2017 Fatal Motor Vehicle Crashes: Overview

There were 37,133 people killed in motor vehicle traffic crashes on U.S. roadways during 2017, a 1.8-percent decrease from 37,806 people killed in 2016, which came after two yearly consecutive increases in 2015 and 2016. Fatalities decreased from 2016 to 2017 in almost all segments of the population, with the exception of crashes involving large trucks and SUVs.

- There were 673 fewer fatalities in 2017 than 2016 in the following:
  - Passenger car occupants (1.1% decrease)
  - Van occupants (5.8% decrease)
  - Pickup truck occupants (4.5% decrease)
  - Motorcyclists (3.1% decrease)
  - Pedestrians (1.7% decrease)
  - Pedalcyclists (8.1% decrease)
  - Alcohol-impaired-driving fatalities (1.1% decrease)
  - Speeding-related fatalities (5.6% decrease)

- Fatalities increased in 2017 compared to 2016 in the following:
  - SUV occupants (3.0% increase)
  - Crashes involving large trucks* (9.0% increase)
    - Combination trucks (tractor trailers) involved (5.8% increase)
    - Single-unit straight trucks involved (18.7% increase)

- Vehicle miles traveled (VMT) increased by 1.2 percent from 2016 to 2017.

- The fatality rate per 100 million VMT decreased by 2.5 percent, from 1.19 in 2016 to 1.16 in 2017.

- The number of urban fatalities was larger than the number of rural fatalities in 2016 and 2017. In 2015 and earlier, rural fatalities were larger than urban fatalities.

Over the past 40 years, there has been a general downward trend in traffic fatalities. Safety programs such as those increasing seat belt use and reducing impaired driving have substantially lowered the traffic fatalities over the years. Vehicle improvements such as air bags and electronic stability control have also contributed greatly to the reduction of traffic fatalities.

This Research Note provides a brief overview of the 2017 fatal crash picture using data from the Fatality Analysis Reporting System (FARS). FARS is a census of fatal crashes in the 50 States, the District of Columbia, and Puerto Rico (Puerto Rico is not included in U.S. totals). Injury estimates are not yet available for 2017, thus no injury estimates will be presented in this report.

Information in this Note is presented in the following sections.

- Overall Trends
- Fatality Rates
- Change in Fatality Composition
- Fatality Changes by Person Type
- Fatalities in Crashes Involving Large Trucks*
- Fatalities by Land Use
- Inside Versus Outside the Vehicle
- Alcohol-Impaired-Driving Fatalities and Drivers
- Restraint Use and Time of Day
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- State Distribution of Fatalities and Alcohol-Impaired-Driving Fatalities

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* A large truck is defined as any medium or heavy truck, excluding buses and motor homes, with a gross vehicle weight rating greater than 10,000 pounds. (Includes commercial and non-commercial vehicles)

Overall Trends

There were 37,133 motor vehicle traffic fatalities in the United States in 2017—673 fewer fatalities than the 37,806 that occurred in 2016, as shown in Figure 1. The 1.8-percent decrease from 2016 to 2017 compares to the 6.5-percent increase from 2015 to 2016 and the 8.4-percent increase from 2014 and 2015.

