



In 2013, U.S. fire departments responded to an estimated 1,240,000 fires. These fires caused 3,240 civilian deaths and 15,925 civilian injuries.<sup>1</sup> In the same year, 97 firefighters were fatally injured while on duty.<sup>2</sup> There were 69,400 firefighter injuries in 2012.<sup>3</sup>

The 2013 fire statistics (except for firefighter fatalities) are projections derived from NFPA's annual fire department survey. The 2,637 departments that did respond to the sample survey protect 111,548,000 people, or 35% of the total U.S. population.

### On average, a fire department responded to:

A fire every 25 seconds, A structure fire every 65 seconds, An outside fire every 56 seconds, And a vehicle fire at the rate of 1 every 167 seconds.

Fire claimed nine lives every day.

### Highway vehicle fires caused 9% of the

**civilian fire deaths.** In 2013, the 300 deaths caused by car, truck and related vehicle fires was more than four the 70 deaths resulting from non-residential structure fires.<sup>4</sup>

Three of every five road vehicle fire deaths resulted from fires caused by collisions or overturns.<sup>5</sup>

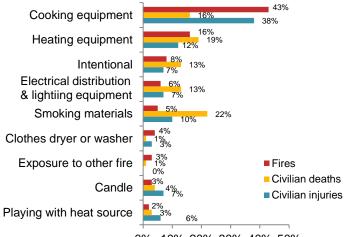
**Roughly half of all reported fires were** outside or unclassified types of fires.<sup>6</sup>

## **Home Structure Fires**

In 2013, home structure fires caused 83% of the civilian fire deaths and 78% of the civilian fire injuries. Homes include one-and two-family homes, apartments, townhouses, row houses, and manufactured homes.

The graph below shows how the leading causes vary depending on whether the interest is in fires, deaths or injuries.<sup>7</sup>

#### Major Causes of Home Structure Fires 2007-2011



0% 10% 20% 30% 40% 50%

# Cooking is the leading cause of home fires and home fire injuries.

Unattended cooking is the leading factor contributing to these fires.

Frying is the leading type of activity associated with cooking fires.

More than half of all cooking fire injuries occurred when people tried to fight the fire themselves.<sup>8</sup>

**Smoking has been the leading cause of home fire deaths for decades.** Two-thirds (66%) of the home smoking material fire fatalities resulted from fires originating with a) upholstered furniture, or b) mattresses or bedding.<sup>9</sup> Flammability standards and decreases in smoking have helped reduce these deaths, but the "fire-safe" cigarette will help prevent many more. Canada and all 50 states in the U.S. have passed legislation requiring cigarettes to be "fire-safe."

Seven percent of fatal home smoking fire victims whose smoking materials started the fire were using medical oxygen.<sup>10</sup>

Heating equipment was involved in one of every five home fire deaths. Heating equipment ranked second in reported home fires, home fire deaths and home fire injuries. Portable and fixed space heaters, including wood stoves, are involved in more fires than central heat. These fires are also more likely than central heating fires to result in death.<sup>11</sup>

**Intentional fires are the third leading cause of home fires.** According to FBI statistics, two out of every five of the people arrested for arson in recent years were under 18.<sup>12</sup>

**Electrical distribution or lighting equipment was the fourth leading cause of home fires.** A study by the Consumer Product Safety Commission (CPSC) found that homes with older wiring face an increased risk of electrical wiring fire.<sup>13</sup>

Electrical factors can play a role in any fire involving equipment powered by electricity. Electrical failures were factors in 13% of home fires.

**Candles were the fifth leading cause of home fire injuries.** These fires nearly tripled from 1990 to 2001 with the increase in candle sales but have since fallen back to the mid 1990's levels. Candles used for light in the absence of electrical power caused one-third of fatal candle fires.<sup>14</sup>

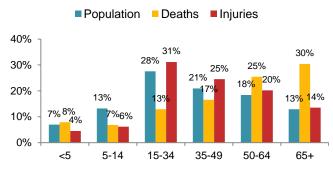
Younger children are more likely to set fires in homes, while older children and teenagers are more likely to set fires outside.

