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Fire Loss in the United States During 2014

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Abstract
U.S. fire departments responded to an estimated 1,298,000 fires in 2014. These fires resulted in 3,275 civilian fire fatalities, 15,775 civilian fire injuries and an estimated $11.6 billion in direct property loss. There was a civilian fire death every 2 hours and 41 minutes and a civilian fire injury every 33 minutes in 2014. Home fires caused 2,745, or 84%, of the civilian fire deaths. Fires accounted for four percent of the 31,644,500 total calls. Eight percent of the calls were false alarms; 64 percent of the calls were for aid such as EMS.

Keywords: fire fatalities, fire injuries, fire losses, fire statistics, intentional fires, region fire department calls, intentional fires.

Acknowledgements
NFPA is grateful to the many fire departments that responded to the *2014 National Fire Experience Survey* for their continuing efforts to provide the data necessary to make national projections. The author would also like to thank the members of NFPA staff who worked on this year's survey, including Frank Deely, Justin Cronin, and Al Scott for editing the survey forms and making follow-up calls to fire departments, and Norma Candeloro, Helen Columbo, and Emily Daly for processing the survey forms. The author would also like to acknowledge the kind help that Mike Karter, the author's predecessor, provided in reviewing this year's fire loss estimates. In addition, the author would like to recognize the contributions over the past several years of John "Jack" Conlon, who passed away during the earliest stages of this year's project. He will be missed.

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Number of Fires

- Public fire departments responded to 1,298,000 fires in 2014, a 4.7 percent increase from the previous year.
- Of these, 494,000 fires occurred in structures, a slight increase of 1.3 percent.
- Of the structure fires that occurred in 2014, 367,500, or 74 percent occurred in home structures, which include one- and two-family homes, manufactured homes, and apartments. This was a slight decrease of 0.5 percent.
- There were also 167,500 fires in highway-type vehicles, an increase of 2.1 percent from the previous year.
- The 610,500 fires that occurred in outside and other properties represented a significant increase of 8.1 percent.
- Every 24 seconds, a U.S. fire department responds to a fire somewhere in the nation. A fire occurs in a structure at the rate of one every 64 seconds, and a home fire occurs every 86 seconds. Fires occur in highway vehicles at the rate of one every 3 minutes 8 seconds, and there is a fire in an outside and other property every 52 seconds.

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Civilian Fire Deaths

- In 2014, 3,275 civilians died in fires, an increase of 1.1 percent from the previous year.
- Of these, 2,745, or 84.0 percent of all fire deaths, occurred in the home, a decrease of 10 deaths from 2013.
- Another 310 civilians died in highway vehicle fires, which represents 9.5 percent of all fire deaths.
- Nationwide, a civilian died in a fire every 2 hours and 41minutes, and a civilian died in a home fire every 3 hours and 12 minutes.

Civilian Fire Injuries

- In 2014, 15,775 civilians were injured in fires, a decrease of 0.9 percent from the previous year. Many civilian injuries are not reported to the fire service, and the estimate for civilian injuries may be low.

- Of these, 13,425 civilian injuries, or 85 percent of all civilian injuries, occurred in structure fires.

- Home fires were responsible for 11,825 civilian injuries or 75 percent of all civilian injuries in 2014.

- Another 1,275 civilian injuries, or 8 percent of all civilian injuries, occurred in highway vehicle fires.

- Nationwide, there was a civilian fire injury every 33 minutes, and a civilian fire injury in home fires every 44 minutes.

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Property Damage

- An estimated $11.6 billion in property damage occurred as a result of fire in 2014, an increase of 0.7 percent from the previous year.

- Of this total, $9.8 billion in property damage occurred in structure fires, including $6.8 billion in property loss in home fires.

- Highway vehicle fires resulted in $1.1 billion in property loss last year.

Intentionally Set Fires

- An estimated 19,000 fires were intentionally set in 2014 (excluding fires whose causes were unknown), a decrease of 15.6 percent from the year before.

- Intentionally set fires in structures also resulted in 157 civilian deaths, an increase of 4.7 percent from the previous year.

- In addition, intentionally set structure fires resulted in $613 million in property loss, an increase of 6.2 percent from 2013.

- There were 8,000 intentionally set vehicle fires, a decrease of 23.8 percent from the previous year. These fires resulted in $116 million of property damage, an increase of 34.9 percent from year before.

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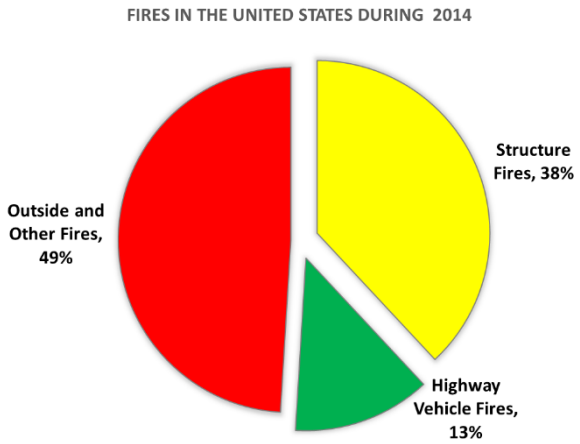
Fires in the United States During 2014 Fact Sheet

1,298,000 fires were reported in the U.S. during 2014.

- An increase of 4.7% from the year before
- **3,275** civilian fire deaths
- One civilian death occurred every two hours and 41 minutes
- **15,775** civilian fire injuries
- One civilian injury occurred every 33 minutes
- **$11.6 billion** in property damage
- A fire department responded to a fire every 24 seconds



494,000 structure fires occurred in the U.S. during 2014.

- A slight increase of 1.3% from 2013
- **3,275** civilian fire deaths
- **15,775** civilian fire injuries
- **$9.8 billion** in property damage
- One structure fire was reported every 64 seconds

167,500 highway vehicle fires occurred in the U.S. during 2014.

- An increase of 2.1% from 2013
- **310** civilian fire deaths
- **1,275** civilian fire injuries
- **$1.1 billion** in property damage
- One highway vehicle fire was reported every 188 seconds

610,500 outside and other fires occurred in the U.S. during 2014.

- A significant increase of 8.1% from 2013
- **70** civilian fire deaths
- **900** civilian fire injuries
- **$237 million** in property damage
- One outside fire was reported every 52 seconds

Background and Objective

Since 1977, the NFPA has surveyed public fire departments to quantify the annual fire experience for the United States (U.S.). This sample survey of U.S. fire departments enables NFPA to make national fire problem estimates as measured by the number of fires that local fire departments attend, and the resulting deaths, injuries and property losses that occur at these incidents.

This report is summarizes key findings based on the NFPA survey of fire departments for the U.S. fire experience during 2014 and provide fire loss trends from 1977 to 2014.

Methods

Sample Selection

The NFPA currently has 29,352 public fire departments listed in the US in its Fire Service Inventory (FSI) file. Based on desired levels of statistical precision for the survey results and the staff available to process, edit, and follow up on the individual questionnaires, the NFPA set a target of 3,000 fire department survey responses for the 2014 sample.

Because of the variation in fire loss results by community size, fire departments were placed in one of the following 10 strata by size of community protected – Table 1.

Table 1:

Fire Department Stratum by Size of Community Protected.

Stratum	Population Size of CommunityProtected
1	1,000,000 and up
2	500,000 to 999,999
3	250,000 to 499,999
4	100,000 to 249,999
5	50,000 to 99,999
6	25,000 to 49,999
7	10,000 to 24,999
8	5,000 to 9,999
9	2,500 to 4,999
10	2.500 and under

Sample sizes for the individual strata were chosen to ensure the best estimate of civilian deaths in one-and two-family dwellings, the statistic that most aptly reflects the overall severity of the fire problem. All departments that protect more than 2,500 people or more were included. These 13,412 departments in the nine highest strata protect a population of 289,207,946 or 91% of the U.S. population as of July, 2014.

The rest of the sample included 7,687 randomly selected departments from stratum 10 (less than 2,500 population protected), for a total sample size of 21,399 or 71% of all known departments to the NFPA in the United States.

Data Collection

The surveys were sentduring the 2nd week of January 2014. A second mailing was sent in mid-March to fire departments that had not responded to the first mailing. A total of 2,972 departments responded to the questionnaire - 1,352 to the first mailing and 1620 to the second. Nine hundred and thirty five or 31% responded by using the online version of the survey form.

Table 1 shows the number of departments that responded by region and size of community. The overall response rate was 14%, although response rates were considerably higher for departments protecting larger communities than they were for departments protecting smaller communities. The overall response rate was 49% for departments protecting communities of 50,000 population or more, 24% for departments protecting communities of 10,000 to 49,999, and 9% for departments protecting communities less than 10,000 population, which are comprised of mostly volunteers. The 2,972 departments that did respond protect 120,404,356 people or 38% of the total U.S. population.

After the NFPA received the surveys, technical staff members of the Fire Analysis and Research Division reviewed them for completeness and consistency. When appropriate, they followed up on questions with a telephone call.

After the edit, procedures were completed, the survey data were keyed to a computer file, where additional checks were made. The file was then ready for data analysis and estimation procedures.

Table 2:
Number of Fire Departments Responding to 2014 NFPA Survey
by Region and Community Size

Population of Community	All Regions	Northeast	Midwest	South	West
1,000,000 or more	13	2	1	6	4
500,000 to 999,999	25	1	2	13	9
250,000 to 499,999	30	3	6	13	8
100,000 to 249,999	116	6	21	49	40
50,000 to 99,999	223	17	81	74	51
25,000 49,999	330	44	143	96	47
10,000 to 24,999	630	107	262	182	79
5,000 to 9,999	467	108	211	105	43
2,500 to 4,999	412	78	187	103	44
Under 2,500	681	101	349	139	92
Total	2,927	467	1,263	780	417

Estimation Methodology

The estimation method used for the survey was ratio estimation[1] with stratification by community size. For each fire statistic a sample loss rate was computed for each stratum. This rate consisted of the total for that particular statistic from all fire departments reporting it, divided by the total population protected by the departments reporting the statistic. Note that this means that the departments used in calculating each statistic could be different, reflecting differences in unreported statistics. The sample fire loss rates by stratum were then multiplied by population weighing factors to determine the estimates and then are combined to provide the overall national estimate.

If this method of estimation is to be effective, estimates of the total number of fire departments and the total population protected in each stratum must be accurate. The NFPA makes every effort to ensure that this is the case. The population weights used for the national estimates were developed using the NFPA FSI (Fire Service Inventory) File and U.S. Census population figures.

