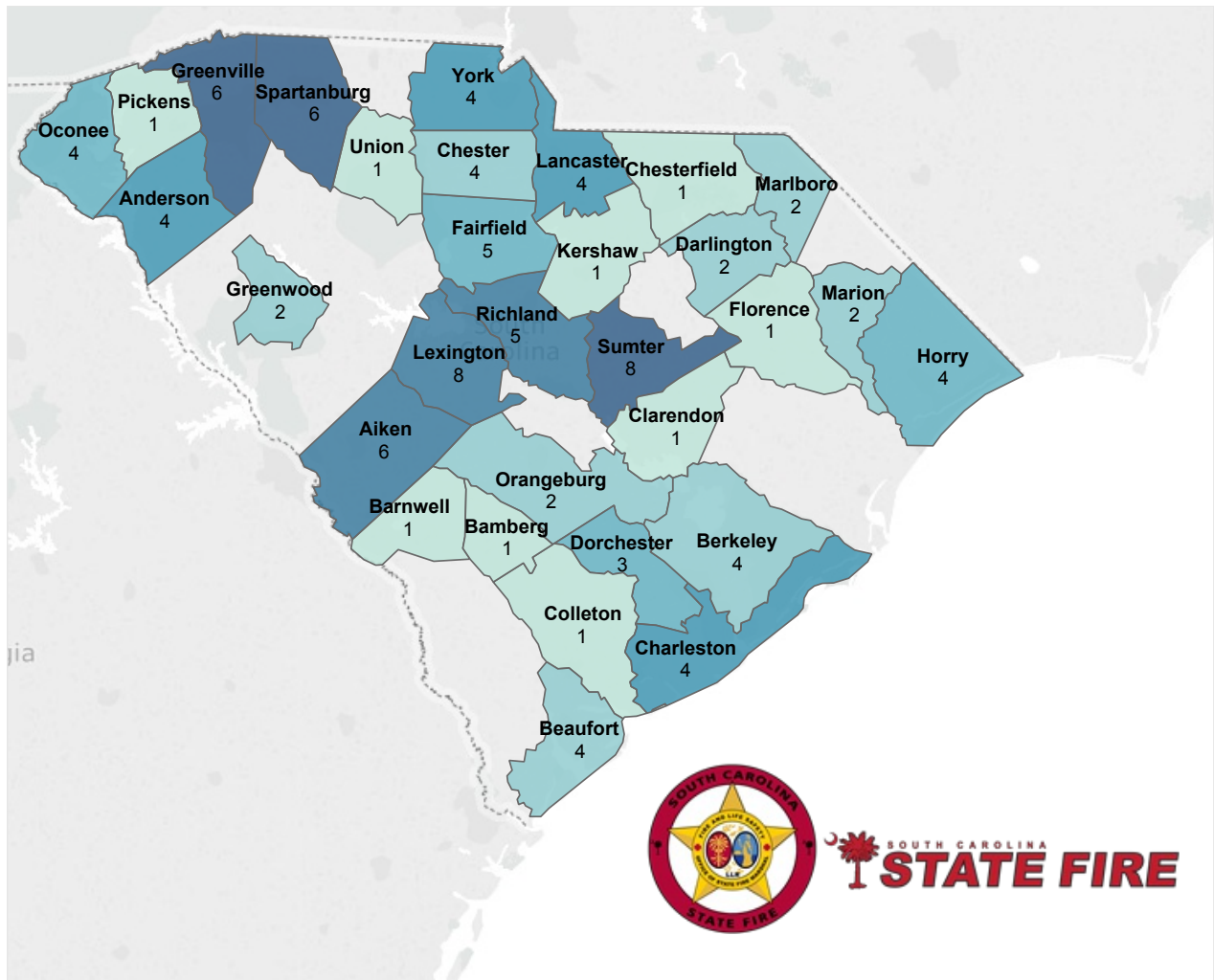# 2017 Fire Fatality Summary Report

South Carolina Office of State Fire Marshal
## Community Loss Education and Response (CLEAR) Team

These findings are made possible by the research efforts of the CLEAR Team. In some cases, the percentages may not add up to 100% due to rounding. If you would like more information or outreach ideas based on the findings, please call South Carolina State Fire at (803) 896-9895.

