

Wildfire Statistics

Wildfires are unplanned and unwanted fires, including lightning-caused fires, unauthorized human-caused fires, and escaped prescribed fire projects. States are responsible for responding to wildfires that begin on nonfederal (state, local, and private) lands, except for lands protected by federal agencies under cooperative agreements. The federal government is responsible for responding to wildfires that begin on federal lands. The Forest Service (FS)—within the U.S. Department of Agriculture—carries out wildfire management and response across the 193 million acres of the National Forest System (NFS). The Department of the Interior (DOI) manages wildfire response for more than 400 million acres of national parks, wildlife refuges and preserves, other public lands, and Indian reservations.

Wildfire statistics help to illustrate past U.S. wildfire activity. Nationwide data compiled by the National Interagency Fire Center (NIFC) indicate that the number of annual wildfires is variable but has decreased slightly over the last 30 years and that the number of acres impacted annually, while also variable, generally has increased (see **Figure 1**). Since 2000, an annual average of 70,685 wildfires burned an annual average of 7.1 million acres. This figure is more than double the average annual acreage burned in the 1990s (3.3 million acres), although a greater number of fires occurred annually in the 1990s (78,600 on average).

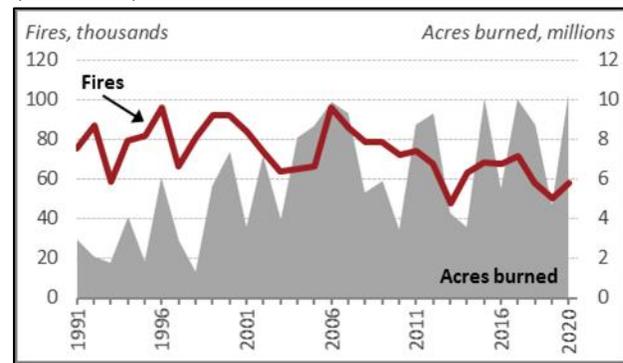
Table 1. Annual Wildfires and Acres Burned

	2015	2016	2017	2018	2019
Number of Fires (thousands)					
Federal	13.8	12.6	15.2	12.5	10.9
FS	7.1	5.7	6.6	5.6	5.3
DOI	6.6	6.8	7.3	7.0	5.3
Nonfederal	54.4	55.2	56.4	45.6	39.6
Total	68.2	67.7	71.5	58.1	50.5
Acres Burned (millions)					
Federal	7.41	3.00	6.3	4.6	3.1
FS	1.92	1.25	2.9	2.3	0.6
DOI	5.47	1.70	3.3	2.3	2.3
Nonfederal	2.72	2.51	3.7	4.1	1.6
Total	10.13	5.51	10.0	8.8	4.7

Source: National Interagency Fire Center (NIFC).

Notes: *Federal* includes fires that began on land managed by the Forest Service (FS), Department of the Interior (DOI), and other federal agencies (not listed). *Nonfederal* includes all other lands. Column totals may not add due to rounding.

Figure 1. Annual Wildfires and Acres Burned (1991-2020)



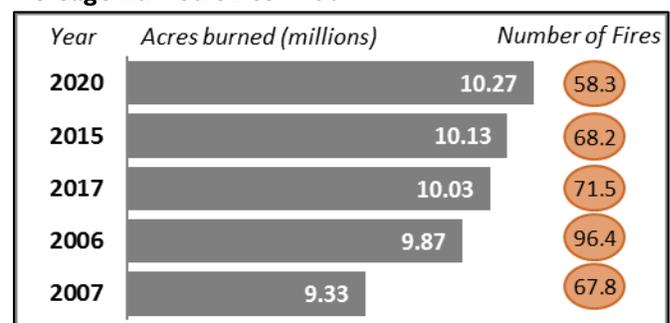
Source: National Interagency Fire Center (NIFC).

Note: Data reflect wildland fires and acres burned nationwide, including wildland fires on federal and nonfederal lands.

Over the past 10 years (2011-2020), there were an average of 62,693 wildfires annually and an average of 7.5 million acres impacted annually.

In 2020, over 58,250 wildfires burned 10.3 million acres, the most acreage impacted in a year (see **Figure 2**); nearly 40% of these acres were in California. Nearly half of the acres impacted were on NFS lands. This report will be updated with additional 2020 summary statistics when those figures are available.

Figure 2. Top Five Years with Largest Wildfire Acreage Burned Since 1960



Source: NIFC.

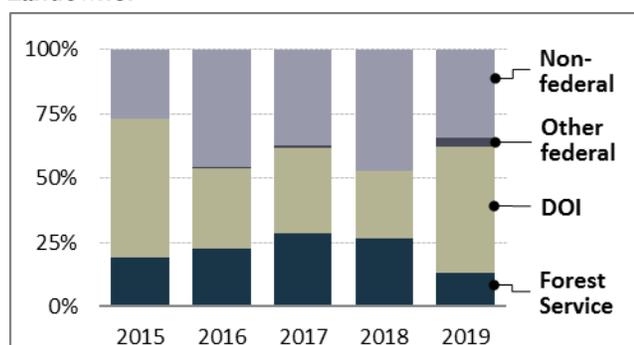
Note: Number of fires in thousands.