For each estimate, a corresponding standard error was also calculated. The standard error is a measure of the error caused by the fact that estimates are based on a sampling of fire losses rather than on a complete census of the fire problem. Due to the fact that the survey is based on a random sample of the smaller departments, we can be very confident that the actual value falls within the percentage noted in parentheses for the overall national fire loss statistics: number of fires (1.8%), number of civilian deaths (9.8%), number of civilian injuries (7.0%), and property loss (3.2%).

The standard error helps in determining whether year-to-year differences are statistically significant. Differences that were found to be statistically significant were so noted in tables. Property loss estimates are particularly prone to large standard errors because they are sensitive to unusually high losses, and, as a result, large percentage differences from year to year may not always be statistically significant. In 2014, for instance, property damage in stores and offices was estimated to be $708,000,000. This represented an increase of 15.9% from the year before, but was found not to be statistically significant.

In addition to sampling errors, there are non-sampling errors. These include biases of the survey methodology, incomplete or inaccurate reporting of data to the NFPA and differences in data collection methods by the fire departments responding. As an example of a non-sampling error, most of the fires included in the survey took place in highly populated residential areas, because the fire departments selected for the surveys are primarily public fire departments that protect sizable residential populations. Fires that occur in sparsely populated areas protected primarily by State and Federal Departments of Forestry are not likely to be included in the survey results.

The NFPA Fire Incident Data Organization (FIDO) data base was also used in conjunction with the annual survey to help identify any large loss fires or deaths that the survey might have missed.

The editors of survey data attempted to verify all reported civilian deaths in vehicle fires. They contacted most of the fire departments that reported fire-related deaths in vehicles and found that many of the deaths were indeed the results of fire. In some instances, however, impact was found to have been the cause of death. This effort can have a considerable impact on the estimates.

The results presented in this report are based on fire incidents attended by public fire departments. No adjustments were made for unreported fires and losses (e.g., fires extinguished by the occupant). Also, no adjustments were made for fires attended solely by private fire brigades (e.g., industry and military installations), or for fires extinguished by fixed suppression systems with no fire department response.

Number of Fires

Based upon the data we received in response to our 2014 National Fire Experience Survey, we estimate that public fire departments in the United States responded to 1,298,000 fires last year. While this represents a 4.7 percent increase from 2013, it is the second lowest estimate since 1977–78, when NFPA started using our current survey methodology (see Table 3).

Of these fires, an estimated 494,000 were structure fires, an increase of 1.3 percent from the year before (see Table 4). From 1977 to 2014, the number of structure fires peaked in 1977 at 1,098,000, then decreased steadily through the 1980s. By 1989, the number of structure fires had decreased 37.3 percent to 688,000 fires. In the subsequent decade, structure fires again decreased steadily by 24.7 percent to 517,500 by the end of 1998. The number of structure fires then remained between 505,000 to 530,500 over the next 10 years, before decreasing to 480,500 in 2009. Since then, structure fire levels have ranged between 480,000 and 495,000.

We categorize structure fires as residential and nonresidential. Residential structural fires occur in one- and two-family homes (including manufactured homes, apartments, hotels and motels), as well as all other residential structures such as dormitories, boarding houses, and tents. Nonresidential structure fires occur in places of public assembly, schools and colleges, health care and penal institutions, stores and offices, industrial facilities, storage facilities and other structures such as outbuildings and bridges.

In 2014, there were 386,500 residential structure fires, accounting for 78.2 percent of all structure fires. This was a decrease of 500 fires from the year before. Of these fires, 273,500 occurred in one- and two-family homes, including manufactured homes, accounting for 55.4 percent of all structure fires. Another 94,000 fires occurred in apartments, accounting for 19.0 percent of all structure fires. There were also 107,500 nonresidential structure fires in 2014, an increase of 6.5 percent from the year before.

From 1977 to 2014, the number of fires that occurred outside peaked in 1977 at 1,658,500 (see Figure 1). The number of such fires then decreased steadily to 1,011,000 in 1983, a decrease of 39 percent. Outside fires remained relatively flat through the1980s, except for 1988 when 1,214,000 were reported. By 1993, the number of outside fires dropped to 910,500, and stayed near the 1 million level for the next three years. From 1997 to 2002, the number dropped again and stayed between 839,000 to 861,500, except for 1999, when it rose to 931,500 fire reported. In 2005 and 2006, such fires rose to 801,000 and 840,500 before declining again to 634,000 at the end of 2010. By 2013, outside fires dropped to a record low of 564,500 fires. However, the number rose in 2014 to 610,500 fires, an increase of 8.1 percent.

Of these 610,500 fires, an estimated 290,500 were brush, grass, and forest fires, a significant increase of 14.1 percent from 2013. There were also an estimated 65,000 fires outside of structures that involved value, a decrease of 3.0 percent.

In addition to residential, nonresidential, and outside fires, there were an estimated 167,500 highway vehicle fires in 2014, an increase of 2.1 percent from the year before, and 26,000 other vehicle fires, an increase of 8.3 percent.

The national rate of fires per thousand population is 4.5 (see Figure 2).

Table 3:
Estimates of 2014 Fires, Civilian Deaths, Civilian Injuries and Property Loss in the United States

	Estimate	Range[1]	Percent Change From 2013
Number of Fires	1,298,000	1,286,500 to 1,309,500	+4.7
Number of Civilian Deaths	3,275	3,115 to 3,435	+1.1
Number of Civilian Injuries	15,775	15,225 to 16,325	+0.9
Property Loss[2]	$11,605,000,000	$11,421,000,000 to 12,067,000,000	+1.0

The estimates are based on data reported to the NFPA by fire departments that responded to the 2014 National Fire Experience Survey.

[1] These are 95 percent confidence intervals.

[2] This includes overall direct property loss to contents, structures, vehicles, machinery, vegetation, and anything else involved in a fire. It does not include indirect losses. No adjustment was made for inflation in the year-to-year comparison.

Table 4:
Estimates of 2014 Fires and Property Loss by Property Use

Type of Fire	Number of Fires Estimate	Number of Fires Percent Change from 2013	Property Loss[1] Estimate	Property Loss[1] Percent Change from 2013
Fires in Structures	494,000	+1.3	$9,846,000,000	+3.4
Fires in Highway Vehicles	167,500	+2.1	$1,142,000,000	+7.7
Fires in Other Vehicles[2]	26,000	+8.3	$380,000,000	+14.5
Fires Outside but no Vehicle (outside-storage, Crops, Timber, etc.)	65,000	-3.0	$141,000,000	-72.9**
Fires in Brush, Grass Wildland (excluding crops and timber) with no value or loss involved	290,500	+14.1**	—	—
Fires in Rubbish Including dumpsters (outside of structures), with no value or loss involved	157,500	-0.3	—	—
All Other Fires	97,500	+14.7	$96,000,000	+10.3
Total	1,298,000	+4.7	$11,605,000,000	+0.7

The estimates are based on data reported to the NFPA by fire departments that responded to the 2014 National Fire Experience Survey.

[1] This includes overall direct property loss to contents, structure, a vehicle, machinery, vegetation or anything else involved in a fire. It does not include indirect losses, e.g., business interruption or temporary shelter costs. No adjustment was made for inflation in the year-to-year comparison.

[2] This includes trains, boats, ships. aircraft, farm vehicles and construction vehicles.

*Change was statistically significant at the .05 level.

**Change was statistically significant at the .01 level.

Table 5:
Estimates of 2014 Structure Fires and Property Loss by Property Use

Property Use	Structure Fires Estimate	Structure Fires Percent Change from 2013	Property Loss[1] Estimate	Property Loss[1] Percent Change from 2013
Public Assembly	14,000	+12.0	$429,000,000	+16.3*
Educational	5,000	-9.1	$59,000,000	-10.6
Institutional	6,500	+8.3	$40,000,000	-4.8
Residential (Total)	386,500	+0.1	$6,992,000,000	+0.3
One- and Two-Family Homes[2]	273,500	+0.7	$5,844,000,000	+3.9
Apartments	94,000	-4.1	$982,000,000	-15.8*
Other Residential[3]	19,000	+8.6	$166,000,000	-6.2
Stores and Offices	17,500	-2.8	$708,000,000	+15.9
Industry, Utility, Defense[4]	10,000	+17.6	$626,000,000	-1.7
Storage in Structures	27,500	5.8	$781,000,000	+12.9
Special Structures	27,000	+12.3	$211,000,000	+50.7**
Total	494,000	+1.3	$9,846,000,000	+3.4

The estimates are based on data reported to the NFPA by fire departments that responded to the 2014 National Fire Experience Survey.

[1] This includes overall direct property loss to contents, structure, a vehicle, machinery, vegetation or anything else involved in a fire. It does not include indirect losses, e.g., business interruption or temporary shelter costs. No adjustment was made for inflation in the year-to-year comparison.

[2] This includes manufactured homes.

[3] Includes hotels and motels, college dormitories, boarding houses, etc.

[4] Incidents handled only by private fire brigades or fixed suppression systems are not included in the figures shown here.

