

# **U.S. Fire Administration TOPICAL FIRE RESEARCH SERIES**

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## **Arson in the United States**

### **FINDINGS**

- Arson is the leading cause of fires (267,000 annually) in the United States and the second leading cause of deaths (475) and injuries (2,000); arson causes \$1.4 billion in property loss each year.
- Community, municipal, and Federal interventions in addressing certain aspects of the problem have ameliorated arson incidence.
- 50% of arson fires occur outdoors, 30% in structures, and 20% in vehicles.
- Half of all arson arrests are juveniles.
- Vacant and abandoned buildings are targets for arsonists. Also poorer neighborhoods experience 14 times the number of arsons as higher income neighborhoods.
- Church arsons increased sharply in 1996.

Arson is the leading cause of fire in the United States.<sup>1</sup> Each year, an estimated 267,000 fires are attributed to arson, which result in \$1.4 billion in property loss and cause over 2,000 injuries and 475 deaths.<sup>2</sup> As a result, arson prevention and investigation have become the focus of increased attention within the federal government, the fire service, and the criminal justice system.

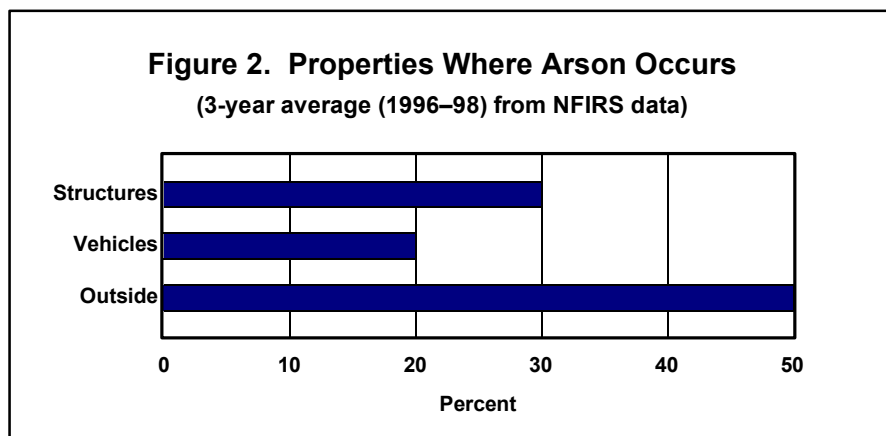
According to analysis of 1996–1998 data from the National Fire Incident Reporting System (NFIRS) (all reported fires), the dollar loss per arson fires from arson fires were slightly higher than the average of all fires, but deaths and injuries were somewhat lower (Figure 1).

**Figure 1. Loss Measures for Arson Fires**  
(3-year average (1996–98) from NFIRS data)

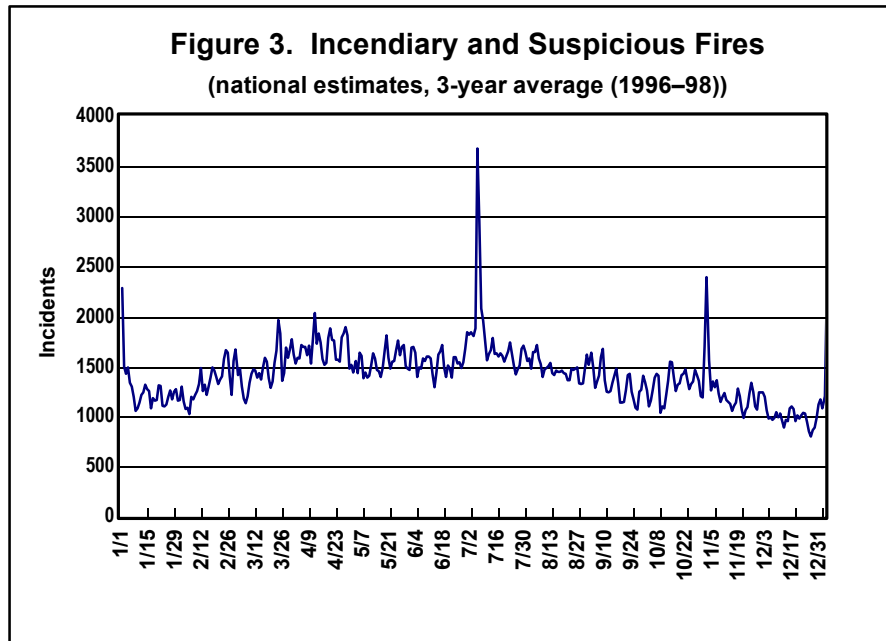
MEASURE	ALL FIRES	ARSON FIRES
Dollar Loss/Fire	\$5,619	\$6,051
Injuries/1,000 Fires	15.7	10.2
Fatalities/1,000 Fires	2.4	1.8

The general public typically views arson as an insurance concern, primarily a “paper” crime of fraud mostly affecting insurance companies. Arsonists, however, kill and injure both civilians and firefighters. Increasingly, set fires motivated by spite and revenge are used as weapons. Such fires tend to be more deadly because they are targeted specifically to inflict personal harm. Examples include a 1994 gang-related firebombing that killed five children in Minneapolis<sup>3</sup> and a 1999 revenge fire that killed six children in St. Louis.<sup>4</sup>

