Traffic Safety Facts

2014 Data

July 2016

DOT HS 812 302

Key Findings

- In 2014, there were 21,022 passenger vehicle occupants who lost their lives in motor vehicle traffic crashes and an estimated 2.07 million passenger vehicle occupants who were injured.
- Among the passenger vehicle occupants killed in motor vehicle traffic crashes in 2014, 57 percent were passenger car occupants and 43 percent were lighttruck occupants.
- Passenger vehicles made up 93 percent of registered vehicles and accounted for nearly 90 percent of total vehicle miles traveled in 2014. There were 44,820 vehicles involved in fatal crashes in 2014, of which 78 percent (34,984) were passenger vehicles.
- Fatality rates per 100,000 registered vehicles from 2013 to 2014 decreased for both passenger cars and light trucks (3% for both). Among light-truck categories, fatality rates decreased for vans and SUVs (9% and 6%, respectively) and increased for pickup trucks (1%).
- In fatal crashes in 2014, 81 percent of passenger vehicle occupants who were totally ejected from vehicles were killed.
- Among passenger vehicle occupants killed in 2014, the percentage of fatalities in rollover crashes was highest for SUVs (52%), followed by pickup trucks (45%), vans (30%), and passenger cars (22%).
- When a passenger car and a light truck hit head-on in 2014, an occupant was 3.3 times more frequently to be killed in the passenger car than in the light truck.
- Drivers of pickup trucks had the highest percentage of alcohol impairment in fatal crashes (24%) compared to other passenger vehicle drivers (22% for passenger cars, 22% for SUVs, and 12% for vans) in 2014.



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

1200 New Jersey Avenue SE. Washington, DC 20590

Passenger Vehicles

Passenger vehicles are defined as motor vehicles weighing less than 10,000 pounds and include passenger cars and light trucks (SUVs, pickup trucks, vans, and other light trucks).

In this 2014 fact sheet, the information on passenger vehicles is presented as follows:

- Overview
- Registration Data Changes
- Fatalities and Fatality Rates
- Injured and Injury Rates
- Restraint Use
- Ejection

Overview

In 2014:

- There were 21,022 passenger vehicle occupants who lost their lives in traffic crashes and an estimated 2.07 million passenger vehicle occupants who were injured.
- Passenger vehicles made up 93 percent of registered vehicles and accounted for nearly 90 percent of total vehicle miles traveled (VMT).

Registration Data Changes

- Rollover Crashes
- Two-Vehicle Crashes Between a Passenger Car and a Light Truck
- Alcohol
- Occupant Fatalities by State
- Appendix
- There were an estimated 10,579,000 vehicles involved in police-reported traffic crashes; 96 percent (10,165,000) were passenger vehicles.
- There were 44,820 vehicles involved in fatal crashes, of which 78 percent (34,984) were passenger vehicles.

The passenger vehicle registration data contained in this fact sheet was obtained from R. L. Polk's National Vehicle Population Profile (NVPP), a compilation of all passenger vehicles registered in compliance with State requirements.

Due to enhancement in the passenger vehicle registration data from 2011 to 2014, registration counts for these years are different from the counts provided for 2010 and earlier years (Table 1 and Appendix). Consequently, the 2011-2014 data in this fact sheet for vehicle registration and fatality rates is not comparable with the data for all prior years, which were based on Polk's earlier NVPP. To make suitable comparisons over the 10-year period, all vehicle registration and fatality rate data are presented across two sets of years, 2005-2010 and 2011-2014.

Figure 1 highlights the passenger car and light-truck registration data changes between the earlier NVPP (2005-2010) and the current NVPP (2011-2014). From 2013 to 2014, passenger car and light-truck registrations each increased by 2 percent. Among the

light-truck categories in 2014 compared to 2013, SUV registrations increased by 5 percent, pickup truck registrations increased by 1 percent, and van registrations decreased by 2 percent.

Figure 1 Passenger Car and Light-Truck Registrations, 2005–2014



Source: Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014)

Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

Fatalities and Fatality Rates

Figure 2 displays the fatality rates per 100,000 registered vehicles for four vehicle types, passenger cars, SUVs, pickup trucks, and vans, from 2005 to 2014. Overall, the fatality rate trend for each vehicle type generally decreased over time. The data for Figure 2 is presented in Tables 1 and 2.

Fatality rates per 100,000 registered vehicles from 2013 to 2014 decreased for both passenger cars and light trucks (3% for both). Among light-truck categories, fatality rates decreased for vans and SUVs (9% and 6%, respectively) and increased slightly for pickup trucks (1%).

Figure 2





Sources: Fatalities – Fatality Analysis Reporting System (FARS) 2005-2013 Final File, 2014 Annual Report File (ARF); Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014)

Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

Table 1 presents the number of occupant fatalities, registered vehicles, and fatality rates per 100,000 registered vehicles for total passenger vehicles as well as separately for passenger cars and light trucks from 2005 to 2014.

- Among passenger vehicle occupant fatalities, the percentage of passenger car occupant fatalities decreased from 59 percent (18,512 of 31,549) in 2005 to 57 percent (11,926 of 21,022) in 2014, while the percentage of light-truck occupant fatalities increased from 41 percent (13,037 of 31,549) in 2005 to 43 percent (9,096 of 21,022) in 2014.
- Earlier NVPP:
 - The total passenger vehicle fatality rate per 100,000 registered vehicles decreased from 13.71 in 2005 to 9.37 in 2010.

