



TRAFFIC SAFETY FACTS

Research Note

DOT HS 811 363

Summary of Statistical Findings

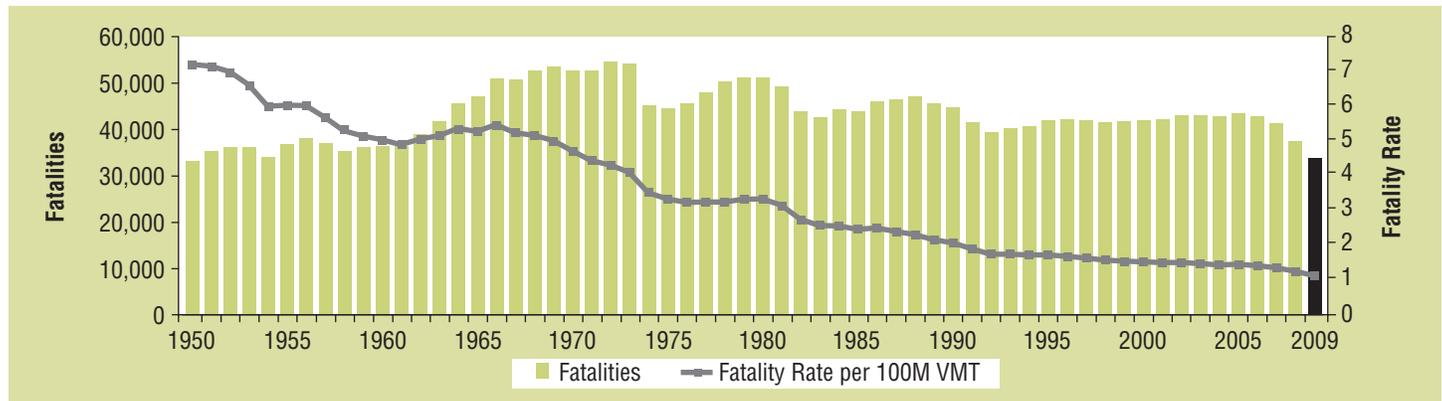
August 2010

Highlights of 2009 Motor Vehicle Crashes

In 2009, 33,808 people died in motor vehicle traffic crashes in the United States – the lowest number of deaths since 1950 (33,186 fatalities in 1950). This was a 9.7-percent decline in the number of people killed, from 37,423 in 2008 to 33,808, according to NHTSA’s 2009 Fatality Analysis Reporting System (FARS) (see Figure 1). Fatalities declined among all categories of vehicle occupants and nonoccupants as shown in Table 1 below. Motorcyclist fatalities broke the continuous 11-year increase with a large decline of 850 fatalities (24% of

the total decline of 3,615). Motorcyclist fatalities now account for 13 percent of total fatalities. Passenger car occupant fatalities declined for the seventh consecutive year, and are at their lowest level since NHTSA began collecting fatality crash data in 1975. Light-truck occupant fatalities dropped for the fourth consecutive year, and are at their lowest level since 1997. The largest percentage reduction of people killed was among large-truck occupants (26%) compared to any other vehicle category, followed by motorcyclists with a 16-percent reduction.

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



1950-1974: National Center for Health Statistics, HEW, and State Accident Summaries (Adjusted to 30-Day Traffic Deaths by NHTSA); FARS 1975-2008 (Final), 2009 Annual Report File (ARF); Vehicle Miles Traveled (VMT): Federal Highway Administration.