This report version was last updated on April 5, 2018.

Fire Fatality Victim Profile

In 2017, there were 102 deaths from 86 incidents. The victims of fatal fires were reported in 31 of 46 counties, with the most incidents happening in Greenville, Spartanburg, and Sumter counties. Aiken and Lexington counties had a fewer number of incidents but more victims per incident. Most incidents had one victim; however, four incidents had three or more fatalities. Victims were mostly male, and 61 percent were older than the age of 50. White victims accounted for approximately half of all victims, followed by black victims at 39 percent. Victims were typically found in residences, specifically single-family dwellings and mobile homes.
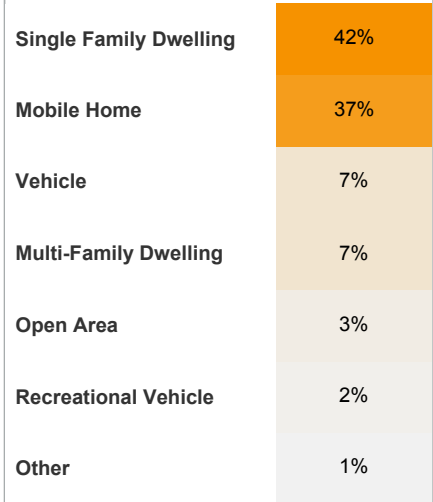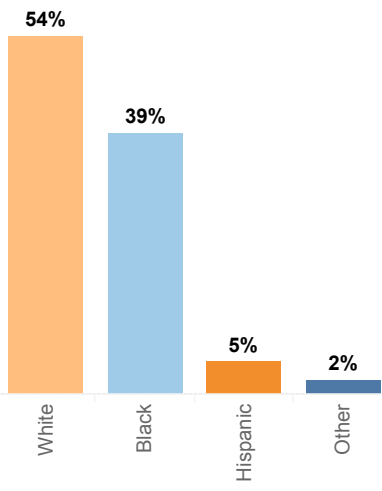
Victim Gender

- Male: 60%
- Female: 40%

Victim Race

- White: 54%
- Black: 39%
- Hispanic: 5%
- Other: 2%
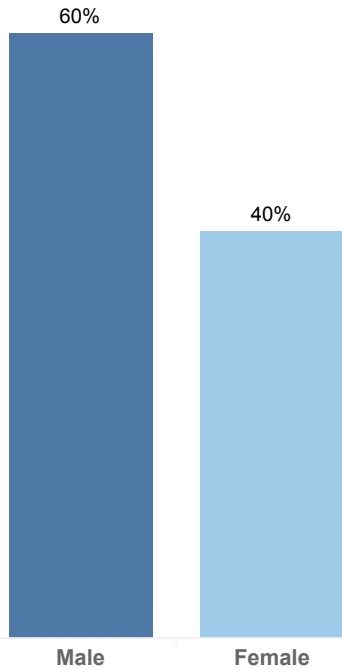
Incidents and Victims per County

	Incidents	Victims
Aiken	5	6
Anderson	4	4
Bamberg	1	1
Barnwell	1	1
Beaufort	2	4
Berkeley	2	4
Charleston	4	4
Chester	2	4
Chesterfield	1	1
Clarendon	1	1
Colleton	1	1
Darlington	2	2
Dorchester	3	3
Fairfield	3	5
Florence	1	1
Greenville	6	6
Greenwood	2	2
Horry	3	4
Kershaw	1	1
Lancaster	4	4
Lexington	5	8
Marion	2	2
Marlboro	2	2
Oconee	3	4
Orangeburg	2	2
Pickens	1	1
Richland	5	5
Spartanburg	6	6
Sumter	6	8
Union	1	1
York	4	4
Grand Total	**86**	**102**

