

2017 Structure Fire Fatalities



Contents & Overview

The following report was compiled by members of the Education and Outreach Team of the Tennessee State Fire Marshal’s Office. Since its founding in 1915, the SFMO has been dedicated to reducing loss of life and property by fire throughout the state. The SFMO works closely with state and local partners, including the state’s many fire departments, to educate the public about fire safety and publicize noticeable risk trends with regards to fire.

The goal of this report is to examine the causes and trends of **unintentional structure fire deaths**. All data and information is compiled using the SFMO’s central Fire Fatality Database and the National Fire Incident Reporting System (NFIRS).

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General Trends

- 2017 saw a decrease in unintentional fatal fires (71) and fatalities (84) from 2016.
- Heating was the leading known cause of fatalities in 2017. This is the first time since the SFMO has been maintaining a database of fire fatalities (started in 2010) that heating was the leading known cause. Previously, smoking, cooking, and electrical distribution were the leading known causes.
- Since 2010, smoking remains the leading known cause of fire fatalities with 102 total deaths. Heating is now the 2nd leading known cause with 85 deaths. Electrical distribution and cooking are 3rd and 4th with 78 and 75 deaths respectively.
- There were only 7 multiple fatality incidents in 2017, down from 20 in 2016 and 10 in 2015.
- There was a decrease in fatal fires in manufactured homes in 2017. Only 15% of 2017's fatal fires occurred in manufactured homes, down from 25% in 2016. Despite this, manufactured homes only account for 9.5% of the housing stock, so there is still an increased risk for fatal fires in these homes.

Contributing Factor Trends

- Since 2010, there have been 43 fatal fires (47 fatalities) where medical oxygen was present in the home. There were four fatal incidents (four fatalities) involving medical oxygen in 2017, down from six in 2016 and the lowest amount recorded since 2013.
- There were 53 fatal fires in 2017 where no smoke alarm was present in the home or where the presence of a smoke alarm was unknown. There were 57 such incidents in 2016, 45 such incidents in 2015, and 40 such incidents in 2014.
- There were two fatal fires in 2017 where a smoke alarm was present but did not operate. There have been 34 fatal fires since 2010 where a smoke alarm was present but did not operate, which makes up 27% of all fatal fires.

Victim Trends

- 2017 saw an increase in the number of older adult fatalities. 60% of all fire victims were over 50 years old, and 39% were over 65 years old. These figures are higher than 2016 and 2015.
- Only four victims were under the age of five in 2017. This is a dramatic decrease from 2016, where 18 victims were under the age of five. Since 2011, there have been 54 deaths in children under five, accounting for around 10% of all deaths.

