



TRAFFIC SAFETY FACTS

Research Note

DOT HS 812 101

December 2014

2013 Motor Vehicle Crashes: Overview

After an increase in motor vehicle crash fatalities in 2012, fatalities on U.S. roadways in 2013 resumed the decline that had started seven years prior. Despite the decline in fatalities, the Nation still lost 32,719 people in crashes on roadways during 2013, down from 33,782 in 2012. The number of people injured on the Nation's roads decreased in 2013 as well, falling from 2.4 to 2.3 million injured people. Fatalities and injuries declined in almost all segments of the population—passenger vehicle occupants, large-truck occupants, pedestrians, young drivers, and with alcohol-impaired driving fatalities. A particularly notable decrease was seen in the number of motorcyclists who lost their lives in 2013, down over 6 percent from 2012—318 fewer motorcyclists' lives lost. Although the fatalities and injuries decreased from 2012 to 2013, the total number of crashes that occurred on the roads increased slightly—primarily a result of an almost 3-percent increase in crashes that resulted in no injuries, only property damage.

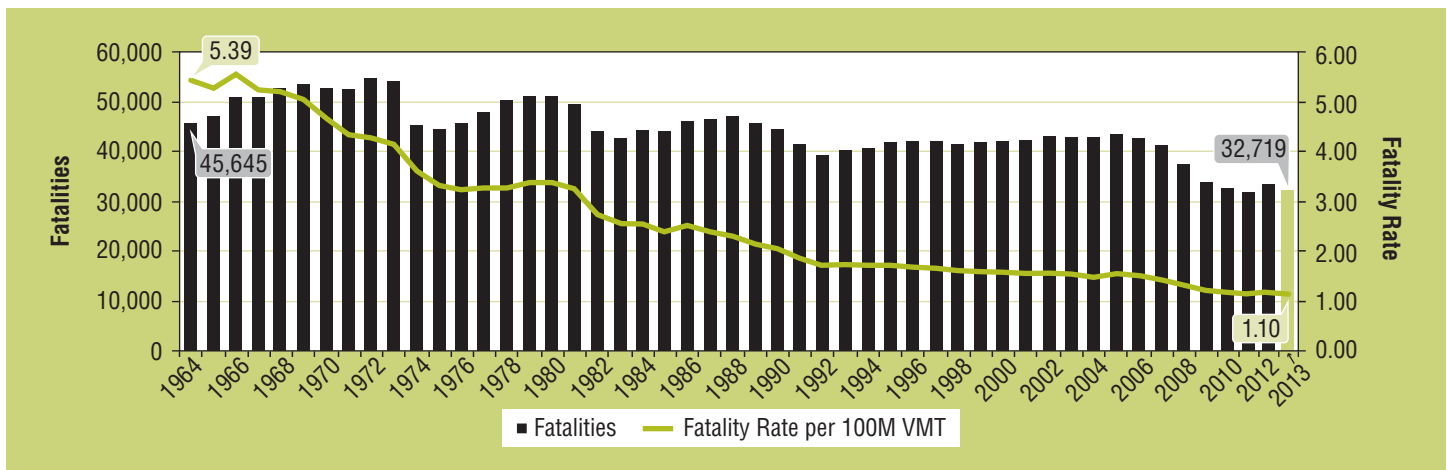
- The Nation saw 1,063 fewer fatalities from motor vehicle crashes in 2013 than in 2012—a 3.1-percent decrease.
- Over the past 10 years, there has been a reduction of nearly 25 percent in the number of fatalities on the Nation's roadways.

- The number of injured people, which has seen subtle fluctuation in recent years, experienced a slight (and not statistically significant) decrease. In 2013, there was a decrease of 49,000 people injured in motor vehicle crashes over 2012.
- While motor vehicle crash fatalities decreased by 3.1 percent overall, the number of people who died in alcohol-impaired-driving crashes decreased by 2.5 percent. In 2013, 10,076 people lost their lives in alcohol-impaired-driving crashes.