Occupancy Type

Single Family Dwelling	42%
Mobile Home	37%
Vehicle	7%
Multi-Family Dwelling	7%
Open Area	3%
Recreational Vehicle	2%
Other	1%

Victim Age

- Under 20: 16%
- 20-49: 23%
- 50-69: 35%
- Over 70: 26%
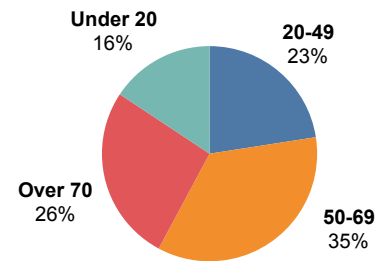
Median Age of Victims = 56

Multiple Fatality Incidents

One Victim	87%
More than One Victim	13%

Fire Fatality Victim Profile

Activity at the Time of Injury

55% — Escape
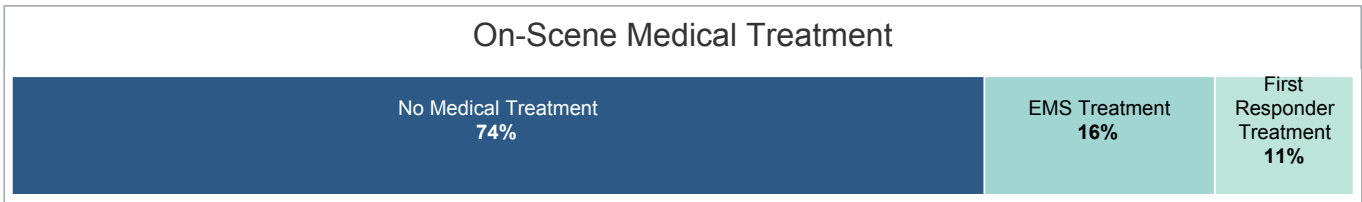20% — Other or Unknown
8% — Sleeping
6% — Driving or Passenger
5% — Intentional Burning
5% — Investigating or Fire Control
2% — Rescue or Retrieval

Legend:
- Escape
- Other or Unknown
- Sleeping
- Driving or Passenger
- Intentional Burning
- Investigating or Fire Control
- Rescue or Retrieval

Victim Transported by EMS

- 77% — No, not transported to care facility
- 23% — Yes, transported to care facility

On-Scene Medical Treatment

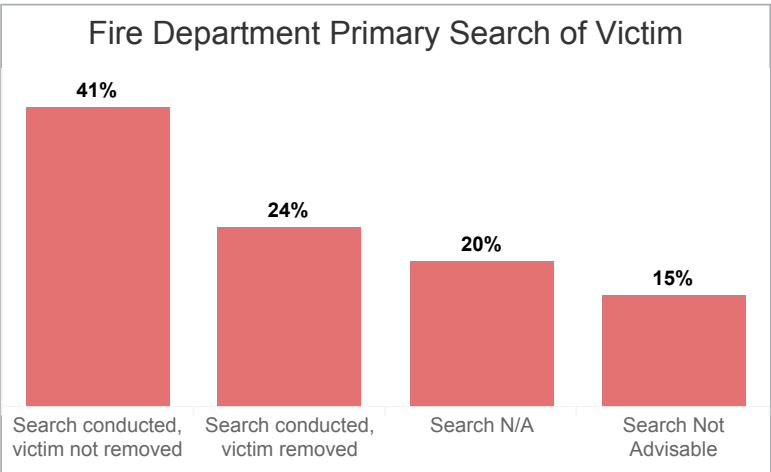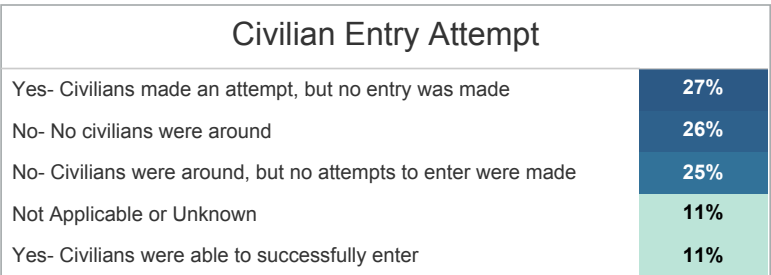| No Medical Treatment 74%	EMS Treatment 16%	First Responder Treatment 11%