Figure 1
Fatalities and Fatality Rate per 100 Million VMT, by Year, 1975–2017
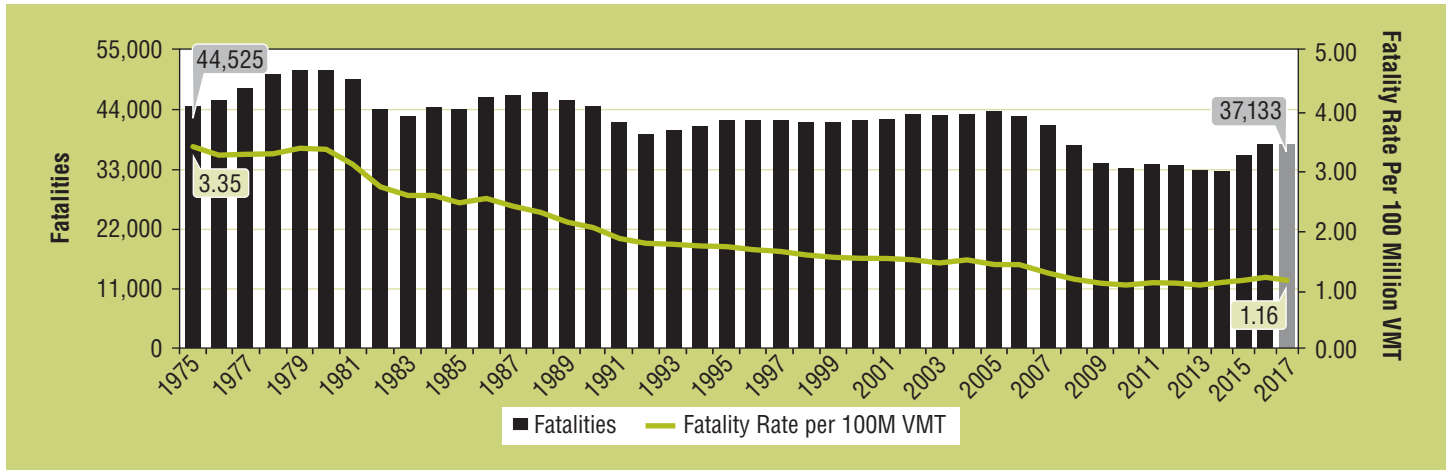
Sources: FARS 1975–2016 Final File, 2017 ARF; Vehicle Miles Traveled (VMT): FHWA.

Fatality Rates

The fatality rate per 100 million VMT decreased by 2.5 percent from 1.19 in 2016 to 1.16 in 2017. The 2017 rates are based on VMT estimates from the Federal Highway Administration's (FHWA) May 2018 Traffic Volume Trends (TVT). Overall, 2017 VMT increased by 1.2 percent from 2016 VMT—from 3,174 billion to 3,213 billion. This 2017 VMT increase of 1.2 percent is less than the increase of 2.6 percent from 2015 to 2016. VMT data will be updated when the FHWA releases the 2017 Annual Highway Statistics later this year.

Change in Fatality Composition

The fatality compositions for 2008 and 2017 are shown in Figure 2. The biggest change is the proportion of nonoccupant fatalities, which increased from 14 percent to 19 percent from 2008 to 2017. During this same decade, the percentage of passenger car occupant fatalities decreased from 39 percent of the fatalities to 36 percent. The percentage of light-truck occupant fatalities decreased from 29 percent in 2008 to 27 percent in 2017. The proportion of motorcyclist fatalities stayed the same, at 14 percent.

Figure 2
Fatality Composition, 2008 and 2017
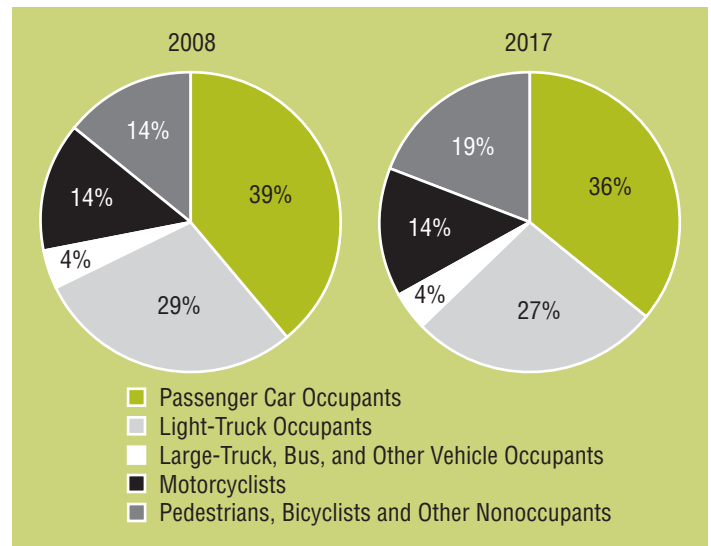
Source: FARS 2008 Final File, 2017 ARF
Note: Sum of individual slices may not add up to 100 percent due to rounding.

Fatality Changes by Person Type

Table 1 presents the change between 2016 and 2017 in the number of occupant and nonoccupant fatalities. Overall, all categories of occupant and nonoccupant fatalities decreased, except for large-truck occupants.