- The passenger car fatality rate decreased from 13.68 in 2005 to 9.23 in 2010.
- The light-truck fatality rate decreased from 13.75 in 2005 to 9.55 in 2010.
- Current NVPP:
 - The total passenger vehicle fatality rate increased from 8.68 in 2011 to 8.86 in 2012 and then decreased to 8.26 in 2014.
 - The passenger car fatality rate increased from 9.46 in 2011 to 9.73 in 2012 and then decreased to 9.09 in 2014.
 - The light-truck fatality rate increased from 7.84 in 2011 to 7.93 in 2012 and then decreased to 7.37 in 2014.

Table 1Passenger Vehicle Occupant Fatalities, Registered Vehicles, and Fatality Rates,* by Vehicle Type, 2005–2014

		Passenger Cars	;		Light Trucks**		Total Passenger Vehicles**			
Year	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*	
2005	18,512	135,324,121	13.68	13,037	94,787,880	13.75	31,549	230,112,001	13.71	
2006	17,925	137,031,279	13.08	12,761	98,064,117	13.01	30,686	235,095,396	13.05	
2007	16,614	137,929,951	12.05	12,458	100,817,496	12.36	29,072	238,747,447	12.18	
2008	14,646	139,028,041	10.53	10,816	100,862,944	10.72	25,462	239,890,985	10.61	
2009	13,135	137,203,972	9.57	10,312	102,008,600	10.11	23,447	239,212,572	9.80	
2010	12,491	135,310,480	9.23	9,782	102,376,147	9.55	22,273	237,686,627	9.37	
2011	12,014	126,966,714	9.46	9,302	118,702,389	7.84	21,316	245,669,103	8.68	
2012	12,361	127,077,676	9.73	9,418	118,690,690	7.93	21,779	245,768,366	8.86	
2013	12,037	128,936,225	9.34	9,187	120,491,485	7.62	21,224	249,427,710	8.51	
2014	11,926	131,138,925	9.09	9,096	123,470,278	7.37	21,022	254,609,203	8.26	

Sources: Fatalities: FARS 2005-2013 Final File, 2014 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014) Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

*Fatality rate per 100,000 registered vehicles

**Includes other/unknown light-truck vehicle types

Table 2 presents the same information as in Table 1 for three light-truck categories (SUVs, pickup trucks, and vans) from 2005 to 2014.

- Earlier NVPP:
 - The SUV fatality rate per 100,000 registered vehicles decreased from 13.92 in 2005 to 9.30 in 2010.
 - The pickup truck fatality rate decreased from 15.28 in 2005 to 10.78 in 2010.
 - The van fatality rate decreased from 10.86 in 2005 to 7.59 in 2010.

- Current NVPP:
 - The SUV fatality rate decreased from 7.74 in 2011 to 6.75 in 2014.
 - The pickup truck fatality rate increased from 8.73 in 2011 to 8.96 in 2012, decreased to 8.58 in 2013, and increased to 8.65 in 2014.
 - The van fatality rate increased from 5.76 in 2011 to 6.23 in 2013 and then decreased to 5.66 in 2014.

Table 2

Light-Truck** Occupant Fatalities, Registered Vehicles, and Fatality Rates,* by Vehicle Type, 2005–2014

		SUVs			Pickup Trucks			Vans	
	Occupant Registered		Occupant	Occupant Registered		Occupant	Registered	Registered	
Year	Fatalities	Vehicles	Fatality Rate*	Fatalities	Vehicles	Fatality Rate*	Fatalities	Vehicles	Fatality Rate*
2005	4,831	34,698,739	13.92	6,067	39,699,056	15.28	2,112	19,453,034	10.86
2006	4,928	37,170,302	13.26	5,993	40,478,837	14.81	1,815	19,539,179	9.29
2007	4,834	39,463,148	12.25	5,847	41,121,470	14.22	1,764	19,406,561	9.09
2008	4,214	40,529,579	10.40	5,097	40,782,963	12.50	1,492	18,784,452	7.94
2009	4,104	41,383,289	9.92	4,801	41,676,351	11.52	1,396	18,222,255	7.66
2010	3,942	42,378,757	9.30	4,486	41,596,353	10.78	1,346	17,732,967	7.59
2011	3,884	50,161,565	7.74	4,270	48,912,291	8.73	1,128	19,592,314	5.76
2012	3,885	51,305,806	7.57	4,343	48,465,436	8.96	1,167	18,886,646	6.18
2013	3,830	53,477,838	7.16	4,176	48,644,891	8.58	1,142	18,339,481	6.23
2014	3,796	56,277,894	6.75	4,248	49,134,966	8.65	1,020	18,030,322	5.66

Sources: Fatalities: FARS 2005-2013 Final File, 2014 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014) Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years. *Fatality rate per 100,000 registered vehicles

**Excludes other/unknown light-truck vehicle types

Injured and Injury Rates

Table 3 shows the estimated number of occupants injured, number of registered vehicles, and injury rates per 100,000 registered vehicles for total passenger vehicles as well as separately for passenger cars and light trucks from 2005 to 2014.

