Congressional Research Service
Informing the legislative debate since 1914

IN FOCUS

Updated September 8, 2021

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 Coordination Center (NICC) indicate that the number of annual wildfires is variable but has decreased slightly over the last 30 years and the number of acres affected annually, while also variable, generally has increased (see **Figure 1**). Since 2000, an annual average of 70,600 wildfires has burned an annual average of 7.0 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 average).

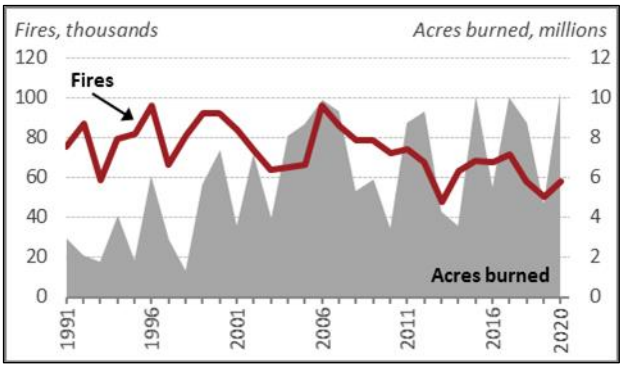
Table 1. Annual Wildfires and Acres Burned

	2016	2017	2018	2019	2020
Number of Fires (thousands)					
Federal	12.6	15.2	12.5	10.9	14.4
FS	*5.7*	*6.6*	*5.6*	*5.3*	*6.7*
DOI	*6.8*	*7.3*	*7.0*	*5.3*	*7.6*
Other	*<0.1*	*1.2*	*0.1*	*0.2*	*<0.1*
Nonfederal	55.2	56.4	45.6	39.6	44.6
Total	**67.7**	**71.5**	**58.1**	**50.5**	**59.0**
Acres Burned (millions)					
Federal	3.0	6.3	4.6	3.1	7.1
FS	*1.2*	*2.9*	*2.3*	*0.6*	*4.8*
DOI	*1.7*	*3.3*	*2.3*	*2.3*	*2.3*
Other	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Nonfederal	2.5	3.7	4.1	1.6	3.1
Total	**5.5**	**10.0**	**8.8**	**4.7**	**10.1**

Source: National Interagency Coordination Center (NICC) Wildland Fire Summary and Statistics annual reports.

Notes: FS = Forest Service; DOI = Department of the Interior. Column totals may not add due to rounding.

Figure 1. Annual Wildfires and Acres Burned, 1991-2020

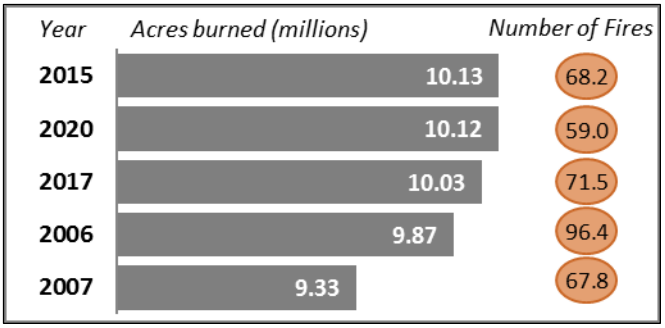


Source: NICC Wildland Fire Summary and Statistics annual reports.
Note: Data reflect wildland fires and acres burned nationwide, including wildland fires on federal and nonfederal lands.

From 2011 to 2020, there were an average of 62,805 wildfires annually and an average of 7.5 million acres impacted annually. In 2020, 58,950 wildfires burned 10.1 million acres, the second-most acreage impacted in a year (see **Figure 2**) since 1960; nearly 40% of these acres were in California. Nearly half of the acres impacted were on NFS lands. These official figures from NICC reflect downward revisions from earlier reported data for 2020.

As of September 8, 2021, nearly 44,000 wildfires have impacted over 5.1 million acres. The nationwide preparedness level has been at the maximum level (5) since July 14, 2021, suggesting a sustained and significant commitment of shared resources.

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



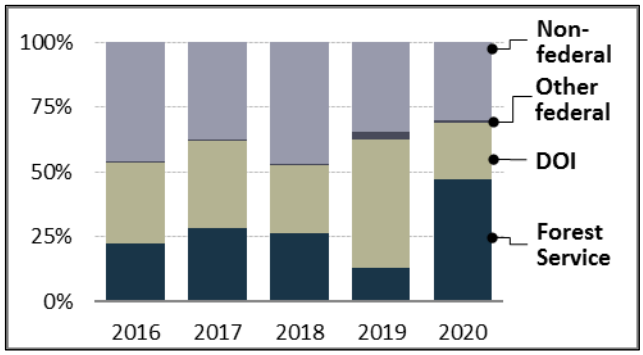
Source: NICC Wildland Fire Summary and Statistics annual reports.
Note: Number of fires in thousands.

