

Wildfires

THE TOPIC

DECEMBER 2014

As many as 90 percent of wildland fires in the United States are caused by humans, according to the U.S. Department of Interior. Some human-caused fires result from campfires left unattended, the burning of debris, negligently discarded cigarettes and intentional acts of arson. The remaining 10 percent are started by lightning or lava.

Over the 20-year period, 1993 to 2012, fires, including wildfires, accounted for 1.7 percent of insured catastrophes losses, totaling about \$6.5 billion, according to the Property Claims Services (PCS) unit of ISO. The term "catastrophe" in the property insurance industry denotes a natural or man-made disaster that is unusually severe. An event is designated a catastrophe by the industry when claims are expected to reach a certain dollar threshold, currently set at \$25 million, and more than a certain number of policyholders and insurance companies are affected.

Damage caused by fire and smoke are covered under standard homeowners, renters and business owners insurance policies and under the comprehensive portion of an auto insurance policy. Water or other damage caused by fire fighters to extinguish the fire is also covered under these policies. In California the [California FAIR Plan](#) [1] covers residential and commercial properties located in brush and wildfire areas. Properties in those areas are subject to higher rates due to increased risk of fire.

RECENT DEVELOPMENTS

- **Recent Research:** According to the 2013 Verisk Wildfire Risk Analysis, more than 4.5 million U.S. households are at high or extreme risk from wildfire. The analysis shows that California has the most households at high or extreme risk (2.0 million), followed by Texas (1.3 million), Colorado (374,000), Washington State (163,000), Idaho (161,000), Oregon (160,000), Arizona (159,000), Utah (126,000), New Mexico (123,000) and Nevada (59,000)
- Idaho has the highest percentage of households at high or extreme risk from wildfires (24.1 percent), followed by Colorado (16.9 percent), California (14.5 percent), New Mexico (13.6 percent), Texas (13.0 percent), Utah (12.8 percent), Oregon (9.5 percent), Washington (5.7 percent), Arizona (5.6 percent) and Nevada (5.1 percent).
- An October 2013 [study](#) [2] by Corelogic identifies more than 1.2 million residential properties across 13 states in the western U.S. currently at high or very high risk of wildfire damage. They represent a combined total property value estimated at more than \$189 billion. Of the total properties identified, about 268,000 homes fall into the very high risk category alone, with total residential exposure valued at more than \$41 billion.
- Colorado, California and Texas are the states with the largest number of properties categorized as very high risk, with a combined property value exceeding \$34.5 billion. The exposure jumps to \$160 billion when properties at high and very high risk are included.
- Of seven cities analyzed in the report, Los Angeles is home to the most single-family residences exposed to wildfire risk, with more than 60,000 properties in the high or very high risk categories.

- The cost of fighting wildfires reached \$3.5 billion per year from 2002 to 2012 according to a [report](#) [3] by Headwaters Economics, a nonprofit Research group.
- [Harvard School of Engineering and Applied Sciences](#) [4] researchers have concluded that by 2050 the number of wildfires in the West could rise by 50 percent, and across the U.S. the number would double.
- **Colorado Task Force:** On September 30, 2013 the Colorado Governor's Task Force on Wildfire Insurance and Forest Health Task Force issued its recommendations, many of which would require legislative action.
- The task force recommended that risk assessment scores be assigned to individual properties located in the Wildland Urban Interface (WUI), i.e. homes built in wildfire-prone areas, and that a mitigation audit be conducted on properties that receive a certain score.
- While the results of the mitigation audit would be provided to insurance companies, the task force did not specify how insurers must use the information, noting that to ensure a competitive marketplace, "insurance companies must maintain their own individual underwriting and inspection processes with minimal interference from the legislative branch."
- The task force also recommended that the state develop model building codes and that a fee be assessed on properties located in the WUI. Those funds would be collected at the state level and distributed to local governments to help offset the costs of mitigation for properties in the WUI.
- There has been no legislative action on the recommendations of the task force to date.
- **2014 Wildfire Season:** Drought conditions have continued into 2014 in California, creating more wildfire risk.
- Between January 1 and October 10, 2014 there were 45,468 wildfires in the U.S., which burned about 3.4 million acres, according to the [National Interagency Fire Center](#) [5].
- The Happy Camp Complex fire in California burned [over 134,056 acres](#) [6].
- The Carlton Complex fire in Washington state burned [over 256,108 acres](#) [7] and was the largest fire in the state to date.
- **2013 Wildfire Season:** In 2013, 42,658 wildfires burned over 4 million acres, with California, North Carolina, Oregon, Montana and Arizona experiencing the most wildfires, according to the National Interagency Fire Center.
- A massive wildfire that began near Yosemite Park in California on August 17 had burned over 255,000 acres and was designated as the state's third-largest wildfire. The Forest Service had fewer fire fighters and other resources in 2013 due to funding cuts dictated by sequestration.
- The December 17 fire in Big Sur, California, burned 917 acres and more than 30 homes.
- In central Arizona, a fast moving fire near the town of Yarnell killed 19 fire-fighters and burned hundreds of homes in June 2013. This is the third-highest death toll for fire fighters attributed to wildfires, according to the National Fire Protection Association.
- In Colorado, wildfires in the spring burned about 21,000 acres in five areas of the state. The largest, which was the Black Forest fire, just outside of Colorado Springs, destroyed at least 489 homes, damaged hundreds more and caused many to be evacuated, according to state officials. Two people were killed in the Black Forest fire.