- The percentage of injured passenger cars decreased from 64 percent (1,573,000 of 2,446,000) in 2005 to 62 percent (1,292,000 of 2,074,000) in 2014, while the percentage of injured passenger vehicle occupants who were occupants of light trucks increased from 36 percent (872,000 of 2,446,000) in 2005 to 38 percent (782,000 of 2,074,000) in 2014.
- Earlier NVPP:
 - The total passenger vehicle injury rate per 100,000 registered vehicles decreased from 1,063 in 2005 to 826 in 2009 and then increased to 835 in 2010.

- The passenger car injury rate decreased from 1,163 in 2005 to 887 in 2009 and then increased to 926 in 2010.
- The light truck injury rate decreased from 920 in 2005 to 716 in 2010.
- Current NVPP:
 - The total passenger vehicle injury rate increased from 801 in 2011 to 851 in 2012 and then decreased to 815 in 2014.
 - The passenger car injury rate increased from 976 in 2011 to 1,045 in 2012 and then decreased to 985 in 2014.
 - The light-truck injury rate increased from 614 in 2011 to 642 in 2012, decreased to 622 in 2013, and then increased to 633 in 2014.

Table 3

Passenger Vehicle Occupants Injured, Registered Vehicles, and Injury Rates,* by Vehicle Type, 2005–2014

						31 7			
	Passenger Cars			Light Trucks**		Total Passenger Vehicles**			
Occupant	Registered		Occupant	Registered		Occupant	Registered		
Injured	Vehicles	Injury Rate*	Injured	Vehicles	Injury Rate*	Injured	Vehicles	Injury Rate*	
1,573,000	135,324,121	1,163	872,000	94,787,880	920	2,446,000	230,112,001	1,063	
1,475,000	137,031,279	1,076	857,000	98,064,117	874	2,331,000	235,095,396	992	
1,379,000	137,929,951	1,000	841,000	100,817,496	835	2,221,000	238,747,447	930	
1,304,000	139,028,041	938	768,000	100,862,944	762	2,072,000	239,890,985	864	
1,216,000	137,203,972	887	759,000	102,008,600	744	1,976,000	239,212,572	826	
1,253,000	135,310,480	926	733,000	102,376,147	716	1,986,000	237,686,627	835	
1,240,000	126,966,714	976	728,000	118,702,389	614	1,968,000	245,669,103	801	
1,328,000	127,077,676	1,045	762,000	118,690,690	642	2,091,000	245,768,366	851	
1,296,000	128,936,225	1,005	750,000	120,491,485	622	2,046,000	249,427,710	820	
1,292,000	131,138,925	985	782,000	123,470,278	633	2,074,000	254,609,203	815	
	Injured 1,573,000 1,475,000 1,379,000 1,304,000 1,216,000 1,253,000 1,240,000 1,328,000 1,296,000	Occupant Injured Registered Vehicles 1,573,000 135,324,121 1,475,000 137,031,279 1,379,000 137,929,951 1,304,000 139,028,041 1,216,000 137,203,972 1,253,000 135,310,480 1,240,000 126,966,714 1,328,000 127,077,676 1,296,000 128,936,225	InjuredVehiclesInjury Rate*1,573,000135,324,1211,1631,475,000137,031,2791,0761,379,000137,929,9511,0001,304,000139,028,0419381,216,000137,203,9728871,253,000135,310,4809261,240,000126,966,7149761,328,000127,077,6761,0451,296,000128,936,2251,005	Occupant InjuredRegistered VehiclesInjury Rate*Occupant Injured1,573,000135,324,1211,163872,0001,475,000137,031,2791,076857,0001,379,000137,929,9511,000841,0001,304,000139,028,041938768,0001,216,000137,203,972887759,0001,253,000135,310,480926733,0001,240,000126,966,714976728,0001,328,000127,077,6761,045762,0001,296,000128,936,2251,005750,000	Occupant InjuredRegistered VehiclesOccupant Injury Rate*Registered Vehicles1,573,000135,324,1211,163872,00094,787,8801,475,000137,031,2791,076857,00098,064,1171,379,000137,929,9511,000841,000100,817,4961,304,000139,028,041938768,000100,862,9441,216,000137,203,972887759,000102,008,6001,253,000135,310,480926733,000102,376,1471,240,000126,966,714976728,000118,702,3891,328,000127,077,6761,045762,000118,690,6901,296,000128,936,2251,005750,000120,491,485	Occupant InjuredRegistered VehiclesInjury Rate*Occupant InjuredRegistered VehiclesInjury Rate*1,573,000135,324,1211,163872,00094,787,8809201,475,000137,031,2791,076857,00098,064,1178741,379,000137,929,9511,000841,000100,817,4968351,304,000139,028,041938768,000100,862,9447621,216,000137,203,972887759,000102,008,6007441,253,000135,310,480926733,000102,376,1477161,240,000126,966,714976728,000118,702,3896141,328,000127,077,6761,045762,000118,690,6906421,296,000128,936,2251,005750,000120,491,485622	Occupant InjuredRegistered VehiclesInjury Rate*Occupant InjuredRegistered VehiclesOccupant Injured1,573,000135,324,1211,163872,00094,787,8809202,446,0001,475,000137,031,2791,076857,00098,064,1178742,331,0001,379,000137,929,9511,000841,000100,817,4968352,221,0001,304,000139,028,041938768,000100,862,9447622,072,0001,216,000137,203,972887759,000102,008,6007441,976,0001,253,000135,310,480926733,000102,376,1477161,986,0001,240,000126,966,714976728,000118,702,3896141,968,0001,328,000127,077,6761,045762,000118,690,6906422,091,0001,296,000128,936,2251,005750,000120,491,4856222,046,000	Occupant InjuredRegistered VehiclesInjury Rate*Occupant InjuredRegistered VehiclesOccupant Injury Rate*Registered Vehicles1,573,000135,324,1211,163872,00094,787,8809202,446,000230,112,0011,475,000137,031,2791,076857,00098,064,1178742,331,000235,095,3961,379,000137,929,9511,000841,000100,817,4968352,221,000238,747,4471,304,000139,028,041938768,000100,862,9447622,072,000239,890,9851,216,000137,203,972887759,000102,008,6007441,976,000239,212,5721,253,000135,310,480926733,000102,376,1477161,986,000245,669,1031,328,000127,077,6761,045762,000118,690,6906422,091,000245,768,3661,296,000128,936,2251,005750,000120,491,4856222,046,000249,427,710	

