

An Analysis of Civilian Residential Fire Deaths in Tennessee, 2002- 2010

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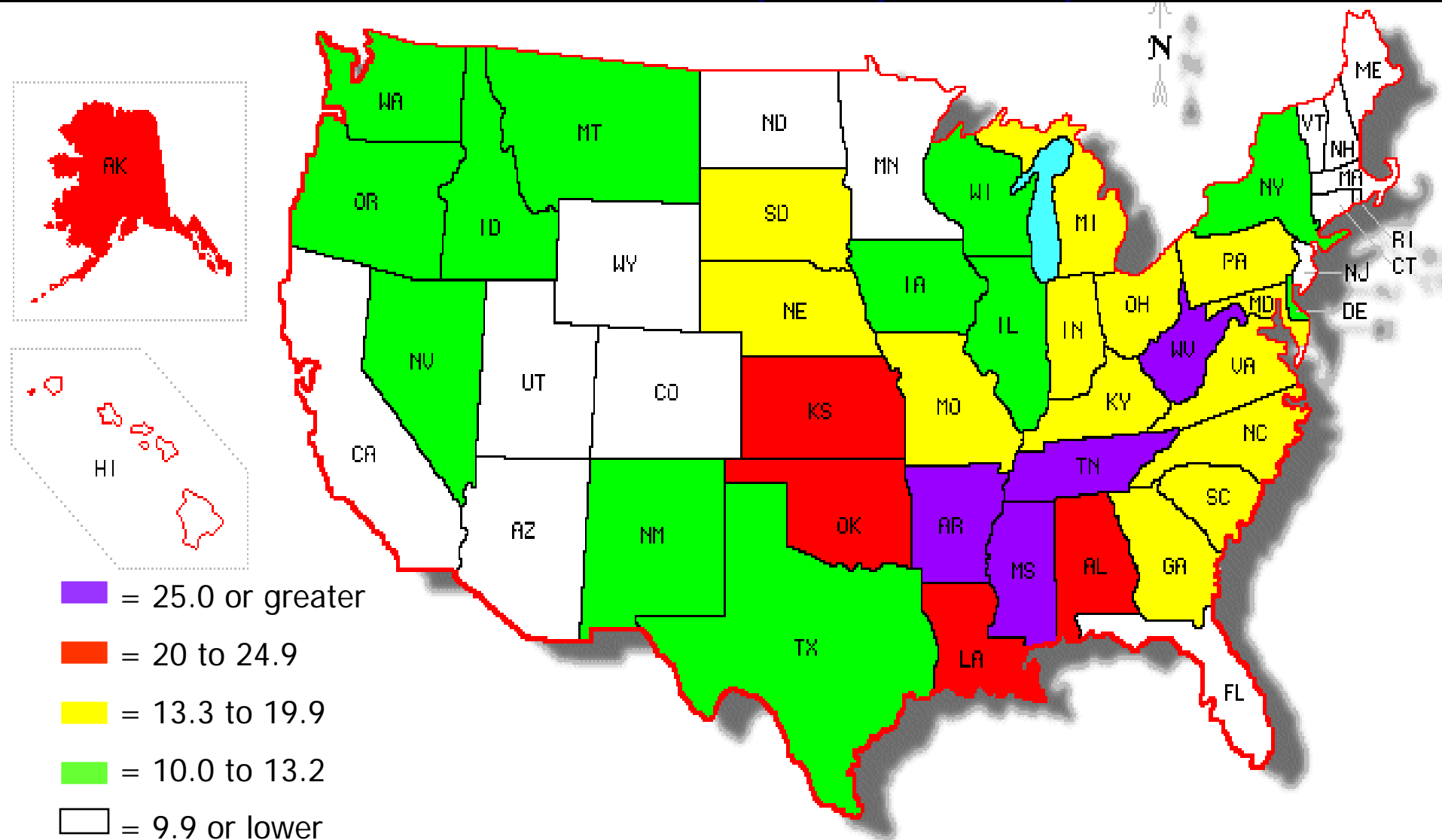
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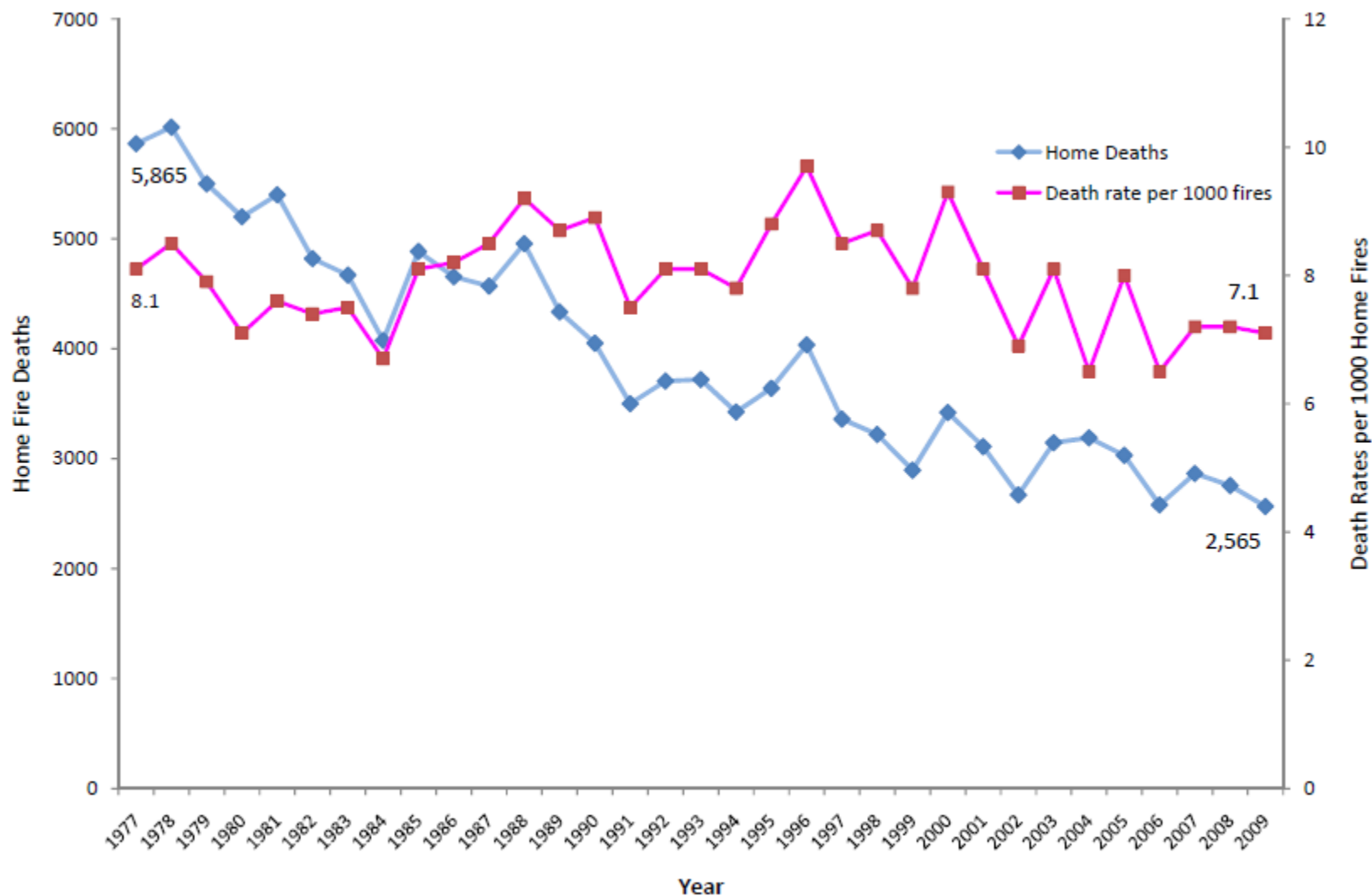
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Mean Civilian Residential Fire Death Rates in the States (for 2004, 2005, & 2007)