Victims were generally found to be attempting escape when they were injured. Fifty-five percent of victims attempted an escape, while only four percent of victims were successful in their attempt. Eight percent did not awaken to an emergency before succumbing. In three out of four cases, the victim was pronounced deceased at the fire scene. In 39 cases (38%), citizens attempted to rescue victims. Prior to fire department arrival, unsafe conditions did not allow for citizens to assist the victim in escaping. In 15 percent of cases, the fire department could not search for the victim due to conditions. Victims were only removed during search and rescue operations in one out of every four fatal fires.

The CLEAR Team was notified about fire fatalities within 24 hours of the death 87 percent of the time, and responded on-scene 55 percent of the time. This allows us to understand more about why some fires are fatal and connect with fire departments and their communities to prevent further tragedies.

Civilian Entry Attempt

Yes- Civilians made an attempt, but no entry was made	27%
No- No civilians were around	26%
No- Civilians were around, but no attempts to enter were made	25%
Not Applicable or Unknown	11%
Yes- Civilians were able to successfully enter	11%

Fire Department Primary Search of Victim

- 41% — Search conducted, victim not removed
- 24% — Search conducted, victim removed
- 20% — Search N/A
- 15% — Search Not Advisable

Human Factors Profile

Human factors were deemed present in 84 percent of all incidents, with 56 percent of incidents having more than one human factor present. The human factors below account for some of the factors seen in this year's incidents. An inability to be notified of an emergency, an inability to go to a safe area, and risky behaviors can contribute to a person's demise in the event of a fire.

All vehicle-related and open area-related fire fatalities had at least one human factor which contributed to an improper response to the emergency.
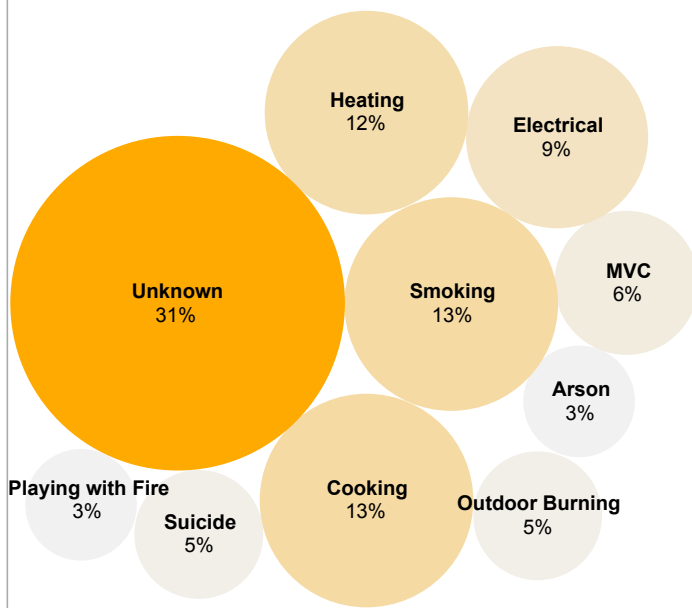
Nine incidents had medical oxygen as a known human factor, and eighty-nine percent of those incidents had smoking as an additional human factor present.