Table 1
Occupants and Nonoccupants Killed and Injured in Traffic Crashes

Description	Killed				Injured			
	2008	2009	Change	% Change	2008	2009	Change	% Change
Total*	37,423	33,808	-3,615	-9.7%	2,346,000	2,217,000	-129,000	-5.5%
Occupants								
Passenger Vehicles	25,462	23,382	-2,080	-8.2%	2,072,000	1,976,000	-96,000	-4.6%
Passenger Cars	14,646	13,095	-1,551	-11%	1,304,000	1,216,000	-88,000	-6.7%
Light Trucks	10,816	10,287	-529	-4.9%	768,000	759,000	-9,000	-1.2%
Large Trucks	682	503	-179	-26%	23,000	17,000	-6,000	-26%
Motorcycles	5,312	4,462	-850	-16%	96,000	90,000	-6,000	-6.3%
Non-occupants								
Pedestrians	4,414	4,092	-322	-7.3%	69,000	59,000	-10,000	-14%
Pedalcyclists	718	630	-88	-12%	52,000	51,000	-1,000	-1.9%
Other/Unknown	188	150	-38	---	9,000	7,000	-2,000	---

Source: Fatalities - FARS 2008 (Final), 2009 (ARF), Injured - NASS GES 2008, 2009 Annual Files

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

Changes in injury estimates shown in **bold** are statistically significant.

In 2009, an estimated 2.22 million people were injured in motor vehicle traffic crashes, compared to 2.35 million in 2008. The estimated number of people injured in crashes is at its lowest point since NHTSA began estimating injury data in 1988. This constitutes the tenth consecutive yearly reduction

in people injured (Figure 2). The number of people injured declined among all occupants and nonoccupants. The largest percentage reduction in people injured was among large-truck occupants (26%) compared to all other groups, followed by pedestrians (14%).

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

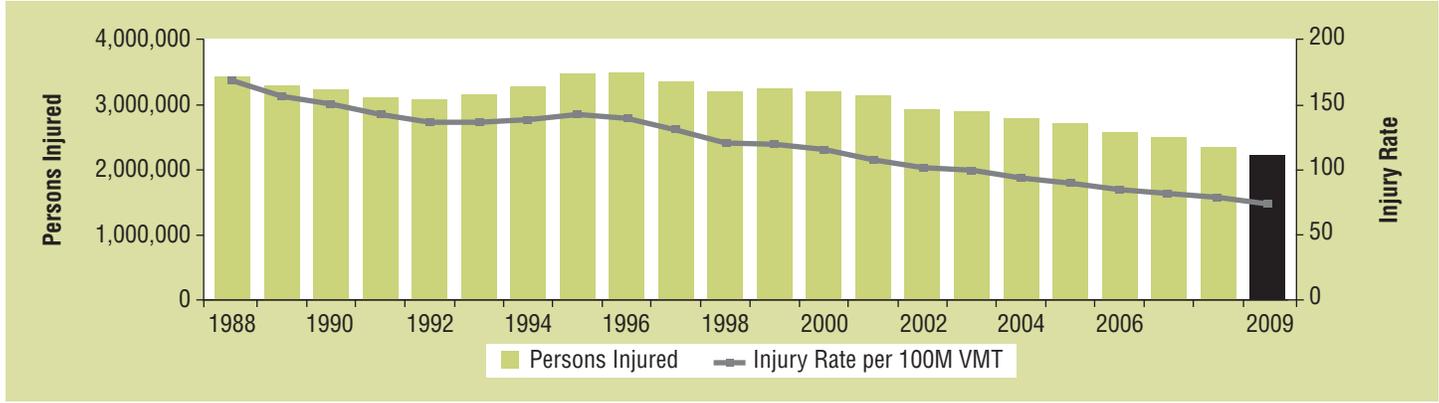


Table 2
Fatality and Injury Rates per 100 Million VMT

	2008	2009	Change	% Change
Fatality Rate	1.26	1.13	-0.13	-10%
Injury Rate	79	74	-5	-6.3%

Source: FARS, GES, and FHWA VMT (April 2010 TVT)

The fatality rate per 100 million vehicle miles traveled (VMT) fell to a historic low of 1.13 in 2009 (Table 2). The overall injury rate also declined, by 6.3 percent. The 2009 rates are based on the latest (April 2010) Traffic Volume Trend (TVT) estimates from the Federal Highway Administration. Overall 2009 VMT increased by 0.2 percent from 2008 VMT – from 2,973,509 million to 2,979,321 million. VMT data will be updated when FHWA releases the 2009 Annual Highway Statistics later in fall 2010. It is important to note that in spite of a very slight increase in VMT between 2008 and 2009, there has been a steep decline in the number of fatalities. The reduction in total fatalities could be attributed to many factors such as the economy, unemployment, improvements in vehicle design, and highway safety programs.