National Mean = 13.3/million; TN = 25.5/million

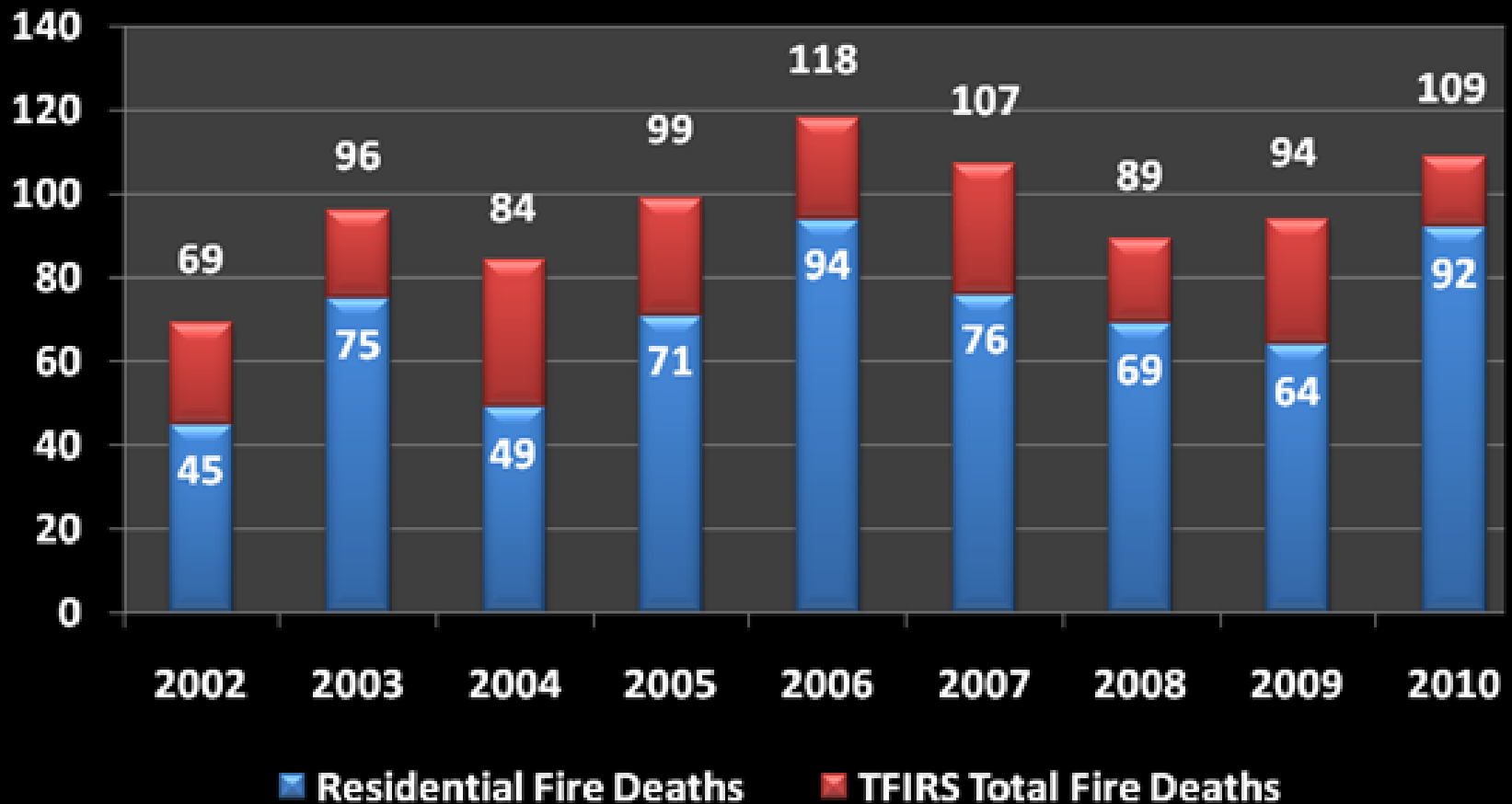


Civilian Home Fire Deaths and Rates per 1000 Fires in the U.S., 1977-2009

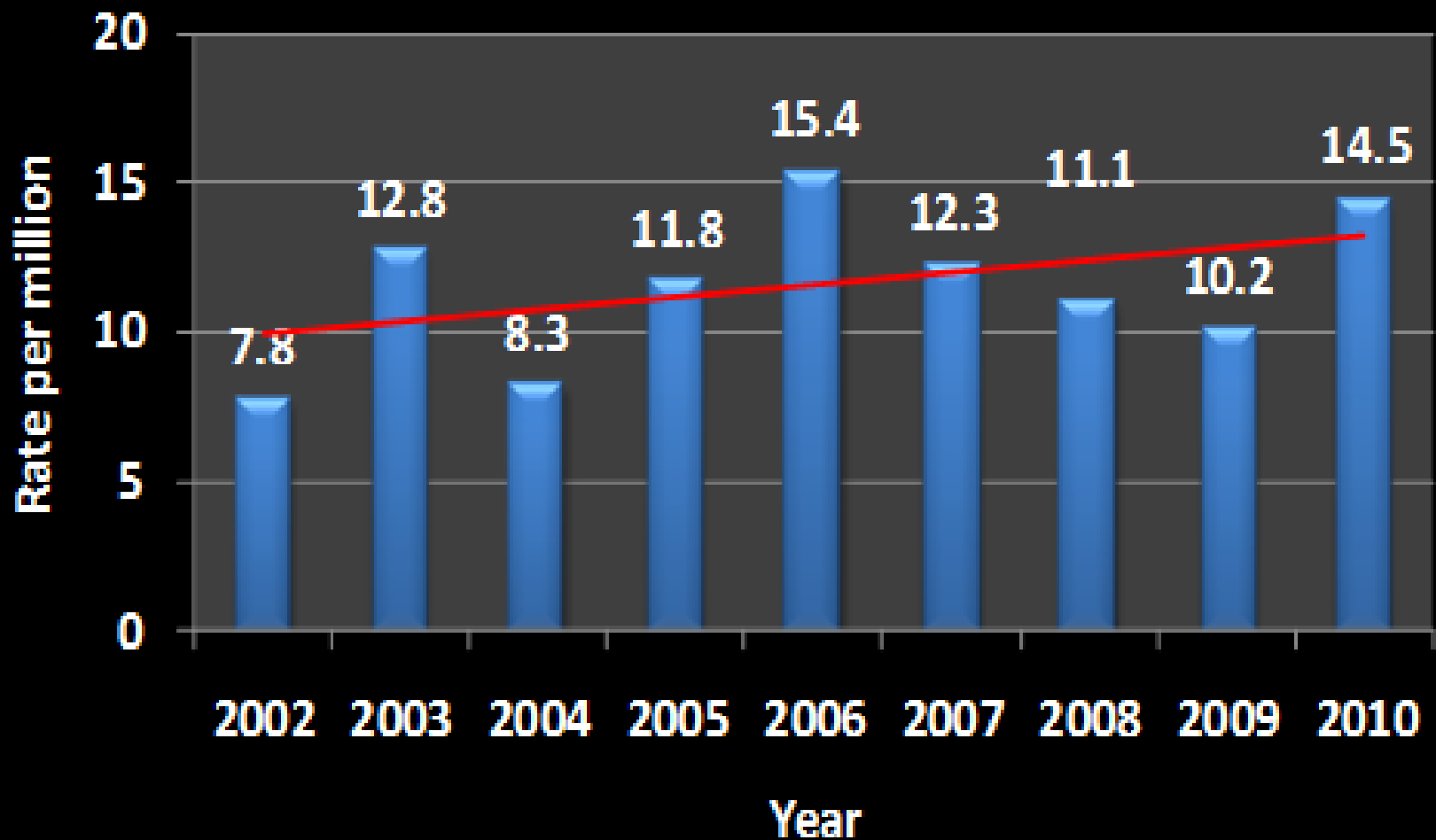


Source: NFPA Survey of Fire Departments (1977-2009)

Trends in TFIRS Civilian Fire Deaths and Civilian Residential Fire Deaths in TN by Year (2002-2010)

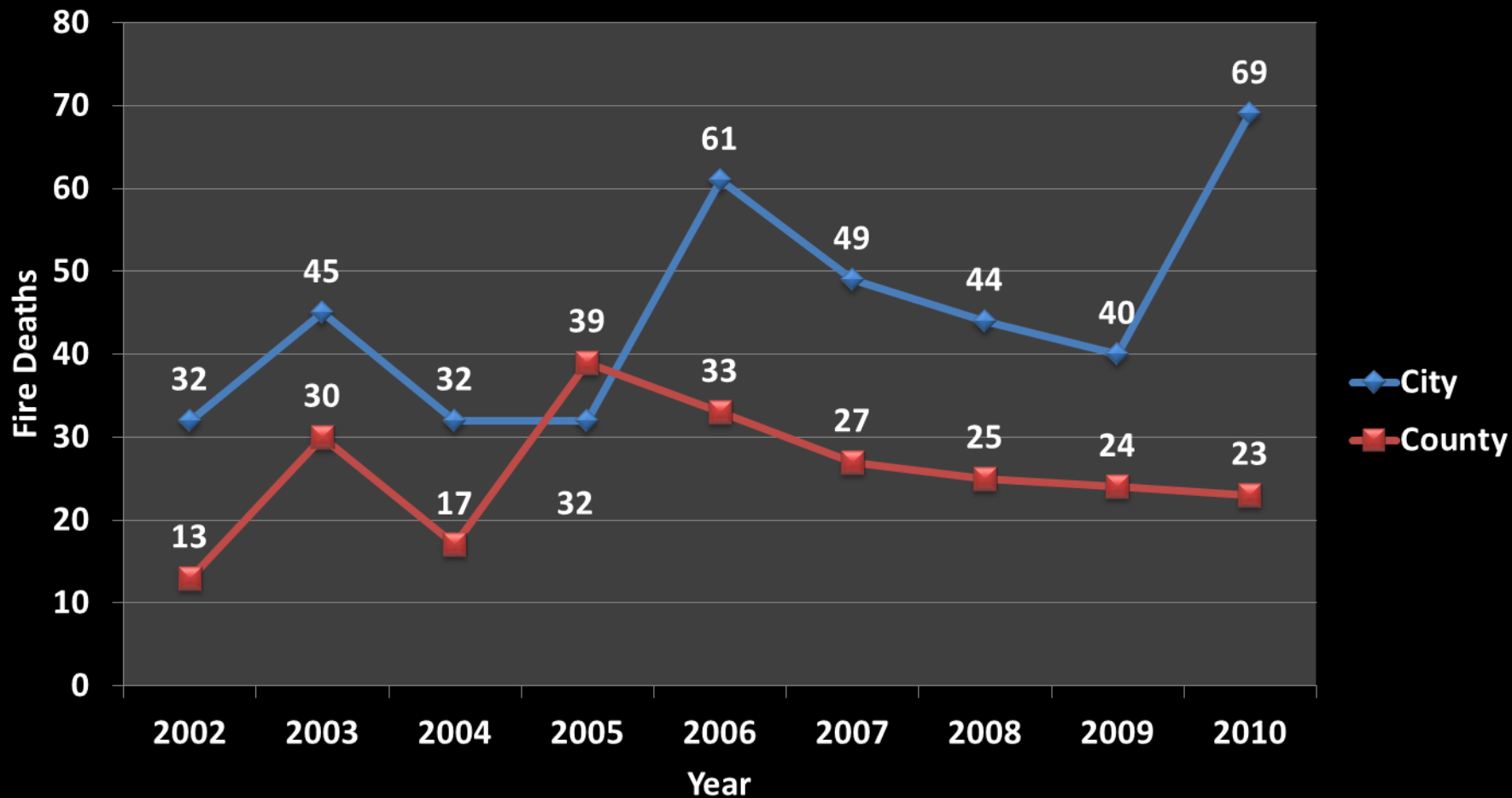


Mean Annual Civilian Residential Fire Death Rate/mill. (2002-2010)