Medical issue
37%

Asleep
35%

Smoking
27%

Alcohol
24%

Ambulatory issue
20%

Prescription use
12%

Medical oxygen
10%

Narcotic use
10%

Intentional by someone else
6%

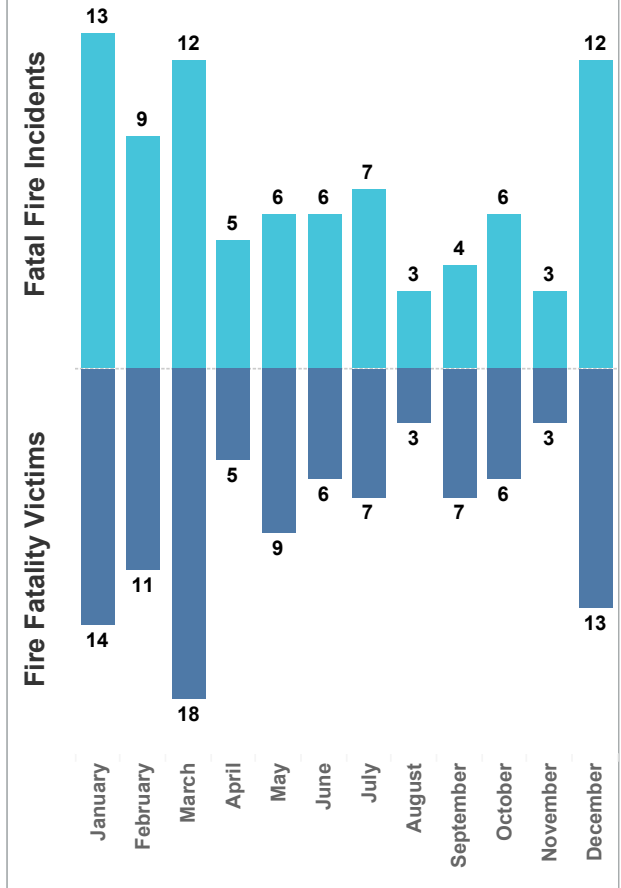**Left alone when should have been accompanied**
6%

Fatal Incidents Profile

When cause could be determined, fatal incidents were most likely caused by improperly discarded smoking materials, unattended cooking, or malfunctioning or improperly-used heaters. Incidents occured on all days of the week, with an above average amount of Sunday and Monday. Fatal incidents generally occured during overnight hours, from 9 p.m. to 6 a.m., and in January, March, and December.

Most Probable Cause of Incidents

- Unknown 31%
- Heating 12%
- Electrical 9%
- Smoking 13%
- MVC 6%
- Arson 3%
- Playing with Fire 3%
- Suicide 5%
- Cooking 13%
- Outdoor Burning 5%

Incidents by Month

Fatal Fire Incidents / Fire Fatality Victims

| Month	Fatal Fire Incidents	Fire Fatality Victims
January	13	14
February	9	11
March	12	18
April	5	5
May	6	9
June	6	6
July	7	7
August	3	3
September	4	7
October	6	6
November	3	3
December	12	13

Days and Times of Incidents Occurring

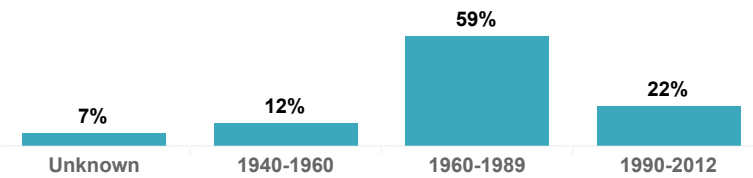|	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
12 AM to 3 AM	5	4	2	2	1	1		15
3 AM to 6 AM	3	1		1	1	4		10
6 AM to 9 AM	2	1		1	1		2	7
9 AM to 12 PM	3		1	1	2	2	4	13
12 PM to 3 PM	1	2	3	1	2		1	10
3 PM to 6 PM		1		1	1	2	3	8
6 PM to 9 PM	1	3	1	1	1	2	1	10
9 PM to 12 PM	4	2	1	2	2	2		13
Grand Total	19	14	8	10	11	13	11	86