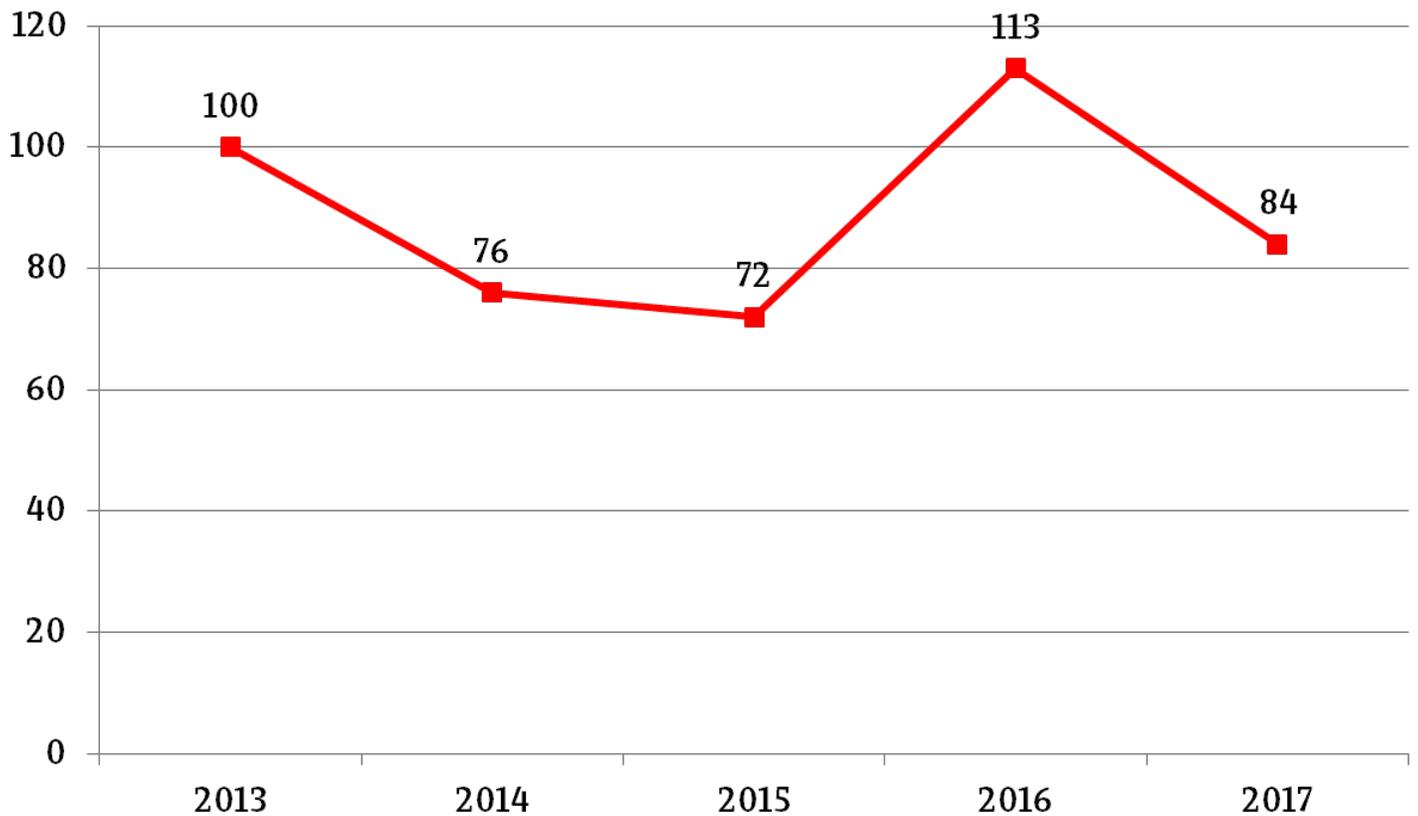
Geographic Trends

- West Tennessee led the state with the most fire deaths at 35. Middle Tennessee was 2nd with 27 deaths, and East Tennessee was 3rd with 22 deaths.
- Henry County, a county with a population of around 32,000, led the state with 8 fatalities, mostly from one incident in April, when five family members died in a heating related fire.
- Shelby, the most populous county in Tennessee, saw a dramatic decrease in fire deaths. Six people died in fires in Shelby County in 2017, down from 22 fire deaths in 2016.

2017 Fire Fatality Summary

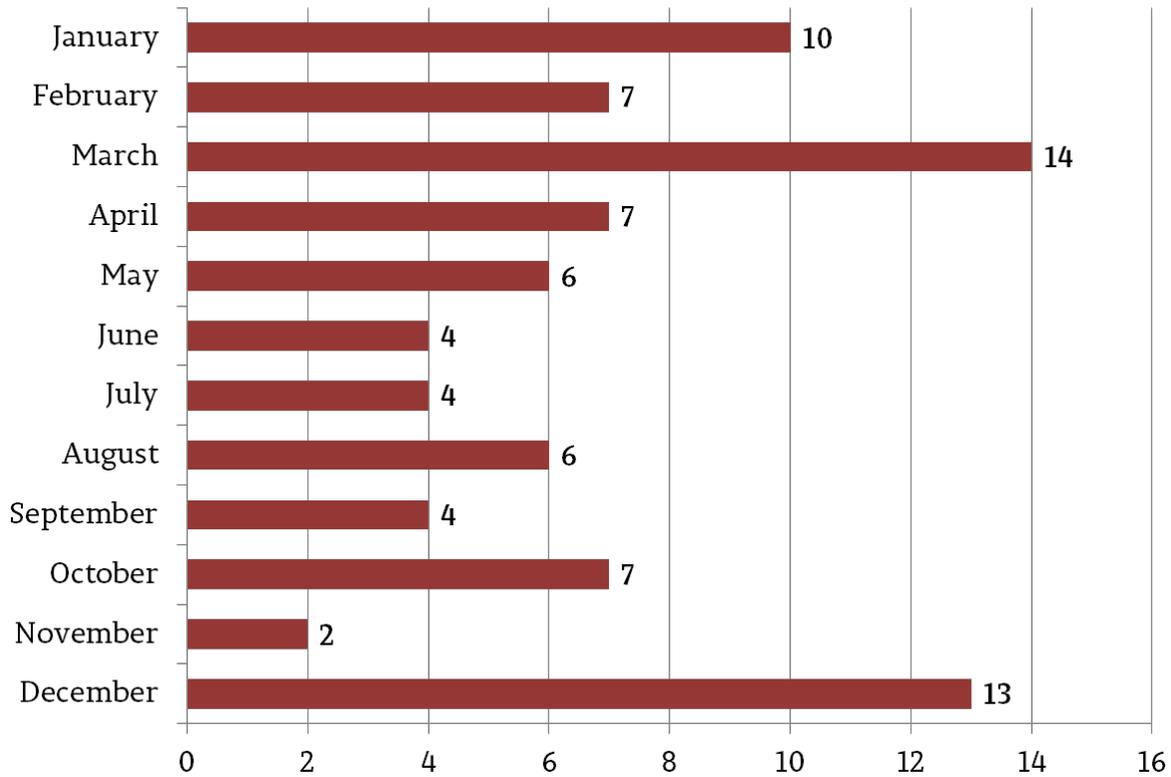
Number of fatalities	84	▼ down from 113 last year
Number of fatal fires	71	▼ down from 79 last year
Fatalities per fatal fire	1.18	▼ down from 1.20 last year
Average age of victim	51	▲ up from 43 last year
% over 50 years old	60%	▲ up from 50% last year
% over 65 years old	39%	▲ up from 22% last year
% Female victims	51%	▲ up from 45% last year