*Change was statistically significant to the 0.05 level

**Change was statistically significant at the .01 level.

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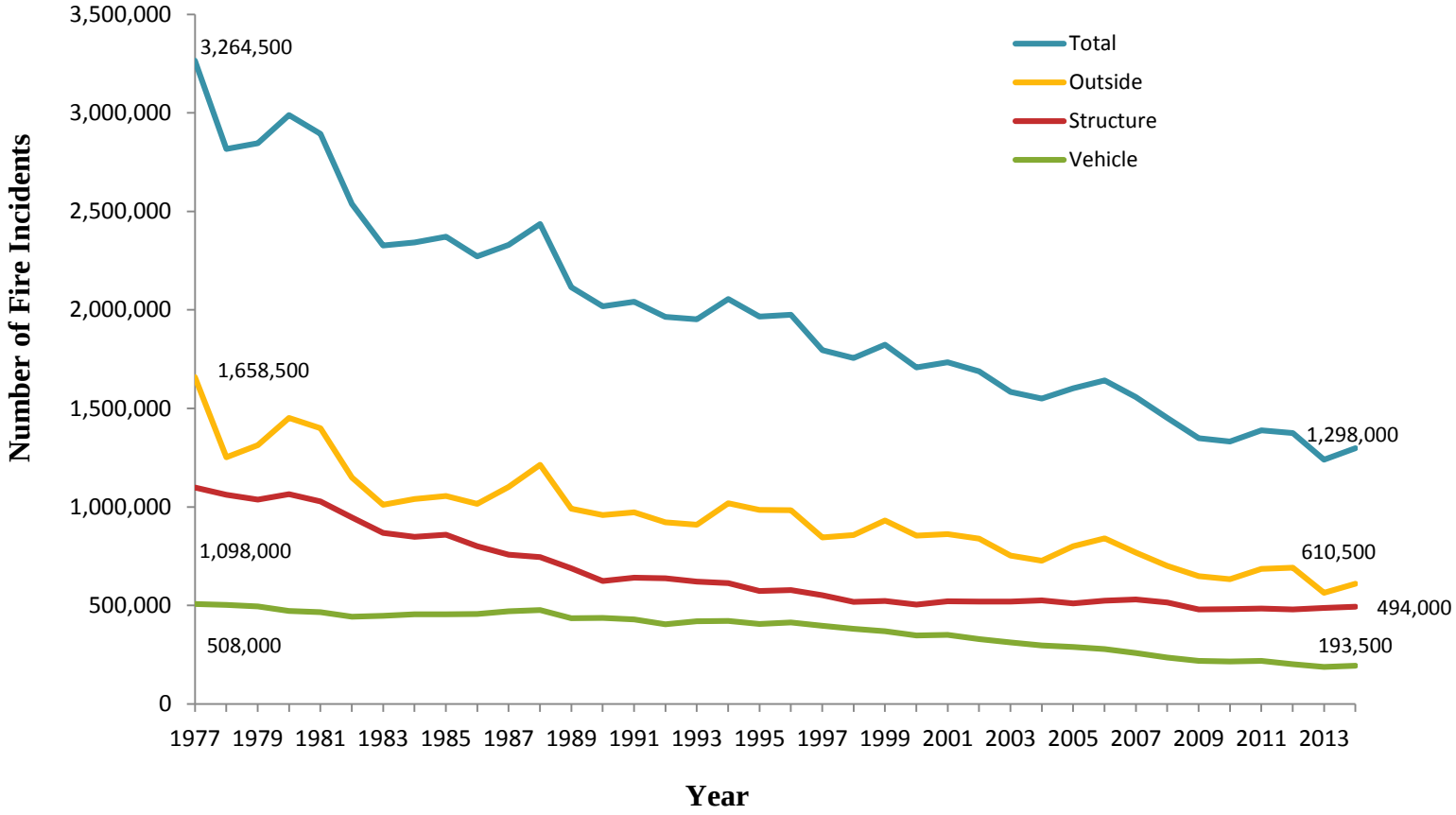

Figure 1. Fire Incidents by Type in the United States by Year (1977-2014)

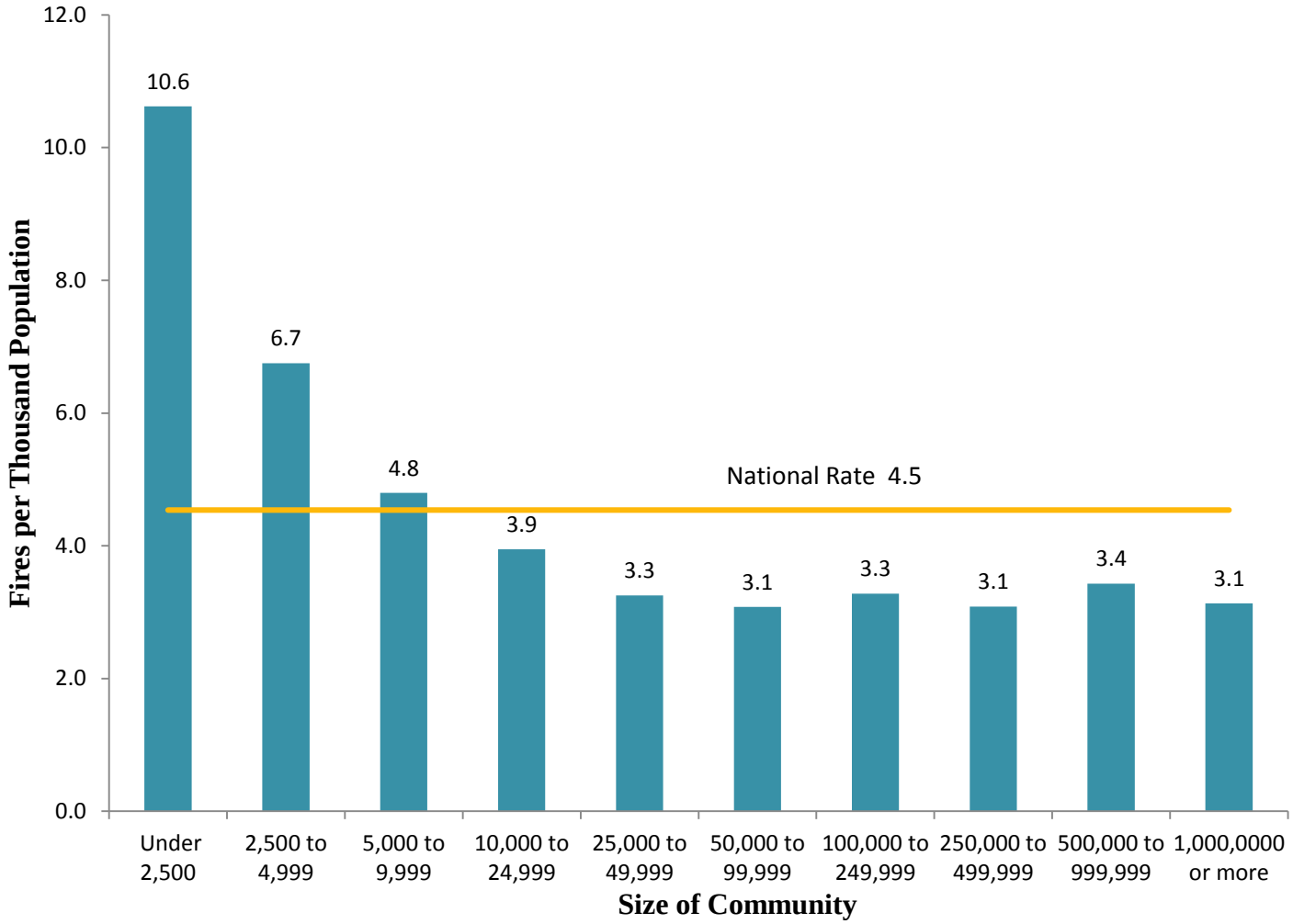

Figure 2. Fires per Thousand Population by Size of Community (2010-2014)

Civilian Fire Deaths

The 1,298,000 fires reported by fire departments in 2014 resulted in an estimated 3,275 civilian deaths, 1.1 percent more than occurred in 2013 and the highest the total since 2008, when 3,320 civilians died in fires. We can better understand the nature of this increase by examining by types of properties in which the deaths occurred.

In the category of home structure fires (one- and two-family homes, including manufactured homes, and apartments), the number of civilian deaths decreased in 2014 by 0.4 percent to 2,745. Of these deaths, 400 occurred in apartment fires, a 23.1 percent increase from the record low in 2013. An additional 2,345 civilians died in one- and two- family homes, a decrease of 3.5 percent, or 85 fewer deaths than 2013. Fire death rates can vary considerably from year to year, particularly for smaller communities, which suggests the need for some caution when considering the 2014 estimates.

Home fire deaths were at their peak in 1978, when 6,015 people died in such fires. The number decreased steadily from 1979 to 1982 except for 1981, for a substantial decrease of 20 percent by the end of 1982. From 1982 to 1988, the number of home fire deaths stayed in the 4,650 to 4,950 range, except in 1984, when 4,075 people died. From 1989 to 1996, home fire deaths continued to decline, staying between 3,420 to 4,340. From 1997 onward, home fire deaths generally continued to decline, ranging from 2,380 and 3,200 deaths a year since 2001 (see Figure 3).

In one category, highway vehicle fires, the number of deaths dropped from an estimated 300 in 2013 to an estimated 310 civilians died in 2014, a 3.3 percent increase Between 1980 and 2014, the number of highway vehicle deaths has decreased 61 percent.

Overall, home fire deaths declined from 5,865 in 1977 to 2,745 in 2014, a drop of 53 percent. The number of home fires also dropped steadily over the same period for an overall decrease of 49 percent. However, the death rate per 1,000 home fires fluctuated considerably during that period, from 8.1 in 1977 to 7.5 in 2014 for a decrease of just 7.4 percent. This suggests that, even though the number of home fires and home fire deaths declined similarly during the period, the fire death risk has not changed much if a reportable fire occurs.