Sources: Injured – National Automotive Sampling System (NASS) General Estimates System (GES) 2005–2014; Registered Vehicles – R. L. Polk, earlier NVPP (2005–2010) and current NVPP (2011–2014)

Note: Due to an enhancement in Polk's 2011–2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

*Injury Rate per 100,000 Registered Vehicles

**Includes other/unknown light-truck vehicle types.

Table 4 presents the same information as in Table 3 for three light-truck categories (SUVs, pickup trucks, and vans) from 2005 to 2014.

- Earlier NVPP:
 - The SUV injury rate per 100,000 registered vehicles decreased from 1,047 in 2005 to 823 in 2009 and then increased to 851 in 2010.
 - The pickup truck injury rate decreased from 775 in 2005 to 524 in 2010.
 - The van injury rate decreased from 942 in 2005 to 761 in 2010.

- Current NVPP:
 - The SUV injury rate increased from 703 in 2011 to 753 in 2012, decreased to 716 in 2013, and then increased to 729 in 2014.
 - The pickup truck injury rate increased from 484 in 2011 to 497 in 2012, decreased to 462 in 2013, and then increased to 492 in 2014.
 - The van injury rate increased from 705 in 2011 to 763 in 2013 and then decreased to 715 in 2014.

Table 4

Light-Truck** Occupants Injured, Registered Vehicles, and Injury Rates,* by Vehicle Type, 2005–2014

		SUVs			Pickup Trucks		Vans			
	Occupant	Registered		Occupant	Registered		Occupant	Registered		
Year	Injured	Vehicles	Injury Rate*	Injured	Vehicles	Injury Rate*	Injured	Vehicles	Injury Rate*	
2005	363,000	34,698,739	1,047	308,000	39,699,056	775	183,000	19,453,034	942	
2006	387,000	37,170,302	1,042	276,000	40,478,837	682	179,000	19,539,179	919	
2007	380,000	39,463,148	962	271,000	41,121,470	660	175,000	19,406,561	904	
2008	361,000	40,529,579	891	250,000	40,782,963	612	145,000	18,784,452	770	
2009	341,000	41,383,289	823	238,000	41,676,351	570	139,000	18,222,255	766	
2010	360,000	42,378,757	851	218,000	41,596,353	524	135,000	17,732,967	761	
2011	353,000	50,161,565	703	237,000	48,912,291	484	138,000	19,592,314	705	
2012	386,000	51,305,806	753	241,000	48,465,436	497	135,000	18,886,646	713	
2013	383,000	53,477,838	716	225,000	48,644,891	462	140,000	18,339,481	763	
2014	410,000	56,277,894	729	242,000	49,134,966	492	129,000	18,030,322	715	

Sources: Injured - NASS GES 2005-2014; Registered Vehicles - R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014)

Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years. *Injury rate per 100,000 registered vehicles

**Excludes other/unknown light-truck vehicle types

Restraint Use

The 2014 National Occupant Protection Use Survey (NOPUS) observed that the seat belt use rate among front seat occupants was 87 percent for passenger vehicles, 88 percent for passenger cars, 89 percent for vans and SUVs, and 77 percent for pickup trucks.¹

Lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.² In 2014, seat belts

saved an estimated 12,802 lives of passenger vehicle occupants 5 and older.³

In fatal crashes in 2014 there were 21,022 passenger vehicle occupants who were killed. Rural areas accounted for 59 percent of these occupant fatalities. For these passenger vehicle occupant fatalities occurring in rural areas, 51 percent were unrestrained (based on known restraint use) compared to 45 percent in urban areas (based on known restraint use). Sixty-two percent of rural pickup truck occupants killed were unrestrained (based on known restraint use) – the highest percentage of any passenger vehicle occupants killed among rural and urban areas.

Figure 3 displays the gradual decline of the percentage of passenger vehicle occupants killed who were unrestrained (based on known restraint use), from 55 percent in 2005 to 49 percent in 2014.