Overall Statistics

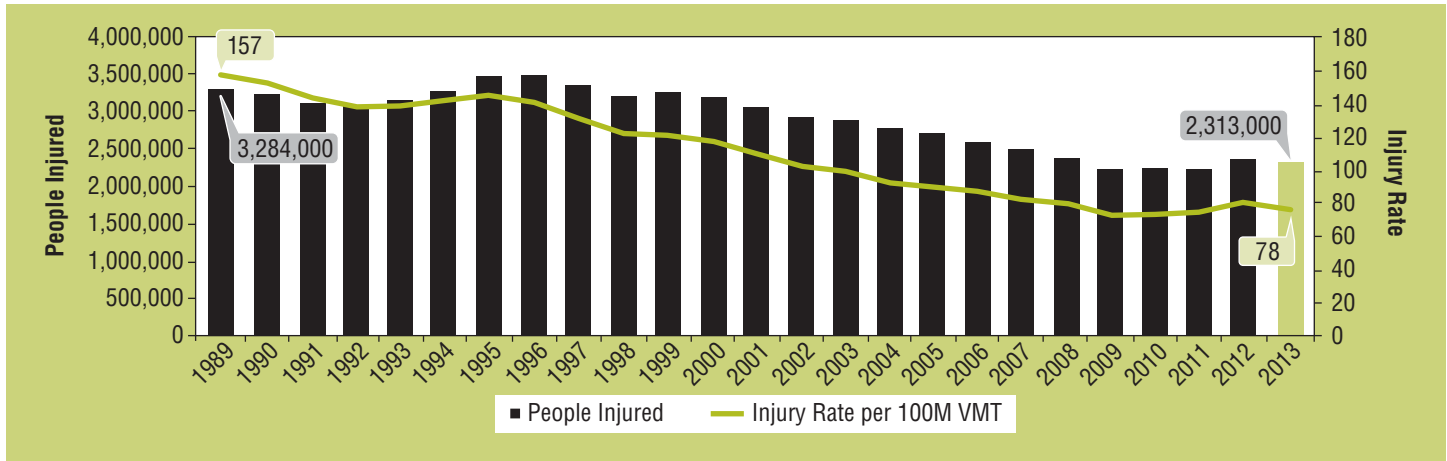
In 2013, 32,719 people died in motor vehicle traffic crashes in the United States, a 3.1-percent decrease from the 33,782 fatalities in 2012 (Figure 1). This decline shows a continuation in the general decline in fatalities that started in 2006, except for the increase in 2012, according to NHTSA's Fatality Analysis Reporting System (FARS). In 2013, an estimated 2.31 million people were injured in motor vehicle traffic crashes, compared to 2.36 million in 2012 according to NHTSA's National Automotive Sampling System (NASS) General Estimates System (GES), a decrease of 2.1 percent. The change in the number of injured people from 2012 to 2013 is not statistically significant (Figure 2).

Figure 1
Fatalities and Fatality Rate per 100 Million Vehicle Miles Traveled by Year



Source: 1964–1974: National Center for Health Statistics, HEW, and State Accident Summaries (Adjusted to 30-Day Traffic Deaths by NHTSA); FARS 1975–2012 (Final), 2013 Annual Report File (ARF); Vehicle Miles Traveled (VMT): Federal Highway Administration.

Figure 2
People Injured and Injury Rate per 100 Million Vehicle Miles Traveled by Year



Source: NASS GES 1989–2013; Vehicle Miles Traveled (VMT): Federal Highway Administration.

Fatality and Injury Rates

The fatality rate per 100 million vehicle miles traveled (VMT) decreased 3.5 percent from 1.14 in 2012 to 1.10 in 2013 (Table 1). This fatality rate ties that from 2011 as the lowest fatality rate on record. The overall injury rate also decreased in 2013 by 2.5 percent from 2012. The 2013 rates are based on VMT estimates from the Federal Highway Administration's (FHWA) September 2014 Traffic Volume Trends (TVT). Overall, 2013 VMT decreased by 0.1 percent from 2012 VMT—from 2,969 billion to 2,966 billion. VMT data will be updated when FHWA releases the 2013 Annual Highway Statistics.