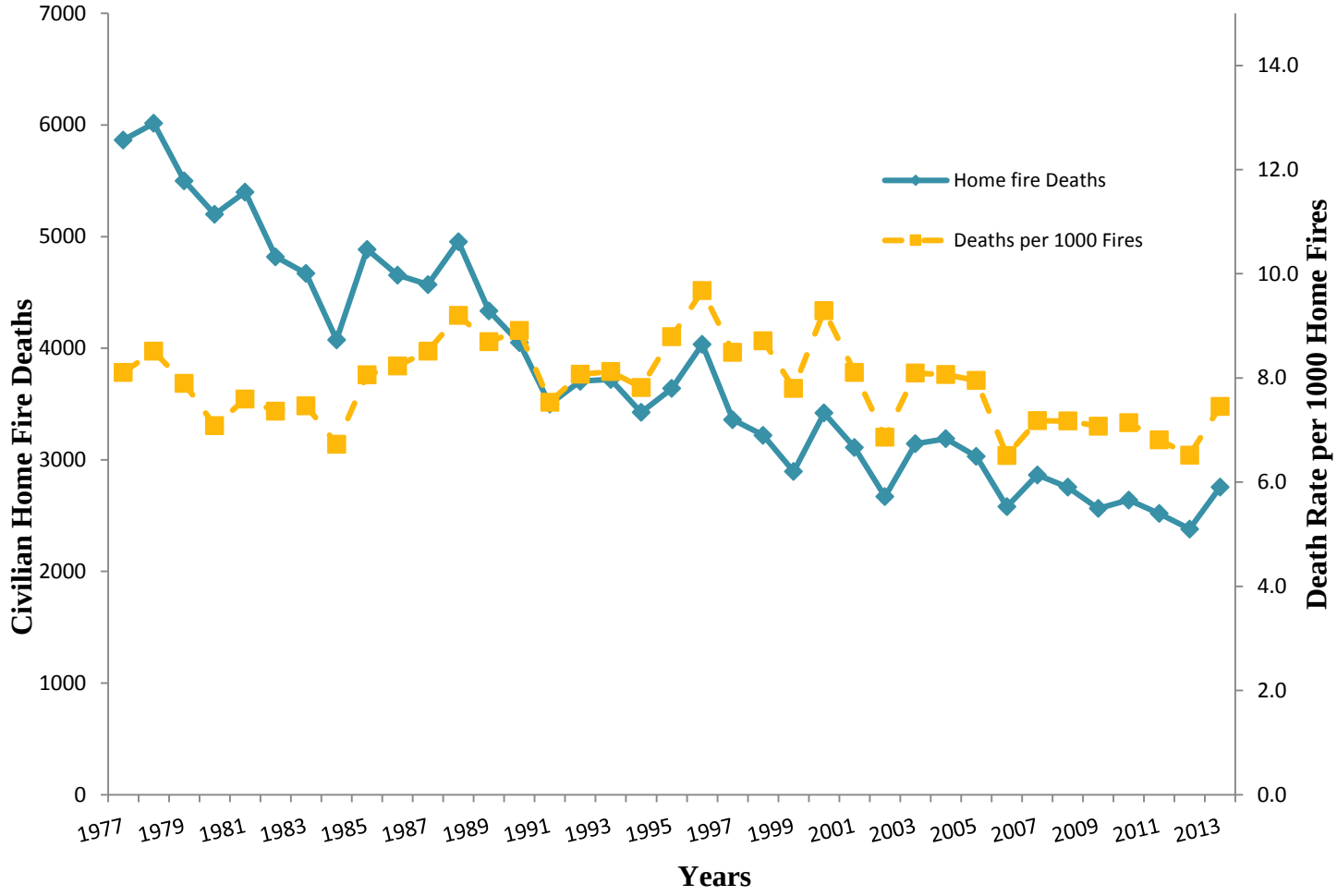

Figure 3. Civilian Home Fire Deaths and Rates per 1000 Fires, 1977-2014

In 2014, there were also 50 civilian fire deaths in other residential occupancies, such as hotels, motels, dormitories, and boarding houses, with a significant increase of 66.7 percent. In addition, 65 civilians died in nonresidential structure fires, a decrease of 7.1 percent from the year before (see Table 6).

Of the 2,860 civilians that died in residential and non-residential structure fires, 157 or 5.5 percent, died in fires that were intentionally set.

With 2,745 home fire deaths still accounting for 84 percent of all civilian fire deaths, fire-safety initiatives targeted at the home remain the key to any reductions in the overall fire death toll.

The national rate of civilian fire deaths per million population between 2010-2014 is 10.6 (see Figure 4).

There are five major strategies for reducing the death toll in home fires. First, more widespread public fire safety education is needed on how to prevent fires and how to avoid serious injury or death if a fire occurs. Information on the common causes of fatal home fires should be used in the design of fire safety education messages. Second, homeowners or property managers need to install and maintain smoke alarms and residents must develop and practice escape plans. Third, wider use of residential sprinklers must be aggressively pursued. Fourth, additional ways must be sought to make home products safer from fire. The regulations requiring more child-resistant lighters are a good example, as are fire-safe cigarettes. And finally, the special fire safety needs of high-risk groups, such as young children, older adults, the poor, and people with disabilities need to be addressed.[2,3]

Table 6:
Estimates of 2014 Civilian Fire Deaths and Injuries by Property Use

Property Use	Civilian Deaths Estimate	Civilian Deaths Percent Change From 2013	Civilian Deaths Percent of all Civilian Deaths	Civilian Injuries Estimate	Civilian Injuries Percent Change From 2013	Civilian Injuries Percent of all Civilian Injuries
Residential (total)	2,795	+0.4	85.3	12,175	-3.2	77.2
One- and Two-Family Homes[1]	2,345	-3.5	71.6	8,025	-3.3	50.9
Apartments	400	+23.1	12.2	3,800	-2.6	24.1
Other Residential[2]	50	66.7	1.5	350	-6.7	2.2
Non-Residential Structures[3]	65	-7.1	2.0	1,250	-16.7	7.9
Highway Vehicles	310	+3.3	9.5	1,275	+37.8	8.1
Other Vehicles[4]	35	+75.0	1.1	175	+40.0	1.1
All Other[5]	70	+7.7	2.1	900	+12.5	5.7
Total	3,275	+1.1		15,775	-0.9	

The estimates are based on data reported to the NFPA by fire departments that responded to the 2014 National Fire Experience Survey.

Note all of the changes were not statisically significant; considerable year-to-year fluctuation is to be expected for many of these totals because of their small size.

[1] This includes manufactured homes.

[2] Includes hotels and motels, college dormitories, boarding houses, etc.

[3] This includes public assembly, educational, institutional, store and office, industry, utility, storage, and special structure properties.

[4] This includes trains, boats, ships, farm vehicles and construction vehicles.

[5] This includes outside properties with value, as well as brush, rubbish, and other outside locations.

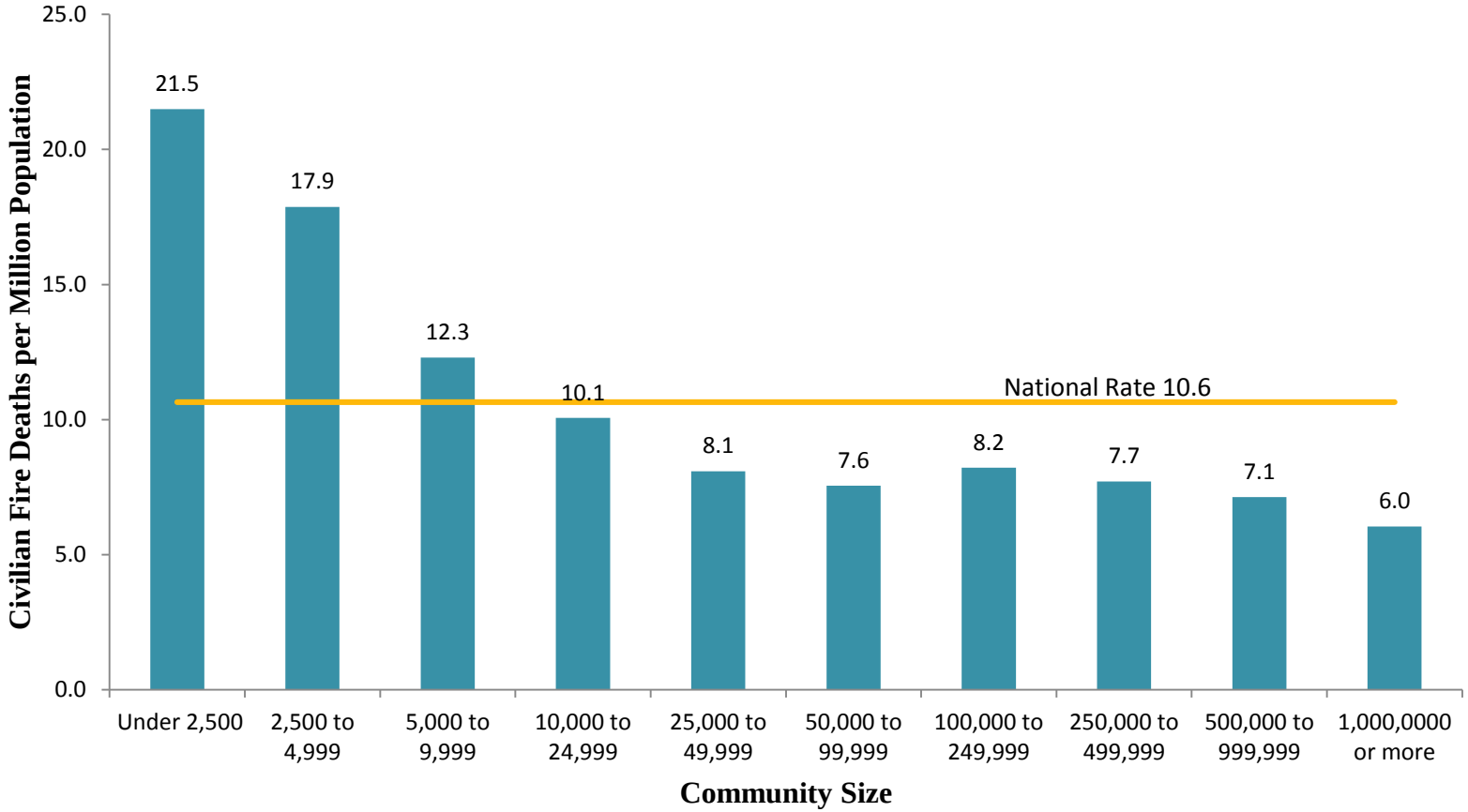

Figure 4. Civilian Fire Deaths per Million Population by Community Size (2010-2014).

Civilian Fire Injuries

In addition to the 3,275 civilians who died in fires in 2014, there were an estimated 15,775 civilian fire injuries. This is a decrease of 0.9 percent from the year before, and is the lowest the number has been since 1977–78, when we started using its current survey methodology. Since civilian fire injuries are not always reported to the fire service, estimates of civilian fire injuries may be lower than actual levels. For example, many injuries occur at small fires to which fire departments do not respond, and even when fire departments do respond, they may be unaware of injured persons they did not transport to medical facilities themselves.

Of the 15,775 civilians injured in 2014, we estimate that 13,425 civilians were injured in structure fires, and of those, 12,175 were injured in residential structure fires, a decrease of 3.2 percent from the previous year. Of these injuries, 8,025 occurred in one- and two-family homes and manufactured homes, and 3,800 occurred in apartments. An additional 1,250 civilians were injured in nonresidential structure fires in 2014, a decrease of 16.7 percent from the year before. In addition 1,275 civilians were injured in highway vehicle fires, a 37.8 percent increase from 2013.

Between 1977 and 2014, the number of civilian injuries ranged from a peak of 31,325 in 1979 to a low of 15,775 in 2014, a decrease of 50 percent. There are no apparent trends in civilian injury levels until the mid-1990s, when injuries declined roughly 5,000 in 1994–95, to 25,775. From 1996 to 2002, civilian fire injuries declined a further 28 percent to 18,425 by the end of 2002. Between 2002 and 2013, civilian injuries ranged from 15,925 to 18,425 incidents per year. The 15,775 civilian injuries in 2014 represent a new low.

Property Loss

NFPA estimates that the 1,298,000 fires to which the fire service responded in 2014 caused $11,605,000,000 in property damage, 0.7 percent more than the year before.