Five Year Comparison

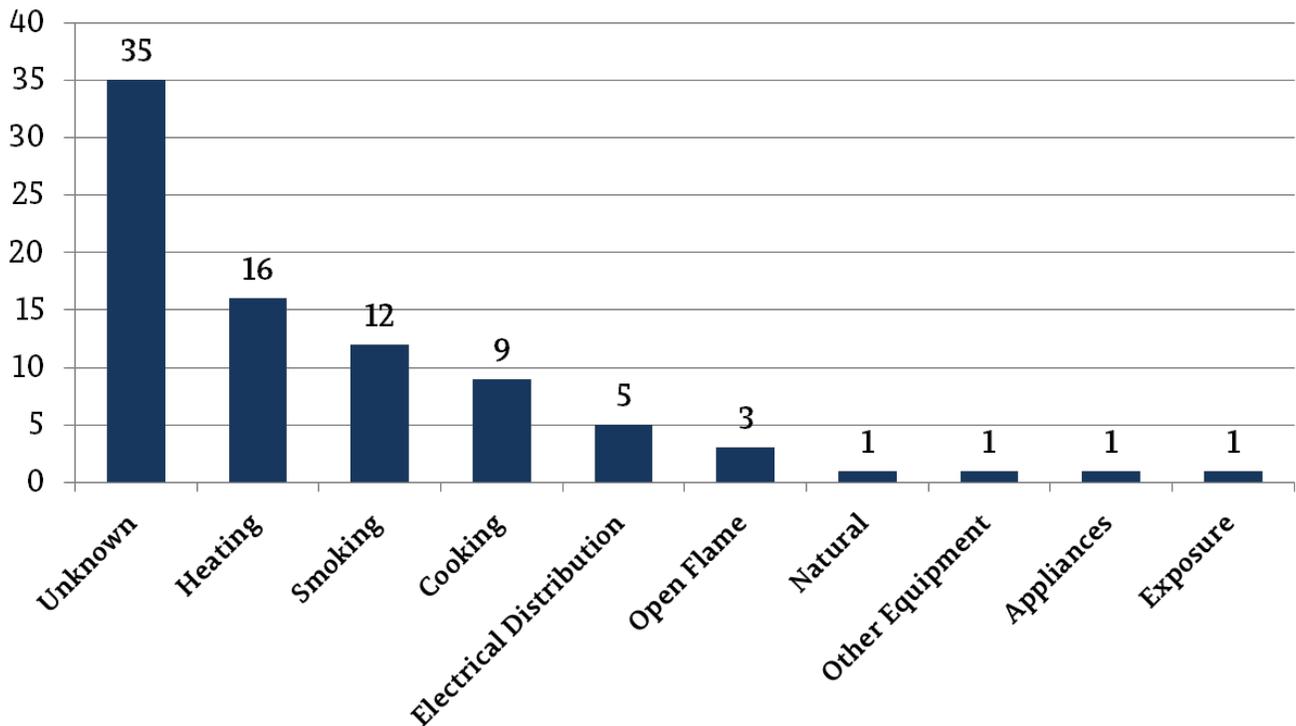


Fire Fatality Charts & Analysis