Table 3
Total and Alcohol-Impaired Driving Fatalities*

	2008	2009	Change	% Change
Total Fatalities	37,423	33,808	-3,615	-9.7%
AI Driving Fatalities	11,711	10,839	-872	-7.4%
Alcohol-Impaired Drivers in Fatal Crashes by Vehicle Type				
Passenger Car	4,679	4,242	-437	-9.3%
Light Truck - Van	337	296	-41	-12%
Light Truck - SUV	1,651	1,576	-75	-4.5%
Light Truck - Pickup	2,316	2,260	-56	-2.4%
Motorcycles	1,561	1,314	-247	-16%
Large Trucks	63	54	-9	-14%

Source: FARS 2008 (Final), 2009 (ARF)

* See definition in text.

Alcohol-impaired driving fatalities (fatalities in crashes involving a driver or motorcycle rider (operator) with a blood alcohol concentration of .08 grams per deciliter or greater) declined by 74 percent in 2009 (Table 3). The number of alcohol-impaired drivers in fatal crashes declined for all vehicle types. The largest decline was among riders of motorcycles (16%) followed by large trucks (14%).

Table 4
Number of Crashes, by Crash Type

Crash Type	2008	2009	Change	% Change
Fatal Crashes	34,172	30,797	-3,375	-9.9%
Non-Fatal Crashes	5,777,000	5,474,000	-303,000	-5.2%
Injury Crashes	1,630,000	1,517,000	-113,000	-6.9%
Property-Damage-Only Crashes	4,146,000	3,957,000	-189,000	-4.6%
Total Crashes	5,811,000	5,505,000	-306,000	-5.3%

Source: FARS 2008 (Final), 2009 (ARF)

Changes in non-fatal, injury, and property-damage-only crash estimates shown in **bold** are statistically significant.

The number of crashes, by crash type, is presented in Table 4. The largest decline was in fatal crashes, followed by injury crashes. The estimated declines in non-fatal, injury, and property-damage-only crashes are all statistically significant. Because FARS data is a census of fatal crashes no significance testing is required.



U.S. Department
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**National Highway
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Table 5
Passenger Vehicle Occupant Fatalities, by Restraint Use and Time of Day

Type	2008		2009		Change	% Change
	#	%	#	%		
Fatalities	25,462	100	23,382	100	-2,080	-8.2%
Restraint Used	11,527	45	10,950	47	-577	-5.0%
Restraint Not Used	13,935	55	12,432	53	-1,503	-11%
Day	12,530	49	11,609	50	-921	-7.4%
Restraint Used	6,868	55	6,488	56	-380	-5.5%
Restraint Not Used	5,662	45	5,121	44	-541	-9.6%
Night	12,733	50	11,593	50	-1,140	-9.0%
Restraint Used	4,564	36	4,370	38	-194	-4.3%
Restraint Not Used	8,169	64	7,223	62	-946	-12%

Source: FARS 2008 (Final), 2009 (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.

Among fatally injured passenger vehicle occupants, more than half (53%) of those killed in 2009 were unrestrained (Table 5). Almost two-thirds (62%) of those occupants killed during the night were unrestrained, compared to 44 percent during the day.

Table 6
People Killed in Large-Truck Crashes

Type	2008	2009	Change	% Change
Truck Occupants	682	503	-179	-26%
Single-vehicle	430	337	-93	-22%
Multivehicle	252	166	-86	-34%
Other Vehicle Occupants	3,151	2,551	-600	-19%
Nonoccupants	412	326	-86	-21%
Total	4,245	3,380	-865	-20%

Source: FARS 2008 (Final), 2009 (ARF)

There was a 20-percent reduction in fatalities in crashes involving large trucks (Table 6), from 4,245 in 2008 down to 3,380 in 2009. This decrease of 865 fatalities is due primarily to the 600 fewer fatalities of occupants of other vehicles in these crashes.