Table 1
Fatality and Injury Rates per 100 Million VMT

	2012	2013	Change	% Change
Fatality Rate	1.14	1.10	-0.04	-3.5%
Injury Rate	80	78	-2	-2.5%

Source: FARS, GES, and FHWA VMT

Table 2
Occupants and Nonoccupants Killed and Injured in Traffic Crashes

Description	Killed				Injured			
	2012	2013	Change	% Change	2012	2013	Change	% Change
Total*	33,782	32,719	-1,063	-3.1%	2,362,000	2,313,000	-49,000	-2.1%
Occupants								
Passenger Vehicles	21,779	21,132	-647	-3.0%	2,091,000	2,046,000	-45,000	-2.2%
Passenger Cars	12,361	11,977	-384	-3.1%	1,328,000	1,296,000	-32,000	-2.4%
Light Trucks	9,418	9,155	-263	-2.8%	762,000	750,000	-12,000	-1.6%
Large Trucks	697	691	-6	-0.9%	25,000	24,000	-1,000	-4.0%
Motorcycles	4,986	4,668	-318	-6.4%	93,000	88,000	-5,000	-5.4%
Nonoccupants								
Pedestrians	4,818	4,735	-83	-1.7%	76,000	66,000	-10,000	-13%
Pedalcyclists	734	743	+9	+1.2%	49,000	48,000	-1,000	-2.0%
Other/Unknown	227	190	-37	—	10,000	11,000	+1,000	—

Source: Fatalities—FARS 2012 (Final), 2013 (ARF), Injured—NASS GES 2012, 2013 Annual Files

*Total includes occupants of buses and other/unknown occupants not shown in table.

Occupants and Nonoccupants

Motor vehicle crash fatalities and injuries decreased in 2013, as shown in Table 2 below. Total fatalities decreased by 3.1 percent and decreased across all person type categories except pedal-cyclists. The estimated number of people injured decreased by 2.1 percent, not a statistically significant change from 2012.

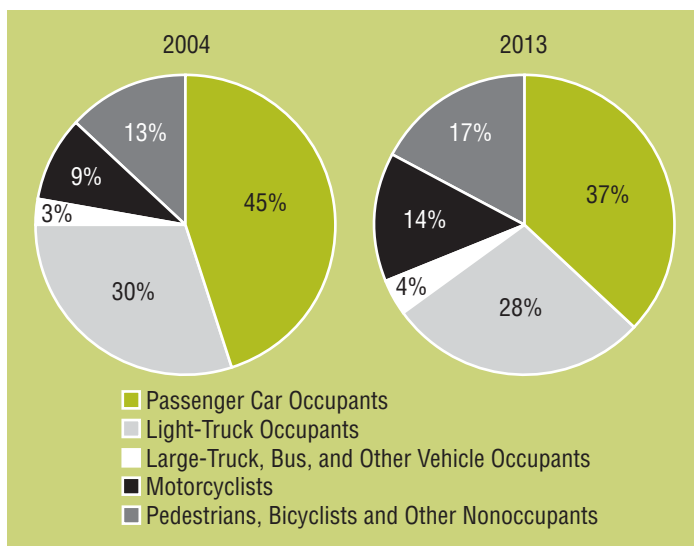
At 21,132 fatalities, the number of passenger vehicle occupants who died in 2013 is the lowest on record. Deaths among passenger vehicle occupants had shown an increase in 2012, the first since 2002, but in 2013, the 3-percent decrease resumed the general downward trend in this category. One notable decrease was the 6.4-percent decrease in the number of motorcyclists who lost their lives on the roadways in 2013—318 fewer motorcyclists. This was the first decrease in motorcyclist fatalities since 2009, the only other decrease since 1997. Pedestrian fatalities decreased by 1.7 percent from 2012 to 2013. It is the first decrease since 2009 and is important at a time of growing concern over pedestrian safety.

As was seen with motorcyclist fatalities, the number of injured motorcyclists also decreased in 2013 by an estimated 5,000 from 2012 (not statistically significant), or 5.4 percent. Among non-occupants, injured pedestrians decreased by 13 percent—10,000 fewer pedestrians were injured in motor vehicle crashes in 2013 than in 2012.