Fires in structures resulted in $9,846,000,000 in property damage, an increase of 3.4 percent from 2013. Each structure fire resulted in an average property loss of $19,931, an increase of 2 percent from the previous year.

From 1977 to 2014, excluding the events of September 11, 2001, the average loss per structure fire was $3,757 in 1977 and $19,931 in 2014, for an overall increase of 431 percent. When property loss is adjusted for inflation, however, the increase in the average structure fire loss between 1977 and 2014 is 35.2 percent (see Figure 5).

Of the 2014 property loss in structures, $6,992,000,000 occurred in residential properties, an increase of 0.3 percent from previous year. An estimated $5,844,000,000 of this loss occurred in one- and two-family homes, an increase of 3.9 percent. An estimated loss of $982,000,000 also occurred in apartments. While apartment property loss decreased by 15.8 percent from the previous year, the number of fires in apartments decreased at a lower rate, for a 4.1 percent year-over-year decline.

Other property damage results for 2014 include $429,000,000 in public assembly properties, a 16.3 percent increase; $708,000,000 in stores and office properties, a 15.9 percent increase; $1,142,000,000 in highway vehicles, a 7.7 increase; and $380,000,000 in other vehicles, an increase of 14.5 percent. There was a significant 50.7 percent increase in special properties to $211,000,000 partly due to two major fires involving properties under construction in San Francisco, California, and Houston, Texas. Storage property damage was $781,000,000, a 12.9 percent increase; one major pier fire in Los Angeles, California, substantially influenced this change from the previous year.

The only category in which property loss decreased in 2014 was fires outside of structures with value involved. Property loss in this category dropped 72.9 percent to $141,000,000 because no fire in 2014 reached the magnitude of the 2013 Black Forest Fire near Colorado Springs, Colorado, which resulted in an estimated $420,500,000 in damage.

It should be kept in mind that property loss totals can change significantly from year to year due to the impact of occasional large-loss fires. NFPA provides an annual analysis of such fires in the November/December issue of the *NFPA Journal*.

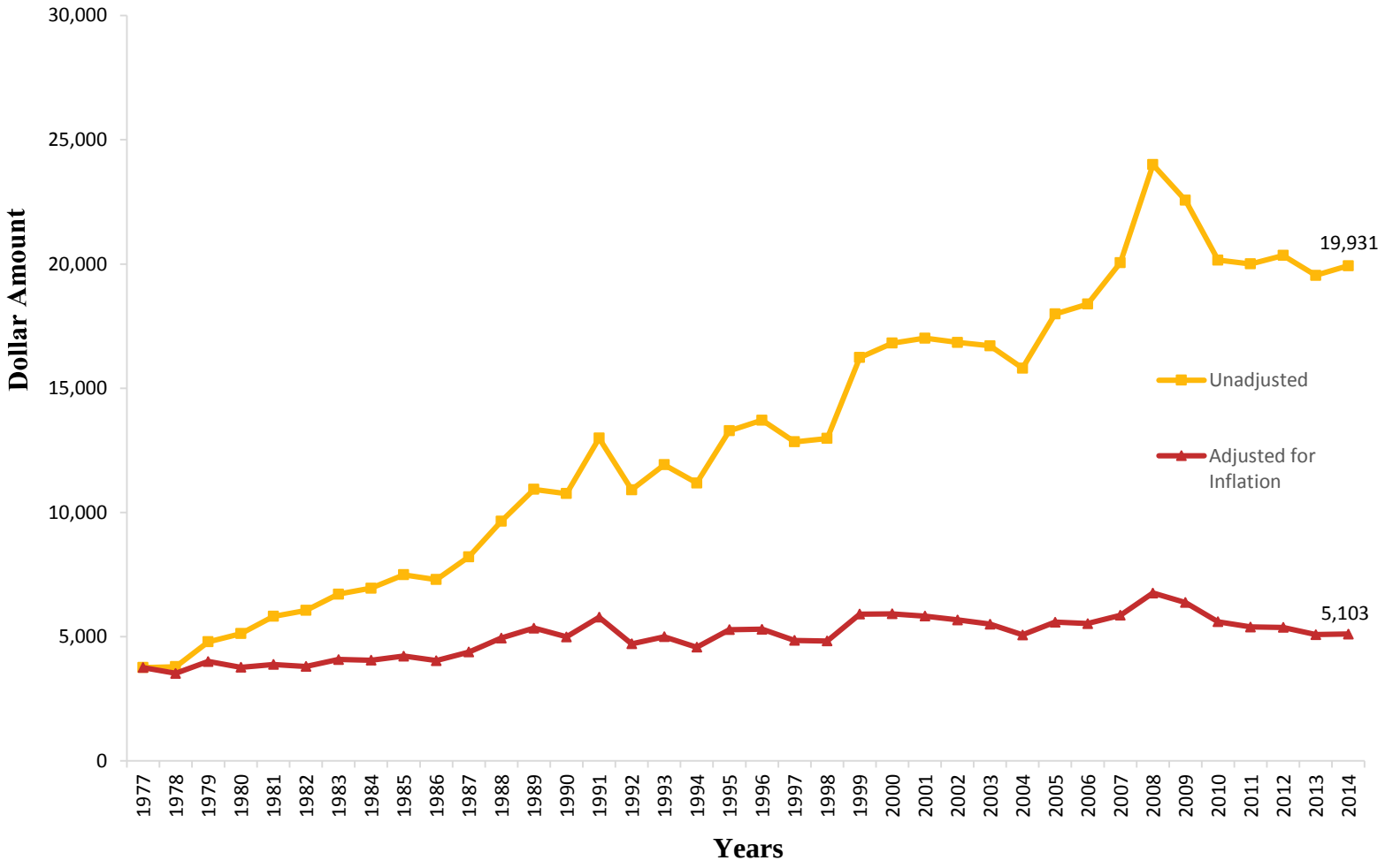

Figure 5. Average Loss per Structure Fire in the United States (1977-2014). Inflation adjusted to 1977.

Intentionally Set Fires

NFPA estimates 19,000 set structure fires were intentionally set in 2014, a decrease of 15.6 percent from the year before. These fires resulted in an estimated 157 civilian deaths, an increase of 4.7 percent from the previous year, and in $613,000,000 in property loss, an increase of 6.2 percent from 2013 (see Table 7).

In 2014, there were an estimated 8,000 intentionally set vehicle fires, 23.8 percent fewer than the year before. These set fires resulted in $116,000,000 in property loss, an increase of 34.9 percent from 2013.

Estimates of intentionally set fires do not include allocation of fires whose causes were unknown or unreported.

Table 7:
Estimate of 2014 Losses in Intentionally Set Structure Fires

Intentionally[1] Set Structure Fires	Estimate	Percent change from 2013
Number of Structure Fires	19,000	-15.6
Civilian Deaths	157	+4.7
Property Loss[1]	$613,000,000	+6.2

The estimates are based on data reported to the NFPA by fire departments that responded to the 2014 National Fire Experience Survey.

[1] This includes overall direct property loss to contents, structure, a vehicle, machinery, vegetation, or anything else involved in a fire. It does not include indirect losses, e.g., business interruption or temporary shelter costs. No adjustment was made for inflation in the year-to-year comparison.

Regional Analysis

Fire loss rates nationwide for 2014 and by region[4] can be seen in Table 8. The Northeast (4.6), and the Midwest(4.4) had the highest fire incident rate per thousand people. The Midwest with 12.5 had the highest civilian death rate per million population.

The Northeast with (61.5) had the highest civilian injury rate per million population, while the Midwest with $39.9 had the highest property loss per capita rate.

Fire incident rates by region and community size can be seen in Table 9. The Northeast had the highest rates for communities of 25,000 to 249,999, the Midwest had the highest rate for communities of 250,000 or more, and the South had the highest rates for communities of 5,000 to 24,999 and the smaller communities (less than 5,000 to 24,999, and the smaller communities (less than 5,000 population).

Civilian fire deaths per million population by region and community size are shown in Table 10. The Midwest had the highest rate for communities of 250,000 or more and communities of 25,000 to 49,999, the Northeast had the highest rates for communities of 100,000 to 499,999, the South had the highest rates for communities of under 2,500 to 24,999, and the West had the highest rates for the smallest communities (population of less than 2,500).

Civilian fire injuries per million population by region and community size are shown in Table 11. The Northeast had the highest rates for communities of 500,000 or more, communities of 25,000 to 249,999; the Midwest had the highest rates for communities of 250,000 to 499,999; the South had the highest rate for communities of 10,000 to 24,999 and 2,500 to 4,999, and the West had the highest rate for the smaller communities (population of less than 2,500).

Property loss per capita by region and community size are shown in Table 12. The Midwest had the highest rates for communities of 500,000 or more and communities of 100,000 to 249,999 and communities of 2,500 to 4,999. The South has the highest property loss per capita rate for communities 5,000 to 24,999 and the smaller communities with population less than 2,500.

Table 8:
Fire Loss Rates Nationwide and by U.S. Census Region, 2014

Region	Number of Fires per Thousand Population	Civilian Deaths per Million Population	Civilian Injuries per Million Population	Property Loss per Capita
Nationwide	4.1	10.3	49.5	$36.4
Northeast	4.6	8.5	61.5	$35.6
Midwest	4.4	12.5	50.7	$39.9
South	4.2	11.6	44.9	$37.6
West	3.2	7.4	46.6	$31.9

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience.

Table 9:
2014 Fires per Thousand Population
By Region and Size of Community

Population of Community	All Regions	Northeast	Midwest	South	West
500,000 or more	2.9	4.6	3.9	2.4	2.3
250,000 to 499,999	2.7	1.4	4.4	2.8	2.0
100,000 to 249,999	3.0	5.7	2.9	3.4	2.2
50,000 to 99,999	2.8	4.8	2.2	3.3	2.4
25,000 to 49,999	3.1	3.9	2.6	3.7	2.9
10,000 to 24,999	3.9	3.4	3.3	4.5	4.1
5,000 to 9,999	4.9	4.6	4.2	5.4	4.9
2,500 to 4,999	7.1	6.2	5.9	8.3	7.7
under 2,500	10.3	7.7	8.4	14.7	13.8

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience.

