or infection that are defined as meeting the criteria of the decedent's home state occupational exposure presumption laws. (Note: Applies only to such deaths occurring on or after Jan. 1, 2018.)

The National Fallen Firefighters Memorial was built in 1981 in Emmitsburg, Maryland. The names listed there begin with those firefighters who died in the line of duty that year. The U.S. Congress created the NFFF to lead a nationwide effort to remember America's fallen firefighters. Since 1992, the tax-exempt, nonprofit foundation has developed and expanded programs to honor our fallen fire heroes and assist their families and coworkers by providing them with resources to rebuild their lives. Since 1997, the foundation has managed the National Memorial Service held each October to honor the firefighters who died in the line of duty the previous year.

The NFFF honored 112 firefighters who died in the line-of-duty at the planned October 2021 Memorial Weekend. Of those, 87 firefighters being honored were associated with incidents and deaths that occurred in 2020 and 25 firefighters being honored died in previous years. Of the 87 deaths from 2020, 14 were as the result of COVID-19 and its complications.[6]

[6]For firefighter deaths due to complications of COVID-19 in 2020 and 2021, the Safeguarding America's First Responders Act creates a general presumption that a public safety officer who dies from COVID-19-related complications sustained a personal injury in the line of duty if the COVID-19 diagnosis occurred within 45 days of their last day on duty. Based on the NFFF criteria for deaths due to infectious disease, the circumstances of the fatality can be determined to meet the criteria for inclusion on the National Fallen Firefighters Memorial when the death is approved for death benefits at the federal level or meets the criteria outlined by the DOJ PSOB Program.

Acronyms

BLM	Bureau of Land Management
BIA	Bureau of Indian Affairs
CVA	cerebrovascular accident
DOJ	U.S. Department of Justice
EMS	emergency medical services
FWS	U.S. Fish and Wildlife Service
NETC	National Emergency Training Center
NFFF	National Fallen Firefighters Foundation
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NPS	National Park Service
PSOB	Public Safety Officer Benefits
RIC	rapid intervention crew
SEAT	single engine air tanker
USFA	U.S. Fire Administration
USFS	U.S. Forest Service

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

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