Homes with Fatal Incidents Profile

Victim's Distance from an Egress

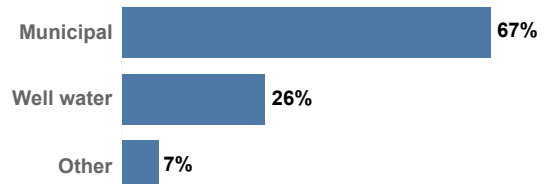|	
0 to 10 Feet 48%	**Over 20 Feet** 16%
	11 to 20 Feet 15%
N/A 18%	**Unknown**
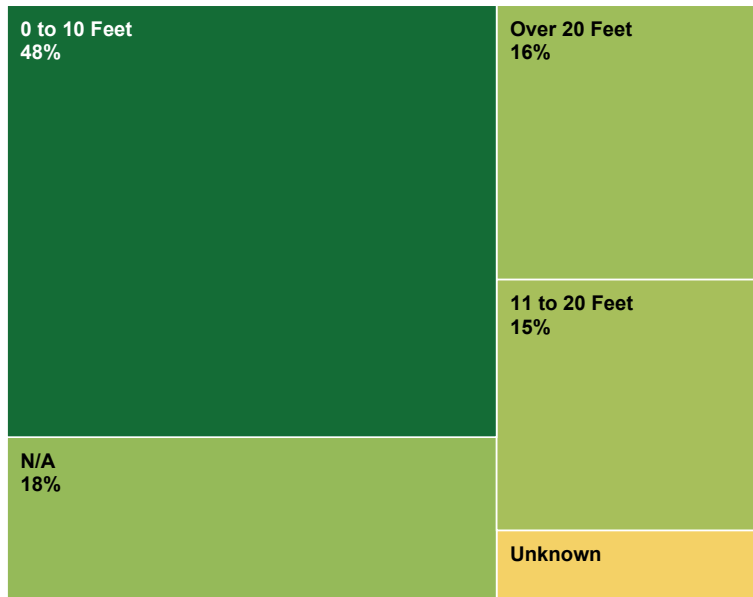
Eighty-five percent of fatal fires occurred in residences. These homes, which are mostly owned, tend to be 30-50 years old, with most being smaller than 1,500 square feet. These homes are often supplied with city or municipal water. Smoke alarms were not always determined to be present, and if they were (38% of the time), they did not necessarily alert the occupants to an emergency. Only in eight percent of fatal fires did an alarm that was present also alerted the occupants. Notification by an alarm saved four occupants in three separate fires. Code and safety issues were present in 59 percent of incidents, with 17 percent of incidents having more than one issue present. 24 percent of the incidents known to not have any smoke alarms.
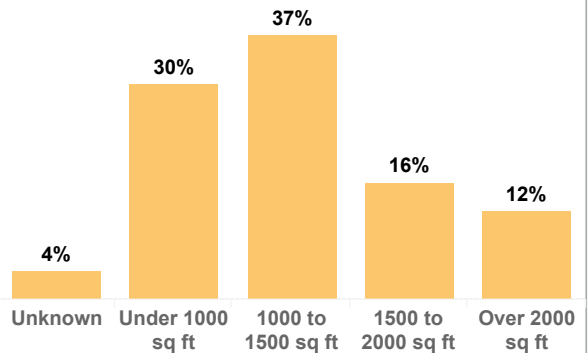
Age of Homes

Unknown	1940-1960	1960-1989	1990-2012
7%	12%	59%	22%

Water Source

Municipal	67%
Well water	26%
Other	7%

Ownership Status of Homes

Owned	59%
Rented	36%
Other or Unknown	5%

Size of Homes

Unknown	Under 1000 sq ft	1000 to 1500 sq ft	1500 to 2000 sq ft	Over 2000 sq ft
4%	30%	37%	16%	12%

Known Code & Safety Issues

No Smoke Alarms	24%
Blocked Exits	15%
Improper Storage of Materials	12%
Issues with Egress	12%
Trip Hazards	10%
Electrical Risk	8%
No Power to Property	6%
Derelict Conditions	3%