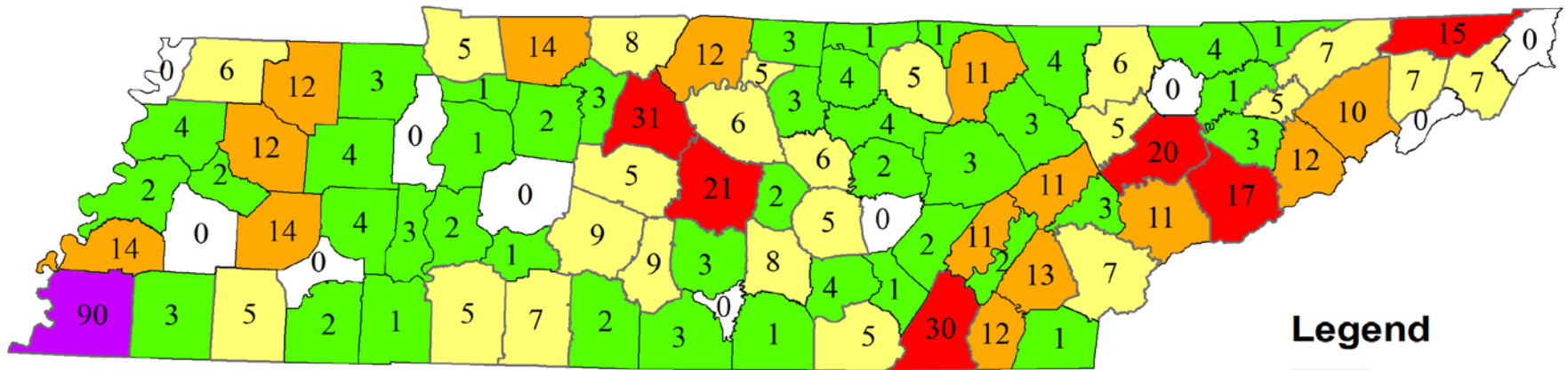


Urban and Rural Fire Deaths per Year (2002-2010)

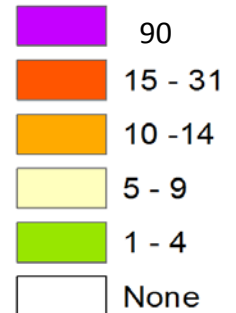
N=635



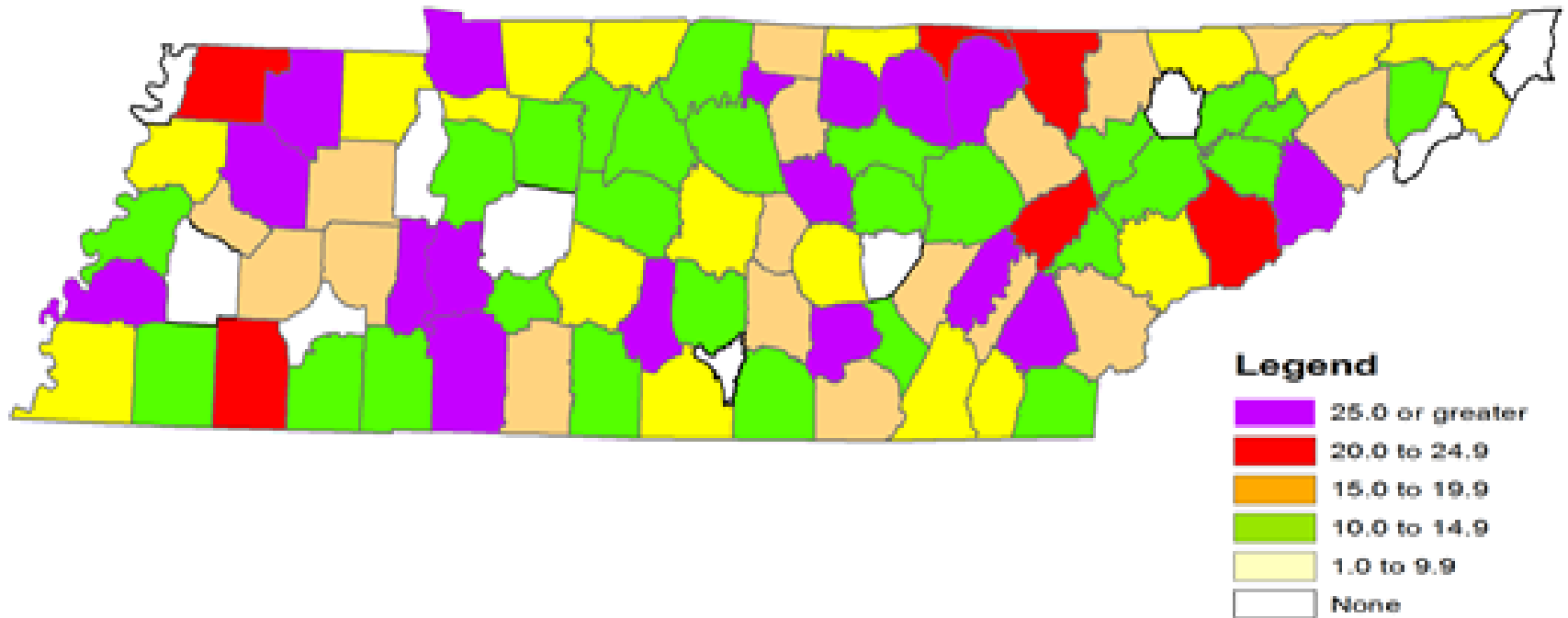
Number of Civilian Residential Fire Deaths by County (2002-2010)