Change in Fatality Composition

The fatality composition in 2004 and 2013 is shown in Figure 3. The most obvious shift is in the percentage of passenger car occupant fatalities—changing from 45 percent of the fatalities to 37 percent. This percentage change is the result of 7,215 fewer passenger car occupant fatalities. A reduction of 3,519 light-truck occupant fatalities led to a decrease in that portion of the fatalities. Motorcyclist fatalities now take up 14 percent of total fatalities, compared to 9 percent 10 years ago. And the portion of nonoccupant fatalities has increased from 13 percent to 17 percent over the 10-year period.

Figure 3
Fatality Composition, 2004 and 2013



Source: FARS 2004 (Final), 2013 (ARF)

Alcohol-Impaired-Driving Fatalities and Drivers

Alcohol-impaired-driving fatalities decreased by 2.5 percent from 2012 to 2013 (Table 3), accounting for 31 percent of 2013 overall fatalities. 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 g/dL or higher. Motorcycle riders showed the greatest decrease in the number of alcohol-impaired drivers involved in fatal crashes from 2012 to 2013, dropping 8.3 percent or by 117 riders. This was both the greatest percentage drop and the greatest drop in actual alcohol-impaired drivers. Large-truck drivers were the only group to show an increase in the number of alcohol-impaired drivers.

Table 3
Total and Alcohol-Impaired (AI) Driving Fatalities*

	2012	2013	Change	% Change
Total Fatalities	33,782	32,719	-1,063	-3.1%
AI-Driving Fatalities	10,336	10,076	-260	-2.5%
Alcohol-Impaired Drivers in Fatal Crashes by Vehicle Type				
Passenger Car	4,129	4,062	-67	-1.6%
Light Truck - Van	253	253	0	0.0%
Light Truck - Utility	1,482	1,414	-68	-4.6%
Light Truck - Pickup	1,919	1,902	-17	-0.9%
Motorcycles	1,413	1,296	-117	-8.3%
Large Trucks	78	92	+14	+18%

Source: FARS 2012 (Final), 2013 (ARF)

*See definition in text.

Crash Type

The number of motor vehicle crashes, by crash type and severity, is presented in Table 4. The total number of police-reported traffic crashes increased by 1.3 percent from 2012 to 2013. This increase is driven by the 2.9-percent increase in property-damage-only crashes—or crashes in which there were no injuries to occupants or nonoccupants during the crash. The number of fatal crashes and injury crashes both fell from 2012 to 2013.

Table 4
Number of Crashes, by Crash Type

Crash Type	2012	2013	Change	% Change
Fatal Crashes	31,006	30,057	-949	-3.1%
Non-Fatal Crashes	5,584,000	5,657,000	+73,000	+1.3%
Injury Crashes	1,634,000	1,591,000	-43,000	-2.6%
Property Damage Only	3,950,000	4,066,000	+116,000	+2.9%
Total Crashes	5,615,000	5,687,000	+72,000	+1.3%

Source: FARS 2012 (Final), 2013 (ARF), NASS GES 2012, 2013

Restraint Use and Time of Day

Among fatally injured passenger vehicle occupants, almost half (49%) of those killed in 2013 were unrestrained (Table 5). Noticeable in the table is that there was an increase in the number of restrained occupants killed and a decrease in the number of unrestrained occupants killed. This is perhaps an indication of a general increase in restraint use over time—in particular during the day—as was shown in the seat belt use rate estimated through the National Occupant Protection Use Survey for 2013 (DOT HS 811 875). The number of unrestrained fatalities during the daytime fell from 43 percent to 40 percent, thus 60 percent of those killed were restrained. While this may, at first glance, seem counterintuitive, we must acknowledge that some motor vehicle crashes are not survivable.