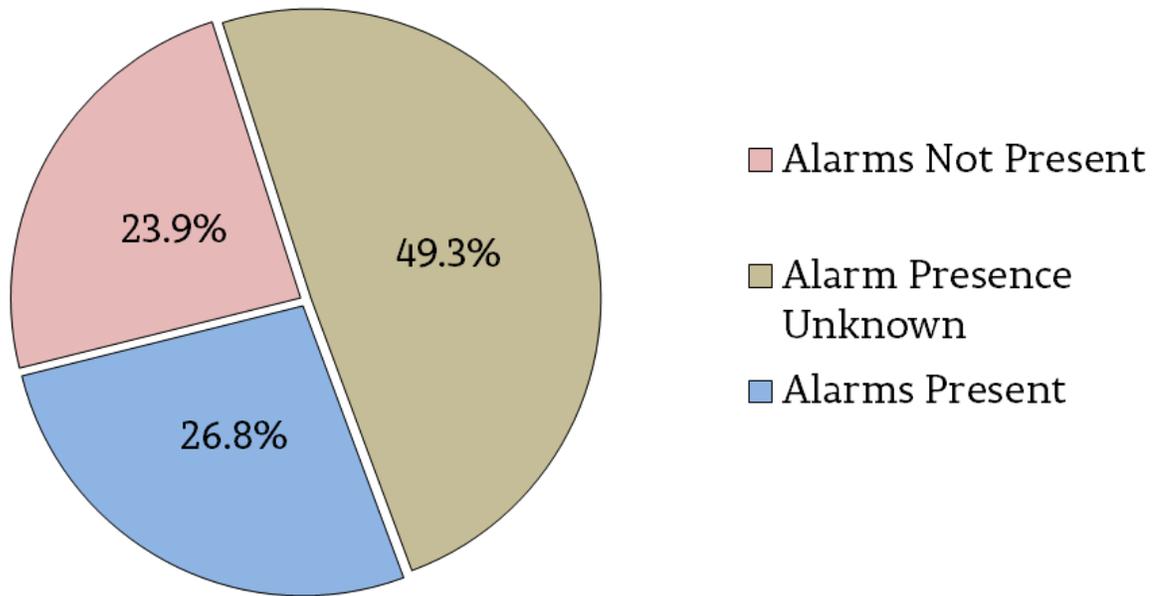
2017 Fatalities by Month



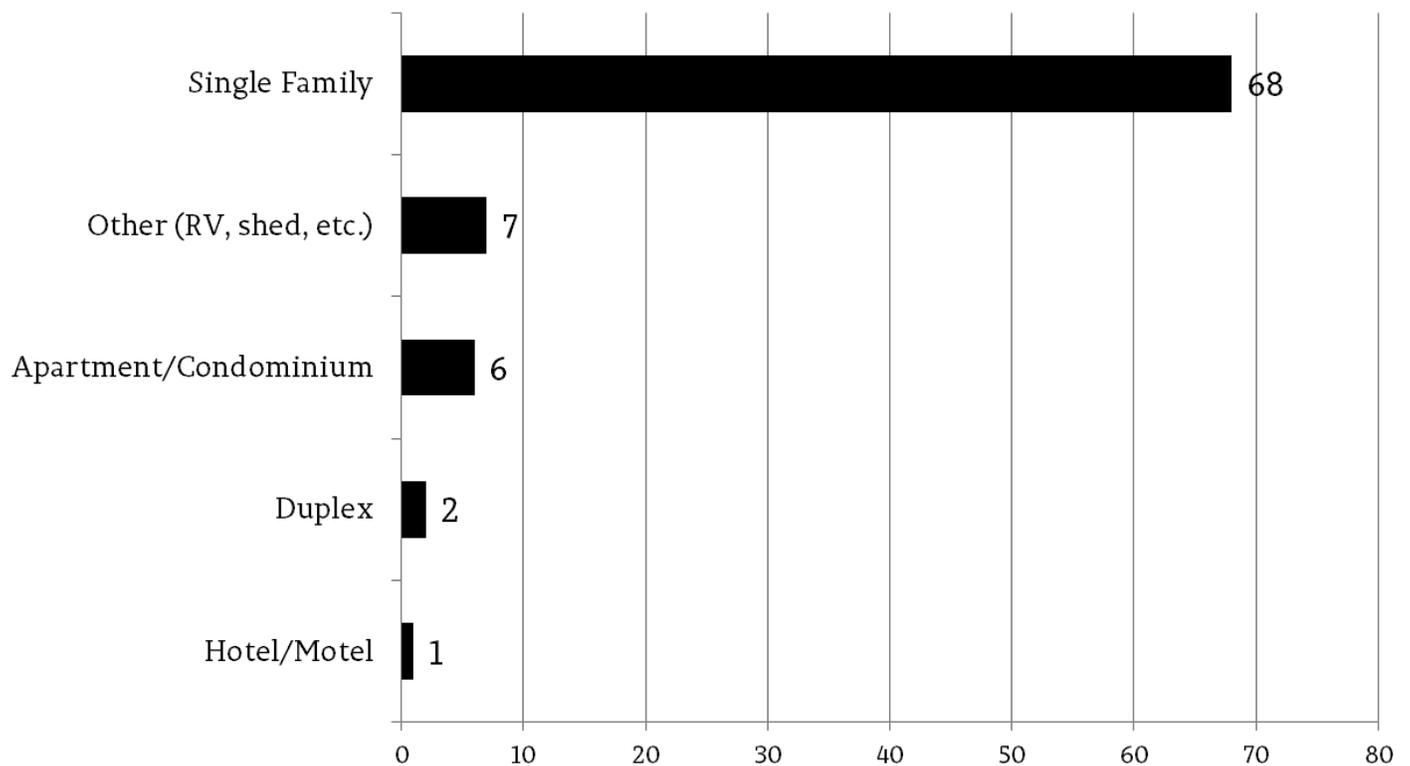
