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

TRAFFIC SAFETY FACTS
Research Note

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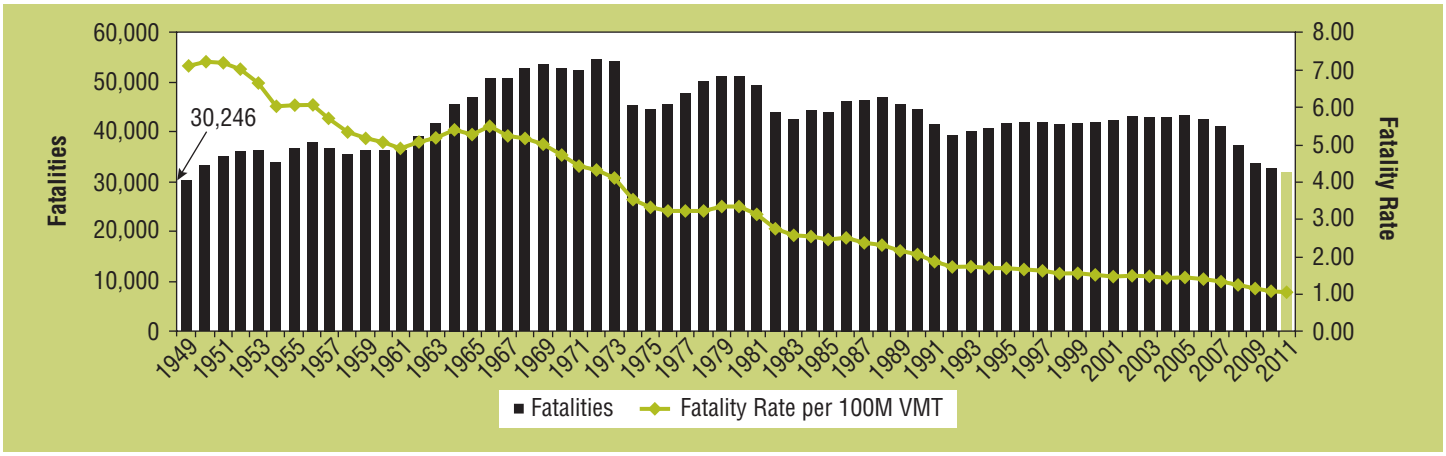
2011 Motor Vehicle Crashes: Overview

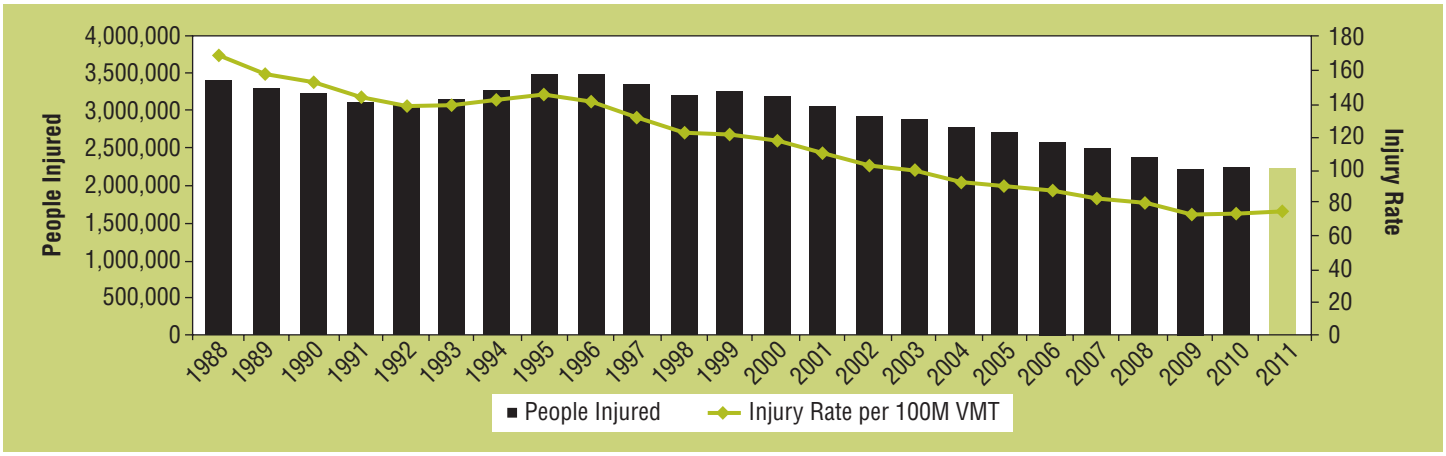
In 2011, 32,367 people died in motor vehicle traffic crashes in the United States—the lowest number of fatalities since 1949, when there were 30,246 fatalities (see Figure 1). This was a 1.9-percent decline in the number of people killed, from 32,999 in 2010, according to NHTSA's 2011 Fatality Analysis Reporting System (FARS). In 2011, an estimated 2.22 million people were injured in motor vehicle traffic crashes, compared to 2.24 million in 2010 according to NHTSA's National Automotive Sampling System (NASS) General Estimates System (GES). This decrease (1%) in the estimated number of people injured is not statistically significant from the number of people injured in crashes in 2010 (Figure 2).