For those passenger vehicle occupants that survived a fatal crash in 2013, only 16 percent were unrestrained. During the daytime, 13 percent of passenger vehicle occupants that sur-

Table 5
Passenger Vehicle Occupants in Fatal Crashes, by Restraint Use, Survival Status, and Time of Day

	Killed						Survived					
	2012		2013		Change	% Change	2012		2013		Change	% Change
	#	%	#	%			#	%	#	%		
Total	21,779		21,132		-647	-3.0%	35,655		34,051		-1,604	-4.5%
Restraint Used	10,552	48%	10,674	51%	+122	+1.2%	29,680	83%	28,721	84%	-959	-3.2%
Restraint Not Used	11,227	52%	10,458	49%	-769	-6.8%	5,975	17%	5,330	16%	-645	-11%
Day	11,057	51%	10,794	51%	-263	-2.4%	18,212	51%	17,612	52%	-600	-3.3%
Restraint Used	6,280	57%	6,440	60%	+160	+2.5%	15,733	86%	15,390	87%	-343	-2.2%
Restraint Not Used	4,777	43%	4,354	40%	-423	-8.9%	2,479	14%	2,222	13%	-257	-10%
Night	10,541	48%	10,188	48%	-353	-3.3%	17,382	49%	16,396	48%	-986	-5.7%
Restraint Used	4,174	40%	4,166	41%	-8	-0.2%	13,875	80%	13,270	81%	-605	-4.4%
Restraint Not Used	6,367	60%	6,022	59%	-345	-5.4%	3,507	20%	3,126	19%	-381	-11%

Source: FARS 2012 [Final], 2013 [ARF]

Day: 6 a.m. to 5:59 p.m.; Night 6 p.m. to 5:59 a.m.

Total fatalities include those at unknown time of day.

Unknown restraint use has been distributed proportionally across known use.

vived a fatal crash were unrestrained, thus 87 percent of the survivors were restrained. This compares to the nighttime restraint use among the survivors: 19 percent of the nighttime crash survivors were unrestrained and 81 percent of the nighttime crash survivors were restrained.

Fatal Crashes Involving Large Trucks

There was a small (0.5%) increase in the number of people killed in crashes involving large trucks (Table 6). Very little changed from 2012 to 2013 with respect to those who died in the crashes involving large trucks. The number of large-truck occupants who were killed and the number of occupants of the other vehicles who were killed both decreased by less than 1 percent. The number of nonoccupants killed during a large-truck crash increased by 13 percent (49 people) from 2012 to 2013. Note that the number of fatal crashes involving large trucks is relatively small compared to those involving other vehicles, so even small changes in the numbers of fatalities may result in large percentage changes.

Table 6
People Killed in Large-Truck Crashes

Type	2012	2013	Change	% Change
Truck Occupants	697	691	-6	-0.9%
Single-Vehicle	423	427	+4	+0.9%
Multivehicle	274	264	-10	-3.6%
Other Vehicle Occupants	2,857	2,834	-23	-0.8%
Nonoccupants	390	439	+49	+13%
Total	3,944	3,964	+20	+0.5%

Source: FARS 2012 (Final), 2013 (ARF)

Crash Location

Fatalities in rural crashes decreased by 3.7 percent (Table 7), while those in urban crashes decreased by 2.5 percent. People killed in roadway departure crashes decreased by 3.7 percent, and intersection crashes decreased by 2.9 percent. Following are the definitions used for roadway-departure and intersection crashes as defined by FHWA.

Roadway Departure Crash: A crash in which a vehicle crosses an edge line, a center line, or leaves the traveled way. Types of crashes fitting the definition include fatal crashes in which the first event for at least one of the involved vehicles ran-off-road (right or left), crossed the centerline or median, went airborne, or hit a fixed object.

Intersection: Includes intersection and intersection-related crashes as well as driveway and alley access or related crashes.

Table 7
People Killed in Motor Vehicle Traffic Crashes, by Roadway Function Class, Roadway Departure and Relation to Junction

	2012	2013	Change	% Change
Total	33,782	32,719	-1,063	-3.1%
Roadway Function Class				
Rural	18,367	17,696	-671	-3.7%
Urban	15,371	14,987	-384	-2.5%
Roadway Departure				
Roadway Departure*	18,963	18,257	-706	-3.7%
Relation to Junction				
Intersection*	8,851	8,598	-253	-2.9%

Source: FARS 2012 (Final), 2013 (ARF)

Total includes unknown Roadway Function Class.