BACKGROUND

Researchers are discovering that embers blown by the wind during wildfires cause most of the fires that burn homes. Also, homes that are less than 15 feet apart are more likely to burn in clusters. In such cases, fire is often spread by combustible fences and decks connected to houses, a study by the Institute for Business & Home Safety (IBHS) found.

The risk of wildfires is likely to continue to grow as temperatures rise, lengthening the fire season, and more people move into steep forested areas once largely uninhabited. Thirty-eight states have wildfire risks, according to IBHS, and the risk of wildfires keeps growing as more homes are built in wildland

areas, some five million in California alone. Among the preventive features recommended in the IBHS study were noncombustible siding, decking and roofing materials; covered vents; and fences not connected directly to the house. In addition, combustible structures in the yard such as playground equipment should be at least 30 feet away from the house and vegetation 100 feet away.

TOTAL POTENTIAL EXPOSURE TO WILDFIRE DAMAGE BY RISK CATEGORY, 2013

(\$ billions)

State	Low	Moderate	High	Very high
Arizona	\$19.22	\$2.42	\$3.45	\$1.24
California	65.58	48.26	65.47	13.03
Colorado	21.58	13.99	14.12	15.21
Idaho	2.50	1.48	0.90	0.65
Montana	7.22	2.35	0.94	0.91
Nevada	3.40	6.14	0.71	0.07
New Mexico	6.02	1.62	3.50	1.18
Oklahoma	15.42	8.79	0.02	0.00
Oregon	6.24	6.62	8.42	1.76
Texas	50.12	114.08	46.01	6.32
Utah	3.57	3.84	1.63	0.19
Washington	60.17	14.49	2.51	0.53
Wyoming	1.83	1.70	0.24	0.19
Total, states shown	\$262.87	\$225.78	\$147.93	\$41.27

Source: CoreLogic, a data and analytics company.

THE TEN MOST WILDFIRE-PRONE STATES, 2013

By households			By percent			By insured wildfire loss		
Rank	State	Households at high or extreme risk from wildfires (1)	Rank	State	Percent of households at high or extreme risk from wildfires	Rank	State	Largest insured wildfire loss (year)
1	California	1,989,100	1	Idaho	24.1%	1	California	\$1.7 billion (1991)
2	Texas	1,299,800	2	Colorado	16.9	2	Colorado	\$450 million (2012)
3	Colorado	373,600	3	California	14.5	3	Texas	\$530 million (2011)
4	Washington	163,400	4	New Mexico	13.6	4	New Mexico	\$140 million (2000)
5	Idaho	160,800	5	Texas	13.0	5	Arizona	\$120 million (2002)
6	Oregon	159,800	6	Utah	12.8	6	Idaho	NA
7	Arizona	159,100	7	Oregon	9.5	7	Nevada	NA
8	Utah	125,500	8	Washington	5.7	8	Oregon	NA
9	New Mexico	122,600	9	Arizona	5.6	9	Utah	NA
10	Nevada	59,100	10	Nevada	5.1	10	Washington	NA

(1) Number of households is based on data from the 2010 U.S. Census.

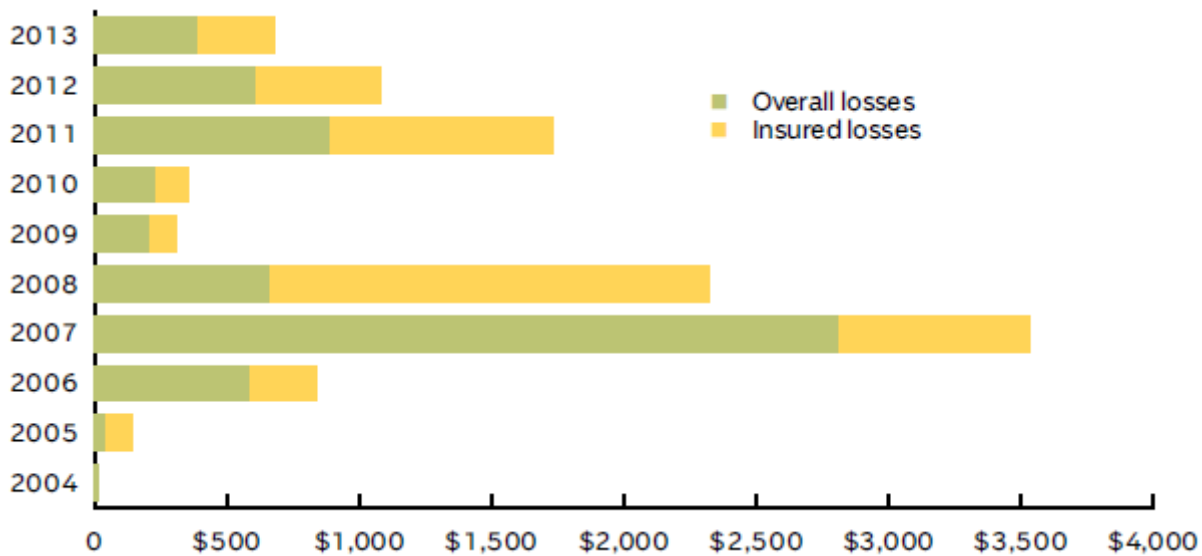
NA=Data not available.