Figure 1
Fatalities and Fatality Rate per 100M VMT by Year



1949–1974: National Center for Health Statistics, HEW, and State Accident Summaries (Adjusted to 30-Day Traffic Deaths by NHTSA)
FARS 1975–2010 (Final) 2011 Annual Report File (ARF); Vehicle Miles Traveled (VMT): Federal Highway Administration.

Figure 2
People Injured and Injury Rate per 100M VMT by Year



NASS GES 1988–2011; Vehicle Miles Traveled (VMT): Federal Highway Administration.

Fatality and Injury Rates

The fatality rate per 100 million vehicle miles traveled (VMT) fell to a historic low of 1.10 in 2011 (Table 1). The overall injury rate increased by 1.3 percent from 2010 to 2011. The 2011 rates are based on VMT estimates from the Federal Highway Administration's (FHWA) August 2012 Traffic Volume Trends (TVT). Overall 2011 VMT decreased by 1.2 percent from 2010 VMT—from 2,966,506 million to 2,930,654 million. VMT data will be updated when FHWA releases the 2011 Annual Highway Statistics.

Table 1
Fatality and Injury Rates per 100 Million VMT

	2010	2011	Change	% Change
Fatality Rate	1.11	1.10	-0.01	-0.9%
Injury Rate	75	76	+1	+1.3%

Source: FARS, GES, and FHWA VMT (August 2012 TVT)

Occupants and Nonoccupants

Passenger vehicle occupant fatalities continued the strong decline that has been occurring recently, as shown in Table 2 below. There were 1,020 fewer passenger vehicle occupant fatalities (-4.6%) in 2011 than in 2010, with very similar decreases among passenger cars (-4.1%) and light trucks (-5.2%). Large-truck occupant fatalities increased for a second year after a large drop in fatalities from 2008 to 2009. In 2011, there was a 20-percent increase in large-truck occupant fatalities and a 15-percent increase in large-truck occupants injured from 2010. Motorcyclist fatalities increased in 2011 to 4,612, accounting for 14 percent of total fatalities for the year. Among nonoccupants, pedalcyclist fatalities increased by 8.7 percent, while pedalcyclists injured decreased by 7.7 percent from 2010 to 2011.

Alcohol-Impaired-Driving Fatalities

Alcohol-impaired-driving fatalities declined by 2.5 percent in 2011 (Table 3), accounting for 31 percent of 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 grams per deciliter (g/dL) or greater. The number of alcohol-impaired drivers in fatal crashes declined for most vehicle types with the largest decline among drivers of large trucks (16%) and vans (9.8%). Fatal crashes involving alcohol-impaired motorcycle operators increased by 8.6 percent—the only category of drivers by vehicle type with an increase in alcohol-impaired crash involvement.

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

	2010	2011	Change	% Change
Total Fatalities	32,999	32,367	-632	-1.9%
AI Driving Fatalities	10,136	9,878	-258	-2.5%
Alcohol-Impaired Drivers in Fatal Crashes by Vehicle Type				
Passenger Car	4,164	4,114	-50	-1.2%
Light Truck – Van	286	258	-28	-9.8%
Light Truck – Utility	1,423	1,404	-19	-1.3%
Light Truck – Pickup	2,041	1,882	-159	-7.8%
Motorcycles	1,280	1,390	+110	+8.6%
Large Trucks	51	43	-8	-16%

Source: FARS 2010 (Final), 2011 (ARF)
*See definition in text.

