



Report:

Fire Loss in the United States During 2016
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Errata No.: FLX10-September 2017_01

Reference:

Abstract, second sentence: changed \$10.6 billion in direct property loss to \$13.6 billion in direct property loss

Fact sheet: Changed dollar loss.

Overall: \$10.6 billion to \$13.6 billion
Structure fires: \$7.9 billion to \$10.4 billion
Highway vehicle: \$933 million to \$1.3 billion
Other vehicle fires: \$423 million to \$481 million

Page iiv, under property damage, bullets one, two and four

- An estimated ~~\$13.6~~~~10.6~~ billion in property damage occurred as a result of fire in 2016, a decrease of ~~25.74.9~~ percent from the previous year.
- Of this, ~~\$10.47.9~~ billion in property damage occurred in structure fires, including ~~\$7.25.7~~ billion in property loss in home fires.
- A further \$911 million in property damage occurred in one major Tennessee wildfire. The losses in these wildfires includes homes, outbuildings, commercial properties, and other structures.
- Highway vehicle fires resulted in ~~\$1.3933~~ billion in property loss last year.

Page v, under intentionally set fires, bullets three and four

- At the same time, intentionally set structure fires resulted in ~~\$473.572~~ million in property loss, an increase of ~~24.32.8~~ percent from 2015.
- There were 9,500 intentionally set vehicle fires, a decrease of 5 percent from the previous year. These fires resulted in ~~\$6840~~ million in property damage, a decrease of ~~8.145.9~~ percent from year before.

Page 5, third paragraph, last sentence: changed property loss (3.9 percent) to property loss (3 percent)

Page 5, fourth paragraph, fourth sentence: changed \$36,000,000 to \$689,000,000

Page 5, fourth paragraph, fifth sentence: changed 27.5 percent to 8.5 percent

Table 3
Estimates of 2016 Fires, Civilian Deaths, Civilian Injuries and
Property Loss in the United States

	Estimate	Range ¹	Percent Change From 2015
Number of Fires	1,342,000	1,328,500 to 1,355,500	-0.3
Number of Civilian Deaths	3,390	3,215 to 3,565	+3.4
Number of Civilian Injuries	14,650	13,950 to 15,350	-6.7
Property Loss ²	\$ 130,601 28,000,000	\$ 130,403 19,000,000 to 130,799 837,000,000	-4.9 26.7**

Table 4
Estimates of 2016 Fires and Property Loss, by Property Use

Type of Fire	Number of Fires		Property Loss ¹	
	Estimate	Percent Change from 2015	Estimate	Percent Change from 2015
Gatlinburg, Tennessee Wildfires 2016²			\$911,000,000	
Fires in Structures	475,500	-5.2**	\$107,400 98,000,000	+1.2- 23.2**
Fires in Highway Vehicles	173,000	-0.6	\$1,298 933,000,000	+4.9- 24.6**
Fires in Other Vehicles ³	31,000	+1.6	\$48 123,000,000	16.9 26.9* *
Fire Outside but no vehicle (outside-storage, crops, timber, etc.)	88,000	+15.8**	\$333 1,264,000,000	39.8 +120. 5**
Fires in Brush, Grass, Wildland (excluding crops and timber) with no value or loss involved	298,500	+0.5		
Fires in Rubbish, Including dumpsters (outside of structures), with no value or loss involved	172,000	+5.5		
All Other Fires	104,000	+0.5	\$158 30,000,000	+56.4 **2 8.7
Total	1,342,000	-0.3	\$130,601 28,000,000	4.9 25.7**