Most of home playing structure fires are started by lighters or matches. Two out of five of the home playing structure fires begin in the bedroom.<sup>15</sup> Almost all U.S. homes have at least one smoke alarm, but three of every five home fire deaths resulted from fires in homes with no smoke alarms or none that worked<sup>16</sup>. People who are under the influence of alcohol, drugs or medications, have disabilities, or are very close to where the fire started, may not be able to act on a smoke alarm's warning.<sup>17</sup> Nuisance alarms are the leading reason for disabling smoke alarms.<sup>18</sup>

**Sprinklers decrease the fire death rate per 1,000 reported home fires by about 80% and the average loss per home fire by about 70%.**<sup>19</sup> NFPA's Fire Sprinkler Initiative: Bringing Safety Home is a nationwide effort to encourage the use of home fire sprinklers and the adoption of fire sprinkler requirements for new construction. See <u>www.firesprinklerinitiative.org</u>.

# Adults over 50 face higher risk of home fire death than the overall population<sup>20</sup>

Percent of Population and Home Fire Deaths and Injuries by Age Group: 2007-2011



States with the highest fire death rates tend to have higher percentages of

- Adults who did not finish high school,
- Black or Native American residents,
- Smokers,
- Households living in poverty, and
- People living in rural areas.<sup>21</sup>

per 2014 Request references by e-mailing <u>osds@nfpa.org</u>

Source: NFPA's Fire Analysis and Research Division. September 2014





## References for "An Overview of the U.S. Fire Problem"

<sup>1</sup> Michael J Karter Jr., Fire Loss in the U.S., During 2013, NFPA, Quincy, MA, September 2014.

- <sup>3</sup> Michael J Karter Jr., and Joseph Molis, *Firefighter Injuries During 2012*, NFPA, Quincy, MA, October 2013.
- <sup>4</sup>Michael J Karter, Jr., Fire Loss in the U.S. During 2013, NFPA, Quincy, MA, September 2014.
- <sup>5</sup> Marty Ahrens, Automobile Fires in the U.S.: 2006-2010 Estimates, Quincy, MA, September 2012.
- <sup>6</sup> Michael J Karter, Jr., *Fire Loss in the U.S. During 2013*, NFPA, Quincy, MA, September 2014.
- <sup>7</sup> Marty Ahrens, *Home Structure Fires*, NFPA, Quincy, MA, April 2013.
- <sup>8</sup> Fire Analysis and Research Division, NFPA, Quincy, MA.
- <sup>9</sup> John R. Hall Jr., The Smoking-Material Fire Problem, NFPA, Quincy, MA, July 2013.
- <sup>10</sup> John R. Hall Jr., Marty Ahrens, Kimberly D. Rohr, Sharon Gamache, and Judy Comoletti, *Behavioral Mitigation of Smoking Fires Through Strategies Based on Statistical Analysis*, EME-2002-CA-0310, 2006. available from the U.S. Fire Administration at http://www.usfa.dhs.gov/downloads/pdf/publications/fa-302-508.pdf
- <sup>11</sup> John R. Hall Jr., *Home Fires Involving Heating Equipment*, NFPA, Quincy, MA, September 2013.
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- <sup>13</sup> Linda E. Smith, and Dennis McCoskrie, "What Causes Wiring Fires in Residences?" *Fire Journal*, v. 84 (1), pp. 18-22+, January/February 1990.
- <sup>14</sup> Marty Ahrens, *Home Candle Fires*, NFPA, Quincy, MA, December 2013.
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- <sup>16</sup> Marty Ahrens, Smoke Alarms in U.S. Homes, NFPA, Quincy, MA, March 2014.
- <sup>17</sup> Marty Ahrens, Smoke Alarms in U.S. Homes, NFPA, Quincy, MA, March 2014.
- <sup>18</sup> Charles L. Smith, Smoke Detector Operability Survey Report on Findings Bethesda, MD: U.S. Consumer Product safety Commission, 1993.
- <sup>19</sup> John R. Hall Jr., U.S. Experience with Sprinklers, NFPA, Quincy, MA, June 2013.
- <sup>20</sup> Marty Ahrens, *Home Structure Fires*, NFPA, Quincy, MA, April 2013.
- <sup>21</sup> John R. Hall Jr., U.S. Unintentional Fire Death Rates by State, NFPA, Quincy, MA, October 2012.

<sup>&</sup>lt;sup>2</sup> Fire Analysis and Research Division, NFPA, Quincy, MA.