



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. 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 stayed relatively constant over the last 30 years and that the number of acres burned annually, while also variable, generally has increased (see **Figure 1**). Every year since 2000, an average of 73,200 wildfires burned an average of 6.9 million acres. This figure is nearly double the average annual acreage burned in the 1990s (3.3 million acres), although a greater number of fires occurred annually (78,600 on average).

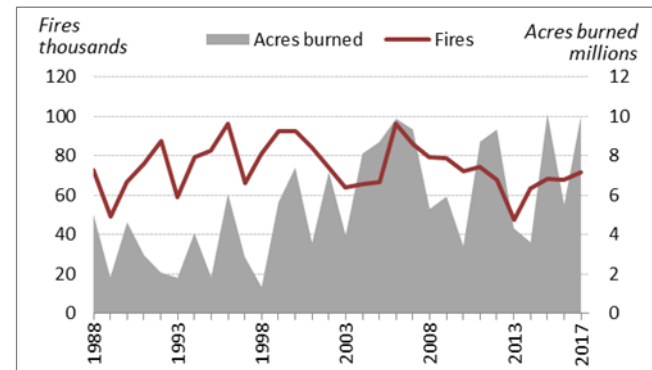
Table 1. Annual Wildfires and Acres Burned

	2013	2014	2015	2016	2017
Number of Fires (thousands)					
Federal	14.2	13.0	13.8	12.6	15.2
FS	7.1	6.8	7.1	5.7	6.6
DOI	6.7	6.1	6.6	6.8	7.3
Nonfederal	33.4	50.6	54.4	55.2	56.4
Total	47.6	63.6	68.2	67.7	71.5
Acres Burned (millions)					
Federal	3.08	2.15	7.41	3.00	6.3
FS	1.37	0.87	1.92	1.25	2.9
DOI	1.59	1.24	5.47	1.70	3.3
Nonfederal	1.23	1.4	2.72	2.51	3.7
Total	4.32	3.60	10.13	5.51	10.0

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 (1988-2017)



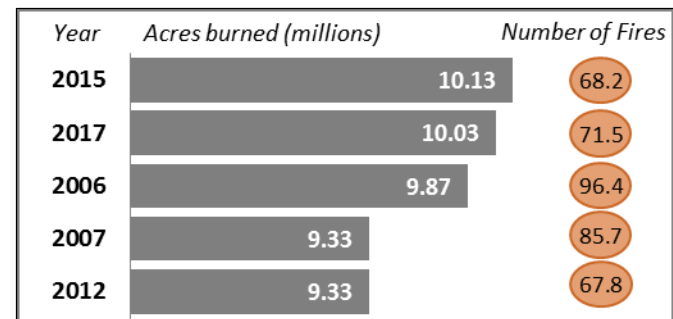
Source: National Interagency Fire Center (NIFC).

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

Over the past 10 years, 6.6 million acres burned annually on average. In 2017, 71,500 wildfires burned 10.0 million acres nationwide, the second-largest figure on record in terms of acreage burned. The 2015 fire season was the largest, with 10.1 million acres burned (see **Figure 2**); more than half of these acres were in Alaska (5.1 million acres).

As of August 1, 2018, 38,079 wildfires have burned nearly 4.85 million acres this year.

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

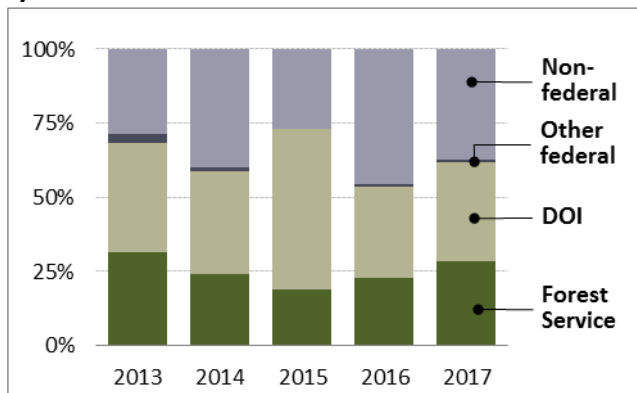


Source: NIFC.