¹ Pickrell, T. M., & Choi, E.-H. (2015, February). Seat belt use in 2014 – Overall results (Traffic Safety Facts Research Note. Report No. DOT HS 812 113). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/812113.pdf

² Kahane, C. J. (2015, January). Lives saved by vehicle safety technologies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger cars and LTVs – With reviews of 26 FMVSS and the effectiveness of their associated safety technologies in reducing fatalities, injuries, and crashes (Report No. DOT HS 812 069). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/812069.pdf

³ National Center for Statistics and Analysis. (2015, November). Lives saved in 2014 by restraint use and minimum drinking-age-laws (Traffic Safety Facts Crash-Stats. Report No. DOT HS 812 218). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/812218.pdf



Percentage of Unrestrained* Passenger Vehicle Occupant Fatalities, 2005-2014

Source: FARS 2005-2013 Final File, 2014 ARF

*Based on known restraint use.

Table 5 presents the percentages of unrestrained (based on known restraint use) passenger vehicle occupant fatalities, by vehicle type, from 2005 to 2014. Van occupant fatalities had the lowest percentage

(41%) of unrestrained occupant fatalities in 2014 (based on known restraint use), while pickup truck occupant fatalities had the highest percentage (61%).

Table 5

Figure 3

Percentage of Unrestrained* Passenger Vehicle Occupant Fatalities, by Vehicle Type, 2005–2014

			Passenger Vehicle Ty	pe		
			Light	Trucks		
Year	Passenger Cars	SUVs	Pickup Trucks	Vans	Total**	Total Passenger Vehicles**
2005	49%	63%	69%	54%	64%	55%
2006	49%	63%	69%	51%	64%	55%
2007	47%	62%	68%	52%	63%	54%
2008	48%	62%	68%	52%	63%	55%
2009	46%	60%	67%	48%	62%	53%
2010	44%	59%	65%	49%	61%	52%
2011	45%	58%	65%	48%	60%	52%
2012	45%	59%	65%	43%	60%	52%
2013	43%	56%	63%	46%	58%	49%
2014	42%	55%	61%	41%	57%	49%

Source: FARS 2005–2013 Final File, 2014 ARF.

*Based on known restraint use.

**Includes occupants of other/unknown light-truck vehicle types.

Ejection

When totally ejected, the occupant's body was entirely outside the vehicle but may be in contact with the vehicle; partially ejected means that part of the occupant's body was outside the vehicle at some time during the crash sequence. In fatal crashes in 2014, 81 percent of passenger vehicle occupants who were totally ejected from vehicles were killed. Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. Seat belts can be effective in preventing total ejections.

Table 6 presents the ejection status of passenger vehicle occupants involved in fatal crashes in 2014. For this table, ejected means that an occupant could either be totally or partially ejected from the vehicle at the time of the crash. In passenger cars, 17 percent of occupants killed were ejected from the vehicle, while 33 percent of those killed in light trucks were ejected.

Table 6	
Passenger Vehicle Occupants in Fatal Crashes, by Vehicle Type and Ejection Status, 2014	

				Ejection	n Status				
		Not Ejected		Eject	ed**	Unknown		Total	
Vehicle Ty	Vehicle Type		Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Cars	Killed	9,857	83%	2,029	17%	40	<0.5%	11,926	100%
	Survived	14,928	97%	364	2%	148	1%	15,440	100%
	Total	24,785	91%	2,393	9%	188	1%	27,366	100%
Light Trucks*	Killed	6,074	67%	2,978	33%	44	<0.5%	9,096	100%
	Survived	17,642	95%	699	4%	263	1%	18,604	100%
	Total	23,716	86%	3,677	13%	307	1%	27,700	100%
Passenger Vehicles*	Killed	15,931	76%	5,007	24%	84	<0.5%	21,022	100%
	Survived	32,570	96%	1,063	3%	411	1%	34,044	100%
	Total	48,501	88%	6,070	11%	495	1%	55,066	100%

Source: FARS 2014 ARF

*Includes SUVs, pickup trucks, vans, and other/unknown light-truck vehicle types.

**Includes totally and partially ejected

Rollover Crashes

The rollover crash is one of the most deadly forms of crashes among passenger vehicles, accounting for one-third (33%) of all occupant fatalities in 2014. Among passenger vehicle occupants killed in 2014, the percentage of fatalities in rollover crashes was highest for SUVs (52%), followed by pickup trucks (45%), vans (30%), and passenger cars (22%).

Overall, each of the four passenger vehicle categories in Figure 4 generally showed a decreasing trend in the number of occupants killed in rollover crashes from 2005 to 2014. The data used in Figure 4 is shown in Table 7.

Figure 4





Source: FARS 2005-2013 Final File, 2014 ARF

Table 7 presents the number of passenger vehicle occupants killed in rollover crashes by vehicle type from 2005 to 2014. In the past 10 years, the percentages of rollover occupant fatalities for:

- Passenger cars decreased by 39 percent from 4,371 in 2005 to 2,657 in 2014,
- SUVs decreased by 32 percent from 2,895 in 2005 to 1,964 in 2014,
- Pickup trucks decreased by 32 percent from 2,796 in 2005 to 1,905 in 2014, and
- Vans decreased by 62 percent from 794 in 2005 to 304 in 2014.