Table 2
Occupants and Nonoccupants Killed and Injured in Traffic Crashes

Description	Killed				Injured			
	2010	2011	Change	% Change	2010	2011	Change	% Change
Total*	32,999	32,367	-632	-1.9%	2,239,000	2,217,000	-22,000	-1.0%
Occupants								
Passenger Vehicles	22,273	21,253	-1,020	-4.6%	1,986,000	1,968,000	-18,000	-0.9%
Passenger Cars	12,491	11,981	-510	-4.1%	1,253,000	1,240,000	-13,000	-1.0%
Light Trucks	9,782	9,272	-510	-5.2%	733,000	728,000	-5,000	-0.7%
Large Trucks	530	635	+105	+20%	20,000	23,000	+3,000	+15%
Motorcycles	4,518	4,612	+94	+2.1%	82,000	81,000	-1,000	-1.2%
Nonoccupants								
Pedestrians	4,302	4,432	+130	+3.0%	70,000	69,000	-1,000	-1.4%
Pedalcyclists	623	677	+54	+8.7%	52,000	48,000	-4,000	-7.7%
Other/Unknown	185	198	+13	—	8,000	9,000	+1,000	—

Source: Fatalities—FARS 2010 (Final), 2011 (ARF), Injured—NASS GES 2010, 2011 Annual Files
*Total includes occupants of buses and other/unknown occupants not shown in table.
None of the changes in estimated injured people was statistically significant.

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 declined by 1.5 percent from 2010 to 2011. The estimated changes in each type of crash were not statistically significant. Because FARS data is a census of fatal crashes, no significance testing is required.

Table 4
Number of Crashes, by Crash Type

Crash Type	2010	2011	Change	% Change
Fatal Crashes	30,296	29,757	-539	-1.8%
Non-Fatal Crashes	5,389,000	5,308,000	-81,000	-1.5%
Injury Crashes	1,542,000	1,530,000	-12,000	-0.8%
Property-Damage Only	3,847,000	3,778,000	-69,000	-1.8%
Total Crashes	5,419,000	5,338,000	-81,000	-1.5%

Source: FARS 2010 (Final), 2011 (ARF)

Restraint Use and Time of Day

Among fatally injured passenger vehicle occupants, more than half (52%) of those killed in 2011 were unrestrained (Table 5). Of those occupants killed during the night, 62 percent were unrestrained, compared to 43 percent during the day.

Table 5
Passenger Vehicle Occupant Fatalities, by Restraint Use and Time of Day

Type	2010		2011		Change	% Change
	#	%	#	%		
Fatalities	22,273	100	21,253	100	-1,020	-4.6%
Restraint Used	10,800	48	10,225	48	-575	-5.3%
Restraint Not Used	11,473	52	11,028	52	-445	-3.9%
Day	11,413	51	10,980	52	-433	-3.8%
Restraint Used	6,565	58	6,266	57	-299	-4.6%
Restraint Not Used	4,848	42	4,714	43	-134	-2.8%
Night	10,689	48	10,135	48	-554	-5.2%
Restraint Used	4,139	39	3,893	38	-246	-5.9%
Restraint Not Used	6,550	61	6,242	62	-308	-4.7%

Source: FARS 2010 (Final), 2011 (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.

Fatal Crashes Involving Large Trucks

There was a 1.9-percent increase in the number of people killed in crashes involving large trucks. This figure disguises the changes across fatality categories. The number of other-vehicle-occupant fatalities is the only category of fatalities that declined from 2010 to 2011—a decline of 3.6 percent. All other categories of fatalities in large-truck crashes increased by almost 20 percent in each category (Table 6).

Table 6
People Killed in Large-Truck Crashes

Type	2010	2011	Change	% Change
Truck Occupants	530	635	+105	+20%
Single-Vehicle	339	403	+64	+19%
Multivehicle	191	232	+41	+21%
Other Vehicle Occupants	2,797	2,695	-102	-3.6%
Nonoccupants	359	427	+68	+19%
Total	3,686	3,757	+71	+1.9%

Source: FARS 2010 (Final), 2011 (ARF)

Crash Location

Fatalities in rural crashes declined by 1.8 percent (Table 7); those in urban crashes declined by 1.3 percent. Roadway departure crashes declined by 2.7 percent and intersection crashes declined by 5.7 percent. Below Table 7 are the definitions used for roadway departure and intersection crashes as defined by FHWA.

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

	2010	2011	Change	% Change
Total	32,999	32,367	-632	-1.9%
Roadway Function Class				
Rural	18,089	17,762	-327	-1.8%
Urban	14,659	14,464	-195	-1.3%
Roadway Departure*				
Roadway Departure	17,423	16,948	-475	-2.7%
Relation to Junction				
Intersection*	7,313	6,898	-415	-5.7%

Source: FARS 2010 (Final), 2011 (ARF)
*See definition below.

Roadway Departure crash: A non-intersection crash in which a vehicle crosses an edge line, a centerline, or leaves the traveled way. Includes intersections at interchange areas.

Types of crashes fitting the definition: Non-intersection 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: Non-interchange; intersection or intersection-related.