*See definitions in text.

Additional Facts

- There was a large decrease in motorcyclist fatalities for the 50- to 69-year-old population: 190 fewer fatalities in 2013 than in 2012 (60% of the total decrease for motorcyclist fatalities).
- Passenger vehicle occupants killed in single-vehicle roll-overs decreased 7.3 percent in 2013. Looking just at SUVs, that decrease was 12 percent.
- There were 11 times as many unhelmeted motorcyclist fatalities in States without universal helmet laws (1,704 unhelmeted fatalities) as in States with universal helmet laws (150 unhelmeted fatalities) in 2013.
- Twenty-four percent of alcohol-impaired drivers in fatal crashes in 2013 had a previous license suspension or revocation (within just the last three years, for alcohol-related and non-alcohol-related offenses).
- The decrease in the number of young drivers involved in fatal crashes (358) from 2012 to 2013 makes up 33 percent of the decrease in all drivers involved during that time (1,090).
- In 2013, all age groups under 55 years old showed decreases in fatalities. Fatalities among the 55+ community increased from 2012 to 2013.
- Sixty-two percent of large-truck occupants killed in 2013 died in single-vehicle crashes.

State-by-State Distribution of Fatalities and Alcohol-Impaired Driving Crash Fatalities

Table 8 presents the total number of motor vehicle crash fatalities for 2012 and 2013, the change in the number of fatalities, the percentage change, as well as alcohol-impaired-driving fatality information for each State, the District of Columbia, and Puerto Rico. Thirty-four States and Puerto Rico had reductions in the number of fatalities. In 2013, the largest reduction was in Ohio, with 132 fewer fatalities. There were 16 States and the District of Columbia with more motor vehicle fatalities in 2013 than 2012. Illinois had the largest increase, with 35 additional fatalities.

Nationwide, about one-third (31%) of the total fatalities were in alcohol-impaired-driving crashes. Thirty-one States saw declines in the number of alcohol-impaired-driving fatalities. Ohio had the largest decrease, with 118 fewer lives lost in alcohol-impaired-driving crashes in 2013. Seventeen States, the District of Columbia, and Puerto Rico saw increases in alcohol-impaired-driving fatalities, with the largest increase of 47 fatalities in Texas.

Additional State-level data is available at NCSA's State Traffic Safety Information Web site at www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20REPORT.HTM

Suggested APA format citation for this report:

National Center for Statistics and Analysis. (2014, December). 2013 motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 101). Washington, DC: National Highway Traffic Safety Administration.

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. Data for the NASS GES comes from a nationally representative sample of police-reported motor vehicle crashes of all types, from property-damage-only to fatal.

The information in this Research Note represents only major findings from the 2013 FARS and NASS GES files. Additional information and details will be available at a later date. Internet users may access this Research Note and other general information on traffic safety at: www-nrd.nhtsa.dot.gov/CATS/index.aspx