The number of fires and acreage burned are indicators of the annual level of wildfire activity, but they may be misleading, since many fires may occur in large, relatively undeveloped areas, with very little impact to human development or communities. Acreage burned also does not indicate the severity of the wildfire or the degree of impact to the forest, soils, or any other ecological effects.

In 2019, 65% of the nationwide acreage burned by wildfires was on federal lands (3.1 million acres; see **Table 1**). The

other 35% of the acreage burned occurred on state, local, or privately owned lands but also accounted for 78% of the fires (39,611). Of the federal acreage burned nationwide in 2019, 75% (2.3 million acres) burned on DOI land (mostly in Alaska) and 20% (0.6 million acres) burned on FS land (see **Figure 3**). Most wildfires are human-caused (88% on average from 2015 to 2019), although the wildfires caused by lightning tend to be slightly larger and burn more acreage (55% of the average acreage burned from 2015 to 2019 was ignited by lightning).

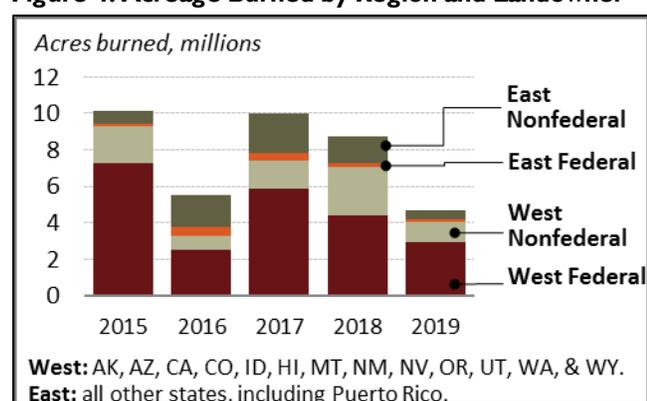
Figure 3. Percentage of Acreage Burned by Landowner



Source: NIFC.

More wildfires occur in the East (including the central states), but the wildfires in the West are larger and burn more acreage (including Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming). In 2019, over 29,600 fires burned 0.6 million acres in the East, compared with nearly 21,000 wildfires that burned nearly 4.1 million acres in the West (see **Table 1**). In the East (where there is less federal acreage), most of the fires occur on nonfederal lands, whereas in the West most of the fires occur on federal lands (see **Figure 4**). In 2019, 81% (0.5 million acres) of the acreage burned in the East was on nonfederal land, whereas 72% (2.9 million acres) of the acreage burned in the West was on federal land. The acreage burned in Alaska in 2019 (2.5 million acres) accounts for more than half the acreage burned in the West. It primarily occurred on federal land (1.7 million acres).

Figure 4. Acreage Burned by Region and Landowner



Source: NIFC.

Wildfire Damages

Although wildfires may have a beneficial impact on ecological resources, wildfires also may have a devastating impact, especially for those communities affected by wildfire activity. Therefore, statistics showing the level of destruction a wildfire causes can be useful, such as acres burned, lives lost (firefighters and civilians), and structures (residential, commercial, and other) destroyed. **Table 2** provides some of this data, as well as firefighter personnel data.

Table 2. FS and DOI Personnel and Loss Statistics

	2016	2017	2018	2019
Personnel				
FS Firefighters	10,000	10,000	10,000	10,000
DOI Firefighters	4,129	4,514	4,492	4,442
Losses				
Structures Burned	4,312	12,306	25,790	963
% Residences	74%	66%	70%	46%

Sources: Agency budget justifications and NIFC's Wildland Fire Summary and Statistics Annual Reports.

Notes: Personnel data reflect fiscal year data; structures and residences burned reflect calendar-year data.

Conflagrations

Of the 1.4 million wildfires that have occurred since 2000, 197 exceeded 100,000 acres, and 13 exceeded 500,000 acres. Only a small fraction of wildfires become catastrophic, and a small percentage of fires accounts for the vast majority of acres burned. For example, only about 1% of wildfires become conflagrations—raging, destructive fires—but predicting which fires will “blow up” into conflagrations is challenging and depends on a multitude of factors, such as weather and geography. In 2019, 2% of wildfires were classified as large or significant (806) and 27 wildfires exceeded 40,000 acres in size, 19 of which occurred in Alaska. Nine of the largest fires in 2019 also exceeded 100,000 acres. There were more large or significant wildfires in 2018: 1,167 (2% of the total fires that year), 48 of which exceeded 40,000 acres in size and 11 of which exceeded 100,000 acres.

Issues for Congress

Issues for Congress include the strategies and resources used for wildfire management and the impact of wildfires on both the quality of life and the economy of communities surrounding wildfire activity. Congress also considers the total federal cost of wildfire management, including the cost of suppression operations, costs that vary annually and are difficult to predict. For more information, see CRS Report R46583, *Federal Wildfire Management: Ten-Year Funding Trends and Issues (FY2011-FY2020)*; CRS In Focus IF10732, *Federal Assistance for Wildfire Response and Recovery*; or CRS Insight IN11487, *2020 Wildfire Season: Brief Overview of FEMA Programs and Resources*.

Katie Hoover, Specialist in Natural Resources Policy
Laura A. Hanson, Senior Research Librarian

IF10244

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.