Arson fires are the third leading cause of fire-related injuries and fatalities. (Cooking fires are the leading cause of fire-related injury, and smoking fires are the leading cause of fire deaths). Thirty percent of arson fires occur in structures (of which 30% are in structures), 50% occur outdoors, and 20% occur in vehicles (Figure 2). Although outdoor fires are not as deadly as those in structures, they cause concern for several reasons. First, their proximity to structures increases the chance for exposure fires. Also, outdoor fires are often “gateway” fires for juvenile firesetters who begin setting fires in trash cans, fields, or empty lots, and then move on to targets that bear increasing risk to persons and property. Juveniles now account for over half of all arson arrests in the United States.<sup>5</sup>



Arson fires tend to peak around specific dates each year, notably New Year's, July 4, and Halloween (Figure 3). A concern in some communities has been the rash of Halloween fires. Although it appears that Halloween is a peak time for intentionally set fires across the nation, it has been particularly significant in certain areas. As a result, communities throughout the country have initiated neighborhood programs to report suspicious activity on the nights of October 29, 30, and 31.<sup>6</sup> In Detroit, the program, known as Angel's Night, involves 35,000 volunteers (both private citizens and personnel from all departments of the city government) operating throughout the city. Since the inception of the program, the number of Devil's Night arson fires has decreased significantly.



Although arson fires are most commonly set outdoors, arsonists also target vacant or abandoned buildings. Such “blighted” buildings are a widespread problem in cities throughout the United States. When repair costs exceed revenue, building owners may abandon the property and default on the mortgage. Banks are reluctant to assume responsibility for property upkeep when the resale potential is negligible, so the property is simply left “as is.” The structure then becomes a sanctuary for drug dealers, other criminals, and “urban miners” who loot the property for anything of value. Firesetters finish the job, often to conceal other crimes.

A recent example of a blighted building fire occurred in December 1999. Six firefighters from the Worcester (MA) Fire Department were killed while fighting a fire in an abandoned cold storage warehouse. In May 2000, the widows of three of the deceased firefighters filed a lawsuit against the warehouse’s owners, alleging their negligence in maintaining the building ultimately led to their husbands’ deaths.<sup>7</sup>

In the wake of the events in Worcester, the Worcester Fire Department has joined with FEMA in an effort known as Project Remember to rehabilitate abandoned buildings in the city in memory of the fallen firefighters.<sup>8</sup>

Other fire departments and government agencies are struggling to find ways to eliminate blighted buildings and support the costs of demolition. For example, FEMA recently announced the inception of a pilot project under Project Impact: Building a Disaster-Resistant Community. The project is a partnership of community, state, and federal organizations committed to reducing potential life safety risks, including those caused by abandoned and unsafe buildings.

In addition to the potential of arson and other fires in abandoned buildings, the quality of a neighborhood can also influence the incidence of fire. Socioeconomic status has long been associated with increased fire risk.<sup>9</sup> One study conducted in 1981, in Toledo, found the relationship between income and incendiary/suspicious fires to be startling. Statistical analysis revealed that the poorest group of census tracts in that city experienced 14.4 times the number of incendiary or suspicious fires as the highest income census tracts.<sup>10</sup>

Yet another facet of America's arson problem involves houses of worship. In 1996, church arsons increased sharply, particularly involving African-American churches in the South. As a result, President Clinton formed the National Church Arson Task Force (NCATF) to coordinate the efforts of federal, state, and local law enforcement agencies. Also in 1996, Congress passed the Church Arson Prevention Act, which expanded the options available to prosecutors when dealing with malicious acts aimed at houses of worship. Since the inception of the NCATF, the incidence of arson or bombing at houses of worship has declined steadily.

## NOTES

1. "Arson" is a legal term; in this paper, arson refers to any fire of an incendiary or suspicious origin.
2. National estimates are based on data from the National Fire Incident Reporting System (NFIRS) (1996-1998) and the National Fire Protection Association's (NFPA's annual survey, *Fire Loss in the United States*.
3. "22 Charged in Fire That Killed Five Kids," *The Columbus Dispatch*, February 21, 1998.
4. "Police Say Fire Suspect Eyed Revenge," *St. Louis Post-Dispatch*, March 13, 1999.
5. For further information on juvenile firesetting/arson, see *Arson and Juveniles: Responding to the Violence*, U.S. Fire Administration.
6. "Halloween Arsons in Detroit Fall From '96," *The Detroit News*, November 2, 1997.
7. *Six Career Firefighters Killed in Cold-Storage and Warehouse Building Fire - Massachusetts*, NIOSH Firefighter Fatality Investigation Reports, September 27, 2000.
8. "Director Witt Announces New Initiatives in Worcester," Press Release, Federal Emergency Management Agency, October 27, 2000.
9. *Socioeconomic Factors and the Incidence of Fire*, U.S. Fire Administration, Federal Emergency Management Agency, 1997.
10. Gunther, Paul, "Fire-Cause Patterns for Different Socioeconomic Neighborhoods in Toledo, OH," *Fire Journal*, Vol. 75, May 1981.

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