Table 7Passenger Vehicle Occupant Fatalities in Rollover Crashes, by Vehicle Type, 2005–2014

		P	assenger Vehicle Typ	ie		
			Light	Trucks		
Year	Passenger Cars	SUVs	Pickup Trucks	Vans	Total*	Total Passenger Vehicles*
2005	4,371	2,895	2,796	794	6,499	10,870
2006	4,376	2,899	2,844	609	6,366	10,742
2007	4,055	2,861	2,748	572	6,185	10,240
2008	3,653	2,435	2,435	514	5,390	9,043
2009	3,230	2,303	2,295	457	5,061	8,291
2010	2,933	2,264	2,098	413	4,777	7,710
2011	2,849	2,172	1,993	375	4,551	7,400
2012	3,025	2,161	2,012	326	4,502	7,527
2013	2,823	1,966	1,903	326	4,207	7,030
2014	2,657	1,964	1,905	304	4,182	6,839

Source: FARS 2005-2013 Final File, 2014 ARF

*Includes occupants of other/unknown light-truck vehicle types.

In 2014, among passenger vehicles involved in rural fatal crashes, SUVs experienced the highest rollover percentage (39%) compared to 32 percent for pickup trucks, 21 percent for vans, and 20 percent for passenger cars. The rollover percentages for passenger vehicles in urban areas were much lower: 18 percent for SUVs, 15 percent for pickup trucks, 9 percent for vans, and 9 percent for passenger cars.

Figure 5 displays the fatality rates per 100,000 registered vehicles by vehicle type from 2005 to 2014. The data for Figure 5 is presented in Table 8.

Figure 5

Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles in Rollover Crashes, by Vehicle Type, 2005–2014



Sources: Fatalities – FARS 2005-2013 Final File, 2014 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014). Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

Table 8 presents the passenger vehicle occupant fatality rates per 100,000 registered vehicles in rollover crashes by vehicle type from 2005 to 2014.

- The occupant fatality rates per 100,000 registered vehicles in rollover crashes in earlier NVPP for:
 - Passenger cars decreased by 33 percent from 3.23 in 2005 to 2.17 in 2010,
- SUVs decreased by 36 percent from 8.34 in 2005 to 5.34 in 2010,
- Pickup trucks decreased by 28 percent from 7.04 in 2005 to 5.04 in 2010, and
- Vans decreased by 43 percent from 4.08 in 2005 to 2.33 in 2010.

- The occupant fatality rates in rollover crashes in current NVPP for:
 - Passenger cars decreased by 9 percent from 2.24 in 2011 to 2.03 in 2014,
 - SUVs decreased 19 percent from 4.33 in 2011 to 3.49 in 2014,
- Pickup trucks decreased by 5 percent from 4.07 in 2011 to 3.88 in 2014, and
- Vans decreased by 12 percent from 1.91 in 2011 to 1.69 in 2014.

Passenge	er Vehicle Occupa	nt Fatality Rates*	* in Rollover Cras	hes, by Vehicle T	ype, 2005–2014	
		Р	assenger Vehicle Typ	le		
			Light	Trucks		
Year	Passenger Cars	SUVs	Pickup Trucks	Vans	Total**	Total Passenger Vehicles**
2005	3.23	8.34	7.04	4.08	6.86	4.72
2006	3.19	7.80	7.03	3.12	6.49	4.57
2007	2.94	7.25	6.68	2.95	6.13	4.29
2008	2.63	6.01	5.97	2.74	5.34	3.77
2009	2.35	5.57	5.51	2.51	4.96	3.47
2010	2.17	5.34	5.04	2.33	4.67	3.24
2011	2.24	4.33	4.07	1.91	3.83	3.01
2012	2.38	4.21	4.15	1.73	3.79	3.06
2013	2.19	3.68	3.91	1.78	3.49	2.82
2014	2.03	3.49	3.88	1.69	3.39	2.69

Sources: Fatalities – FARS 2005-2013 Final File, 2014 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2005-2010) and current NVPP (2011-2014) Note: Due to an enhancement in Polk's 2011-2014 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

*Fatality rate per 100,000 registered vehicles

Table 8

**Includes other/unknown light-truck vehicle types

Two-Vehicle Crashes Between a Passenger Car and A Light Truck

Table 9 presents the number of occupants killed in two-vehicle crashes between one passenger car and one light truck from 2013 to 2014:

- The number of passenger car occupants killed increased by 5 percent from 2,454 in 2013 to 2,568 in 2014.
- The number of LTV (SUV, pickup truck, or van) occupants killed decreased by 3 percent from 715 in 2013 to 695 in 2014.

Table 9

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* 2013 and 2014

Ye	ar	
2013	2014	Percent Change
2,454	2,568	+4.6%
715	695	-2.8%
	2013 2,454	2,454 2,568

Source: FARS 2013 Final File, 2014 ARF *LTV includes SUV, pickup truck, or van

Figure 6 displays the number of occupant fatalities in two-vehicle crashes involving one passenger car and one LTV from 2005 to 2014. In these crashes, there were a range of 3.4 to 4.3 times as many passenger car occupant fatalities as LTV occupant fatalities.



Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* 2005-2014

Source: FARS 2005-2013 Final File, 2014 ARF

*LTV includes SUV, pickup truck, or van

Table 10 presents three crash types involving one passenger car and one LTV from 2013 to 2014:

- Head-on collisions increased by 5 percent for passenger car occupants killed and increased by 1 percent for LTV occupants killed.
- Passenger car front to LTV side collisions decreased by 1 percent for passenger car occupants killed and by 11 percent for LTV killed.
- LTV front to passenger car side collisions decreased by 1 percent for passenger car occupants killed and by 10 percent for LTV occupants killed.

In 2014:

Figure 6

- When a passenger car and an LTV hit head-on, an occupant was 3.3 times more frequently to be killed in a passenger car than in an LTV.
- When a passenger car front hit the side of an LTV, an occupant was 1.3 times more frequently to be killed in an LTV than in a passenger car.
- However, when an LTV front hit the side of a passenger car, an occupant was 19.5 times more frequently to be killed in a passenger car than in an LTV.

Table 10

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* by Collision Type, 2013 and 2014

	Ye	ar								
Occupants	2013	2014	Percent Change							
Head-On Collisions										
Killed in Passenger Car	1,017	1,070	+5.2%							
Killed in LTV*	320	323	+0.9%							
Passe	Passenger Car Front to LTV* Side									
Killed in Passenger Car	124	123	-0.8%							
Killed in LTV*	172	154	-10.5%							
LTV*	Front to Pa	ssenger Ca	r Side							
Killed in Passenger Car	1,062	1,051	-1.0%							
Killed in LTV*	60	54	-10.0%							
	60	54	-10.0%							

Source: FARS 2013 Final File, 2014 ARF *LTV includes SUV, pickup truck, or van

Figures 7, 8, and 9 highlight three crash types (head-on collisions; passenger car front hit LTV in the side; and LTV front hit passenger car in the side, respectively) involving one passenger car and one LTV from 2005 to 2014:

- When they hit each other head-on, a passenger car occupant fatality was 3 to 4 times more frequently than an LTV occupant fatality (Figure 7).
- Note that when one vehicle was struck in the side by the front of the other vehicle, the vehicle struck in the side was more frequently to have an occupant fatality (Figures 8 and 9).
- However, a passenger car occupant fatality was far more frequent when a passenger car side was struck by an LTV front than when an LTV side was struck by a passenger car front (Figures 8 and 9).



Occupants Killed in Two-Vehicle Head-On Collisions Involving a Passenger Car and an LTV,* 2005-2014

Source: FARS 2005-2013 Final File, 2014 ARF *LTV includes SUV, pickup truck, or van

Figure 8

Figure 7

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* When Passenger Car Front Hit LTV in the Side, 2005-2014



Source: FARS 2005-2013 Final File, 2014 ARF *LTV includes SUV, pickup truck, or van





Source: FARS 2005-2013 Final File, 2014 ARF

*LTV includes SUV, pickup truck, or van

Alcohol

A driver is considered to be alcohol-impaired when the driver's blood alcohol concentration (BAC) is .08 grams per deciliter (g/dL) or higher. From 2005 to 2014, the percentage of alcohol-impaired passenger vehicle drivers involved in fatal crashes changed slightly among each vehicle type as shown in Table 11. Pickup truck

drivers had the highest percentage of alcohol impairment in fatal crashes (24%) compared to other passenger vehicle drivers (22% for passenger cars, 22% for SUVs, and 12% for vans) in 2014. The percentage of alcohol-impaired van drivers involved in fatal crashes was substantially lower than other passenger vehicle drivers.

Table 11

Percentage of Alcohol-Impaired (BAC=.08+ g/dL) Passenger Vehicle Drivers in Fatal Crashes, by Vehicle Type, 2005–2014

				Driver	s by Passei	nger Vehicl	е Туре					
						Light	Trucks					
	Passen	ger Cars	SUVs		Pickup	Pickup Trucks		Vans		al*	All Passenger Vehicles*	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2005	5,898	24%	1,695	21%	2,706	25%	530	14%	4,940	22%	10,838	23%
2006	5,466	23%	1,986	24%	2,873	27%	488	14%	5,358	24%	10,824	23%
2007	5,144	23%	1,895	23%	2,725	27%	457	14%	5,083	23%	10,227	23%
2008	4,679	23%	1,651	23%	2,316	26%	337	12%	4,311	23%	8,991	23%
2009	4,186	23%	1,583	23%	2,258	27%	291	12%	4,136	23%	8,322	23%
2010	4,164	24%	1,423	21%	2,041	25%	286	12%	3,752	22%	7,916	23%
2011	4,103	24%	1,410	21%	1,877	24%	256	12%	3,551	21%	7,654	22%
2012	4,129	23%	1,482	21%	1,919	24%	253	12%	3,663	21%	7,792	22%
2013	4,072	23%	1,425	21%	1,903	24%	252	12%	3,596	21%	7,668	22%
2014	3,922	22%	1,503	22%	1,925	24%	253	12%	3,694	22%	7,616	22%

Source: FARS 2005-2013 Final File, 2014 ARF

*Includes drivers of other/unknown light-truck vehicle types

Occupant Fatalities by State

For each State, the District of Columbia, and Puerto Rico, Table 12 presents the number of passenger vehicle occupant fatalities in 2014 by vehicle type. Puerto Rico is not included in the overall U.S. total.