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

	2008	2009	Change	% Change
Total	37,423	33,808	-3,615	-9.7%
Roadway Function Class				
Rural	20,987	19,259	-1,728	-8.2%
Urban	16,218	14,341	-1,877	-12%
Roadway Departure*				
Roadway Departure	19,878	18,087	-1,791	-9.0%
Relation to Junction				
Intersection*	7,809	7,043	-766	-9.8%

Source: FARS 2008 (Final), 2009 (ARF)

*See definitions in text.

Fatalities in rural crashes declined by 8.2 percent (Table 7); those in urban crashes by slightly more, 12 percent. Roadway departure crashes declined by 9 percent and intersection crashes declined by 9.8 percent. Following are the defini-

tions used for roadway departure and intersection crashes as defined by FHWA.

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 was: 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.

Table 8 compares the total number of fatalities, as well as the number and percentage of alcohol-impaired driving fatalities, for 2008 and 2009, the change in the number of total and alcohol-impaired driving fatalities, and the percentage change for each State, the District of Columbia, and Puerto Rico. Forty-one States, the District of Columbia, and Puerto Rico had reductions in the number of fatalities. Five States had reductions of over 200 fatalities, led by Florida with 422 fewer fatalities in 2009 than in 2008. Texas (-405), California (-353), Pennsylvania (-212), and Georgia (-211) were the other States with more than 200 fewer fatalities in 2009. An additional 7 States had more than 100 fewer fatalities in 2009. Connecticut (-26%), Nevada (-25%), and New Hampshire (-20%) had 20 or more percentage-point reductions. An additional 16 States and the District of Columbia had reductions of 10 or more percentage points. Nine States saw increases in overall fatalities. Four States had increases of 10 or more fatalities: North Dakota (+36), Rhode Island (+18), Nebraska (+15), and South Dakota (+10). The other 5 States had fewer than 10 fatalities.

Nationwide, about one-third (32%) of the total fatalities were in alcohol-impaired-driving crashes. Thirty-three States and Puerto Rico saw declines in the number of alcohol-impaired-driving fatalities. Only Florida had more than 100 fewer alcohol-impaired-driving fatalities in 2009 (-117). Seventeen States and the District of Columbia saw increases in alcohol-impaired-driving fatalities ranging from 1 to 23 fatalities.

Additional State-level data is available at NCSA's State Traffic Safety Information (STSI) Web site, which can be accessed at: <http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20REPORT.HTM>.

NHTSA's Fatality Analysis Reporting System (FARS) 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 National Automotive Sampling System (NASS) General Estimates System (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 2009 FARS and 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: <http://www-nrd.nhtsa.dot.gov/cats/index.aspx>.

