



AMERICAN SOCIETY OF SAFETY ENGINEERS

On/Off-Campus Fires: Statistics and Causes

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In an effort to reduce the incidence of on and off-campus fires, the American Society of Safety Engineers' (ASSE) Fire Protection Branch is providing key safety tips and resources for students and parents. Founded in 1911, ASSE is committed to protecting people, property and the environment. ASSE encourages students to work with their student organizations and their college administration to promote fire safety.

Statistics

- Each year, about 1,700 fires occur in collegiate housing – on and off campus(1) and about 150 fires occur each year in fraternity/sorority houses (Greek)(2).
- Average Greek housing property loss is \$580,000 per fire(3).
- The leading causes of fires in dormitories are reported as 1) arson, 2) cooking and 3) smoking(4).
- In 2001, the academic year with the most fatal fires between '00 and '05, there were 2,530 reported fires in dormitory properties causing six deaths, 82 injuries and \$48.5 million in estimated direct property damage(5).
- 33 percent of dormitory fires are the result of arson(4).
- Between 1999-2001, the leading area of origin for dormitory property structure fires was the kitchen (39 percent). Another 22 percent started in the bedroom; nine percent began in a hallway or corridor(5).
- 56 percent of injuries from dormitory fires occur when victims attempt to suppress the fire(4).
- Smoke alarms operated in 79 percent of dormitory fires. However, many times, the alarms are ignored by students who believe them to be false alarms(4).
- Approximately one-half of those who die in student housing fires have high blood alcohol count (BAC) values, a finding that is consistent with the disproportionate number of deaths that occur in house fires on weekends, when people tend to consume more alcohol, according to the U.S. Department of Health and Human Services Report titled 'Alcohol and Health'.

Causes (1999 – 2001)

- Arson is also the leading cause of Greek house fires(2) with open flames being the second leading cause.
- According to the U.S. Department of Health and Human Services' 'Alcohol and Health' report about half the adults who die in residential fires have high blood alcohol counts and that alcoholic burn victims had a mortality rate three times that of nonalcoholic victims. Drinking alcohol increases the chance of falling asleep while smoking in bed and greatly reduces one's ability to detect and respond to a fire and safely escape, the report notes. The U.S. Fire Administration's Fire Safety 101 fact sheet from March 1999 notes, "In cases where fire fatalities occurred on college campuses, alcohol was a factor."
- January, May, September and October are the peak months for fires in Greek houses, due in part to graduation parties and rush events. Most dormitory fires occur while school is in session(3).
- Evacuation efforts can be hindered since fire alarms are often ignored, and, vandalized and improperly maintained smoke alarms and fire alarm systems inhibit early detection of fires(6).

Resources:

1) U.S. Fire Administration/FEMA 'Living with Fire' College Fire Survival 101 lists resource as NFPA International

2) *U.S. Fire Administration/FEMA Topical Fire Research Series – March 2002 ‘Fraternity and Sorority House Fires*

3) *National Fire Sprinkler Association, B. Dewar’s ‘Fraternity and Sorority House Fire Safety’ power point, attributed number to NFPA.*

4) *U.S. Fire Administration/FEMA Topical Fire Research Series, December 2001, ‘Dormitory Fires’*

5) *National Fire Protection Association*

6) *U.S. Fire Administration’s Fire Safety 101 fact sheet, March 1999*

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