2017 Fatalities by Cause



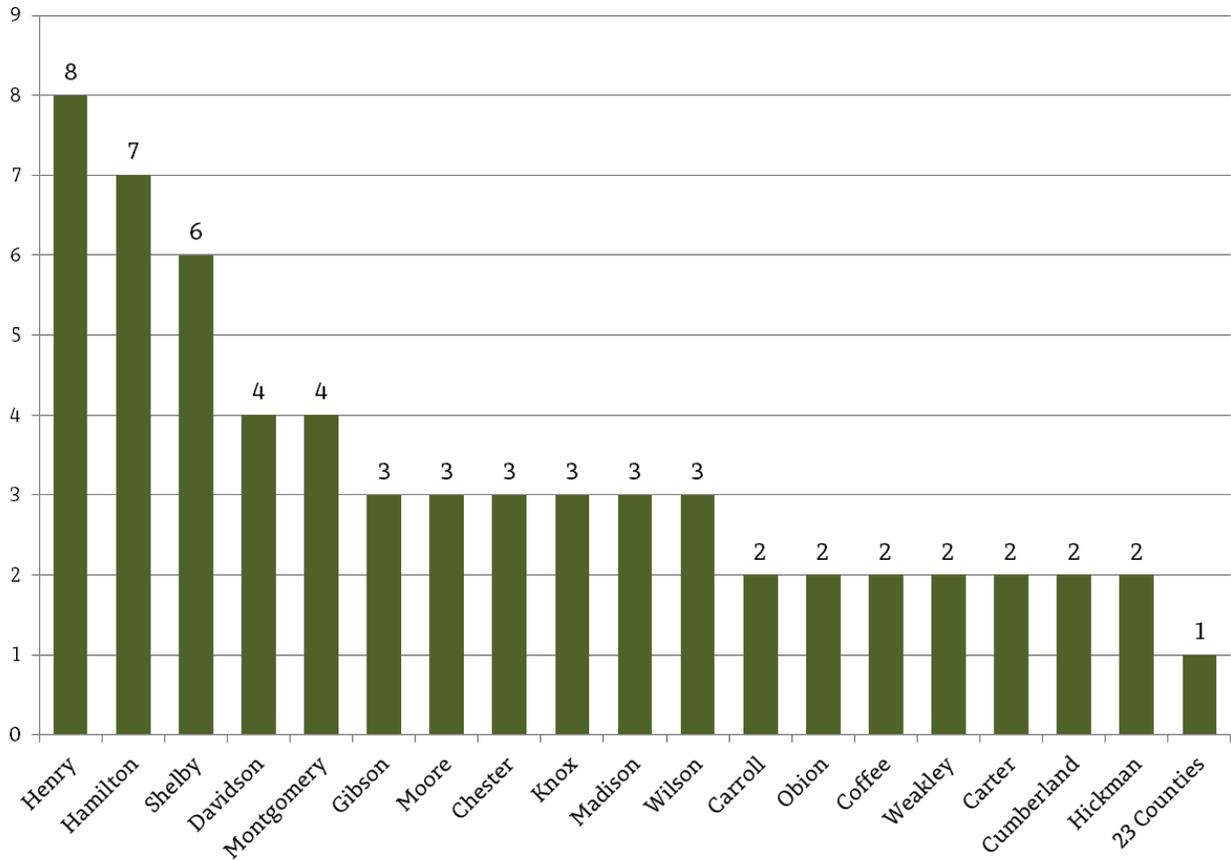
Smoke Alarm Presence in 2017 Fatal Fires