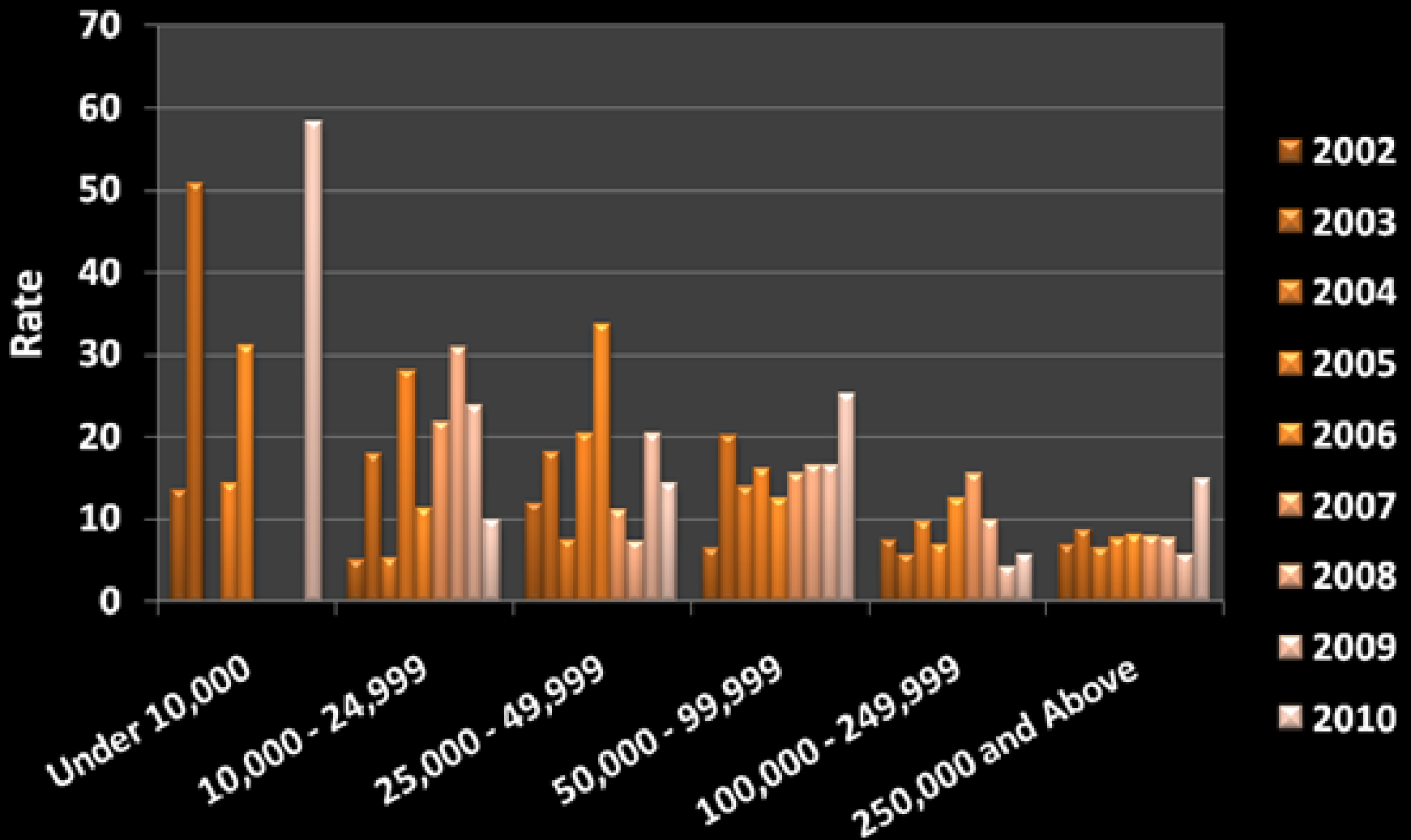
Legend



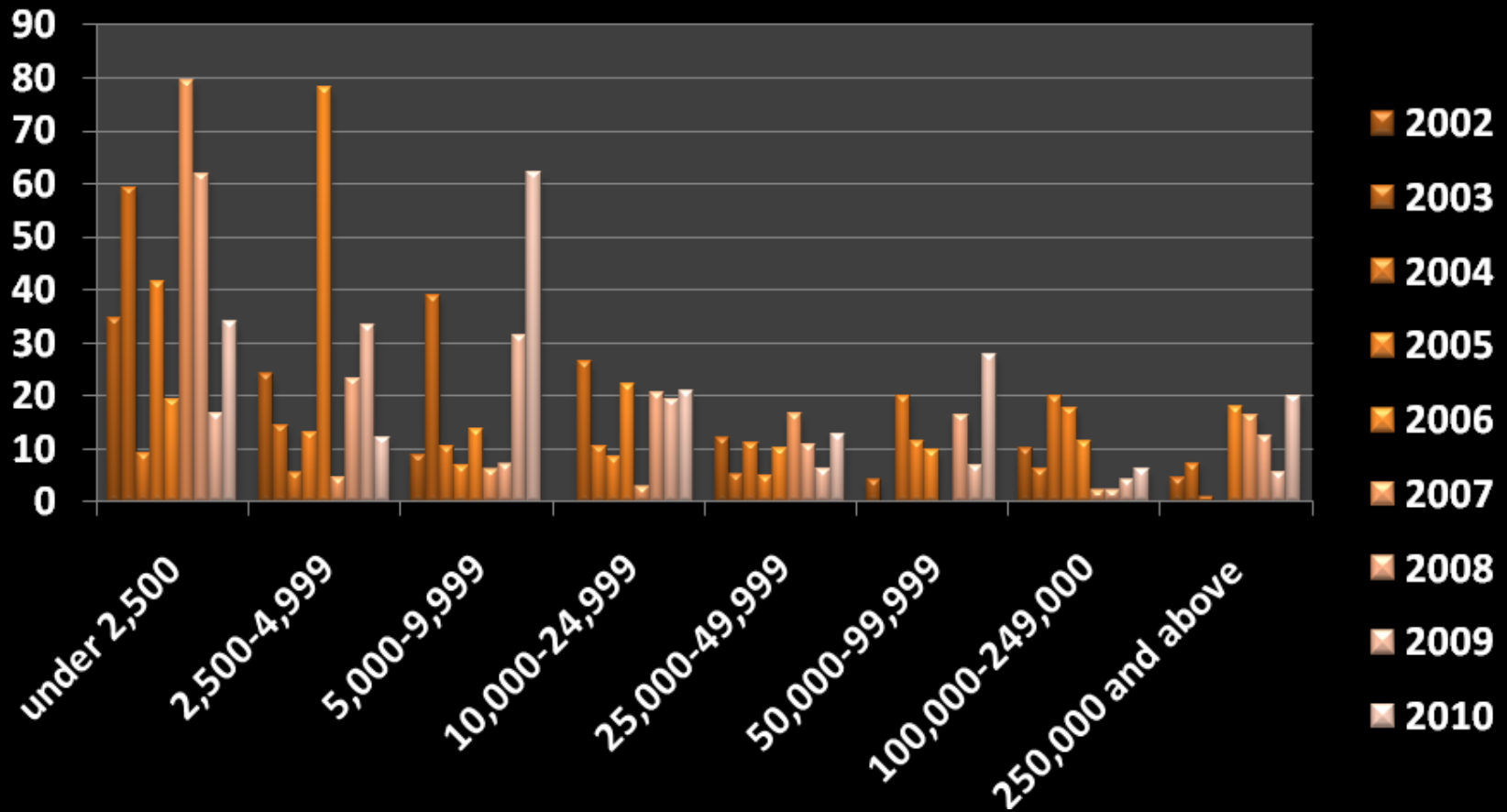
Average Annual Fire Death Rate Per Million in Tennessee Counties



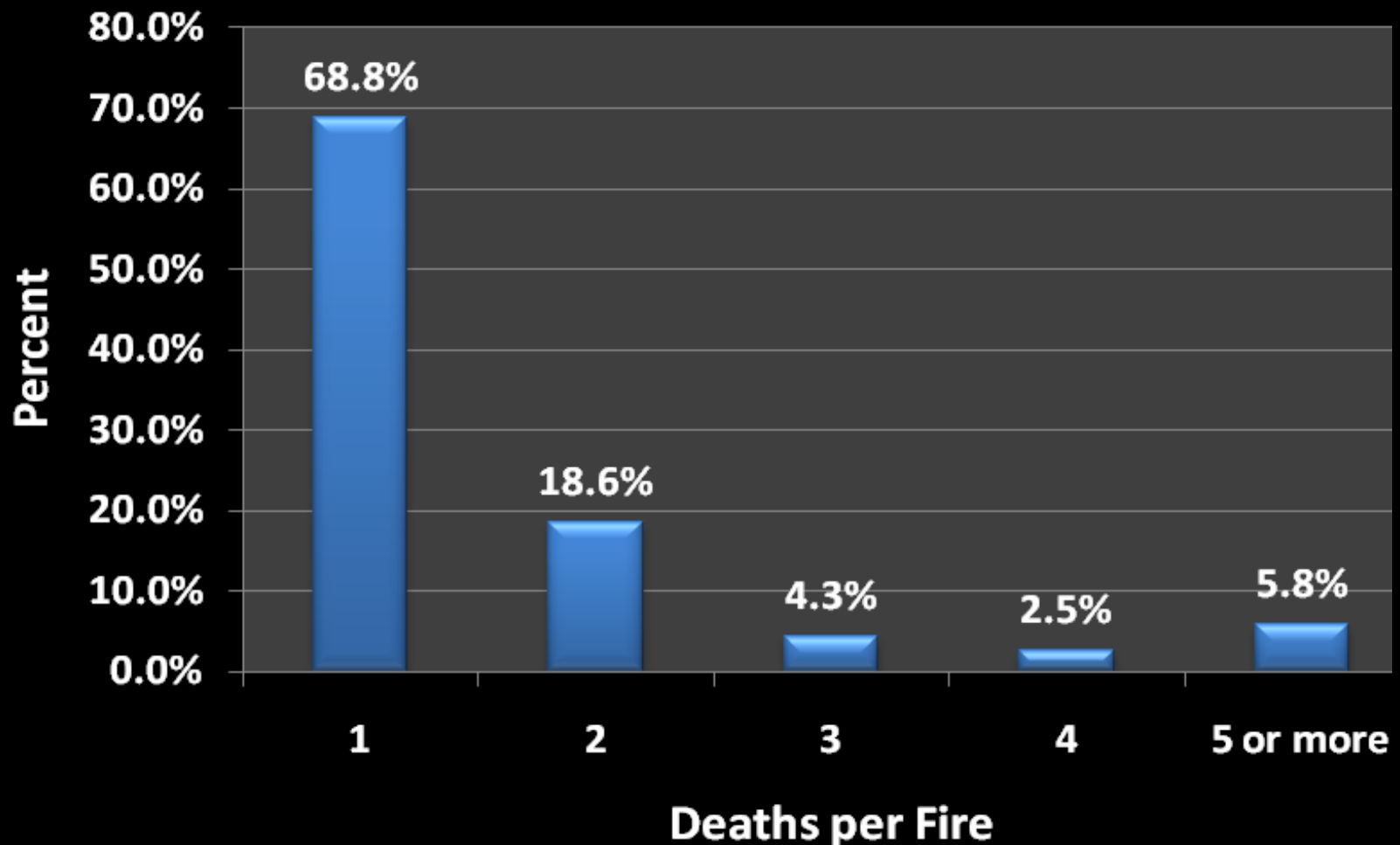
Mean Civilian Fire Death Rates in Tennessee by County Size and Year (2002-2010)



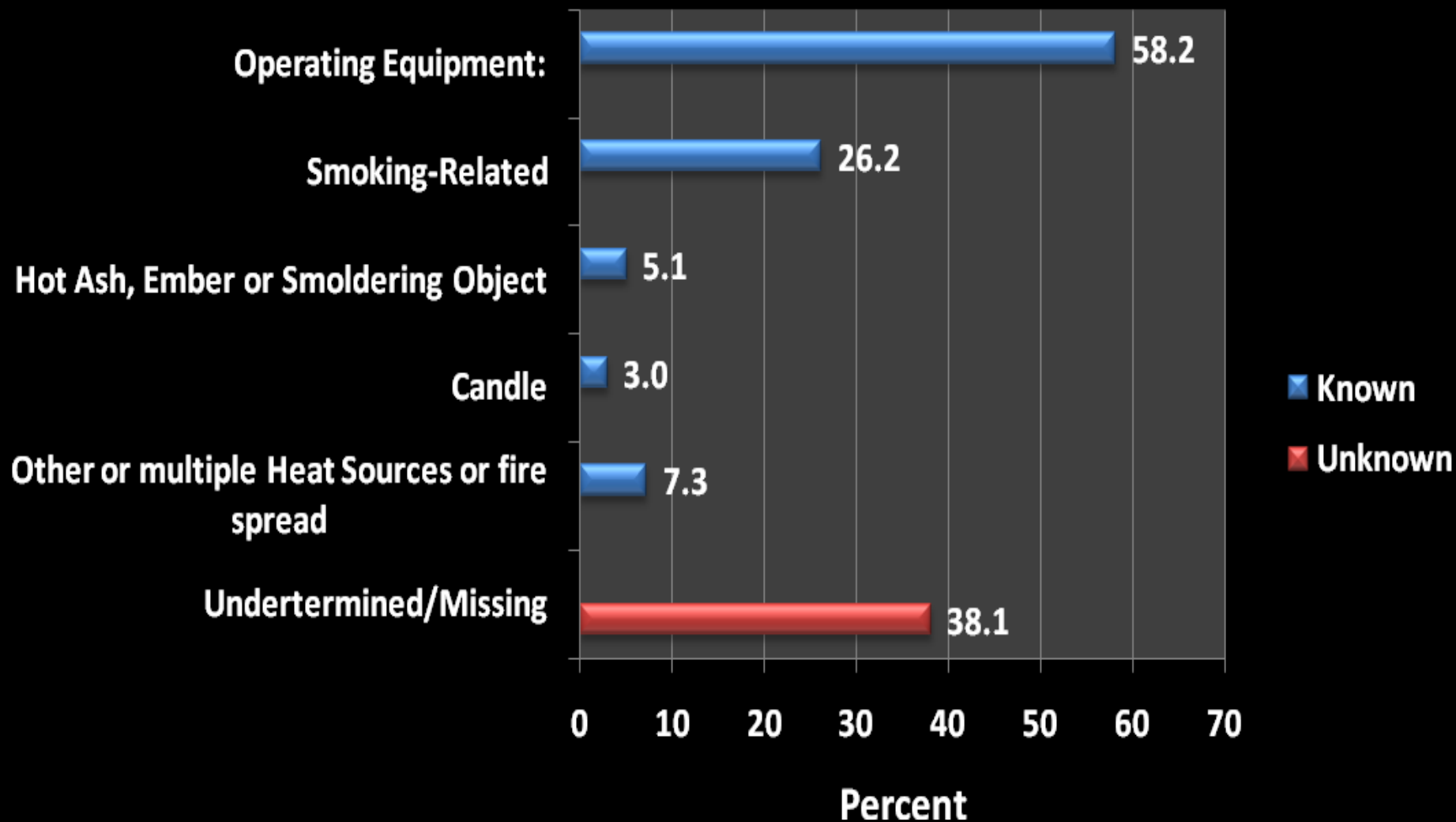
Mean Civilian Fire Death Rates in Tennessee by City Size and Year (2002-2010)