The number of fires and acreage burned are indicators of the annual level of wildfire activity. However, these numbers may be misleading with respect to their impact on human development or communities since many fires may

occur in large, relatively undeveloped areas. Acreage burned also does not indicate the severity of the wildfire, the degree of impact upon forests or soils, or other ecological effects.

In 2020, 70% of the nationwide acreage burned by wildfires was on federal lands (7.1 million acres; see **Table 1**). The other 30% of the acreage burned occurred on state, local, or privately owned lands. Fires on these lands (44,568) accounted for 76% of total fires. Of the federal acreage burned nationwide in 2020, 68% (4.8 million acres) burned on FS land and 32% (2.3 million acres) burned on DOI land (see **Figure 3**). Most wildfires are human-caused (88% on average from 2016 to 2020), although the wildfires caused by lightning tend to be slightly larger and burn more acreage (55% of the average acreage burned from 2016 to 2020 was ignited by lightning).

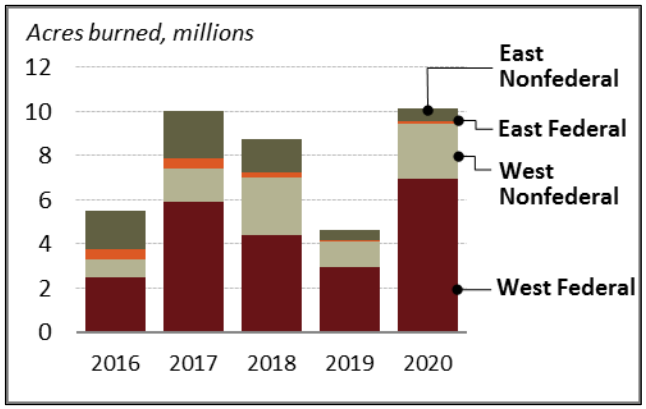
Figure 3. Percentage Acreage Burned by Ownership



Source: NICC Wildland Fire Summary and Statistics annual reports.

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 2020, nearly 26,000 wildfires burned approximately 9.5 million acres in the West, compared with the over 33,000 fires that burned just under 0.7 million acres in the East. 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 2020, 81% (0.5 million acres) of the acreage burned in the East was on nonfederal land, whereas 75% (7.1 million acres) of the acreage burned in the West was on federal land.

Figure 4. Acreage Burned by Region and Ownership



Source: NICC Wildland Fire Summary and Statistics annual reports.
Notes: West: AK, AZ, CA, CO, ID, HI, MT, NM, NV, OR, UT, WA, and WY. East: All other states, including Puerto Rico.

Wildfire Damages

Although wildfires may have a beneficial impact on ecological resources, wildfires also may have devastating impacts, especially for communities affected by wildfire activity. Therefore, statistics showing the level of destruction a wildfire causes can provide useful metrics, such as acres burned or impacted, lives lost (firefighters and civilians), and structures (residential, commercial, and other) destroyed. **Table 2** provides some of these data. In 2020, more than 17,000 structures were burned in wildfires, the majority of which occurred in California.

Table 2. Loss Statistics

	2017	2018	2019	2020
Structures Burned	12,306	25,790	963	17,904
% Residences	66%	70%	46%	54%

Source: NICC Wildland Fire Summary and Statistics annual reports.

Conflagrations

Of the 1.5 million wildfires that have occurred since 2000, 224 exceeded 100,000 acres burned and 14 exceeded 500,000 acres burned. 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 2020, 2% of wildfires were classified as large or significant (999); 50 exceeded 40,000 acres in size; and 27 exceeded 100,000 acres. In context, there were fewer large or significant wildfires in 2019 (806) but more in 2018 (1,167). There have been 1,126 large or significant fires annually on average from 2016 through 2020.

Issues for Congress

Issues for Congress include the strategies and resources used for wildfire prevention, mitigation, and management, and the impact of wildfires on both the quality of life and the economies of communities surrounding wildfire activity. Other issues relate to post-wildfire recovery and site restoration. Congress also considers the total federal

cost of wildfire management, including the cost of suppression operations; these costs vary annually and are difficult to predict.

For more information, see

- CRS In Focus IF10732, *Federal Assistance for Wildfire Response and Recovery*;
- CRS Insight IN11716, *2021 Wildfire Season: Brief Overview of FEMA Programs and Resources*; and
- CRS Report R46583, *Federal Wildfire Management: Ten-Year Funding Trends and Issues (FY2011-FY2020)*.

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

IF10244

Disclaimer