

Residential Building Electrical Malfunction Fire Analysis

Each year from 2022 to 2024, electrical malfunction was the fourth leading cause of residential building fires.

From 2022 to 2024, an estimated

25,400

residential building electrical fires

were reported to U.S. fire departments each year.

Each year, these fires caused an estimated:



825

injuries



in property loss

7.2%

Electrical fires accounted for 7.2% of estimated residential building fires.

21%
of electrical fires

Fire spread was limited to the object of origin in 21% of electrical fires.



Electrical fires most often started in bedrooms (14%) followed by attics or vacant crawl spaces (12%).

Overall trends for residential building electrical fires for the 10-year period of 2015 to 2024 show:



5% increase
in fires



7% decrease
in deaths



1% increase
in injuries



25% increase
in dollar loss

The National Fire Data Center has provided this analysis based on estimates derived from the information contained in the NFIRS Public Data Release (<https://www.fema.gov/about/openfema/data-sets/fema-usfa-nfirs-annual-data>). Fire estimate summaries are based on the U.S. Fire Administration's (USFA's) National Estimates Methodology for Building Fires and Losses PDF.

The USFA is committed to providing the best and most current information on the U.S. fire problem and continually examines data received from participating fire departments and the analytical methods used to fulfill this goal. Because of this commitment, data collection strategies and methodological changes are possible and do occur. Previous estimates on specific issues (or similar issues) may have used different methodologies or data definitions and, therefore, may not be directly comparable to current estimates.



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