Distribution of Civilian Residential Fire Deaths in TN (2002-2010) N=635

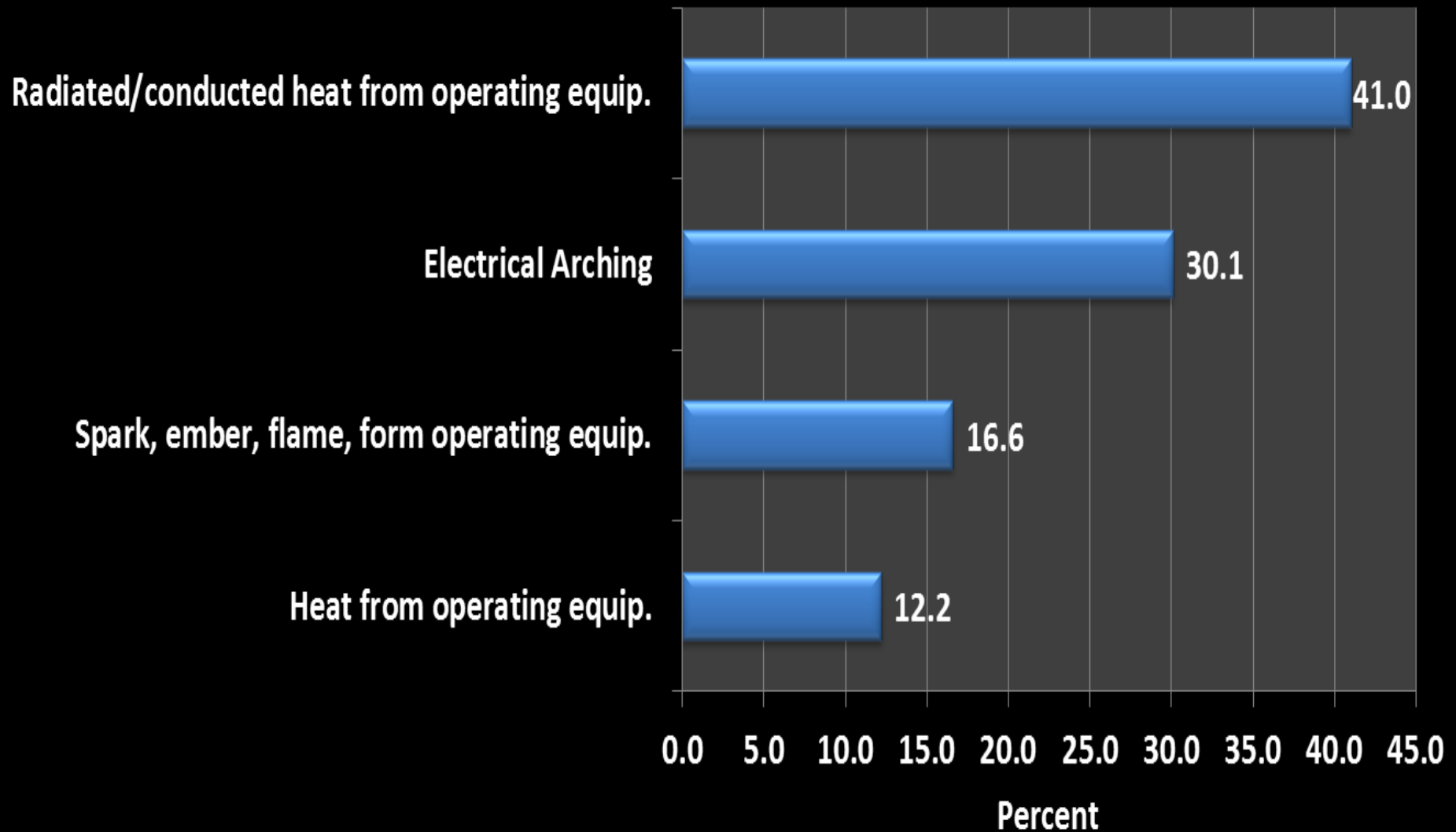


Heat Source for Fires in Residential Fire Deaths in TN (2002-2010)

