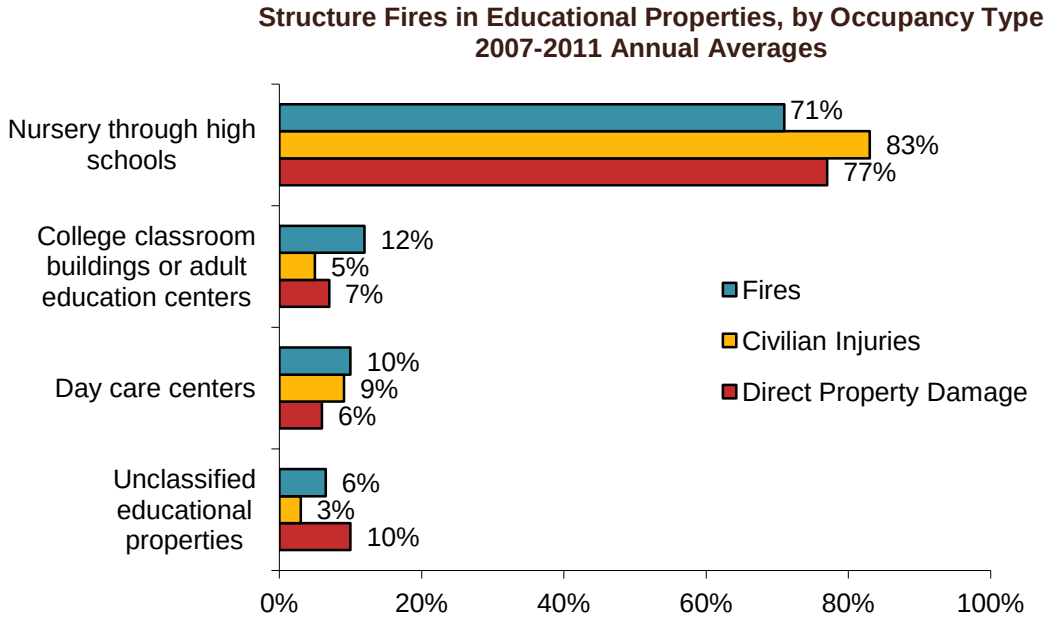
National Fire Protection Association

Fire Analysis & Research

Structure Fires in Educational Properties Fact Sheet

U.S. fire departments responded to an estimated average of **5,690** structure fires in educational properties in 2007-2011, annually. These fires caused annual averages of **85** civilian fire injuries and **$92 million** in direct property damage. An average of one death occurred in daycare properties.

The majority of fires and losses in educational properties were in nursery through high schools



In 2007-2011 36% of structure fires in educational properties occurred in structures with automatic suppression systems present.

- During 2007-2011, where automatic suppression equipment was present and known, 89% of systems in structure fires in these properties were sprinklers.
- 87% of systems operated when the fire was large enough to activate them.
- In educational properties, direct property damage per reported fire was 62% lower when wet pipe sprinklers were present, compared to fires with no automatic extinguishing equipment present

These estimates are derived from the U.S. Fire Administration National Fire Incident Reporting System (NFIRS) Version 5.0 and NFPA's annual fire department experience survey. Educational property includes Preschool through high schools, adult education centers, and day-care centers.

Source: *Structure Fires in Educational Properties*, Richard Campbell, September 2013

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Educational Property Structure Fires by Facility Type

The following estimates are annual averages for 2007-2011

Day Care Centers

- **580** structure fires
- **1** civilian death
- **8** civilian injuries
- **$6** million in direct property damage

- **Leading Causes**
  - Cooking equipment
- **Area of Origin**
  - Kitchen or cooking area
  - Bathroom
- **Item 1st Ignited**
  - Cooking materials including food
- **91**% of fires in these properties were confined to the room of origin
- **Peak Times**
  - Weekdays
  - 10 a.m.-1 p.m.

Preschools through Grades 12

- **4,060** structure fires
- **70** civilian injuries
- **$70** million in direct property damage

- **Leading Causes**
  - Half were intentionally set
  - Cooking equipment
  - Playing with heat source
- **Area of Origin**
  - Lavatory
  - Kitchen or cooking area
- **Item 1st Ignited**
  - Trash or rubbish
  - Cooking materials including food
  - Magazine, newspaper, or writing paper.
- **93%** of fires in these properties were confined to the room of origin
- **Peak Times**
  - Weekdays
  - 8 a.m. - 4 p.m.

College Classroom Buildings and Adult Ed. Centers

- **700** structure fires
- **4** civilian injuries
- **$7** million in direct property damage

- **Leading Causes**
  - Cooking equipment
  - Intentional
- **Area of Origin**
  - Kitchen or cooking area
  - Lavatory or bathroom
  - Laboratory
- **Item 1st ignited**
  - Cooking materials, including food
  - Rubbish, trash, or waste
- **94%** of fires in these properties were confined to the room of origin
- **Peak Times**
  - Weekdays
  - 10 a.m - 8 p.m