Although the number of fires and acreage burned are indicators of the annual level of wildfire activity, they also may be misleading, since many fires may occur in areas that are large and relatively undeveloped, 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 2017, 63% of the nationwide acreage burned by wildfires was on federal lands (6.3 million acres; see **Table 1**). The other 37% of the acreage burned occurred on state, local, or privately owned lands but also accounted for 79% of the fires (56,374). Of the federal acreage burned nationwide in 2017, 53% (3.3 million acres) burned on DOI land and 46% (2.9 million acres) burned on FS land (see **Figure 3**). Most wildfires are human-caused (87% on average from 2013 to 2017), although the wildfires caused by lightning tend to be larger and burn more acreage (58% on average from 2013 to 2017).

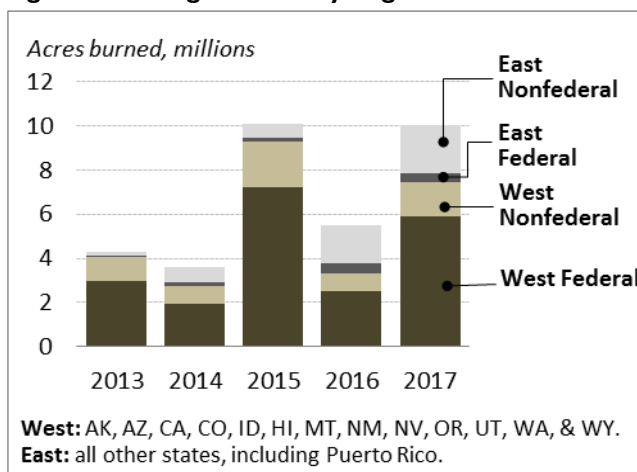
Figure 3. Percentage of Acreage Burned by Landowner



Source: NIFC.

More wildfires occur in the East (including the central states), but more acreage burns in the West (including Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming). In 2017, more than 47,500 fires burned nearly 2.6 million acres in the East, compared with nearly 24,000 wildfires that burned more than 7.4 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 2017, 84% (2.2 million acres) of the acreage burned in the East was on nonfederal land, whereas 79% (5.9 million acres) of the acreage burned in the West was on federal land.

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 destroyed, as well as suppression costs. Firefighter personnel data for the FS and DOI, firefighter fatalities, and structures burned are provided in **Table 2**.

Table 2. FS and DOI Personnel and Loss Statistics

	2014	2015	2016	2017
Personnel				
FS Firefighters	10,000	10,000	10,000	10,000
DOI Firefighters	3,450	3,997	4,129	4,514
Losses				
Firefighter Fatalities	10	13	12	14
Structures Burned	1,953	4,636	4,312	12,306

Sources: Agency budget justifications, emails, NIFC’s *Historical Wildland Firefighter Fatality Reports*, and NIFC’s *Wildland Fire Summary and Statistics Annual Reports*.

Note: Personnel data reflect fiscal year data; firefighter fatalities and structures burned reflect calendar-year data.

Conflagrations

Of the more than 1.6 million wildfires that have occurred since 1997, approximately 170 exceeded 100,000 acres, and 12 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 2017, 2.0% of wildfires were classified as large or significant (1,409) and 51 wildfires exceeded 40,000 acres in size, 12 of which also exceeded 100,000 acres. There were fewer large or significant wildfires in 2016: 1,251 (1.8% of the total fires that year), 19 of which exceeded 40,000 acres in size and 6 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 which vary annually and are difficult to predict.

For more information, see CRS In Focus IF10732, *Federal Assistance for Wildfire Response and Recovery*.

Katie Hoover, kahoover@crs.loc.gov, 7-9008