Table 8
Total and Alcohol-Impaired-Driving Fatalities, 2008 and 2009, by State

State	2008			2009			2008 to 2009 Change			
	Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities	Alcohol-Impaired-Driving Fatalities		Total Fatalities		Alcohol-Impaired-Driving Fatalities	
		#	%		#	%	Change	% Change	Change	% Change
Alabama	969	314	32%	848	280	33%	-121	-12%	-34	-11%
Alaska	62	21	33%	64	20	31%	+2	+3.2%	-1	-4.8%
Arizona	938	262	28%	807	219	27%	-131	-14%	-43	-16%
Arkansas	600	170	28%	585	168	29%	-15	-2.5%	-2	-1.2%
California	3,434	1,025	30%	3,081	950	31%	-353	-10%	-75	-7.3%
Colorado	548	176	32%	465	158	34%	-83	-15%	-18	-10%
Connecticut	302	95	31%	223	99	44%	-79	-26%	+4	+4.2%
Delaware	121	44	36%	116	45	38%	-5	-4.1%	+1	+2.3%
Dist of Columbia	34	9	25%	29	10	35%	-5	-15%	+1	+11%
Florida	2,980	887	30%	2,558	770	30%	-422	-14%	-117	-13%
Georgia	1,495	405	27%	1,284	331	26%	-211	-14%	-74	-18%
Hawaii	107	42	39%	109	52	48%	+2	+1.9%	+10	+24%
Idaho	232	78	34%	226	58	26%	-6	-2.6%	-20	-26%
Illinois	1,043	356	34%	911	319	35%	-132	-13%	-37	-10%
Indiana	820	206	25%	693	210	30%	-127	-15%	+4	+1.9%
Iowa	412	89	22%	372	96	26%	-40	-9.7%	+7	+7.9%
Kansas	384	138	36%	386	154	40%	+2	+0.5%	+16	+12%
Kentucky	825	186	23%	791	194	25%	-34	-4.1%	+8	+4.3%
Louisiana	916	339	37%	821	295	36%	-95	-10%	-44	-13%
Maine	155	42	27%	159	47	29%	+4	+2.6%	+5	+12%
Maryland	591	145	25%	547	162	30%	-44	-7.4%	+17	+12%
Massachusetts	364	120	33%	334	108	32%	-30	-8.2%	-12	-10%
Michigan	980	284	29%	871	246	28%	-109	-11%	-38	-13%
Minnesota	455	132	29%	421	108	26%	-34	-7.5%	-24	-18%
Mississippi	783	251	32%	700	234	33%	-83	-11%	-17	-6.8%
Missouri	960	314	33%	878	300	34%	-82	-8.5%	-14	-4.5%
Montana	229	90	39%	221	81	36%	-8	-3.5%	-9	-10%
Nebraska	208	53	25%	223	66	30%	+15	+7.2%	+13	+25%
Nevada	324	106	33%	243	68	28%	-81	-25%	-38	-36%
New Hampshire	138	45	33%	110	30	27%	-28	-20%	-15	-33%
New Jersey	590	152	26%	583	149	25%	-7	-1.2%	-3	-2.0%
New Mexico	366	105	29%	361	114	32%	-5	-1.4%	+9	+8.6%
New York	1,238	346	28%	1,156	321	28%	-82	-6.6%	-25	-7.2%
North Carolina	1,428	423	30%	1,314	363	28%	-114	-8.0%	-60	-14%
North Dakota	104	47	45%	140	54	38%	+36	+35%	+7	+15%
Ohio	1,191	351	29%	1,021	324	32%	-170	-14%	-27	-7.7%
Oklahoma	750	242	32%	738	235	32%	-12	-1.6%	-7	-2.9%
Oregon	416	137	33%	377	115	30%	-39	-9.4%	-22	-16%
Pennsylvania	1,468	499	34%	1,256	406	32%	-212	-14%	-93	-19%
Rhode Island	65	23	36%	83	34	40%	+18	+28%	+11	+48%
South Carolina	921	400	43%	894	377	42%	-27	-2.9%	-23	-5.8%
South Dakota	121	35	29%	131	53	40%	+10	+8.3%	+18	+51%
Tennessee	1,043	306	29%	989	303	31%	-54	-5.2%	-3	-1.0%
Texas	3,476	1,310	38%	3,071	1,235	40%	-405	-12%	-75	-5.7%
Utah	276	49	18%	244	40	16%	-32	-12%	-9	-18%
Vermont	73	12	16%	74	23	32%	+1	+1.4%	+11	+92%
Virginia	825	276	33%	757	243	32%	-68	-8.2%	-33	-12%
Washington	521	183	35%	492	206	42%	-29	-5.6%	+23	+13%
West Virginia	378	126	33%	356	115	32%	-22	-5.8%	-11	-8.7%
Wisconsin	605	205	34%	561	213	38%	-44	-7.3%	+8	+3.9%
Wyoming	159	65	41%	134	47	35%	-25	-16%	-18	-28%
National	37,423	11,711	31%	33,808	10,839	32%	-3,615	-9.7%	-872	-7.4%
Puerto Rico	405	123	30%	365	109	30%	-40	-9.9%	-14	-11%

Source: FARS 2008 (Final), 2009 Annual Report File (ARF)