Table 10:
2014 Civilian Fire Deaths per Million Population by Region and Size of Community

Population of Community	All Regions	Northeast	Midwest	South	West
500,000 or more	5.9	5.9	12.5	6.3	3.8
250,000 to 499,999	8.7	6.7	15.9	9.6	3.0
100,000 to 249,999	7.5	15.3	8.7	7.9	5.0
50,000 to 99,999	8.4	8.2	6.8	10.3	8.0
25,000 to 49,999	9.0	8.2	10.3	9.0	5.5
10,000 to 24,999	8.5	4.4	8.2	11.9	6.7
5,000 to 9,999	10.5	8.2	8.4	18.3	6.7
2,500 to 4,999	29.0	14.2	29.7	40.2	27.2
under 2,500	19.8	18.3	10.9	32.8	40.0

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience

Table 11:
2014 Civilian Fire Injuries per Million Population by Region and Size of Community

Population of Community	All Regions	Northeast	Midwest	South	West
500,000 or more	52.7	78.7	41.1	41.2	50.5
250,000 to 499,999	48.6	11.7	83.0	71.0	10.6
100,000 to 249,999	59.5	124.7	85.3	64.4	33.7
50,000 to 99,999	56.8	109.9	57.1	53.4	43.8
25,000 to 49,999	54.7	85.0	55.5	49.6	36.3
10,000 to 24,999	50.4	44.1	46.0	68.8	32.4
5,000 to 9,999	37.6	51.8	31.0	25.1	63.5
2,500 to 4,999	38.2	35.1	36.6	50.6	21.5
under 2,500	17.5	18.2	8.2	13.9	74.8

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience.

Table 12:
2014 Property Loss per Person by Region and Size of Community

Population of Community	All Regions	Northeast	Midwest	South	West
500,000 or more	$29.2	*	$32.0	$28.8	$29.3
250,000 to 499,999	30.5	*	33.6	30.8	34.8
100,000 to 249,999	31.1	*	42.9	30.0	27.3
50,000 to 99,999	29.0	37.9	27.2	33.9	22.0
25,000 to 49,999	31.3	29.4	31.6	34.6	24.6
10,000 to 24,999	41.7	28.9	41.3	51.9	36.9
5,000 to 9,999	67.1	45.7	69.4	90.7	45.2
2,500 to 4,999	80.0	51.0	95.2	69.8	85.0
under 2,500	116.7	86.7	100.7	116.0	104.6

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience.

*Insufficient data

Average Fire Experience

Average fire experience by community size for all fires and residential properties can be seen in Tables 13 and 14. Note that communities with larger populations are expected to more fires and losses.

Table 13:
Average 2014 Fire Experience by Size of Community

Population of Community	Total Fires	Structure Fires	Civilian Deaths	Civilian Injuries	Property Loss
1,000,000 or more	4,487	1,867	12.50	116.55	$55,415,702
500,000 to 999,999	2,260	989	4.76	26.92	24,007,692
250,000 to 499,999	923	382	2.93	16.54	10,454,569
100,000 to 249,999	459	188	1.15	9.11	4,658,714
50,000 to 99,999	189	79	0.57	3.88	1,975,247
25,000 to 49,999	106	45	0.31	1.86	1,061,169
10,000 to 24,999	62	23	0.13	0.8	658,169
5,000 to 9,999	35	13	0.08	0.27	485,225
2,500 to 4,999	25	9	0.10	0.13	276,713
under 2,500	11	3	0.02	0.03	116,776

Table 14;
Average 2014 Residential Fire Experience by Size of Community

Population of Community	Number of Fires	Civilian Deaths	Civilian Injuries	Property Loss
1,000,000 or more	1,362	8.75	62.73	$28,711,861
500,000 to 999,999	820	3.92	2188	12,905,598
250,000 to 499,999	305	2.43	14.29	5,902,935
100,000 to 249,999	152	0.84	7.32	2,638,111
50,000 to 99,999	64	0.45	3.07	1,107,231
25,000 to 49,999	36	0.27	1.63	651,192
10,000 to 24,999	19	0.11	0.62	377,418
5,000 to 9,999	10	0.07	0.20	263,110
2,500 to 4,999	7	0.08	0.11	159,722
under 2,500	2	0.02	0.02	50,265

Source: NFPA's Survey of Fire Departments for 2014 U.S. Fire Experience.

Table 15:
Fire Department Responses by Type of Call, 2014

	Number	Percent Change From 2013
Fire Incidents	1,298,000	+4.7
Medical Aid Responses (Ambulance, EMS, Rescue)	20,178,000	-5.6
False Alarms	2,488,000	+6.2
Mutual Aid or Assistance Calls	1,446,500	+11.4
Hazardous Material Responses (Spills, Leaks, etc.)	405,000	+10.5
Other Hazardous Responses (arcing wires, bomb removal etc.)	615,000	-9.3
All Other Responses (smoke scares, lock-outs, (etc.)	5,214,000	+19.9
Total Incidents	31,644,500	0.0

The percent of fires and nonfire incidents by community size is shown in Table 17.

A further breakdown on false responses was collected on the 2014 surveys and the results can be seen in Table 1.

Table 16:
Average Number of Fires and Nonfire Incidents by Community Size, 2013-2014

	Community Size									
	1,000,000 or more	**500,000 to 999,999**	**250,000 to 499,999**	**100,000 to 249,999**	**50,000 to 99,999**	**25,000 to 49,999**	**10,0000 to 24,999**	**5,000 to 9,999**	**2,500 to 4,999**	**under 2,500**
Fires	4,597	2,308	988	464	191	106	60	34	23	11
Rescue, EMS etc.,	138,135	64,073	22,857	12,405	4,842	1,944	979	337	164	43
False alarm responses	15,180	5,556	2,110	1,222	567	304	136	54	21	5
Mutual aid responses	1,672	1,198	647	347	196	133	86	55	32	12
Hazardous materials	1,782	779	308	177	84	50	25	11	4	1
Other hazardous	2,108	1,082	594	285	147	72	37	19	9	2
All other responses	83,899	12,631	6,606	2,715	1,139	481	206	78	29	7
Total for all incidents	252,172	87,559	34,109	17,487	7,003	3,122	1,509	581	278	76

	1,000,000 or more	**500,000 to 999,999**	**250,000 to 499,999**	**100,000 to 249,999**	**50,000 to 99,999**	**25,000 to 49,999**	**10,0000 to 24,999**	**5,000 to 9,999**	**2,500 to 4,999**	**under 2,500**
Fires	1.8%	2.6%	2.9%	2.7%	2.7%	3.4%	4.0%	5.8%	8.3%	13.8%
Rescue, EMS etc.,	54.8%	73.2%	67.0%	70.9%	69.1%	62.3%	64.9%	57.9%	59.1%	56.6%
False alarm responses	6.0%	6.3%	6.2%	7.0%	8.1%	9.7%	9.0%	9.3%	7.6%	6.6%
Mutual aid responses	0.7%	1.4%	1.9%	2.0%	2.8%	4.3%	5.7%	9.5%	11.5%	15.1%
Hazardous materials	0.7%	0.9%	0.9%	1.0%	1.2%	1.6%	1.7%	1.8%	1.3%	1.3%
Other hazardous	0.8%	1.2%	1.7%	1.6%	2.1%	2.3%	2.4%	3.2%	3.2%	2.6%
All other responses	33.3%	14.4%	19.4%	15.5%	16.3%	14.9%	13.7%	13.4%	10.5%	9.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NFPA's Survey of Fire Departments for U.S. Fire Experience (2013-2014)

Table 17:
Estimates of False Alarms by Type, 2014

	Estimate	Percent Change From 2013	Percent of All False Alarms
Malicious, Mischievous False Call	161,500	-2.1	6.5%
System Malfunction	820,000	+8.3	33.0%
Unintentional Call	1,165,500	+7.9	46.8%
Other False Alarms (Bomb Scares, etc.)	341,500	+0.1	13.7%

Source: NFPA's Survey of Fire Departments for 2013 U.S. Fire Experience

Conclusions

The total number of fires continues to be on a downward trend, as does the number of outside fires, structure fires and vehicle fires. In Figure 2, the number of fires per thousand population, the frequency of fire incident is much higher in communities with less than 5,000 population.

Since 1977, the number of home fires deaths has declined considerably, however the number of deaths per 1,000 fires has remained fairly flat between a high of 9.7 deaths per 1,000 fires in 1996 to a low of 6.5 deaths per 1,000 fires in 2013 (see Figure 3). One can conclude that even though the number fires is decreasing the risk of death in the event of a fire has remained relatively constant for the period 1977 to 2014. In Figure 4, the rate of civilian fire deaths per million population in communities with less than 5,000 people is significantly worse than in larger communities. Considering the fact that the majority of these smaller communities are served predominately by volunteer fire departments, it may be helpful to invest (training, staffing and equipment) in these departments to better help lower the death rates in these small communities.

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

In conclusion although the frequency of fire incidents is going down, the risk of death and property loss remains relatively constant when the fire incident occurs.

Definition of Terms

Civilian: The term "civilian" includes anyone other than a firefighter, and covers public service personnel such as police officers, civil defense staff, non-fire service medical personnel, and utility company employees.

Death: An injury that occurred as a direct result of a fire that is fatal or becomes fatal within one year.

Fire: Any instance of uncontrolled burning. Includes combustion explosions and fires out on arrival. Excludes controlled burning (whether authorized or not), over pressure rupture without combustion, mutual aid responses, smoke scares, and hazardous responses (e.g., oil spill without fire).

Injury: Physical damage that is suffered by a person as a direct result of fire and that requires (or should require) treatment by a practitioner of medicine (physician, nurse, paramedic, EMT) within one year of the incident (regardless of whether treatment was actually received), or results in at least one day of restricted activity immediately following the incident. Examples of injuries resulting from fire are smoke inhalation, burns, wounds and punctures, fractures, heart attacks (resulting from stress under fire condition), strains and sprains.

Property Damage: Includes all forms of direct loss to contents, structure, machinery, a vehicle, vegetation or anything else involved in the fire but not indirect losses, such as business interruption or temporary shelter provisions.

Structure: An assembly of materials forming a construction for occupancy or use in such a manner as to serve a specific purpose. A building is a form of structure. Open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported, and grandstands are other forms of structures.

Vehicles, Highway and Other: Fires in these instances may have been associated with an accident; however, reported casualties and property loss should be the direct result of the fire only. Highway vehicles include any vehicle designed to operate normally on highways, e.g., automobiles, motorcycles, buses, trucks, trailers (not mobile homes on foundations), etc. Other vehicles include trains, boats and ships, aircraft, and farm and construction vehicles.

Footnotes

1. William G. Cochran, *Sampling Techniques,* John Wiley, New York, NY, 1977, pp. 150-161.

2. As defined by the U.S. Bureau of the Census, the four regions are: Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

3. Marty Ahrens, *Characteristics of Home Fire Victims*, October 2014, Quincy: National Fire Protection Association, Fire Analysis and Research Division.