Table 5
Estimates of 2016 Structure Fires and Property Loss, by Property Use

Property Use	Structure Fires		Property Loss ¹	
	Estimate	Percent Change from 2015	Estimate	Percent Change from 2015
Public Assembly	14,000	-17.7**	\$3 6008 0,000,000	-4.6+11.5
Educational	4,000	-20.0**	\$4 134 0,000,000	-15.0+2.5
Institutional	5,500	-15.4**	\$6 837 0,000,000	-27.5+33.3
Residential (Total)	371,500	-4.3	\$5,8047.421,000,000	-19.5+2.9**
One- and Two-Family Homes ²	257,000	-5.0*	\$4,9436.142,000,000	-14.8+5.9**
Apartments	95,000	0.0	\$7111.089,000,000	-38.86.2**
Other Residential ³	19,500	-13.3	\$1950,000,000	-2440.0**
Stores and Offices	16,000	-3.0	\$436689,000,000	-31.3**+8.5
Industry, Utility, Defense ⁴	8,500	-5.6	\$419542,000,000	-54.741.3**
Storage in Structures	27,000	-11.5*	\$665962,000,000	-35.6**6.8
Special Structures	29,000	0.0	\$195317,000,000	+200.0387.7**
Total	475,500	-5.2**	\$7,89810.400,000,000	-23.2**+1.2

Property Loss

NFPA estimates that the 1,342,000 fires to which the fire service responded in 2016 caused \$~~10.6~~13.6 billion in property damage, ~~25.7~~9 percent less than 2015. It is worth noting that a major wildfire in Gatlinburg Tennessee caused \$911 million in direct property damage. The direct property loss from this wildfire was unprecedented for the eastern United States, and something local authorities need to be paying attention to into the future.

Fires in structures not related to wildfires resulted in \$~~7.9~~10.4 billion in property damage, ~~an increase~~decrease of ~~23.2~~1.2 percent from 2015. Each structure fire resulted in an average property loss of \$~~16,609~~21,872, ~~a decrease of 19.0 percent from the previous year.~~

From 1977 to 2016, excluding the events of September 11, 2001, the average loss per structure fire was \$3,757 in 1977 and \$~~16,610~~21,872 in 2016, for an overall increase of ~~342~~

~~482~~ percent. When property loss is adjusted for inflation in 2016 dollars, however, the increase in the average structure fire loss between 1977 and 2016 is ~~42.1~~48 percent.

Of the 2016 property loss in structures, \$~~5.7~~7.2 billion occurred in home structures, a ~~decrease~~increase of ~~18.8~~3.9 percent from 2015. An estimated \$~~6.1~~4.9 billion of this loss occurred in one- and two-family homes, a ~~decrease~~increase of ~~14.8~~5.9 percent. An estimated loss of \$~~711~~1.1 billion occurred in apartments or other multi-family housing like condominiums. ~~While apartment property loss decreased significantly, by 38.8 percent, from the previous year, the number of fires in apartments remained unchanged from 2015.~~

Other property damage results for 2016 include \$~~436~~689 million in store and office properties, ~~an decrease~~increase of ~~31.3~~8.5 percent; \$~~419~~542 million in industrial and manufacturing properties, a ~~54.7~~41.3 percent decrease; \$~~933~~million1.3 billion in highway vehicles, a ~~24.6~~4.9 percent ~~de~~increase; and \$~~423~~481 million in other vehicles, a ~~21~~6.9 percent decrease. There was a ~~200~~388 percent increase in other structure properties, to \$~~195~~317 million, partly due to three major fires in Gilbert (two) and Phoenix, Arizona. The Phoenix and one of the Gilbert properties were construction sites that were structures other than buildings under construction and the other Gilbert fire was a building structure under construction.

Page 20, Figure 5, changed 2016 totals: unadjusted to 21,871 and adjusted to 5,545.

Page 21, first and second paragraphs

Intentionally Set Fires

NFPA estimates 20,000 structure fires were intentionally set in 2016, a decrease of 13.0 percent from the year before. These fires resulted in an estimated 310 civilian deaths, an increase of 51.2 percent from the previous year. At the same time, though, these fires resulted in \$~~473~~572 million in property loss, an increase of ~~2.8~~24.3 percent compared to 2015.