- The number of passenger vehicle occupant fatalities decreased by 326, a 1.4-percent decrease. Passenger vehicles include passenger cars and light trucks.

- Large-truck occupant fatalities increased by 116, a 16.0-percent increase. The 2017 number of large-truck occupant fatalities was the highest it's been since 1989 (858 fatalities).

Table 1
Occupants and Nonoccupants Killed in Traffic Crashes, 2016–2017

Description	2016	2017	Change	% Change
Total*	37,806	37,133	-673	-1.8%
Occupants				
Passenger Vehicles	23,877	23,551	-326	-1.4%
Passenger Cars	13,508	13,363	-145	-1.1%
Light Trucks	10,369	10,188	-181	-1.7%
Large Trucks	725	841	+116	+16.0%
Motorcycles	5,337	5,172	-165	-3.1%
Nonoccupants				
Pedestrians	6,080	5,977	-103	-1.7%
Pedalcyclists	852	783	-69	-8.1%
Other/Unknown	261	228	-33	—

Sources: Fatalities—FARS 2016 Final File, 2017 ARF
*Total includes occupants of buses and other/unknown occupants not shown in table.

Fatalities in Crashes Involving Large Trucks

Fatalities in crashes involving large trucks increased by 9 percent from 2016 to 2017. Combination trucks (tractor trailers) involved in fatal crashes increased by 5.8 percent from 2016 to 2017, and single-unit straight trucks involved in fatal crashes also increased by 18.7 percent.

Table 2 shows large-truck fatalities by category:

- Occupants of other vehicles involved in large-truck crashes had 280 more fatalities, an 8.8-percent increase from 2016.

- Large-truck occupant fatalities in multiple-vehicle crashes increased by 76, a 28.5-percent increase from 2016.

- Large-truck occupant fatalities in single-vehicle crashes increased by 40, an 8.7-percent increase from 2016.

Table 2
People Killed in Crashes Involving Large Trucks,* 2016–2017

Person Type		2016	2017	Change	% Change
Occupants of Large Trucks	Single Vehicle	458	498	+40	+8.7%
	Multiple Vehicle	267	343	+76	+28.5%
	Total	725	841	+116	+16.0%
Other People	Other Vehicle Occupant	3,170	3,450	+280	+8.8%
	Nonoccupant	474	470	-4	-0.8%
	Total	3,644	3,920	+276	+7.6%
Total		4,369	4,761	+392	+9.0%

Sources: Fatalities—FARS 2016 Final File, 2017 ARF
* A large truck is defined as any medium or heavy truck, excluding buses and motor homes, with a gross vehicle weight rating greater than 10,000 pounds. (Includes commercial and non-commercial vehicles)

Fatalities by Land Use

As shown in Figure 3, the number of urban fatalities is larger than the number of rural fatalities in 2016 and 2017. In 2015 and earlier, rural fatalities were larger than urban fatalities. Below are some factors that could explain the rise in urban fatalities:

- Urban fatalities increased by 17.4 percent since 2008; rural fatalities declined by 18.0 percent.

- Urban VMT increased by 13.1 percent since 2008; rural VMT decreased by 2.1 percent.

- Urban fatality rate per 100 million VMT increased by 3.7 percent since 2008; rural fataity rate decreased by 16.0 percent.

- According to the Census Bureau, urban population increased by 12.7 percent from 2007 to 2016 (2017 population estimate is not yet available); rural population decreased by 11.8 percent.

- Passenger vehicle occupant fatalities in urban areas increased by 9 percent since 2008, rural areas decreased by 19 percent.

- Pedestrian fatalities in urban areas increased by 46 percent since 2008; rural areas decreased by 6 percent.

- Pedalcyclist fatalities in urban areas increased by 13 percent since 2008; rural areas decreased by 15 percent.

- Motorcyclist fatalities in urban areas increased by 15 percent since 2008; rural areas decreased by 25 percent.