4. Rita F. Fahy and Alison L. Miller, "How Being Poor Affects Fire Risk", *Fire Journal*, Vol. 83, No. 1 (January 1989), p. 28.

Appendix A.
Fire Loss in the United States Trend Tables, 1977-2014 and U.S. Fire Rates by Unit of Time

Fires in the United States

1,298,000 total fires were reported during 2014 in the U.S.

+4.7% from 2013

RESULTING IN:

- **3,275** civilian fire deaths, and **15,775** civilian fire injuries
- **$11.5 billion** in property damage
- A fire department responding to a fire every **24 seconds**

OF THESE:

610,500 fires were classified as **Outside & 'Other' Fires**

A significant increase of +8.1% from 2013

1 outside fire was reported every 52 seconds

494,000 fires were classified as **Structure Fires**

A slight increase of +1.3% from 2013

1 structure fire was reported every 64 seconds

167,500 fires were classified as **Highway Vehicle Fires**

An increase of +2.1% from 2013

1 highway fire was reported every 188 seconds

NFPA

The U.S. Fire Problem

Year	Fires	Civilian Deaths	Civilian Injuries	Firefighter Deaths	Firefighter Injuries	Direct Property Damage (in Billions) As Reported	Direct Property Damage (in Billions) In 2014 Dollars
1977	3,264,500	7,395	31,190	157	112,540	$4.7	$18.4
1978	2,817,500	7,710	29,825	174	101,100	$4.5	$16.3
1979	2,845,500	7,575	31,325	126	95,780	$5.8	$18.9
1980	2,988,000	6,505	30,200	138	98,070	$6.3	$18.1
1981	2,893,500	6,700	30,450	136	103,340	$6.7	$17.6
1982	2,538,000	6,020	30,525	128	98,150	$6.4	$15.7
1983	2,326,500	5,920	31,275	113	103,150	$6.6	$15.7
1984	2,343,000	5,240	28,125	119	102,300	$6.7	$15.3
1985	2,371,000	6,185	28,425	128	100,900	$7.3	$16.1
1986	2,271,500	5,850	26,825	119	96,450	$6.7	$14.5
1987	2,330,000	5,810	28,215	132	102,600	$7.2	$15.0
1988	2,436,500	6,215	30,800	136	102,900	$8.4	$16.8
1989	2,115,000	5,410	28,250	118	100,700	$8.7	$16.6
1990	2,019,000	5,195	28,600	108	100,300	$7.8	$14.2
1991	2,041,500	4,465	29,375	108	103,300	$9.5[1]	$16.5[1]
1992	1,964,500	4,730	28,700	75	97,700	$8.3	$14.0
1993	1,952,500	4,635	30,475	79	101,500	$8.5[2]	$13.9[2]
1994	2,054,500	4,275	27,250	106	95,400	$8.2	$13.1
1995	1,965,500	4,585	25,775	98	94,500	$8.9	$13.8
1996	1,975,000	4,990	25,550	96	87,150	$9.4	$14.2
1997	1,795,000	4,050	23,750	99	85,400	$8.5	$12.5
1998	1,755,500	4,035	23,100	91	87,500	$8.6	$12.5
1999	1,823,000	3,570	21,875	112	88,500	$10.0	$14.2
2000	1,708,000	4,045	22,350	103	84,550	$11.2	$15.4
2001	1,734,500	6,196[3]	21,100[4]	443[5]	82,250	$44.0[6]	$58.9[7]
2002	1,687,500	3,380	18,425	98	80,800	$10.3	$13.6
2003	1,584,500	3,925	18,125	106	78,750	$12.3[7]	$15.8[7]
2004	1,550,500	3,900	17,875	104	75,840	$9.8	$12.3
2005	1,602,000	3,675	17,925	87	80,100	$10.7	$13.0
2006	1,642,500	3,245	16,400	89	83,400	$11.3	$13.3
2007	1,557,500	3,430	17,675	106	80,100	$14.6[8]	$16.7[8]
2008	1,451,500	3,320	16,705	105	79,700	$15.5[9]	$17.0[9]

The U.S. Fire Problem (Continued)

Year	Fires	Civilian Deaths	Civilian Injuries	Firefighter Deaths	Firefighter Injuries	Direct Property Damage (in Billions) As Reported	Direct Property Damage (in Billions) In 2014 Dollars
2009	1,348,500	3,010	17,050	82	78,150	$12.5	$13.8
2010	1,331,500	3,120	17,720	73	71,875	$11.6	$12.6
2011	1,389,500	3,005	17,500	61	70,090	$11.7	$12.3
2012	1,375,000	2,855	16,500	64	69,400	$12.4	$12.8
2013	1,240,000	3,240	15,925	97	65,880	$11.5	$11.7
2014	1,298,000	3,275	15,775	64	63,350	$11.6	$11.6

[1]This includes $1.5 billion in damage caused by the Oakland Fire Storm, most of which was lost to homes but for which no detailed breakdown by property type was available.

[2]This includes $809 million in damage caused by Southern California wildfires.

[3]This includes 2,451 civilian deaths that occurred from the events of 9/11/01.

[4]This includes 800 civilian injuries that occurred from the events of 9/11/01.

[5]This includes 340 firefighters at the World Trade Center, September 11, 2001.

[6]This includes $33.44 billion in property loss that occurred from the events of 9/11/01.

[7]This includes the Southern California Wildfires (Cedar and Old Wildfires) with an estimated total property loss of $2,040,000,000. Loss by specific property type for this fire was not available.

[8]This includes the California Fire Storm 2007 with an estimated property damage of $1.8 billion.

[9]This includes the California wildfires 2008 with an estimated property damage of $1.4 billion.

Direct property damage figures do not include indirect losses, like business interruption.
Inflation adjustment to 2013 dollars is done using the consumer price index.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes, NFPA, September 2015 and previous reports in the series; *Firefighter Fatalities in the United States*, Rita F. Fahy, Paul R. LeBlanc, Joseph L. Molis, NFPA, June 2014 and previous reports in the series; *U.S. Firefighter Injuries*, Michael J. Karter, Jr., Joseph L. Molis, NFPA, October 2014 and previous reports in the series.

The U.S. Structure Fire Problem

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions)[1] As Reported	In 2014 Dollars
1977	1,098,000	6,505	26,310	$4.1	$16.0
1978	1,062,000	6,350	24,985	$4.0	$14.5
1979	1,036,500	5,970	24,850	$5.0	$16.3
1980	1,065,000	5,675	24,725	$5.5	$15.8
1981	1,027,500	5,760	25,700	$6.0	$15.6
1982	946,500	5,200	25,575	$5.7	$14.0
1983	868,500	5,090	26,150	$5.8	$13.8
1984	848,000	4,525	23,025	$5.9	$13.4
1985	859,500	5,265	23,350	$6.4	$14.1
1986	800,000	4,985	22,750	$5.8	$12.5
1987	758,000	4,880	23,815	$6.2	$12.9
1988	745,000	5,280	26,275	$7.2[2]	$14.4[2]
1989	688,000	4,655	24,025	$7.5[3]	$14.3[3]
1990	624,000	4,400	24,075	$6.7	$12.2
1991	640,500	3,765	24,975	$8.3[4]	$14.4[4]
1992	637,500	3,940	24,325	$7.0[5]	$11.8[5]
1993	621,500	3,980	26,550	$7.4[6]	$12.1[6]
1994	614,000	3,590	23,125	$6.9	$11.0
1995	573,500	3,985[7]	21,725	$7.6	$11.8
1996	578,500	4,220	21,875	$7.9	$11.9
1997	552,000	3,510	20,375	$7.1	$10.5
1998	517,500	3,420	19,425	$6.7	$9.7
1999	523,000	3,040	18,525	$8.5	$12.1
2000	505,500	3,535	19,600	$8.5	$11.7
2001[8]	521,500	3,220	17,225	$8.9	$11.9
2002	519,000	2,775	15,600	$8.7	$11.5
2003	519,500	3,385[9]	15,600	$8.7[10]	$11.2[10]
2004	526,000	3,305	15,525	$8.3	$10.4
2005	511,000	3,105	15,325	$9.2	$11.2
2006	524,000	2,705	14,350	$9.6	$11.3
2007	530,500	3,000	15,350	$10.6[11]	$12.1[11]

The U.S. Structure Fire Problem (Contnued)

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions)[1] As Reported	In 2014 Dollars
2008	515,000	2,900	14,960	$12.4[12]	$13.6[12]
2009	480,500	2,695	14,740	$10.8	$11.9
2010	482,000	2,755	15,420	$9.7	$10.5
2011	484,500	2,640	15,635	$9.7	$10.1
2012	480,500	2,470	14,700	$9.8	$9.9
2013	487,500	2,855	14,075	$9.5	$9.7
2014	494,000	2,860	13,425	$9.8	$9.8

[1]Individual incidents with large loss can affect the total for a given year.

[2]The 1988 figure includes a Norco, Louisiana petroleum refinery with a loss of $330 million.

[3]The 1989 figure includes a Pasadena, Texas polyolefin plant with a loss of $750 million.

[4]The 1991 figure includes the Oakland fire storm with a loss of $1.5 billion and the Meriden Plaza high-rise fire in Philadelphia with a loss of $325 million.

[5]The 1992 figure includes the Los Angeles Civil Disturbance with a loss of $567 million

[6]The 1993 figure includes Southern California wildfires with a loss of $809 million.

[7]Includes 168 deaths that occurred at the federal office building fire in Oklahoma City, OK.

[8]Does not include the events of 9/11/01, where there were 2,451 civilian deaths, 800 civilian injuries and $33.44 billion in property loss.

[9]Includes 100 fire deaths in the Station Night Club Fire in Rhode Island and 31 deaths in two nursing home fires in CT and TN.

[10]Does not include the Southern California wildfires with an estimated property damage of $2 billion.

[11]This does not include the California Fire Storm 2007 with an estimated property damage of $1.8 million.

[12] Does not include the California wildfires 2008 with an estimated property damage of $1.4 billion.

Direct property damage figures do not include indirect losses, like business interruption.
Inflation adjustment to 2014 dollars is done using the consumer price index.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes, NFPA, September 2015 and previous reports in the series.