Source: Verisk Insurance Solutions ? Underwriting and Verisk Climate units of Verisk Analytics®.

WILDFIRE LOSSES IN THE UNITED STATES, 2004-2013 (1)

(2013 \$ millions)

160.gif ^[8]



(1) Adjusted for inflation.

Source: © 2014 Munich Re, Geo Risks Research, NatCatSERVICE.

NATURAL CATASTROPHE LOSSES IN THE UNITED STATES, 2014 (1)

(\$ millions)

Event	Number of events	Fatalities	Estimated overall losses	Estimated insured losses
Severe thunderstorm	62	98	\$17,000	
Winter storm	13	115	3,700	
Flood	20	5	1,800	
Earthquake and geophysical	11	45	750	
Tropical cyclone	2	1	95	
Wildfire, heat and drought	11	2	1,700	
Total	119	266	\$25,000	

(1) As of December 31, 2014.

(2) Based on property losses including, if applicable, agricultural, offshore, marine, aviation and National Flood Insurance Program losses and may differ from data shown elsewhere.

Source: © 2015 Munich Re, NatCatSERVICE. As of January 2015.

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TOP TEN STATES FOR WILDFIRES RANKED BY NUMBER OF FIRES AND BY NUMBER OF ACRES BURNED, 2013

Rank	State	Number of fires	Rank	State	Number of acres burned
1	California	9,907	1	Alaska	1,316,876
2	North Carolina	3,514	2	Idaho	722,204
3	Georgia	2,942	3	California	577,675
4	Oregon	2,848	4	Oregon	350,786
5	Arizona	1,756	5	New Mexico	221,951
6	Montana	1,723	6	Colorado	195,145
7	Washington	1,527	7	Nevada	162,907
8	Idaho	1,471	8	Washington	152,603
9	South Carolina	1,337	9	Montana	124,209
10	Alabama	1,284	10	Arizona	105,281

Source: National Interagency Fire Center.

[View Archived Tables](#) ^[10]

THE TEN MOST COSTLY WILDLAND FIRES IN THE UNITED STATES (1)

(\$ millions)

Rank	Date	Location	Estimated insured loss Dollars when occurred
1	Oct. 20-21, 1991	Oakland Fire, CA	\$1,700
2	Oct. 21-24, 2007	Witch Fire, CA	1,300
3	Oct. 25-Nov. 4, 2003	Cedar Fire, CA	1,060
4	Oct. 25-Nov. 3, 2003	Old Fire, CA	975
5	Nov. 2-3, 1993	Los Angeles County Fire, CA	375
6	Sep. 4-9, 2011	Bastrop County Complex Fire, TX	530
7	Oct. 27-28, 1993	Orange County Fire, CA	350
8	Jun. 24-28, 2012	Waldo Canyon Fire, CO	450
9	Jun. 27-Jul. 2, 1990	Santa Barbara Fire, CA	265
10	Jun. 11-16, 2013	Black Forest Fire, CO	385

(1) Property coverage only for catastrophic fires. Effective January 1, 1997, ISO's Property Claim Services (PCS) unit defines catastrophes as events that cause more than \$25 million in insured property damage and that affect a significant number of insureds and insurers. From 1982 to 1996, PCS used a \$5 million threshold in defining catastrophes. Before 1982, PCS used a \$1 million threshold.

(2) Adjusted for inflation through 2013 by ISO using the GDP implicit price deflator.

Source: The Property Claim Services® (PCS®) unit of ISO®, a Verisk Analytics® company.

[View Archived Tables](#) [11]

Resources

Verisk Insurance Solutions ? Underwriting and Verisk Climate, units of Verisk Analytics. [FireLine State Risk Report](#) [12], November, 2013.

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Source URL: <http://www.iii.org/issue-update/wildfires>

Links:

[1] <http://www.cfpnet.com/>

[2] <http://www.corelogic.com/about-us/researchtrends/wildfire-hazard-risk-report.aspx#.UI06oH-ctEE>

[3] <http://headwaterseconomics.org/wphw/wp-content/uploads/fire-costs-background-report.pdf>

[4] <http://seas.harvard.edu/>

[5] <http://www.nifc.gov/>

[6] <http://inciweb.nwcg.gov/incident/4078/>

[7] <http://inciweb.nwcg.gov/incident/3967/>

[8] <http://www.iii.org/file/160gif-1>

[9] <http://www.iii.org/table-archive/21420>

[10] <http://www.iii.org/table-archive/23870>

[11] <http://www.iii.org/table-archive/21424>

[12] <http://www.verisk.com/underwriting/property/fireline-state-risk-report.html?source=iii>