

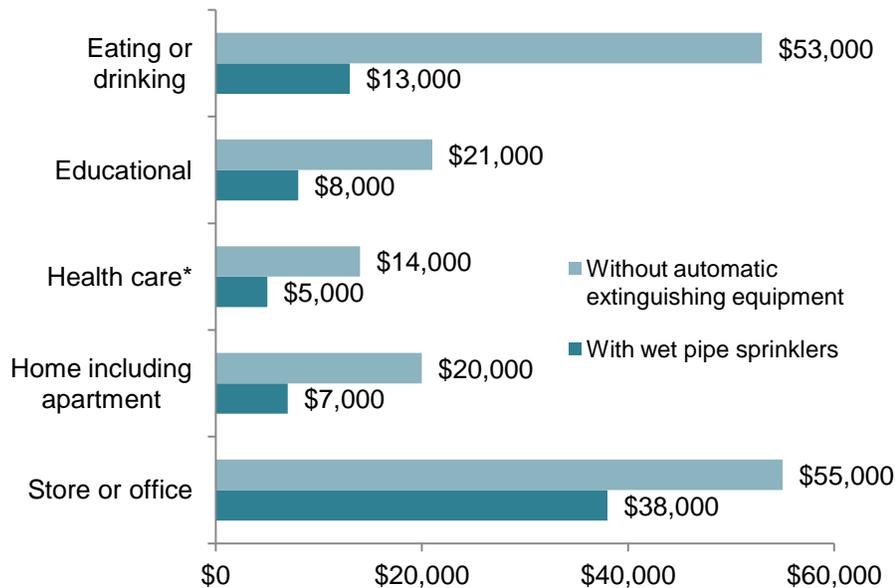
U.S. Experience with Sprinklers

Sprinklers save lives and protect property from fires.

Compared to properties without automatic extinguishing equipment and specifying wet-pipe sprinklers

- The death rate per fire in sprinklered homes is lower by 82%.
- Direct property damage per fire in sprinklered homes is lower by 68%.

Damage per Fire With Wet Pipe Sprinklers versus Without Automatic Extinguishing Equipment, 2007-2011



*Health care includes hospitals, nursing homes, clinics, and doctor's offices.

Sprinklers are reliable and effective.

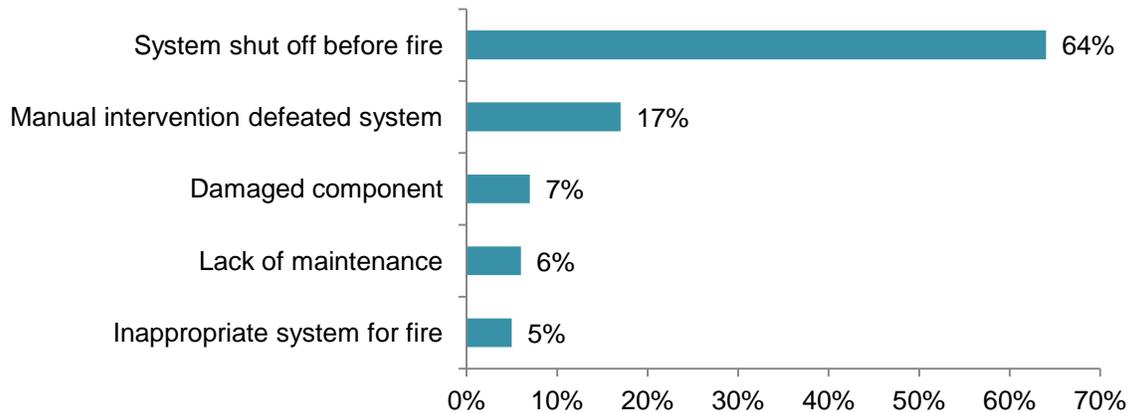
- In reported structure fires large enough to activate them, sprinklers operated in 91% of fires in sprinklered properties.
- Wet-pipe sprinklers operated in 92% of these fires vs. 81% for dry-pipe sprinklers.
- In reported structure fires large enough to activate them, sprinklers operated and were effective in 87% of fires in sprinklered properties.
- Wet-pipe sprinklers operated and were effective in 89% of fires vs. 76% for dry-pipe sprinklers.

NFPA's Fire Sprinkler Initiative: Bringing Safety Home seeks to encourage the use of home fire sprinklers and the adoption of fire sprinkler requirements for new construction. See www.firesprinklerinitiative.org.

Statistics are based on 2007-2011 U.S. reported fires excluding buildings under construction and properties with no sprinklers in fire area. Almost no reported confined fires are large enough to activate operating sprinklers, and so confined fires are excluded from analysis of reliability and effectiveness.

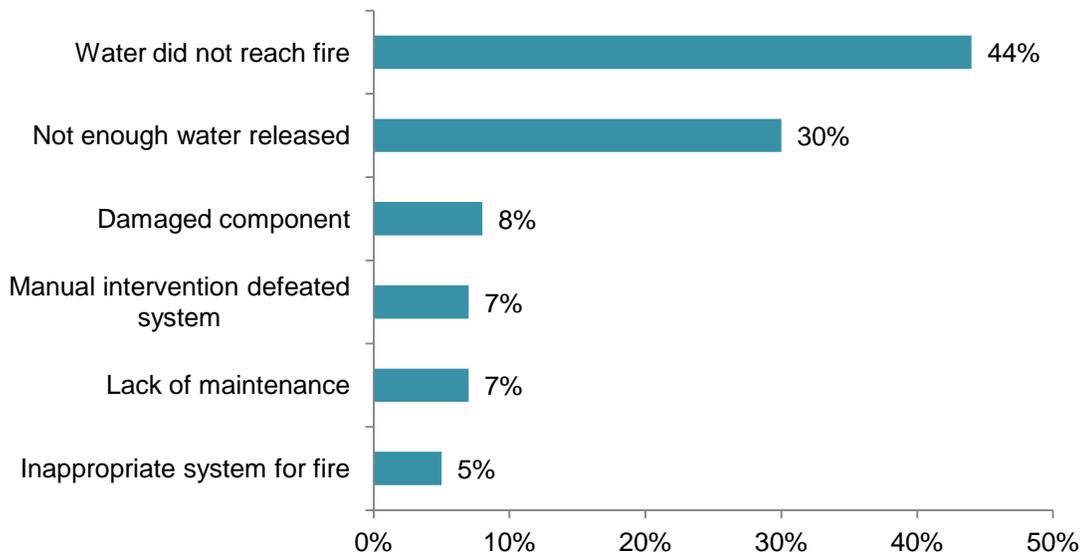
In 2007-2011 fires large enough to activate them, sprinklers operated in 91% of fires in sprinklered properties. The graph below is based on the other 9% in which sprinklers should have operated but did not.

Reasons When Sprinklers Fail to Operate, 2007-2011



In 2007-2011 fires where sprinklers operated, they were effective in 96% of the cases. The graph below is based on the other 4% in which the sprinkler was ineffective.

Reasons When Sprinklers Are Ineffective, 2007-2011



Usually only 1 or 2 sprinklers are required to control the fire.

- When wet-pipe sprinklers operated, 88% of reported fires involved only 1 or 2 sprinklers.
- For dry-pipe sprinklers, 73% involved only 1 or 2 sprinklers.

Statistics are based on 2007-2011 U.S. reported fires excluding buildings under construction and properties with no sprinklers in fire area. Almost no reported confined fires are large enough to activate operating sprinklers, and so confined fires are excluded from analysis of reliability and effectiveness.

Source: *US. Experience with Sprinklers*, John R. Hall, Jr., June 2013

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