The U.S. Home Structure Fire Problem

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions) As Reported	Direct Property Damage (in Billions) In 2014 Dollars
1977	723,500	5,865	21,640	$2.7	$10.6
1978	706,500	6,015	20,400	$2.1	$7.6
1979	696,500	5,500	18,825	$2.4	$7.8
1980	734,000	5,200	19,700	$2.8	$8.0
1981	711,000	5,400	19,125	$3.1	$8.0
1982	654,500	4,820	20,450	$3.1	$7.6
1983	625,500	4,670	20,750	$3.2	$7.6
1984	605,500	4,075	18,750	$3.4	$7.6
1985	606,000	4,885	19,175	$3.7	$8.1
1986	565,500	4,655	18,575	$3.5	$7.5
1987	536,500	4,570	19,965	$3.6	$7.5
1988	538,500	4,955	22,075	$3.9	$7.8
1989	498,500	4,335	20,275	$3.9	$7.5
1990	454,500	4,050	20,225	$4.2	$7.6
1991	464,500	3,500	21,275	$5.5[1]	$9.6[1]
1992	459,000	3,705	21,100	$3.8	$6.4
1993	458,000	3,720	22,000	$4.8[2]	$7.9[2]
1994	438,000	3,425	19,475	$4.2	$6.7
1995	414,000	3,640	18,650	$4.3	$6.7
1996	417,000	4,035	18,875	$4.9	$7.4
1997	395,500	3,360	17,300	$4.5	$6.6
1998	369,500	3,220	16,800	$4.3	$6.3
1999	371,000	2,895	16,050	$5.0	$7.1
2000	368,000	3,420	16,975	$5.5	$7.6
2001	383,500	3,110	15,200	$5.5	$7.4
2002	389,000	2,670	13,650	$5.9	$7.8
2003	388,500	3,145	13,650	$5.9[3]	$7.6[3]
2004	395,500	3,190	13,700	$5.8	$7.3
2005	381,000	3,030	13,300	$6.7	$8.1
2006	396,000	2,580	12,500	$6.8	$8.0

The U.S. Home Structure Fire Problem (Continued)

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions) As Reported	Direct Property Damage (in Billions) In 2014 Dollars
2007	399,000	2,865	13,600	$7.4[4]	$8.5[4]
2008	386,500	2,755	13,160	$8.2[5]	$9.1[5]
2009	362,500	2,565	12,650	$7.6	$8.4
2010	369,500	2,640	13,350	$6.9	$7.5
2011	370,000	2,520	13,910	$6.9	$7.3
2012	365,000	2,380	12,875	$7.0	$7.3
2013	369,500	2,755	12,200	$6.8	$6.9
2014	367,000	2,745	11,825	$6.8	$6.8

[1]Includes $1.5 billion in damage caused by the Oakland Fire Storm, most of which was lost to homes but for which no detailed breakdown by property type was available.

[2]Includes $809 million in damage caused by Southern California wildfires

[3]This does not include the Southern California wildfires with an estimated property damage of $2 billion.

[4]Does not include the California Fire Storm 2007 with an estimated property damage of $1.8 billion

[5]Does not include the California wildfires 2008 with an estimated property damage of $1.4 billion.

"Homes" are dwellings, duplexes, manufactured homes (also called mobile homes), apartments, rowhouses, and townhouses. Other residential properties, such as hotels and motels, dormitories, barracks, rooming and boarding homes, and the like, are not included.

Direct property damage figures do not include indirect losses, like business interruption.
Inflation adjustment to 2014 dollars is done using the consumer price index.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes, NFPA, September 2015 and previous reports in the series.

One– and Two-Family Home Structure Fires[1]

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions)	
				As Reported	In 2014 Dollars
1977	678,000	4,835	17,465	$2.3	$9.0
1978	623,233	4,945	15,400	$1.8	$6.5
1979	550,500	4,320	14,650	$2.0	$6.5
1980	590,500	4,175	16,100	$2.4	$6.9
1981	574,000	4,430	14,875	$2.7	$7.0
1982	538,000	3,960	15,750	$2.8	$6.8
1983	523,500	3,825	16,450	$2.8	$6.7
1984	506,000	3,290	15,100	$2.9	$6.6
1985	501,500	4,020	15,250	$3.2	$7.0
1986	468,000	4,005	14,650	$3.0	$6.5
1987	433,000	3,780	15,200	$3.1	$6.5
1988	432,500	4,125	17,125	$3.3	$6.6
1989	402,500	3,545	15,225	$3.3	$6.3
1990	359,000	3,370	15,250	$3.5	$6.3
1991	363,000	2,905	15,600	$3.4[2]	$5.9[2]
1992	358,000	3,160	15,275	$3.2	$5.4
1993	358,000	3,035	15,700	$4.1[3]	$6.7[3]
1994	341,000	2,785	14,000	$3.5	$5.6
1995	320,000	3,035	13,450	$3.6	$5.6
1996	324,000	3,470	13,700	$4.1	$6.2
1997	302,500	2,700	12,300	$3.7	$5.5
1998	283,000	2,775	11,800	$3.6	$5.2
1999	282,500	2,375	11,550	$4.1	$5.8
2000	283,500	2,920	12,575	$4.6	$6.3
2001	295,500	2,650	11,400	$4.7	$6.3
2002	300,500	2,280	9,950	$5.0	$6.6
2003	297,000	2,735	10,000	$5.1[4]	$6.6[4]
2004	301,500	2,680	10,500	$4.9	$6.2
2005	287,000	2,570	10,300	$5.8	$7.0
2006	304,500	2,155	8,800	$5.9	$6.9
2007	300,500	2,350	9,650	$6.2[5]	$7.3[5]

One– and Two-Family Home Structure Fires[1] (Continued)

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions) As Reported	Direct Property Damage (in Billions) In 2014 Dollars
2008	291,000	2,365	9,185	$6.9[6]	$7.6[6]
2009	272,500	2,100	9,300	$6.4	$7.0
2010	279,000	2,200	9,400	$5.9	$6.4
2011	274,500	2,105	9,485	$5.7	$6.0
2012	268,000	2000	8,825	$5.7	$5.9
2013	271,500	2,430	8,300	$5.6	$5.6
2014	273,500	2,345	8,025	$5.8	$5.8

[1]Includes manufactured homes.

[2]Does not include $1.5 billion in damage caused by the Oakland Fire Storm most of which was lost to homes but for which not detailed breakdown by property type was available.

[3]Includes $809 million in damage caused by Southern California wildfires.

[4]This does not include the Southern California Wildfires with an estimated property damage of $2 billion.

[5]This does not include the California Fire Storm 2007 with an estimated property damage of $1.8 billion.

[6]Does not include the California wildfires 2008 with an estimated property damage of $1.4 billion.

Direct property damage figures do not include indirect losses, like business interruption.
Inflation adjustment to 2014 dollars is done using the consumer price index.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes., NFPA, September 2015 and previous reports in the series.

U.S. Highway Vehicle Fire Problem, 1980-2014

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions) As Reported	in 2014 Dollars
1980	456,000	650	2,850	$0.5	$1.4
1981	453,000	770	2,900	$0.5	$1.3
1982	433,000	575	3,250	$0.5	$1.2
1983	435,500	670	3,400	$0.6	$1.4
1984	437,000	530	3,250	$0.6	$1.4
1985	437,000	770	3,250	$0.7	$1.5
1986	438,000	665	2,850	$0.7	$1.5
1987	451,000	755	2,900	$0.7	$1.5
1988	459,000	800	2,750	$0.8	$1.6
1989	415,500	560	2,750	$0.8	$1.5
1990	415,000	645	3,025	$0.8	$1.5
1991	406,500	530	2,675	$0.8	$1.4
1992	385,500	665	2,750	$0.8	$1.4
1993	402,000	540	2,400	$0.9	$1.5
1994	402,000	555	2,325	$1.0	$1.6
1995	386,000	490	2,275	$1.0	$1.6
1996	395,000	550	2,075	$1.1	$1.7
1997	377,000	450	1,950	$1.1	$1.6
1998	358,500	545	2,050	$1.1	$1.6
1999	345,000	450	1,600	$1.1	$1.6
2000	325,000	450	1,325	$1.2	$1.6
2001	327,000	470	1,750	$1.3	$1.7
2002	307,000	540	1,700	$1.2	$1.6
2003	286,000	455	1,400	$1.1	$1.4
2004	266,500	520	1,300	$1.0	$1.3
2005	259,000	500	1,450	$1.0	$1.2
2006	250,000	445	1,075	$1.0	$1.2
2007	227,500	365	1,500	$1.1	$1.3
2008	207,000	350	850	$1.2	$1.3
2009	190,500	260	1,455	$1.0	$1.1

U.S. Highway Vehicle Fire Problem, 1980-2014 (Continued)

Year	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage (in Billions) As Reported	in 2014 Dollars
2010	184,500	285	1,440	$1.0	$1.1
2011	187,500	270	1,020	$1.0	$1.1
2012	172,500	300	800	$1.3	$1.3
2013	164,000	300	925	$1.1	$1.1
2014	167,500	310	1,275	$1.1	$1.1

Highway vehicles include any vehicle designed to operate normally on highways, such as automobiles, motorcycles, buses, trucks, and trailers, but not manufactured homes on foundations.

Direct property damage figures do not include indirect losses, like business interruption. Inflation adjustment to 2014 dollars is done using the consumer price index.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes., NFPA, September 2015 and previous reports in the series.

2014 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	44.1	7.7	33.4	$798,000
Homes[1]	42	7.5	32.4	$779,000
One- and -two family homes	31.2	6.4	22.0	$667,000
Apartments	10.7	1.1	10.4	$112,000
Other residential	2.2	0.1	1.0	$19,000
Public Assembly	1.6			$49,000
Educational	0.6			$7,000
Institutional	0.7			$5,000
Stores and Offices	2			$81,000
Industry, Utilities, and Defense	1.1			$71,000
Storage	3.1			$89,000
Special Structures	3.1			$24,000
All Non-Residential	12.3	0.2	3.4	$326,000
All Structures	56.4	7.8	36.8	$1,124,000
Vehicles	22.1	0.9	4.0	$174,000
Outside and Other (not Structure or Vehicle)	69.7	0.2	2.5	$27,000
All Fires	148.2 (or 2.5 per minute, or one every 24 seconds)	9.0 (or one every 160 minutes)	43.2 (or every 33 minutes)	$1,325,000 (or $22,083 per minute, or $368 per second)

[1]Homes are dwellings, duplexes, manufactured homes, apartments, rowhouses, townhouses, and condominiums.

Direct property damage is expressed to the nearest thousand dollars.

Source: *Fire Loss in the United States 2014*, Hylton J.G. Haynes., NFPA, Septemer 2015 and previous reports in the series.