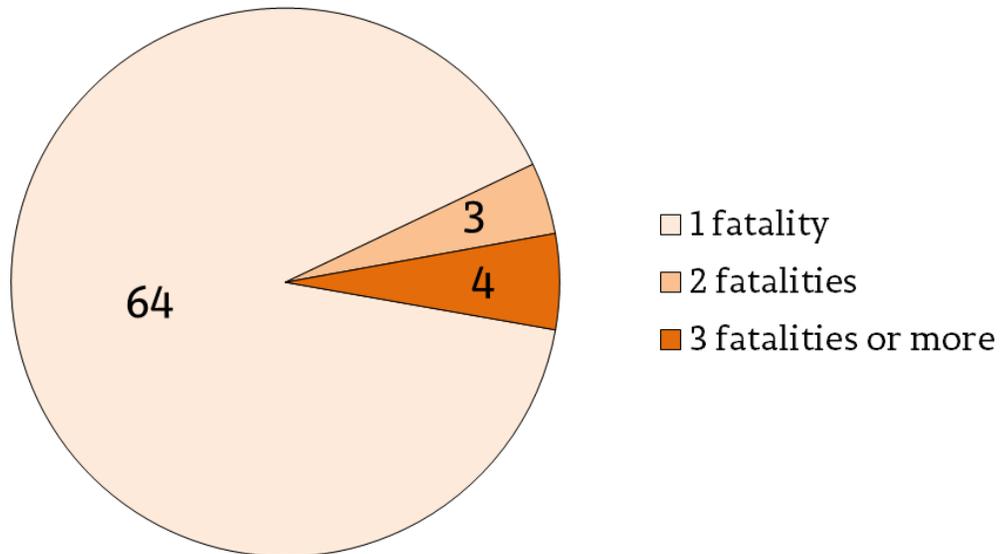
2017 Fatalities by Occupancy Type



2017 Fatalities by County

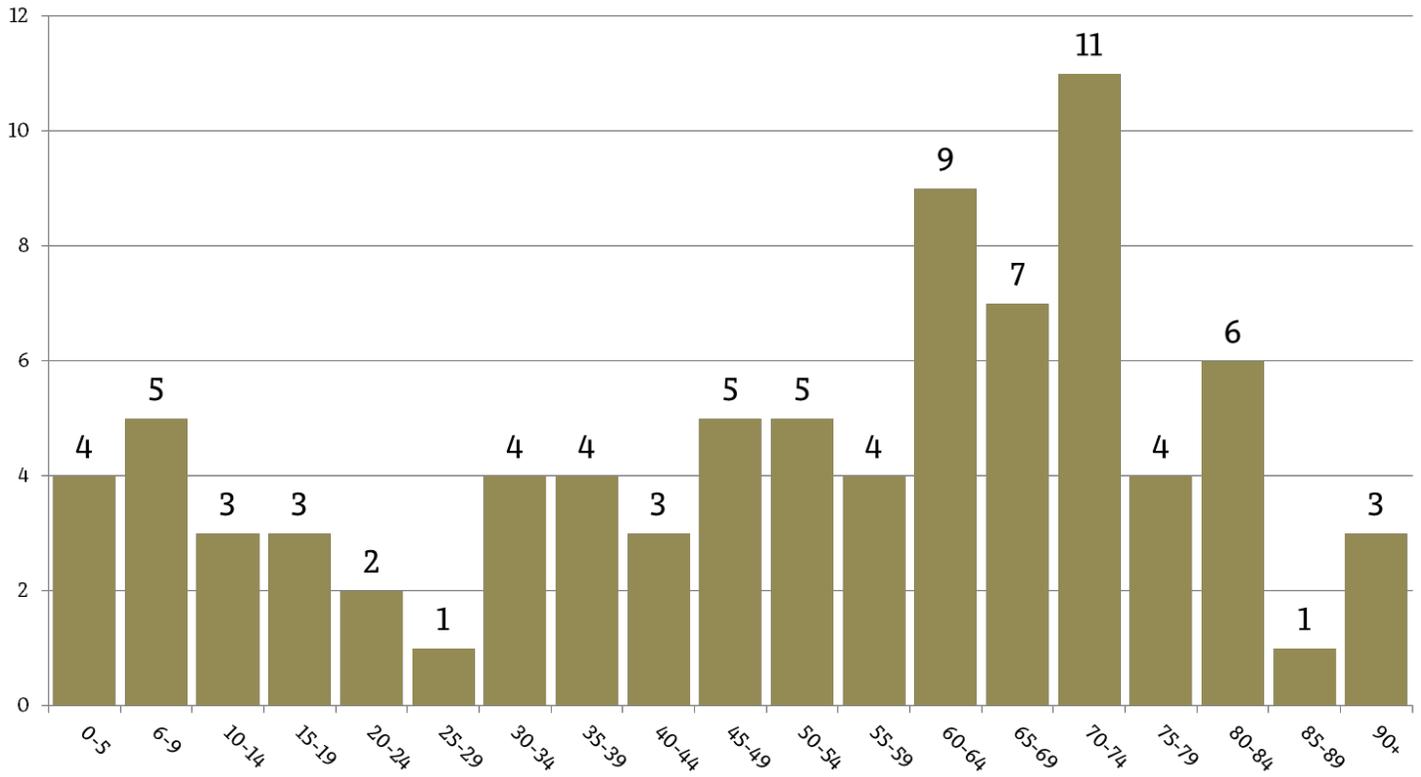


2017 Multiple Fatality Incidents

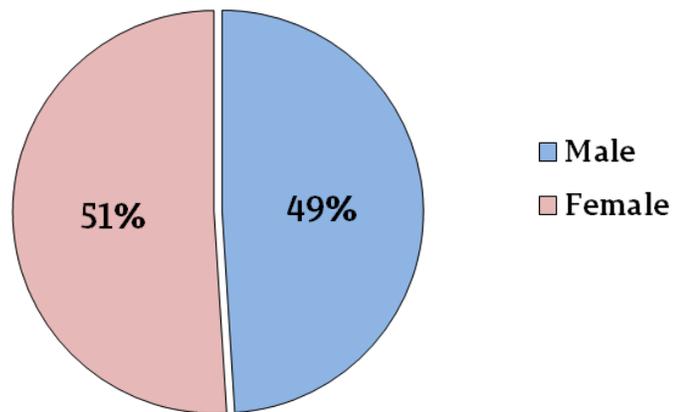


Fire Victims

2017 Fatalities by Age of Victim



2017 Fatalities by Sex of Victim



January

Date of Incident	Fatalities	County	City	Cause	Sex	Age
1/1/2017	2	Weakley	Martin	Cooking	F	8
					F	7
1/3/2017	1	Wilson	Lebanon	Unknown	F	52
1/9/2017	1	Madison	Jackson	Heating	M	88
1/10/2017	1	Davidson	Nashville	Unknown	M	33
1/22/2017	1	Grundy	Altamont	Smoking	F	67
1/23/2017	1	Hickman	Duck River	Cooking	F	48
1/27/2017	1	Lake	Tiptonville	Cooking	M	36
1/31/2017	1	Wilson	Mt. Juliet	Unknown	M	65
1/31/2017	1	Dyer	Dyersburg	Exposure	M	72

February

Date of Incident	Fatalities	County	City	Cause	Sex	Age
2/2/2017	1	Knox	Knoxville	Unknown	M	1
2/7/2017	1	Wayne	Waynesboro	Unknown	F	51
2/7/2017	1	Shelby	Memphis	Appliances	F	82
2/10/2017	1	Davidson	Nashville	Unknown	M	46