Figure 3
Fatalities by Land Use, 2008–2017
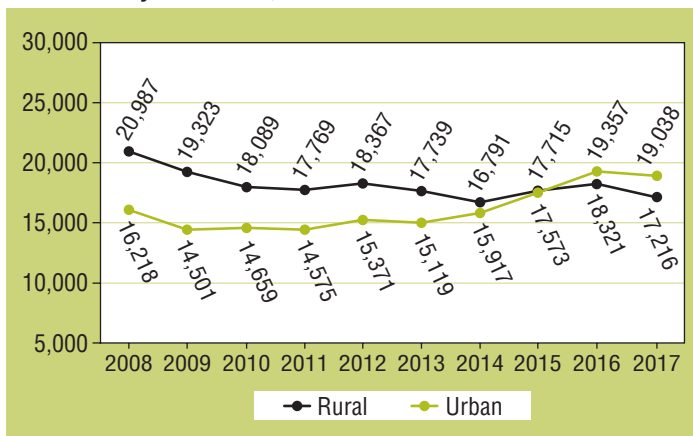
Source: FARS 2008–2016 Final File, 2017 ARF

Inside Versus Outside the Vehicle

The proportion of people killed "inside the vehicle" (passenger car, light truck, large truck, bus, and other vehicle occupants) declined from a high of 80 percent in 1996 to 67 percent in 2017, as seen in Figure 4. Conversely, the proportion of people killed "outside the vehicle" (motorcyclists, pedestrians, pedalcyclists, and other nonoccupants) increased from a low of 20 percent in 1996 to a high of 33 percent in 2017.

Figure 4
Proportion of Fatalities Inside/Outside Vehicle, 1975–2017
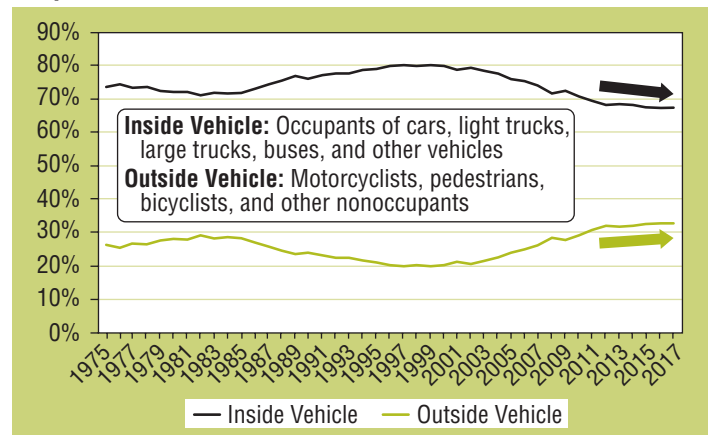
Source: FARS 1975–2016 Final File, 2017 ARF

Alcohol-Impaired-Driving Fatalities and Drivers

Alcohol-impaired-driving fatalities decreased by 1.1 percent from 2016 to 2017 (Table 3), accounting for 29 percent of 2017 overall fatalities. This 29 percent of overall fatalities is the lowest percentage since 1982, when NHTSA started reporting alcohol data. An alcohol-impaired-driving fatality is defined as a fatality in a crash involving a driver or motorcycle rider (operator) with a blood alcohol concentration (BAC) of .08 grams per deciliter (g/dL) or greater.

Table 3
Total and Alcohol-Impaired-Driving* Fatalities, 2016 And 2017

	2016	2017	Change	% Change
Total Fatalities	37,806	37,133	-673	-1.8%
AI-Driving Fatalities	10,996	10,874	-122	-1.1%

Source: FARS 2016 Final File, 2017 ARF
*See definition in text.

As shown in Table 4, pickup truck drivers had the largest percent decrease in alcohol-impaired drivers involved in fatal crashes from 2016 to 2017, dropping 4.8 percent. SUV drivers involved in fatal alcohol-impaired-driving crashes had the largest percent increase of 5.5 percent among other passenger vehicles. Alcohol-impaired drivers of large trucks involved in fatal crashes had the largest percent increase of 61.1 percent, but note that the percentage is based on much smaller numbers than the other vehicle types.

Table 4
Alcohol-Impaired* Drivers Involved in Fatal Crashes by Vehicle Type, 2016 and 2017

Type	2016	2017	Change	% Change
Passenger Car	4,411	4,297	-114	-2.6%
Light Truck – Van	280	284	+4	+1.4%
Light Truck – Utility	1,632	1,721	+89	+5.5%
Light Truck – Pickup	2,030	1,932	-98	-4.8%
Motorcycle	1,425	1,454	+29	+2.0%
Large Truck	72	116	+44	+61.1%

Source: FARS 2016 Final File, 2017 ARF
*See definition in text.