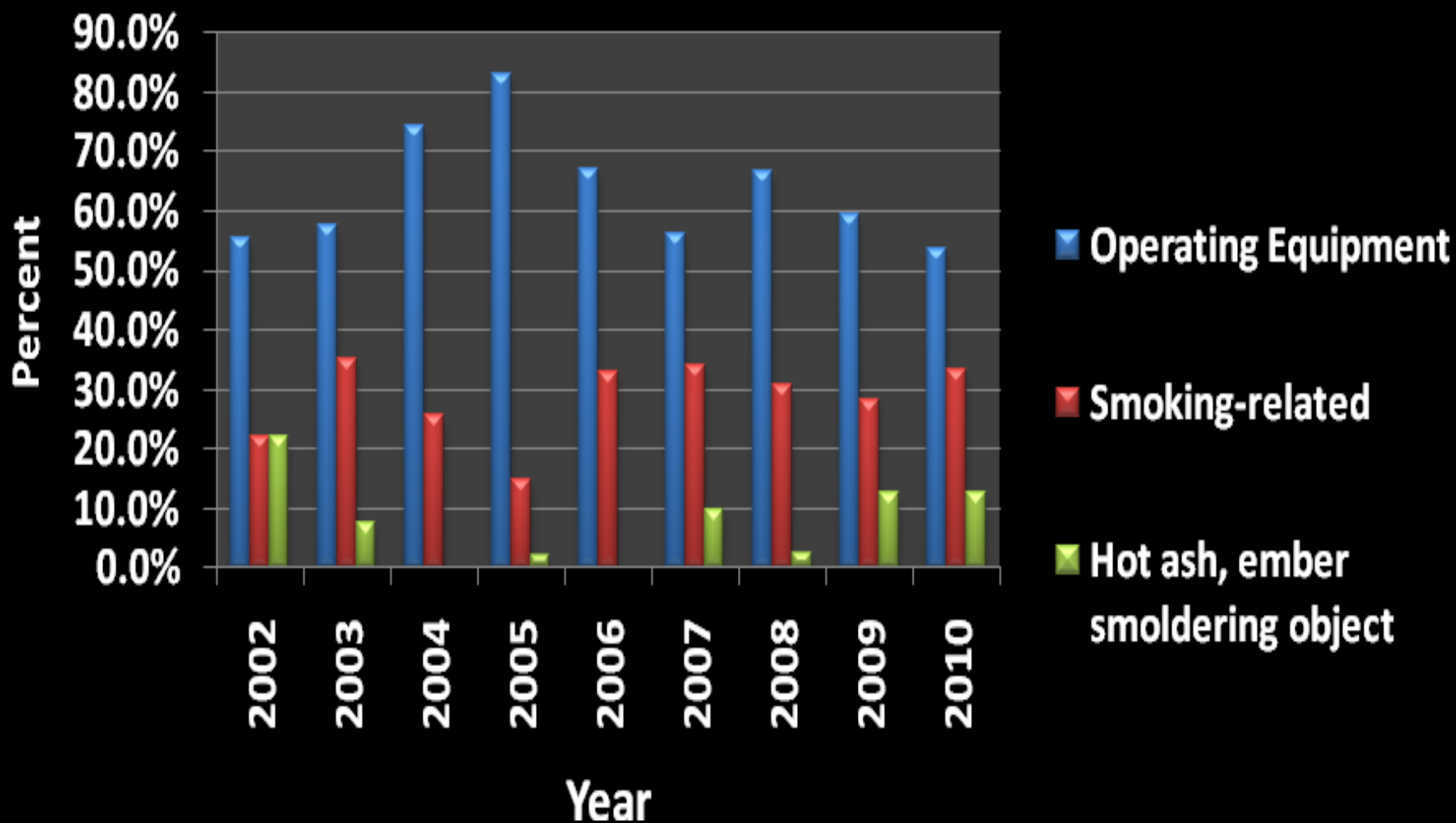


Operating Equipment Heat Sources, 2002-2010

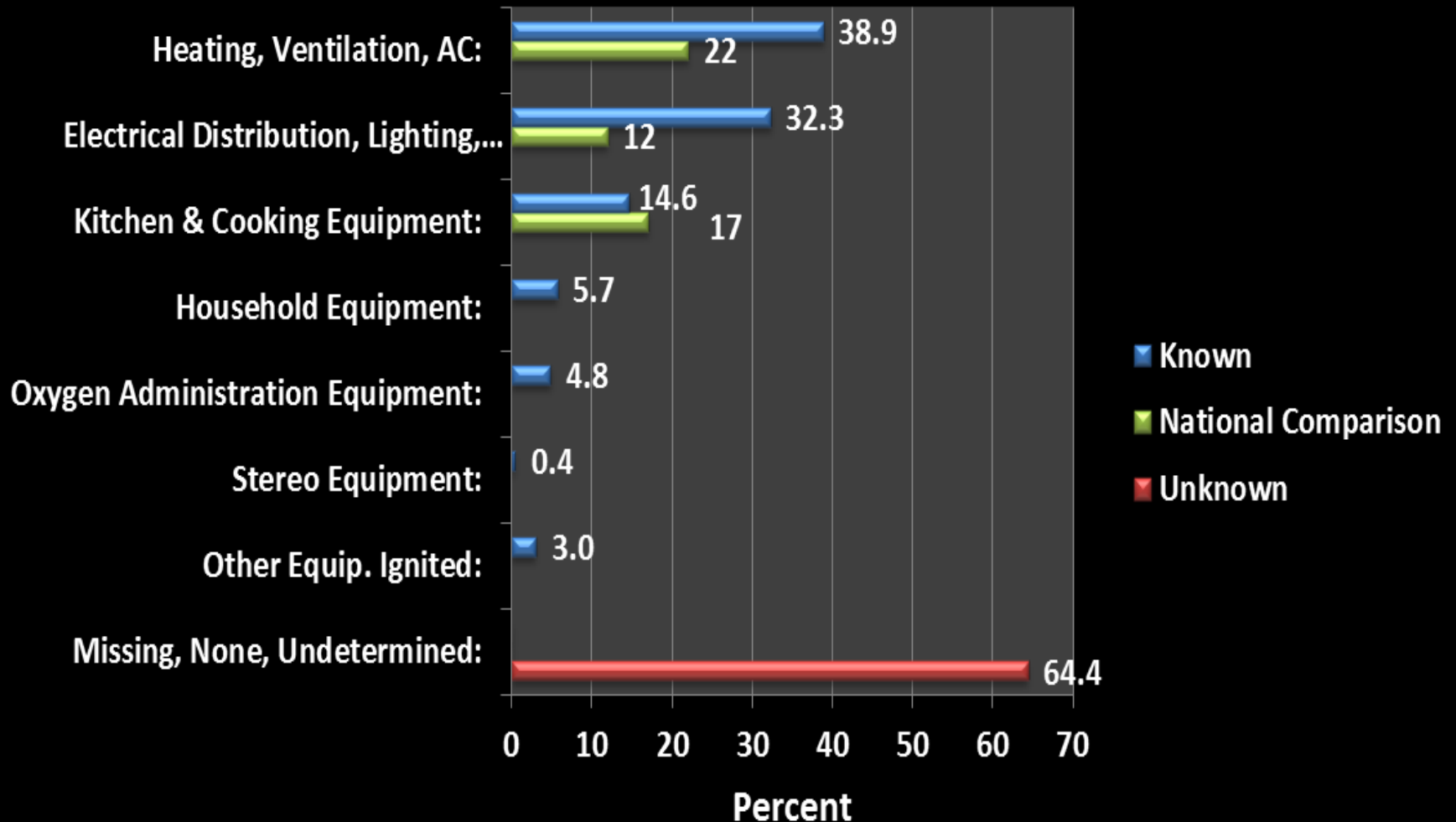
(N = 229)



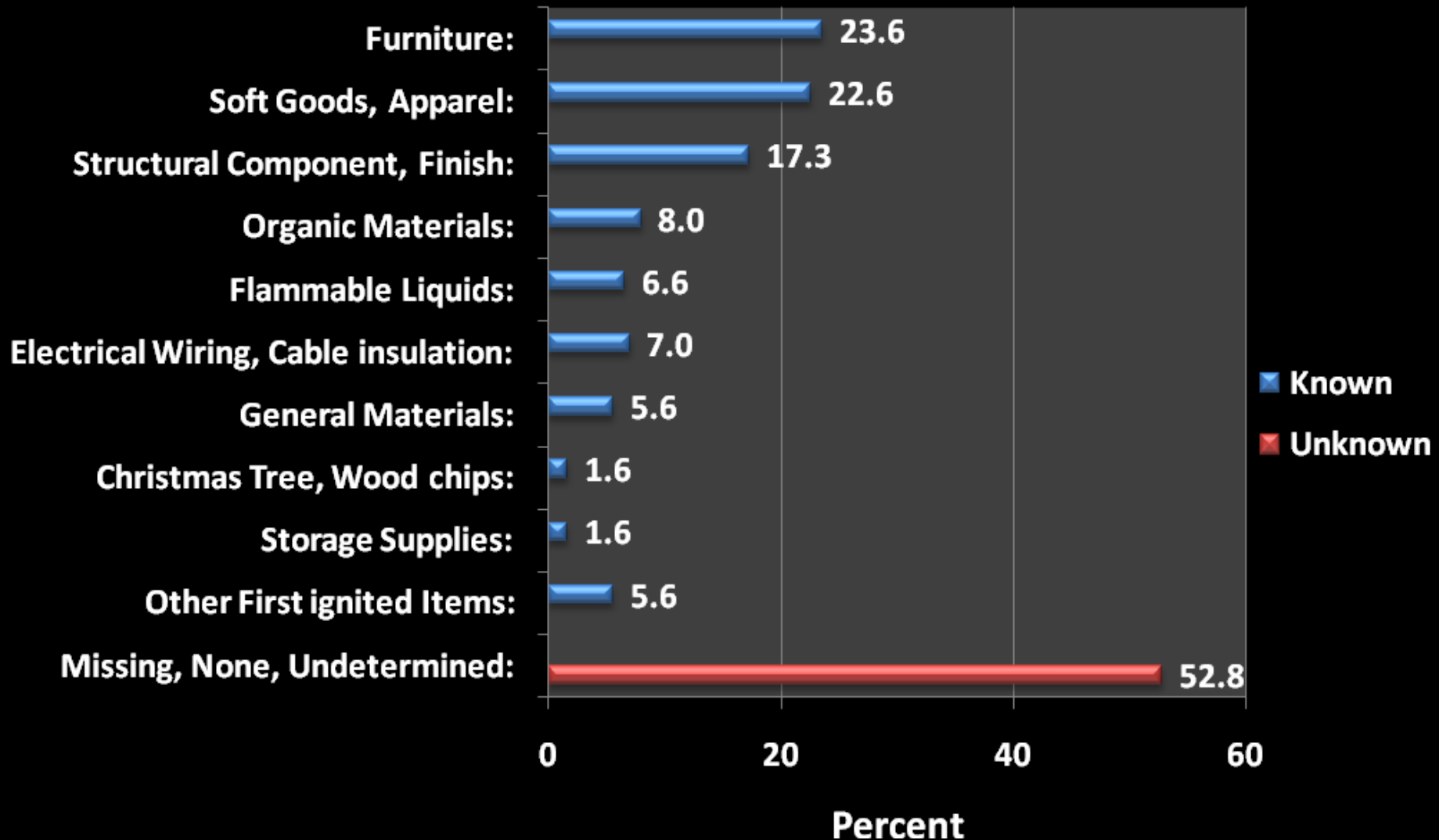
The Top Three Leading Heat Sources for Fatal Residential Fires by Year (2002-2010)



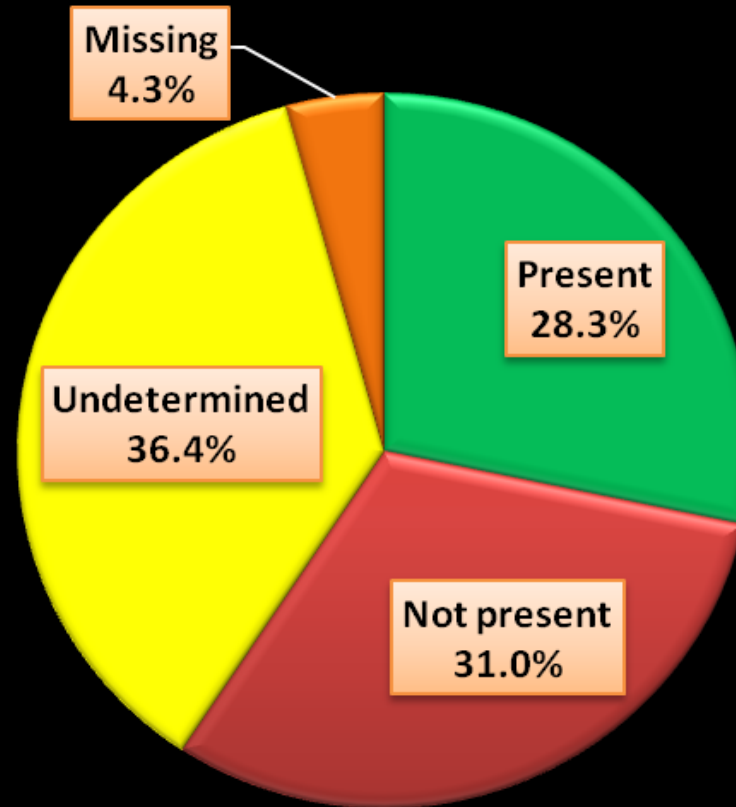
Type of Equipment Involved in Ignition of Residential Fire Fatalities (2002-2010)



Item First Ignited in Fatal Residential Fires in TN (2002-2010)



Smoke Alarms in Fatal residential Fires in TN (2002-2010)



