

An Overview of the U.S. Fire Problem

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In 2005, US fire departments responded to an estimated 1,602,000 fires. These fires caused 3,675 civilian deaths and 17,925 civilian injuries. In the same year, 87 firefighters were fatally injured while on duty (R. Fahy and P. LeBlanc, 2006) and 80,100 suffered non-fatal injuries.

The 2005 fire statistics (except for firefighter fatalities) are projections derived from NFPA's annual fire department survey. This survey



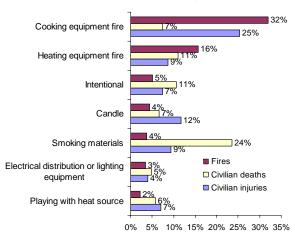
collects summary data from a sample of local fire departments equal to roughly 10% of the total

fire departments. (M. Karter, 2006)

Home structure fires caused 82% of the civilian fire deaths, and 74% of the civilian fire injuries. Homes include one-and two-family dwellings, apartments, and manufactured homes.

The U.S. Fire Administration's National Fire Incident Reporting System (NFIRS) provides the details that, together with NFPA's survey, allow us to estimate the size of specific fire problems.

Major Causes of Home Structure Fires 2000-2004 Annual Averages



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. (J. Hall. 2005)

Smoking has been the leading cause of home fire deaths for decades.

Eighty percent of the home smoking material fire fatalities resulted from fires originating with upholstered furniture, mattresses or bedding, or clothing. Flammability



standards and decreases in smoking have helped reduce these deaths, but the "fire-safe" cigarette could help prevent many more.

Seven percent of home smoking fire fatalities were using medical oxygen. (J. Hall, M. Ahrens. K. Rohr, S. Gamache and J. Comoletti, 2006)

Heating equipment was the second leading cause of home fires and home fire deaths.

Portable and fixed space heaters, including wood stoves, were involved in three-quarters of the home heating fire deaths. Central heat is much safer. (J. Hall. 2006)

Intentional fires are the third leading cause of home fire deaths. According to FBI statistics, roughly half of the people arrested for arson in recent years were under 18.



Candles were the second leading cause of home fire injuries. These fires tripled from 1990 to 2000 with the increase in candle sales. Despite a drop, they remain at 2.5 times the 1990 high. Candles used for light in the absence of electrical power caused 1/3 of fatal candle fires. (M. Ahrens, 2006)

Electrical distribution or lighting equipment was involved in 5% of home fire deaths. A

study by the Consumer Product Safety Commission (CPSC) found that homes with older wiring face an increased risk of electrical wiring fire. (D. McCoskrie, and L. Smith, 1990)



More than half of the people killed by fires started by children playing were under five. Home fires, deaths and injures started by children playing with fire have decreased sharply since 1994 when the CPSC required most disposable lighters to be inoperable by children under five. Interestingly, fires and losses from children playing with matches also fell during this period. (J. Hall, 2005)

Almost all U.S. homes have at least one smoke alarm, but 2/3 of home fire deaths resulted from fires in homes without working smoke alarms. In reported home fires, the risk of death was 51%

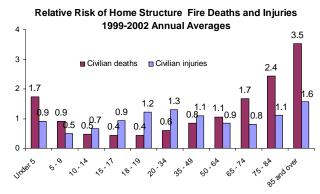
lower in homes with working smoke alarms. Working smoke alarms are generally not associated with a decrease in fire injuries in reported fires. (M. Ahrens, 2007)

Nuisance alarms are the leading reason for disabling smoke alarms. (C.L. Smith, 1993)

Residential sprinklers decrease the home fire death rate per 100 fires by 74%. (K. Rohr and J. Hall, 2005) However, it will be years before the majority of U.S. homes have this protection.

Children under 5 and older adults face the highest risk of home fire death, but people over 85 and between 18 and 34 face the highest risk of home fire injury. (J Hall, 2005)





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

- Black residents.
- Households living in poverty,
- People living in rural areas,
- Adults who did not finish high school, and
- Smokers. (J. Hall, 2006)

Road vehicle fires caused 14% of the civilian fire deaths. In 2005, the 500 deaths caused by car, truck and related vehicle fires exceeded the 460 deaths resulting from apartment fires. (M. Karter, 2006)



Half of all reported fires were outside or unclassified types of

fires. (M. Karter, 2006)