Restraint Use and Time of Day

Among passenger vehicle occupants killed in 2017 who had known restraint use, almost half (47%) were unrestrained (Table 5). According to the National Occupant Protection Use Survey for 2017,[1] estimated belt use was virtually unchanged, from 90.1 percent in 2016 to 89.7 percent in 2017.

The percentages reported in this section are all based on known restraint use. Forty percent of those killed in the daytime in 2017 were unrestrained, compared to 60 percent who were restrained. Fifty-five percent of those killed in the nighttime in 2017 were unrestrained, compared to 45 percent who were restrained.

For those passenger vehicle occupants who survived fatal crashes in 2017, only 13 percent were unrestrained, compared to 47 percent who died. During the daytime, 11 percent of passenger vehicle occupants who survived fatal crashes were unrestrained, thus 89 percent of the survivors were restrained. Restraint use among the nighttime crash survivors differed slightly compared to daytime—15 percent were unrestrained and 85 percent were restrained.

Table 5
Passenger Vehicle Occupants Involved by Restraint Use, Survival Status, and Time of Day, 2016 and 2017

	Passenger Vehicle Occupants Killed						Passenger Vehicle Occupants Who Survived					
					Restraint Use Percent Based on Known Use						Restraint Use Percent Based on Known Use	
	2016	2017	Change	% Change	2016	2017	2016	2017	Change	% Change	2016	2017
Total	23,877	23,551	-326	-1.4%			40,832	39,822	-1,010	-2.5%		
Restraint Used	11,376	11,388	+12	+0.1%	52%	53%	31,971	31,639	-332	-1.0%	86%	87%
Restraint Not Used	10,514	10,076	-438	-4.2%	48%	47%	5,189	4,791	-398	-7.7%	14%	13%
Unknown	1,987	2,087	+100	+5.0%			3,672	3,392	-280	-7.6%		
Time of Day												
Daytime	12,208	12,356	+148	+1.2%			20,717	20,123	-594	-2.9%		
Restraint Used	6,780	6,885	+105	+1.5%	59%	60%	17,101	16,664	-437	-2.6%	88%	89%
Restraint Not Used	4,644	4,558	-86	-1.9%	41%	40%	2,274	2,102	-172	-7.6%	12%	11%
Unknown	784	913	+129	+16.5%			1,342	1,357	+15	+1.1%		
Nighttime	11,475	11,011	-464	-4.0%			20,046	19,602	-444	-2.2%		
Restraint Used	4,538	4,445	-93	-2.0%	44%	45%	14,837	14,928	+91	+0.6%	84%	85%
Restraint Not Used	5,759	5,414	-345	-6.0%	56%	55%	2,900	2,661	-239	-8.2%	16%	15%
Unknown	1,178	1,152	-26	-2.2%			2,309	2,013	-296	-12.8%		

Source: FARS 2016 Final File, 2017 ARF
Daytime and nighttime totals do not add up to total killed or total survived. Total includes unknown time of day.

Additional Facts

- Every month except January, April, and July saw decreases in fatalities from 2016 to 2017. The highest increase was in January, at 11.2 percent.

- The number of fatalities in multiple-vehicle crashes increased by 1.0 percent, from 16,547 in 2016 to 16,695 in 2017.

- Speeding-related fatalities declined by 5.6 percent, from 10,291 in 2016 to 9,717 in 2017.

- The number of fatalities in distraction-affected crashes was 3,166, or 8.5 percent of total fatalities in 2017.

- The number of fatalities involving a drowsy driver was 795 in 2017, or 2.1 percent of total fatalities in 2017.

[1] Pickrell, T. M., & Li, R. (2018, April, revised). *Seat belt use in 2017—Overall results* (Traffic Safety Facts Research Note. Report No. DOT HS 812 465). Washington, DC: National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812465.

- Table 6 below shows the 10-year trend of more older drivers being involved in fatal crashes than younger drivers in general. The trend is similar when compared with population estimates from the Census Bureau and licensed data from the FHWA. The 65+ age group had the largest percent increases compared to the other age groups.