National Figures

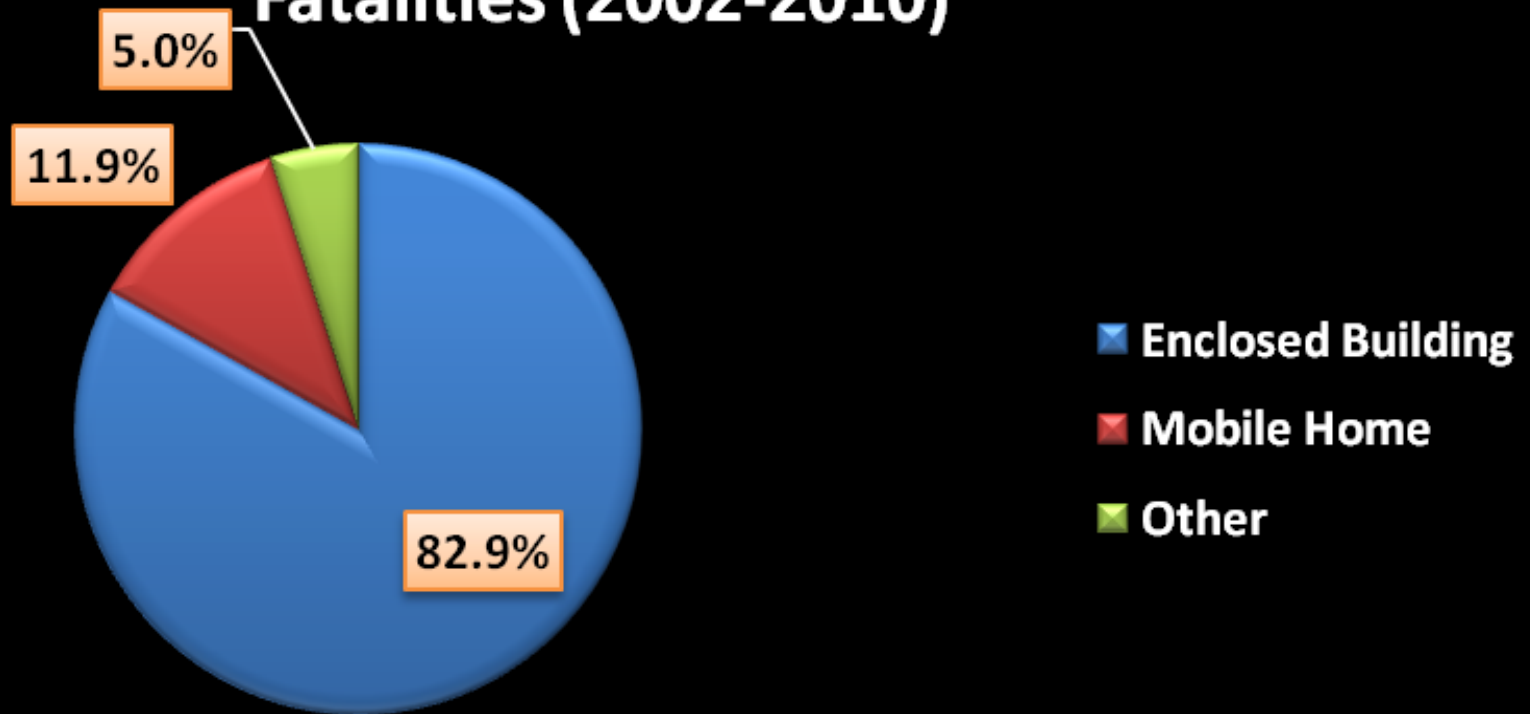
Present: 37.7%

Not Present: 22.5%

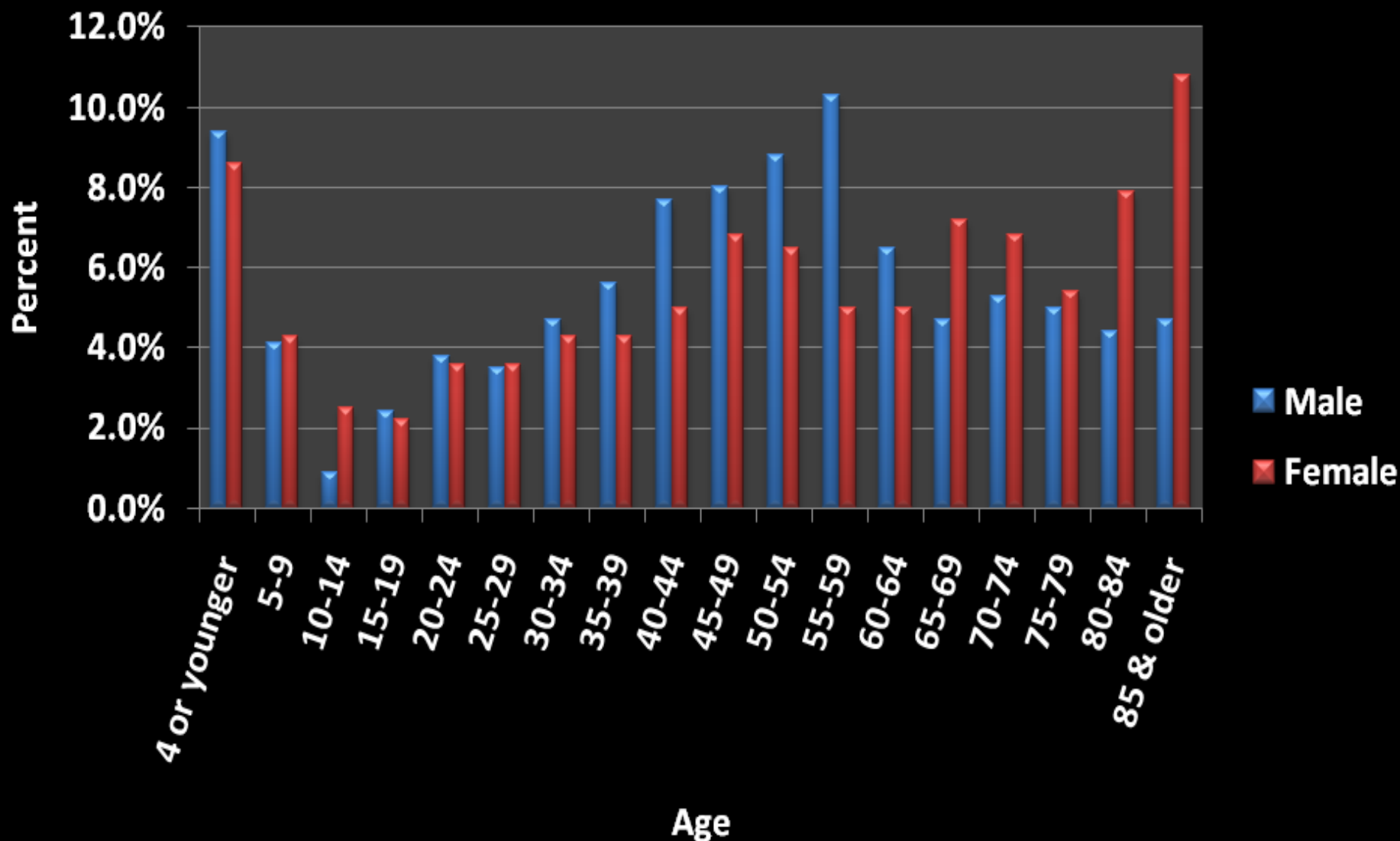
Undetermined: 39.7%

Missing: < .1%

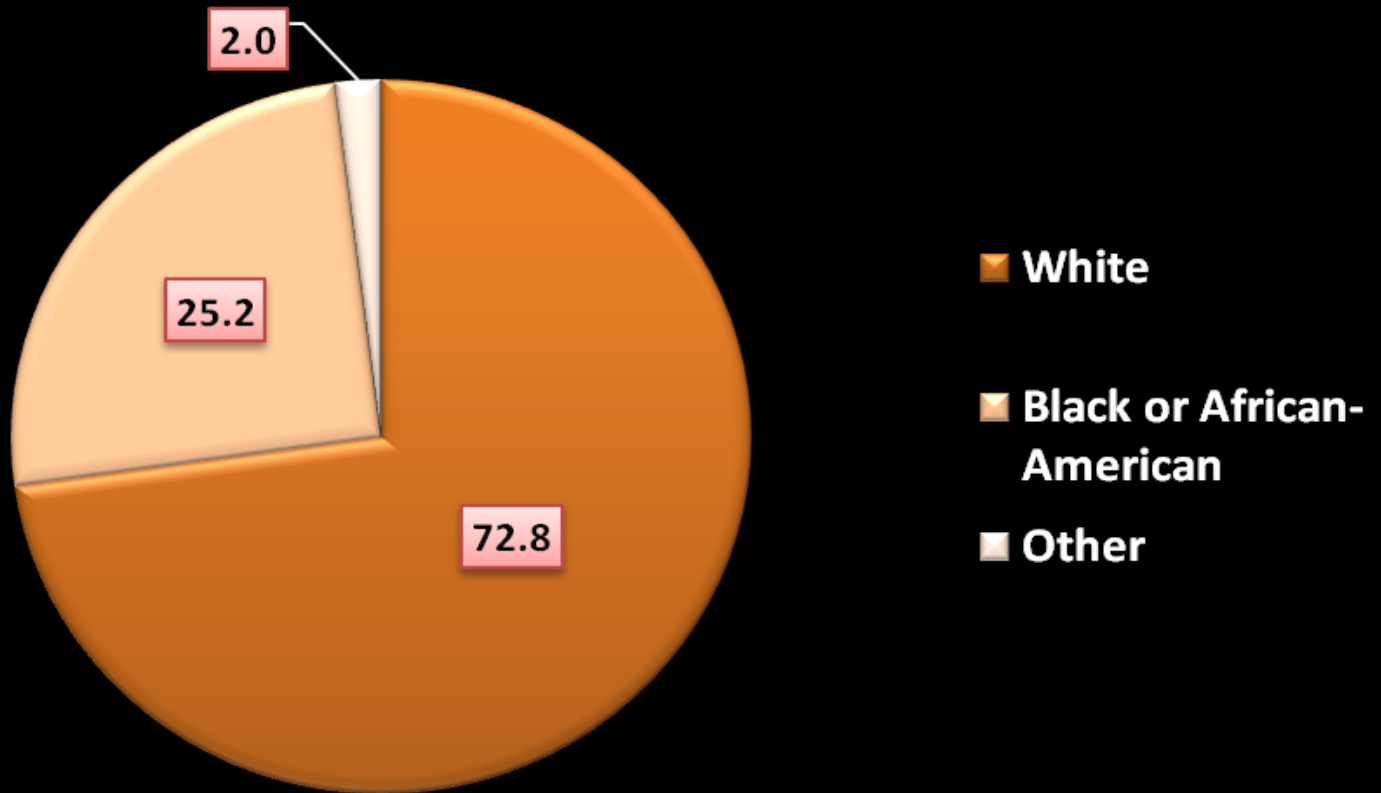
Residential Structure Types Involved in Fire Fatalities (2002-2010)



Residential Fire Deaths by Age and Gender (2002-2010)



Residential Fire Fatalities by Race (2002-2010)