2/18/2017	1	Hamilton	Chattanooga	Unknown	F	78
2/19/2017	1	Loudon	Lenoir City	Unknown	F	74
2/25/2017	1	Dickson	Cumberland Furnace	Unknown	M	57

March

Date of Incident	Fatalities	County	City	Cause	Sex	Age
3/1/2017	1	Henry	Henry	Open Flame	F	97
3/5/2017	1	Bradley	Cleveland	Smoking	F	72
3/6/2017	1	Gibson	Humboldt	Unknown	M	7
3/7/2017	1	Coffee	Tullahoma	Electrical Distribution	F	72
3/8/2017	1	Carter	Watauga	Unknown	M	24
3/11/2017	1	Henderson	Reagan	Smoking	F	60
3/11/2017	1	Cumberland	Crossville	Heating	F	7
3/11/2017	1	Shelby	Memphis	Smoking	M	60
3/11/2017	1	Crockett	Alamo	Heating	F	40
3/16/2017	1	Roane	Rockwood	Open Flame	M	33
3/16/2017	1	Benton	Sugar Tree	Unknown	M	50
3/18/2017	1	Jefferson	Dandridge	Unknown	F	63
3/22/2017	1	Henry	Paris	Unknown	M	67
3/25/2017	1	Obion	Hornbeak	Heating	F	39

April

Date of Incident	Fatalities	County	City	Cause	Sex	Age
4/2/2017	1	Fayette	Moscow	Heating	M	76
4/7/2017	5	Henry	Buchanan	Heating	M	39
					F	36
					M	14
					F	4
					F	3
4/10/2017	1	Knox	Knoxville	Smoking	M	2