Table 6

Comparison of 10-Year (2008–2017) Percentage Change of Drivers Involved in Fatal Crashes With 10-Year Percentage Change of Population Estimates (2008–2017) and 10-Year Percentage Change of Licensed Driver Data (2007–2016), by Age Group

Age Group	10-Year Percentage Change of Drivers Involved in Fatal Crashes (2008–2017)	10-Year Percentage Change of Population Estimates (2008–2017)	10-Year Percentage Change of Licensed Driver Data (2007–2016, 2017 not available)
16–24	-16.3%	+0.2%	-1.5%
25–44	+2.6%	+4.6%	+0.5%
45–64	+9.4%	+7.3%	+7.6%
65+	**+29.1%**	**+31.2%**	**+34.3%**
Total	+3.7%	+7.1%	+7.8%

Sources: Fatal Crashes—FARS 2008 Final and 2017 ARF, Population Estimates—U.S. Census Bureau, and Licensed Driver Data—FHWA.
NOTE: Total includes those who were under 16 years old.

State Distribution of Fatalities and Alcohol-Impaired-Driving Fatalities

Table 7 presents the total number of motor vehicle crash fatalities and the number of alcohol-impaired-driving fatalities for 2016 and 2017, the change in the number of fatalities, and the percentage change for each State, the District of Columbia, and Puerto Rico. Twenty-seven States had reductions in the number of fatalities. In 2017, the largest reduction was in California, with 235 fewer fatalities. Twenty-two States, the District of Columbia, and Puerto Rico had more motor vehicle fatalities in 2017 than in 2016. Indiana had the largest increase, with 85 additional fatalities. Only Delaware had no change from 2016 to 2017.

Nationwide, more than one-quarter (29%) of the total fatalities were in alcohol-impaired-driving crashes. Twenty-six States and Puerto Rico saw declines in the number of alcohol-impaired-driving fatalities. Florida had the largest decrease, with 66 fewer lives lost in alcohol-impaired-driving crashes in 2017. Twenty-one States and the District of Columbia saw increases in the number of alcohol-impaired-driving fatalities, with the largest increase of 67 fatalities in Michigan, followed by 44 more in Maryland. Three States saw no change in the number of alcohol-impaired-driving fatalities from 2016 to 2017.

Additional State-level data is available at NCSA's State Traffic Safety Information website at: https://cdan.nhtsa.gov/stsi.htm.

NHTSA's Fatality Analysis Reporting System is a census of all crashes of motor vehicles traveling on public roadways in which a person died within 30 days of the crash.

The information in this Research Note represents only major findings from the 2017 FARS files. Additional information and details will be available at a later date. This Research Note and other general information on highway traffic safety are located at: https://crashstats.nhtsa.dot.gov.