National Figures

White: 76%

African-American: 22%

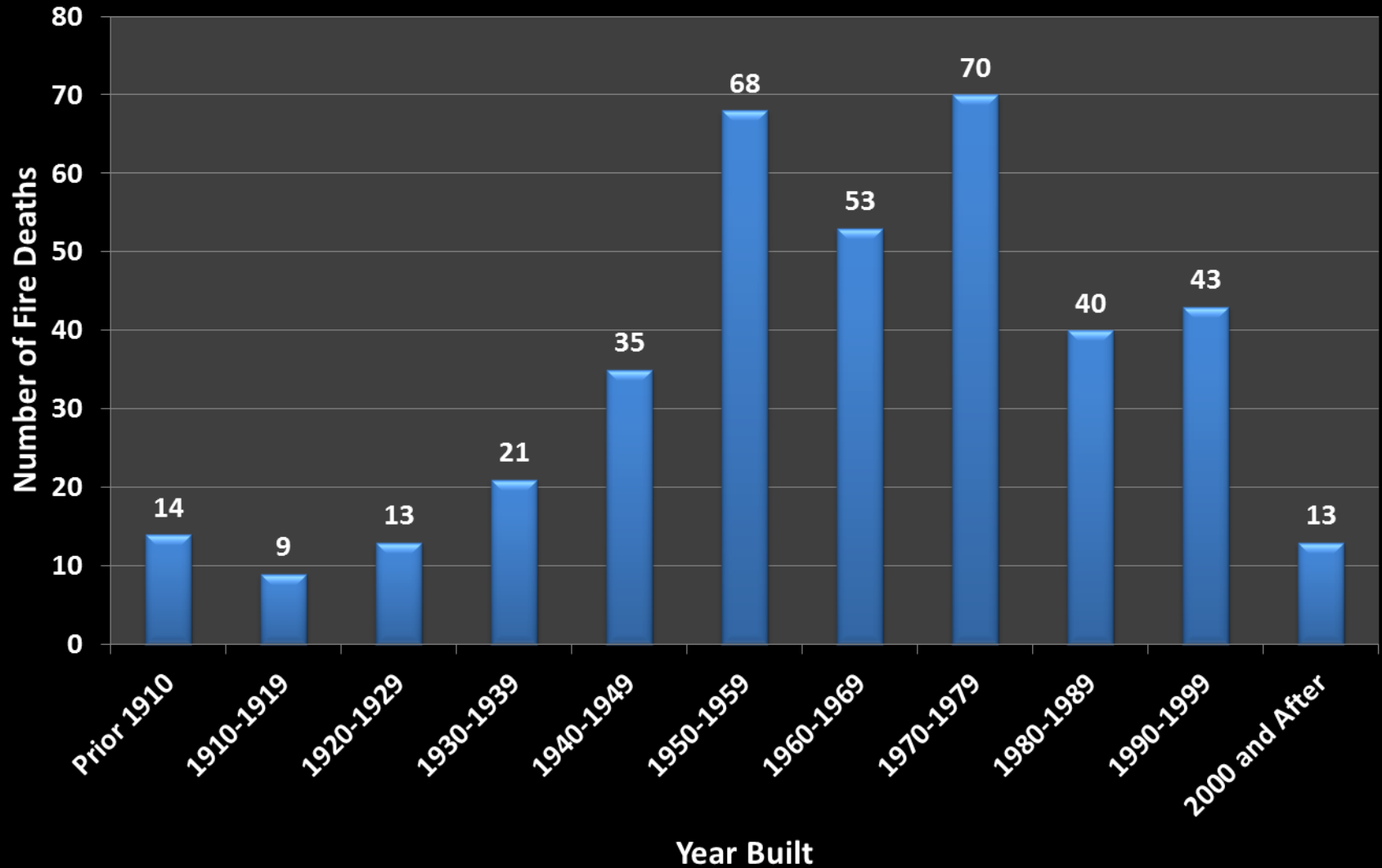
Other: 3%

*Totals do not add up to 100% due to rounding

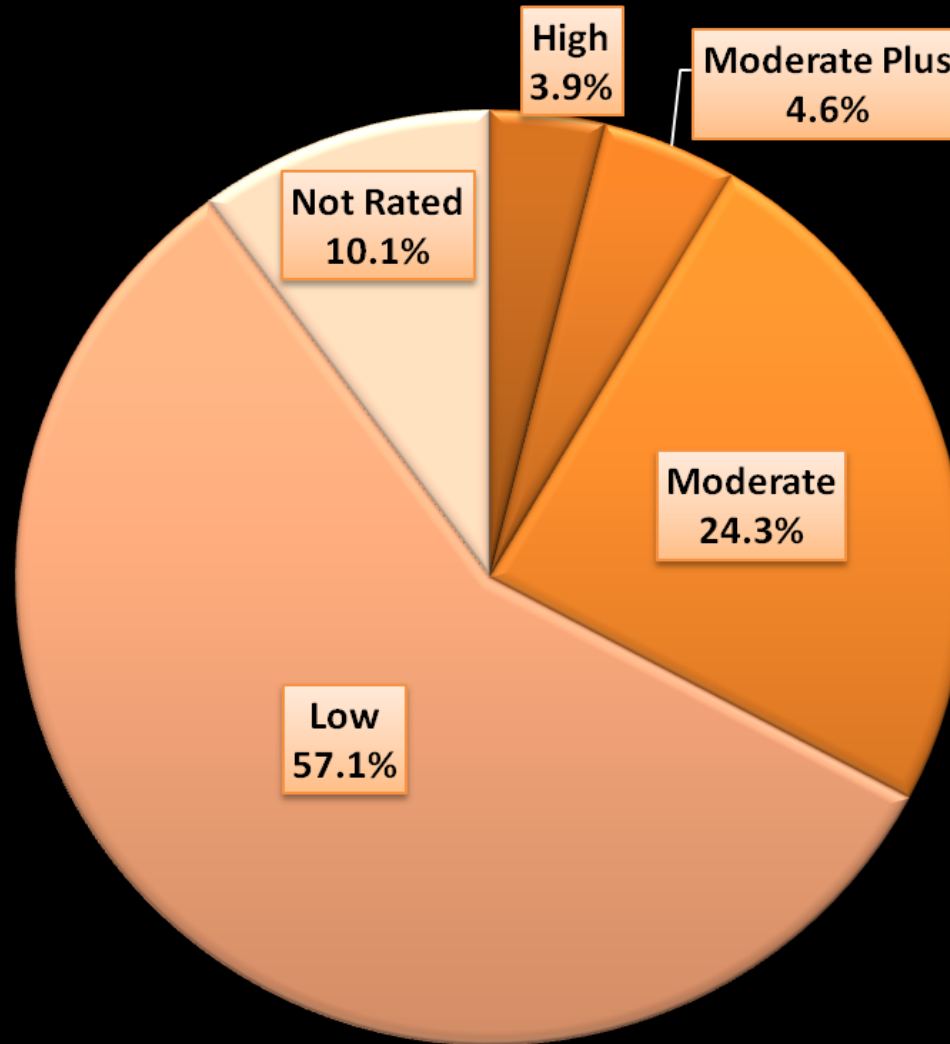
Heat Source for Residential Fire Fatalities by Victim Gender and Race (2002-2010)

	Male	Female	White	Black	Other
Operating Equipment	113	116	130	52	2
	60.8%	69.5%	59.1%	75.4%	100.0%
Smoking-related	55	49	81	10	0
	29.6%	29.3%	36.8%	14.5%	.0%
Hot ash, ember, smoldering object	18	2	9	7	0
	9.7%	1.2%	4.1%	10.1%	.0%
Total	186	167	220	69	2
	100.0%	100.0%	100.0%	100.0%	100.0%

Number of Residential Fire Deaths in TN (2002-2010) by Year Built (N = 379)



Distribution of Fire Departments by Protection Category in TN (2010) N = 715



Fire Departments' Protection Classification and Population Served

Protection Class	Frequency	Valid Percent	Population Served	Percent
High	28	3.9	2,392,575	32.5
Moderate Plus	33	4.6	1,505,072	20.4
Moderate	174	24.3	1,192,617	16.2
Low	408	57.1	1,947,384	26.4
Not Rated	72	10.1	329,769	4.5
Total	715	100.0	7,367,417	100

Mean Fire Department Response Time by Protection Classification

STUDY REVIEW	Mean	N	Std. Deviation
High	5.13	203	2.206
Moderate Plus	6.85	59	4.792
Moderate	7.44	172	4.856
Low	10.65	175	10.031
Unprotected	11.33	3	5.859
Total	7.55	612	6.631

Total Residential Fire Fatalities and Mean Annual Fatality Rate per Million by Protection Classification

Fire Department Protection Category	Number of Residential Fire Deaths	Percent	Mean Fire Fatality Rate/ mill.
High	207	32.6	11.43
Moderate Plus	60	9.5	16.56
Moderate	173	27.3	23.8
Low	178	28.1	18.33
Unprotected	16	2.5	11.46
Total	633	100	18.7

Results from the Survey of Tennessee Fire Chiefs

Chiefs' Opinions of the Level of Code Enforcement in the Community 2002-2010

Rating	Frequency	Percent
Very Poor	8	10.4
Poor	14	18.2
Fair	18	23.4
Good	31	40.3
Excellent	6	7.8
Total	77	100

Fire Chiefs' Opinions of the Importance of Particular Factors in Preventing/Reducing Home Fire Deaths, Mean Rank

	Mean Rank	Factor
1	1.97	Smoke Alarm Distribution/Installation
2	2.47	Home Sprinkler System
3	2.83	Codes Enforcement
4	3.19	Fire Safety Demonstrations/Instruction at Local Schools
5	4.47	Fire Safe Cigarettes

Chiefs' Perceptions of Citizens' Receptivity to Requiring Sprinkler Systems in New Construction

	Frequency	Percent
Not at all receptive	9	11.7
Slightly receptive	34	44.2
Moderately receptive	16	20.8
Receptive	6	7.8
Very receptive	1	1.3
Don't know / Not sure	11	14.3
Total	77	100

Chiefs' Assessments of the Extent of their Department's Involvement in Community Education Activities, 2009-2010

Rating	Frequency	Percent
None or virtually non-existent	3	4
Low	12	16
Moderate	32	42.7
High	21	28
Very high	7	9.3
Total	75	100

Four Themes In Response to the Open-ended Question: "What One or Two Strategies Would Have the Most Impact on Preventing/Reducing Residential Fire Deaths?"

(1) Smoke detectors (24)

(2) Residential sprinklers (19)

(3) Education of community residents (17)

(4) Adoption and/or enforcement of codes (10)