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(A PERSPECTIVE ON) FIRE FATALITIES IN THE UNITED STATES

By Richard Schulte

According to a report published by the National Fire Protection Association (NFPA) titled "*Lightning Fires and Lightning Strikes*" written by Ben Evarts of the NFPA Fire Analysis and Research Division dated December 2010, the National Weather Service estimates that an average of 38 Americans died annually as a result of being struck by lightning in the 5 year period between 2004 and 2008. This same report indicates that the National Safety Council estimates that an average of 47 Americans died annually as result of being struck by lightning in the 3 year period between 2004 and 2006. (See page 4 of the referenced report.)

Another report published by the National Fire Protection Association titled "*U. S. Experience with Sprinklers and Other Automatic Fire Extinguishing Equipment*" authored by John R. Hall, Jr. dated September 2010 includes the following quote:

"For properties other than homes, [fire] deaths tend to be extremely rare, with or without sprinklers."

A third report published by the National Fire Protection Association titled "*Structure Fires by Occupancy 2003-2007 Annual Averages*" developed by the NFPA Fire Analysis and Research Division dated June 2010 provides a basis for Dr. Hall's statement above. Table 1 provides excerpts of the data provided in this report.

The data contained in the NFPA's "*Structure Fires by Occupancy 2003-2007 Annual Averages*" report clearly seems to support Dr. Hall's statement above, particularly with the backdrop of the statistics on fatalities caused by lightning strikes.

Are the fire safety provisions contained in our model building codes too restrictive? The statistics, commentary and reports cited above can be used as basis for answering that question.

**Table 1. EXCERPTS OF DATA:
 “STRUCTURE FIRES BY OCCUPANCY 2003-2007 ANNUAL AVERAGES”**

Occupancy	Number of Fires	Average Annual Number of (Civilian) Fire Fatalities (2003-2007)
Public Assembly	15,890 fires	7 fatalities
Educational	6,620 fires	0 fatalities
Nursing Homes	2,930 fires	15 fatalities
Hospitals	1,520 fires	1 fatality
Mercantile and Business	20,660 fires	14 fatalities
Utility/Agricultural/Defense Installations	3,180 fires	7 fatalities
Manufacturing/Processing	7,220 fires	5 fatalities
Vehicle Parking Garages	750 fires	1 fatality
Warehouses	1,360 fires	4 fatalities
Unclassified/Unknown	8,890 fires	12 fatalities
Totals-Non-Residential Buildings:	115,200 fires	108 fatalities

Note: The entries in Table 1 are excerpts from the report cited. The sum of the entries in the columns is not equal to the totals indicated.

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Editor’s Note: Richard Schulte is a 1976 graduate of the fire protection and safety engineering program at the Illinois Institute of Technology (IIT) in Chicago. Schulte worked as the fire protection engineer for the San Jose (California) Fire Department from 1980-1982. Schulte was named as one of ENR’s “Top 25 Newsmakers of 2004” by Engineering News-Record for his work on critiquing the National Institute of Standards and Technology (NIST) investigation into the collapse of the World Trade Center towers on 9/11.