National Fire Protection Association

Fire Analysis & Research

U.S. High-Rise Building Fires Fact Sheet

In 2007-2011, U.S. fire departments responded to an average of **15,400** structure fires in high-rise buildings.[1] These fires caused an annual average of

- 46 civilian fire deaths
- 530 civilian fire injuries
- $219 million in direct property damage

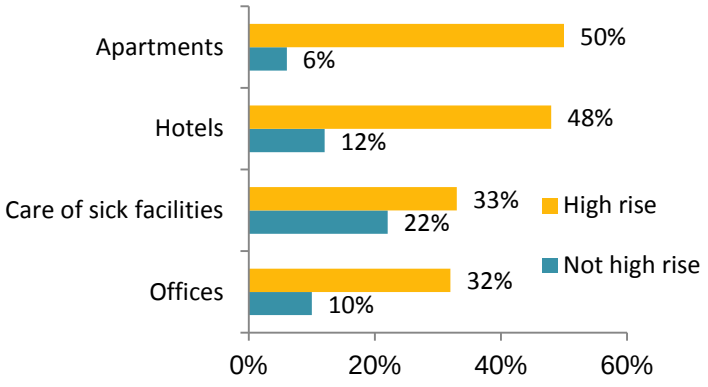
- Four property use groups account for half of high-rise fires:
  - Apartments (45% of all high-rise fires)
  - Hotels (3% of high-rise fires)
  - Facilities that care for the sick (1% of high-rise fires)
  - Offices (2% of high-rise fires)
  - The rest were mostly property uses found in mixed-use residential or office buildings (such as restaurants, stores, and parking garages) or probable miscodes of properties that cannot be high-rise (such as dwellings and sheds)

- By most measures, the risks of fire and of associated losses are **lower** in high-rise buildings than in other buildings of the same property use.

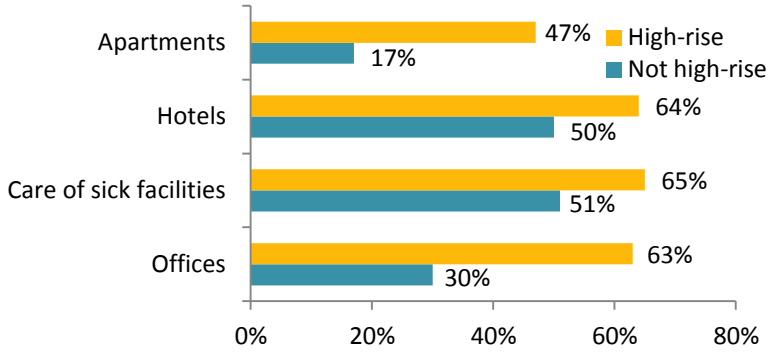
- A major reason why risks are lower is probably the much greater use of fire protection systems and features[2] in high-rise buildings as compared to shorter buildings.

- High-rise buildings have lower percentages of fires with flame damage beyond room of origin, providing further evidence of impact from fire protection systems and features :
  - Apartments (6% of high-rise fires vs. 10% in shorter buildings)
  - Hotels (6% of high-rise fires vs. 10% in shorter buildings)
  - Facilities that care for the sick (5% of high-rise fires vs. 8% in shorter buildings)
  - Offices (14% of high-rise fires vs. 21% in shorter buildings)

Presence of Fire-Resistive Construction in Fires, 1994-1998



Presence of Wet-Pipe Sprinklers in Fires Excluding Partial Systems and Buildings Under Construction, 2007-2011



Source: *High-Rise Building Fires*, John R. Hall, Jr.,
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1 "High rise" is defined here as 7 stories above grade. This is roughly consistent with the Life Safety Code definition of high rise as 75 feet (23 meters) in height, measured from the

2 Construction type of building involved in fire is not reported after 1998.