U.S. Department of Transportation
National Highway Traffic Safety Administration

Table 7
Total and Alcohol-Impaired-Driving Fatalities, by State, 2016 and 2017

State	2016			2017			2016 to 2017 Change			
	Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities		Alcohol-Impaired-Driving Fatalities	
		Number	Percent		Number	Percent	Change	% Change	Change	% Change
Alabama	1,083	298	28%	948	268	28%	-135	-12.5%	-30	-10.1%
Alaska	84	30	36%	79	22	28%	-5	-6.0%	-8	-26.7%
Arizona	952	240	25%	1,000	278	28%	+48	+5.0%	+38	+15.8%
Arkansas	561	132	24%	493	140	28%	-68	-12.1%	+8	+6.1%
California	3,837	1,122	29%	3,602	1,120	31%	-235	-6.1%	-2	-0.2%
Colorado	608	161	26%	648	177	27%	+40	+6.6%	+16	+9.9%
Connecticut	304	116	38%	278	120	43%	-26	-8.6%	+4	+3.4%
Delaware	119	37	31%	119	32	27%	0	0.0%	-5	-13.5%
Dist of Columbia	27	12	44%	31	16	52%	+4	+14.8%	+4	+33.3%
Florida	3,176	905	28%	3,112	839	27%	-64	-2.0%	-66	-7.3%
Georgia	1,556	384	25%	1,540	366	24%	-16	-1.0%	-18	-4.7%
Hawaii	120	38	32%	107	42	39%	-13	-10.8%	+4	+10.5%
Idaho	253	76	30%	244	60	25%	-9	-3.6%	-16	-21.1%
Illinois	1,078	335	31%	1,097	349	32%	+19	+1.8%	+14	+4.2%
Indiana	829	215	26%	914	220	24%	+85	+10.3%	+5	+2.3%
Iowa	402	108	27%	330	88	27%	-72	-17.9%	-20	-18.5%
Kansas	429	100	23%	461	102	22%	+32	+7.5%	+2	+2.0%
Kentucky	834	176	21%	782	181	23%	-52	-6.2%	+5	+2.8%
Louisiana	757	227	30%	760	212	28%	+3	+0.4%	-15	-6.6%
Maine	160	62	39%	172	50	29%	+12	+7.5%	-12	-19.4%
Maryland	522	142	27%	550	186	34%	+28	+5.4%	+44	+31.0%
Massachusetts	387	148	38%	350	120	34%	-37	-9.6%	-28	-18.9%
Michigan	1,065	244	23%	1,030	311	30%	-35	-3.3%	+67	+27.5%
Minnesota	392	95	24%	357	85	24%	-35	-8.9%	-10	-10.5%
Mississippi	687	132	19%	690	148	21%	+3	+0.4%	+16	+12.1%
Missouri	947	247	26%	930	254	27%	-17	-1.8%	+7	+2.8%
Montana	190	84	44%	186	56	30%	-4	-2.1%	-28	-33.3%
Nebraska	218	62	28%	228	67	29%	+10	+4.6%	+5	+8.1%
Nevada	329	102	31%	309	89	29%	-20	-6.1%	-13	-12.7%
New Hampshire	136	40	29%	102	27	26%	-34	-25.0%	-13	-32.5%
New Jersey	602	137	23%	624	125	20%	+22	+3.7%	-12	-8.8%
New Mexico	405	120	30%	379	120	32%	-26	-6.4%	0	0.0%
New York	1,041	295	28%	999	295	30%	-42	-4.0%	0	0.0%
North Carolina	1,450	439	30%	1,412	413	29%	-38	-2.6%	-26	-5.9%
North Dakota	113	52	46%	115	46	40%	+2	+1.8%	-6	-11.5%
Ohio	1,132	330	29%	1,179	333	28%	+47	+4.2%	+3	+0.9%
Oklahoma	687	190	28%	655	165	25%	-32	-4.7%	-25	-13.2%
Oregon	498	151	30%	437	137	31%	-61	-12.2%	-14	-9.3%
Pennsylvania	1,188	340	29%	1,137	314	28%	-51	-4.3%	-26	-7.6%
Rhode Island	51	19	37%	83	34	41%	+32	+62.7%	+15	+78.9%
South Carolina	1,020	341	33%	988	313	32%	-32	-3.1%	-28	-8.2%
South Dakota	116	45	39%	129	35	27%	+13	+11.2%	-10	-22.2%
Tennessee	1,037	227	22%	1,040	251	24%	+3	+0.3%	+24	+10.6%
Texas	3,797	1,478	39%	3,722	1,468	39%	-75	-2.0%	-10	-0.7%
Utah	281	53	19%	273	53	19%	-8	-2.8%	0	0.0%
Vermont	62	28	45%	69	18	26%	+7	+11.3%	-10	-35.7%
Virginia	760	223	29%	839	246	29%	+79	+10.4%	+23	+10.3%
Washington	536	160	30%	565	178	32%	+29	+5.4%	+18	+11.3%
West Virginia	269	69	26%	303	72	24%	+34	+12.6%	+3	+4.3%
Wisconsin	607	197	32%	613	190	31%	+6	+1.0%	-7	-3.6%
Wyoming	112	34	30%	123	44	36%	+11	+9.8%	+10	+29.4%
National	**37,806**	**10,996**	**29%**	**37,133**	**10,874**	**29%**	**-673**	**-1.8%**	**-122**	**-1.1%**
Puerto Rico	279	99	35%	290	96	33%	+11	+3.9%	-3	-3.0%

Source: FARS 2016 Final File, 2017 ARF

13904-092818-v10