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

Table 8
Total and Alcohol-Impaired Driving Fatalities, 2012 and 2013, by State

State	2012			2013			2012 to 2013 Change			
	Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities		Alcohol-Impaired-Driving Fatalities	
		#	%		#	%	Change	% Change	Change	% Change
Alabama	865	240	28%	852	260	31%	-13	-1.5%	+20	+8.3%
Alaska	59	15	25%	51	15	30%	-8	-14%	0	0.0%
Arizona	821	230	28%	849	219	26%	+28	+3.4%	-11	-4.8%
Arkansas	560	144	26%	483	123	25%	-77	-14%	-21	-15%
California	2,966	829	28%	3,000	867	29%	+34	+1.1%	+38	+4.6%
Colorado	474	134	28%	481	142	30%	+7	+1.5%	+8	+6.0%
Connecticut	264	100	38%	276	114	41%	+12	+4.5%	+14	+14%
Delaware	114	35	31%	99	38	39%	-15	-13%	+3	+8.6%
Dist of Columbia	15	3	21%	20	6	31%	+5	+33%	+3	+100%
Florida	2,431	709	29%	2,407	676	28%	-24	-1.0%	-33	-4.7%
Georgia	1,192	295	25%	1,179	297	25%	-13	-1.1%	+2	+0.7%
Hawaii	125	47	38%	102	33	33%	-23	-18%	-14	-30%
Idaho	184	52	28%	214	58	27%	+30	+16%	+6	+12%
Illinois	956	322	34%	991	322	32%	+35	+3.7%	0	0.0%
Indiana	781	230	30%	783	198	25%	+2	+0.3%	-32	-14%
Iowa	365	96	26%	317	103	32%	-48	-13%	+7	+7.3%
Kansas	405	104	26%	350	102	29%	-55	-14%	-2	-1.9%
Kentucky	746	169	23%	638	167	26%	-108	-14%	-2	-1.2%
Louisiana	723	235	32%	703	234	33%	-20	-2.8%	-1	-0.4%
Maine	164	50	30%	145	42	29%	-19	-12%	-8	-16%
Maryland	511	163	32%	465	141	30%	-46	-9.0%	-22	-13%
Massachusetts	383	129	34%	326	118	36%	-57	-15%	-11	-8.5%
Michigan	940	261	28%	947	255	27%	+7	+0.7%	-6	-2.3%
Minnesota	395	114	29%	387	95	25%	-8	-2.0%	-19	-17%
Mississippi	582	191	33%	613	210	34%	+31	+5.3%	+19	+9.9%
Missouri	826	283	34%	757	248	33%	-69	-8.4%	-35	-12%
Montana	205	89	43%	229	92	40%	+24	+12%	+3	+3.4%
Nebraska	212	73	34%	211	60	28%	-1	-0.5%	-13	-18%
Nevada	261	85	33%	262	79	30%	+1	+0.4%	-6	-7.1%
New Hampshire	108	32	30%	135	46	34%	+27	+25%	+14	+44%
New Jersey	589	164	28%	542	146	27%	-47	-8.0%	-18	-11%
New Mexico	366	97	26%	310	93	30%	-56	-15%	-4	-4.1%
New York	1,180	340	29%	1,199	364	30%	+19	+1.6%	+24	+7.1%
North Carolina	1,299	372	29%	1,289	371	29%	-10	-0.8%	-1	-0.3%
North Dakota	170	72	43%	148	62	42%	-22	-13%	-10	-14%
Ohio	1,121	389	35%	989	271	27%	-132	-12%	-118	-30%
Oklahoma	709	209	30%	678	170	25%	-31	-4.4%	-39	-19%
Oregon	337	88	26%	313	105	33%	-24	-7.1%	+17	+19%
Pennsylvania	1,310	407	31%	1,208	368	30%	-102	-7.8%	-39	-9.6%
Rhode Island	64	28	44%	65	24	38%	+1	+1.6%	-4	-14%
South Carolina	863	348	40%	767	335	44%	-96	-11%	-13	-3.7%
South Dakota	133	44	33%	135	41	31%	+2	+1.5%	-3	-6.8%
Tennessee	1,015	286	28%	995	277	28%	-20	-2.0%	-9	-3.1%
Texas	3,408	1,290	38%	3,382	1,337	40%	-26	-0.8%	+47	+3.6%
Utah	217	32	15%	220	38	17%	+3	+1.4%	+6	+19%
Vermont	77	24	31%	69	18	27%	-8	-10%	-6	-25%
Virginia	776	209	27%	740	254	34%	-36	-4.6%	+45	+22%
Washington	438	143	33%	436	149	34%	-2	-0.5%	+6	+4.2%
West Virginia	339	94	28%	332	91	27%	-7	-2.1%	-3	-3.2%
Wisconsin	615	202	33%	543	178	33%	-72	-12%	-24	-12%
Wyoming	123	41	33%	87	25	29%	-36	-29%	-16	-39%
National	33,782	10,336	31%	32,719	10,076	31%	-1,063	-3.1%	-260	-2.5%
Puerto Rico	366	101	28%	344	127	37%	-22	-6.0%	+26	+26%

Source: FARS 2012 (Final), 2013 Annual Report File (ARF)