Survivors in Fatal Home Incidents

No survivors	66%
1 survivor	14%
2 survivors	7%
3 survivors	7%
More than 3 survivors	7%
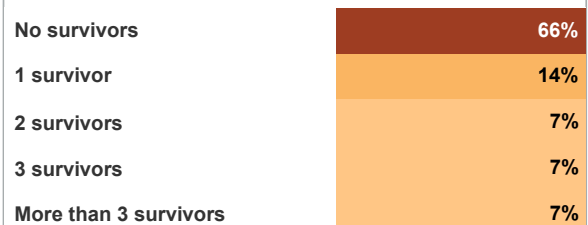
Detailed Fatality Information

Data contained in this report or on this site is collected, compiled, and reported for research and educational purposes only. The contents of any report or data herein is not intended to be used as a definitive conclusion related to a fire's origin and cause or a decedent's manner of death. Therefore, data contained in this report or on this site does not replace nor supersede investigative reports for origin and cause or manner of death.

January

Incident Date	County	Occupancy	Age	Gender	Race
1/8/17	Greenville	Single Family Dwelling	89	Male	White
	Sumter	Single Family Dwelling	81	Male	Black
1/11/17	York	Single Family Dwelling	73	Male	Black
1/12/17	Sumter	Single Family Dwelling	82	Female	Black
			88	Female	Black
1/19/17	Greenville	Open Area	84	Male	White
1/20/17	Spartanburg	Mobile Home	71	Male	White
1/27/17	Dorchester	Single Family Dwelling	46	Male	White
	Greenville	Single Family Dwelling	38	Male	Black
	Spartanburg	Single Family Dwelling	13	Female	White
		Mobile Home	75	Male	White
1/29/17	Anderson	Vehicle	36	Male	Hispanic
1/30/17	Richland	Multi-Family Dwelling	80	Female	White
	Union	Mobile Home	88	Male	Black

February

Incident Date	County	Occupancy	Age	Gender	Race
2/4/17	York	Mobile Home	63	Male	White
2/6/17	Greenville	Recreational Vehicle	27	Male	White
	Greenwood	Mobile Home	54	Male	White
2/10/17	Chester	Mobile Home	62	Female	White
				Male	White
	Greenville	Mobile Home	70	Male	White
2/20/17	Marlboro	Mobile Home	70	Male	White
2/22/17	Anderson	Single Family Dwelling	41	Male	White
2/26/17	Oconee	Mobile Home	49	Male	White
			53	Male	Hispanic

March

Incident Date	County	Occupancy	Age	Gender	Race
3/2/17	Berkeley	Mobile Home	14	Female	Black
			24	Male	White
			44	Female	Black
3/4/17	Lancaster	Single Family Dwelling	56	Male	Black
	Lexington	Single Family Dwelling	64	Female	White
3/6/17	Beaufort	Mobile Home	53	Female	White
3/7/17	Sumter	Open Area	67	Female	Black
3/8/17	Aiken	Single Family Dwelling	66	Female	Black
3/16/17	Darlington	Mobile Home	61	Male	White
3/19/17	Marion	Single Family Dwelling	84	Female	Black
3/20/17	Marion	Mobile Home	71	Male	White
3/21/17	Lexington	Single Family Dwelling	0	Male	White
			9	Female	White
			34	Female	White
			42	Male	White
3/25/17	Chester	Recreational Vehicle	23	Male	White
			53	Male	White
3/29/17	York	Open Area	71	Male	White

April

Incident Date	County	Occupancy	Age	Gender	Race
4/8/17	Lancaster	Single Family Dwelling	57	Female	White
4/14/17	Sumter	Single Family Dwelling	65	Female	White
4/16/17	Spartanburg	Vehicle	43	Male	Black
4/23/17	Oconee	Vehicle	18	Male	White
4/30/17	Bamberg	Mobile Home	58	Male	White