May

Date of Incident	Fatalities	County	City	Cause	Sex	Age
5/6/2017	1	Hickman	Nunnely	Cooking	M	66
5/7/2017	1	Davidson	Nashville	Unknown	M	63
5/7/2017	1	Hamilton	Chattanooga	Unknown	M	60
5/9/2017	1	Madison	Medon	Smoking	M	65
5/13/2017	1	Cumberland	Crossville	Smoking	F	55
5/19/2017	1	Sumner	Gallatin	Electrical Distribution	F	78

June

Date of Incident	Fatalities	County	City	Cause	Sex	Age
6/15/2017	1	Gibson	Rutherford	Unknown	F	90
6/15/2017	1	Hamilton	Chattanooga	Other Equipment	F	83
6/25/2017	1	Putnam	Cookeville	Smoking	F	83
6/30/2017	1	Shelby	Arlington	Natural	F	57

July

Date of Incident	Fatalities	County	City	Cause	Sex	Age
7/7/2017	1	Robertson	Greenbrier	Unknown	F	64
7/15/2017	1	Maury	Columbia	Open Flame	F	23
7/20/2017	1	Knox	Knoxville	Cooking	M	53
7/30/2017	1	Shelby	Memphis	Smoking	M	25

August

Date of Incident	Fatalities	County	City	Cause	Sex	Age
8/3/2017	3	Chester	Henderson	Cooking	F	40
					F	18
					F	13
8/12/2017	1	Anderson	Oak Ridge	Unknown	M	61
8/25/2017	1	Franklin	Winchester	Unknown	M	33
8/29/2017	1	Shelby	Memphis	Smoking	F	82

September

Date of Incident	Fatalities	County	City	Cause	Sex	Age
9/2/2017	2	Carroll	Cedar Grove	Heating	M	68
					M	45
9/16/2017	1	Gibson	Humboldt	Unknown	F	81
9/17/2017	1	Hamilton	Chattanooga	Unknown	M	72

October

Date of Incident	Fatalities	County	City	Cause	Sex	Age
10/6/2017	1	Bledsoe	Pikeville	Unknown	F	49
10/9/2017	1	Henry	Springville	Electrical Distribution	M	70
10/15/2017	2	Hamilton	Birchwood	Unknown	F	19
					M	18
10/23/2017	1	Madison	Jackson	Electrical Distribution	M	72
10/29/2017	1	Williamson	College Grove	Unknown	M	57
10/30/2017	1	Montgomery	Clarksville	Unknown	M	40

November

Date of Incident	Fatalities	County	City	Cause	Sex	Age
11/2/2017	1	Coffee	Estill Springs	Unknown	F	78
11/2/2017	1	Greene	Mosheim	Electrical Distribution	F	69

December

Date of Incident	Fatalities	County	City	Cause	Sex	Age
12/3/2017	1	Shelby	Memphis	Unknown	M	80
12/4/2017	1	Wilson	Mt. Juliet	Smoking	M	60
12/5/2017	1	Obion	South Fulton	Unknown	M	64
12/8/2017	1	Grainger	Rutledge	Smoking	F	72
12/8/2017	1	Davidson	Nashville	Heating	M	61
12/9/2017	3	Moore	Petersburg	Unknown	M	33
					F	13
					F	8
12/18/2017	1	Carter	Roan Mountain	Unknown	F	90
12/29/2017	3	Montgomery	Woodlawn	Heating	M	72
					F	70
					F	49
12/29/2017	1	Hamilton	Hixson	Unknown	M	50

SFMO Response

The State Fire Marshal's Office and its eight sections remain committed to protecting the safety of Tennesseans and their property through fire prevention, education, codes enforcement, inspection, regulation, and investigation. The vast majority of Tennessee's unintentional fire fatalities occur on residential properties, and the majority of those fatalities occur in single family homes. By focusing on preventing fire deaths in single family homes, the SFMO can take significant steps to reducing the state's fire mortality rate.

Tracking and analyzing the unintentional fire deaths in Tennessee is one step towards saving lives. Listed below are further steps the State Fire Marshal's Office has taken to help prevent fire deaths in 2017:

- Over 128,000 smoke alarms have been distributed and installed by Tennessee fire departments thanks to the "Get Alarmed, TN!" program
- Nearly 200 documented lives saved by smoke alarms installed through Get Alarmed.
- Hosted or coordinated 14 smoke alarm canvasses. These canvasses installed over 2700 alarms.
- Launched the first ever state-wide community risk reduction plan in September 2017.
- Hosted a Fire Prevention Week Kick-off Event in Nashville, TN, which also kicked off our annual Fire Prevention Week poster contest.
- Hosted the Fire Loss Symposium in September 2017, where over 60 fire department representatives from across the state met to discuss and strategize Tennessee's fire loss problem.