Other Highlights

- Fatalities in distraction-affected crashes increased by 1.9 percent (3,267 fatalities in 2010 to 3,331 fatalities in 2011). The number of people injured in distraction-affected crashes declined by 7 percent (416,000 injured people in 2010 to 387,000 injured people in 2011).
- In 2011, there was a 4.6-percent decline in young-driver-related fatalities from 2010 and a 5.5-percent decline in young-driver crashes.
- Fatalities among females declined by 507, or 80 percent of the total decrease in fatalities.
- Motorcyclist fatalities increased by 94 fatalities from 2010 to 2011. When reviewing motorcyclist fatalities by age, the only age group with a decline in fatalities was the 40-to-49-year-old group.
- There were 392 fewer fatalities on Fridays in 2011 than in 2010. This is 62 percent of the total decrease in fatalities over the year.
- In 2011, 90 fewer children (age 15 and younger) were killed as a result of motor vehicle crashes than in 2010.

State by State Distribution of Fatalities

Table 8 compares the total number of fatalities for 2010 and 2011, the change in the number of total fatalities, and the percentage change for each State, the District of Columbia, and Puerto Rico. Thirty-six States had reductions in the number of fatalities. Five States had reductions of over 50 fatalities, led by Connecticut with 100 fewer fatalities in 2011 than in 2010. North Carolina (-93), Tennessee (-86), Ohio (-64), and Michigan (-53) were the other States with more than 50 fewer fatalities in 2011 as compared to 2010. Three States saw increases of more than 50 overall fatalities from 2010 to 2011. California and New Jersey both had the greatest increase in the number of fatalities, going up 71 fatalities. The percentage change was only 2.9 percent increase in California because of the typically large number of fatalities in California, and 13 percent increase in New Jersey. In Arizona there were 66 more fatalities in 2011 than 2010.

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

FARS is a census of all fatal 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 an overview of the 2011 FARS and GES files. Additional information and details will be available at a later date.

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This research note and other general information on highway traffic safety may be accessed by Internet users at: www-nrd.nhtsa.dot.gov/CATS/index.aspx

Table 8
Total Fatalities, 2010 and 2011, by State

State	2010	2011	Change	% Change
Alabama	862	894	+32	+3.7%
Alaska	56	72	+16	+29%
Arizona	759	825	+66	+8.7%
Arkansas	571	549	-22	-3.9%
California	2,720	2,791	+71	+2.6%
Colorado	450	447	-3	-0.7%
Connecticut	320	220	-100	-31%
Delaware	101	99	-2	-2.0%
Dist of Columbia	24	27	+3	+13%
Florida	2,444	2,398	-46	-1.9%
Georgia	1,247	1,223	-24	-1.9%
Hawaii	113	100	-13	-12%
Idaho	209	167	-42	-20%
Illinois	927	918	-9	-1.0%
Indiana	754	750	-4	-0.5%
Iowa	390	360	-30	-7.7%
Kansas	431	386	-45	-10%
Kentucky	760	721	-39	-5.1%
Louisiana	721	675	-46	-6.4%
Maine	161	136	-25	-16%
Maryland	496	485	-11	-2.2%
Massachusetts	347	337	-10	-2.9%
Michigan	942	889	-53	-5.6%
Minnesota	411	368	-43	-10%
Mississippi	641	630	-11	-1.7%
Missouri	821	784	-37	-4.5%
Montana	189	209	+20	+11%
Nebraska	190	181	-9	-4.7%
Nevada	257	246	-11	-4.3%
New Hampshire	128	90	-38	-30%
New Jersey	556	627	+71	+13%
New Mexico	349	353	+4	+1.1%
New York	1,201	1,169	-32	-2.7%
North Carolina	1,320	1,227	-93	-7.0%
North Dakota	105	148	+43	+41%
Ohio	1,080	1,016	-64	-5.9%
Oklahoma	668	696	+28	+4.2%
Oregon	317	331	+14	+4.4%
Pennsylvania	1,324	1,286	-38	-2.9%
Rhode Island	67	66	-1	-1.5%
South Carolina	809	828	+19	+2.3%
South Dakota	140	111	-29	-21%
Tennessee	1,032	946	-86	-8.3%
Texas	3,023	3,016	-7	-0.2%
Utah	253	240	-13	-5.1%
Vermont	71	55	-16	-23%
Virginia	740	764	+24	+3.2%
Washington	460	457	-3	-0.7%
West Virginia	315	337	+22	+7.0%
Wisconsin	572	582	+10	+1.7%
Wyoming	155	135	-20	-13%
National	**32,999**	**32,367**	**-632**	**-1.9%**
Puerto Rico	340	359	+19	+5.6%

Source: FARS 2009 (Final), 2010 Annual Report File (ARF)