May

Incident Date	County	Occupancy	Age	Gender	Race
5/7/17	Fairfield	Single Family Dwelling	6	Male	Black
			8	Female	Black
			29	Male	Black
5/9/17	Horry	Mobile Home	37	Male	White
			62	Female	White
5/12/17	Lexington	Mobile Home	7	Male	Biracial
5/25/17	Florence	Mobile Home	71	Male	Hispanic
5/27/17	York	Single Family Dwelling	57	Female	White
5/29/17	Richland	Vehicle	6	Female	Black

June

Incident Date	County	Occupancy	Age	Gender	Race
6/6/17	Lexington	Single Family Dwelling	6	Female	Black
6/10/17	Spartanburg	Mobile Home	57	Female	White
6/11/17	Chesterfield	Multi-Family Dwelling	90	Male	White
6/19/17	Aiken	Mobile Home	54	Male	White
6/24/17	Charleston	Mobile Home	12	Male	White
6/27/17	Orangeburg	Single Family Dwelling	62	Female	Black

July

Incident Date	County	Occupancy	Age	Gender	Race
7/2/17	Pickens	Single Family Dwelling	61	Female	White
7/5/17	Richland	Single Family Dwelling	62	Male	Black
7/6/17	Charleston	Single Family Dwelling	2	Female	Black
7/13/17	Lexington	Mobile Home	56	Male	White
7/21/17	Marlboro	Other	73	Female	Black
7/25/17	Spartanburg	Multi-Family Dwelling	43	Male	White
7/26/17	Kershaw	Vehicle	5	Male	White

August

Incident Date	County	Occupancy	Age	Gender	Race
8/11/17	Anderson	Mobile Home	22	Male	Black
8/14/17	Horry	Mobile Home	70	Female	Hispanic
8/16/17	Anderson	Single Family Dwelling	74	Male	White

September

Incident Date	County	Occupancy	Age	Gender	Race
9/2/17	Barnwell	Mobile Home	56	Female	White
9/8/17	Beaufort	Mobile Home	4	Female	Black
			10	Male	Black
			23	Male	Black
9/30/17	Aiken	Single Family Dwelling	38	Female	White
			69	Male	White
	Berkeley	Single Family Dwelling	68	Male	Black

October

Incident Date	County	Occupancy	Age	Gender	Race
10/4/17	Aiken	Mobile Home	47	Female	Black
10/8/17	Charleston	Multi-Family Dwelling	53	Male	Black
	Richland	Single Family Dwelling	61	Female	White
	Sumter	Mobile Home	67	Male	Black
10/15/17	Lancaster	Single Family Dwelling	33	Male	Black
10/30/17	Orangeburg	Single Family Dwelling	86	Male	Black

November

Incident Date	County	Occupancy	Age	Gender	Race
11/14/17	Greenville	Mobile Home	56	Female	Hispanic
11/27/17	Lancaster	Single Family Dwelling	83	Female	White
11/30/17	Clarendon	Single Family Dwelling	70	Female	Black

December

Incident Date	County	Occupancy	Age	Gender	Race
12/4/17	Darlington	Single Family Dwelling	1	Female	Black
12/5/17	Charleston	Single Family Dwelling	84	Female	Asian
12/7/17	Richland	Multi-Family Dwelling	58	Male	Black
12/8/17	Greenwood	Vehicle	45	Female	White
12/11/17	Dorchester	Single Family Dwelling	68	Male	Black
12/13/17	Colleton	Mobile Home	71	Female	White
	Dorchester	Mobile Home	29	Male	Black
12/17/17	Aiken	Single Family Dwelling	50	Male	White
	Fairfield	Single Family Dwelling	74	Male	Black
	Horry	Multi-Family Dwelling	64	Male	White
12/28/17	Fairfield	Mobile Home	55	Female	White
	Sumter	Single Family Dwelling	68	Female	Black
			71	Male	Black