In 2016, there were also an estimated 9,500 intentionally set vehicle fires, 5 percent fewer than the year before. These fires set resulted in \$~~40~~68 million in property loss, a decrease of ~~45.9~~98.1 percent from 2015.

Table 7
Estimate of 2016 Losses in Intentionally Set Structure Fires

Intentionally ¹ Set Structure Fires	Estimate	Percent change from 2015
Number of Structure Fires	20,000	-13.0
Civilian Deaths	310	+51.2
Property Loss ¹	\$473,572,000,000	+24.32.8

Table 14
Average 2016 Residential Fire Experience, by Size of Community

Population of Community	Number of Fires	Civilian Deaths	Civilian Injuries	Property Loss
1,000,000 or more	2,508	12.157.31	129.5084.25	\$50,649,75031,893,660
500,000 to 999,999	643	4.483.74	20.7516.03	21,123,60412,198,115
250,000 to 499,999	291	2.241.79	17.8014.28	10,108,0525,433,623
100,000 to 249,999	144	1.611.02	7.545.91	5,547,7662,513,444
50,000 to 99,999	61	0.437	3.142.55	1,721,9461,795,632
25,000 to 49,999	32	0.27.31	1.701.37	590,4431,019,332
10,000 to 24,999	19	0.2172	0.9268	870,655663,712
5,000 to 9,999	10	0.104	0.219	404,617234,458
2,500 to 4,999	5	0.057	0.0920	307,436125,251
under 2,500	2	0.02	0.032	141,71563,479

Source: NFPA's Survey of Fire Departments for 2016 U.S. Fire Experience.

~~When looking at property loss adjusted for inflation (See Figure 5), the average loss per structure has remained relatively unchanged since 1977 at around \$5,000 per structure fire in 1977 dollars~~

Page 39, dollar loss for 2016 for both “as reported” and “in 2016 dollars”: changed from \$10.6 to \$13.6

Page 41, dollar loss for 2016 for both “as reported” and “in 2016 dollars”: changed from \$7.8 to \$10.4

Page 43, dollar loss for 2016 for both “as reported” and “in 2016 dollars”: changed from \$5.6 to 7.2

Page 45, dollar loss for 2016 for both “as reported” and “in 2016 dollars”: changed from \$4.9 to \$6.1

Page 47, dollar loss for 216 for both “as reported” and “inn 2016 dollars”: changed from \$0.9 to \$1.3

2016 U.S. Fire Rates, by Unit of Time



Property Class	Fire per Hour	Civilian Deaths per Day	Civilian Injuries per Day	Direct Dollar Damage per Hour
All Residential	42.3	7.7	30.5	\$ 663 845,000
Homes ¹	40.2	7.5	29.5	\$ 795 823,000
One- and -two family dwellings	29.3	6.6	20.2	\$ 662 699,000
Apartments	10.8	0.9	9.2	\$ 84 124,000
Other residential	2.2	0.2	1.0	\$ 172 ,000
Public Assembly	1.6			\$ 354 1,000
Educational	0.5			\$ 54 ,000
Institutional	0.6			\$ 84 ,000
Stores and Offices	1.8			\$ 785 9,000
Industry, Utilities, and Defense	1.0			\$ 486 2,000
Storage	3.1			\$ 761 10,000
Special Structures	3.3			\$ 223 6,000
All Non-Residential	11.9	0.4	4.5	\$ 333 9,000
All Structures	54.3	8.1	35.0	\$ 9021 184,000
Vehicles	23.3	1.0	3.4	\$ 155 203,000
Outside and other (not Structure or Vehicle)	75.6	0.2	1.8	\$ 162 57,000
All Fires	153.2	9.3	40.1	\$ 1,219 548,000
	(or 2.6 per minute, or one every 23.5 seconds)	(or one every 155 minutes)	(or every 35.9 minutes)	(or \$ 250,217 800 per minute, or \$ 337 430 per second)

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