Of the total passenger vehicle fatalities by State (excluding the District of Columbia and Puerto Rico) in 2014:

- The States with the largest percentages of passenger car fatalities were Connecticut (80%), Massachusetts (75%), and New Hampshire (72%).
- The States with the largest percentages of SUV fatalities were Maine (28%) and North Dakota (26%).
- The States with the largest percentages of pickup truck fatalities were Hawaii (39%), Oklahoma (35%), South Dakota (35%), and Wyoming (34%).
- The States with the largest percentages of van fatalities were Wyoming (12%) and Minnesota (10%).

Table 12

Passenger Vehicle Occupant Fatalities, by State and Vehicle Type, 2014

		Total Passenger									
	Daccon	ger Cars		Light Trucks SUVs Pickup Trucks Vans Total*							Vehicle* Fatalities
State	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Alabama	337	55%	116	19%	150	24%	15	2%	281	45%	618
Alaska	19	45%	7	17%	130	33%	2	2 %	201	45 % 55%	42
Arizona	216	55%	81	21%	74	19%	21	5%	177	45%	393
	155	45%	73	21%	100	29%	17	5%	190	45% 55%	345
Arkansas California	1,057	43% 65%	269	17%	207	13%	79	5%	561	35%	1,618
Colorado	176	57%	70	23%	56	13%	6	2%	132	43%	308
	110	80%	18	13%	7	5%	2	1%	27	20%	137
Connecticut	44	62%	13	18%	9	13%	5	7%	27	38%	
Delaware Dist of Columbia	44	70%	3	30%	9	0%	0	0%		30%	71 10
		64%	186		-	16%	54		3 438	30%	
Florida	768	<u>64%</u> 56%		15%	198	22%		4%			1,206
Georgia	445		144	18%	174		31	4%	350	44%	795
Hawaii	16	42%	7	18%	15	39%	0	0%	22	58%	38
Idaho	59	45%	29	22%	39	30%	3	2%	71	55%	130
Illinois	367	59%	122	20%	86	14%	43	7%	254	41%	621
Indiana	258	52%	92	19%	102	21%	42	8%	239	48%	497
Iowa	117	53%	32	15%	52	24%	17	8%	102	47%	219
Kansas	136	46%	58	20%	86	29%	16	5%	160	54%	296
Kentucky	278	56%	84	17%	115	23%	21	4%	220	44%	498
Louisiana	257	51%	87	17%	150	30%	8	2%	245	49%	502
Maine	50	48%	29	28%	16	15%	9	9%	54	52%	104
Maryland	174	68%	48	19%	24	9%	8	3%	81	32%	255
Massachusetts	150	75%	23	11%	15	7%	12	6%	51	25%	201
Michigan	335	57%	119	20%	88	15%	42	7%	250	43%	585
Minnesota	154	57%	45	17%	45	17%	26	10%	116	43%	270
Mississippi	262	55%	82	17%	113	24%	13	3%	213	45%	475
Missouri	298	54%	102	18%	124	22%	32	6%	258	46%	556
Montana	54	37%	35	24%	47	32%	9	6%	91	63%	145
Nebraska	76	42%	36	20%	57	31%	13	7%	107	58%	183
Nevada	88	61%	32	22%	20	14%	4	3%	57	39%	145
New Hampshire	42	72%	8	14%	6	10%	2	3%	16	28%	58
New Jersey	202	69%	48	16%	23	8%	21	7%	92	31%	294
New Mexico	106	46%	37	16%	64	28%	20	9%	123	54%	229
New York	375	69%	90	17%	49	9%	26	5%	165	31%	540
North Carolina	517	60%	144	17%	152	18%	52	6%	348	40%	865
North Dakota	39	37%	27	26%	33	31%	6	6%	66	63%	105
Ohio	469	64%	131	18%	89	12%	42	6%	264	36%	733
Oklahoma	226	45%	82	16%	174	35%	18	4%	274	55%	500
Oregon	128	55%	43	19%	56	24%	5	2%	104	45%	232
Pennsylvania	514	67%	130	17%	84	11%	40	5%	254	33%	768
Rhode Island	17	68%	3	12%	3	12%	2	8%	8	32%	25
South Carolina	327	58%	107	19%	118	21%	15	3%	241	42%	568
South Dakota	41	40%	19	19%	36	35%	6	6%	61	60%	102
Tennessee	394	57%	118	17%	155	22%	30	4%	303	43%	697
Texas	1,138	47%	482	20%	697	29%	86	4%	1,266	53%	2,404
Utah	89	57%	29	19%	27	17%	11	7%	67	43%	156
Vermont	18	67%	4	15%	3	11%	2	7%	9	33%	27
Virginia	299	63%	68	14%	86	18%	23	5%	177	37%	476
Washington	177	60%	46	15%	56	19%	17	6%	120	40%	297
West Virginia	99	49%	40	24%	50	25%	5	2%	103	51%	202
Wisconsin	210	49 % 58%	62	17%	64	18%	27	2 /o 7%	153	42%	363
	36	31%	28	24%	40	34%	14	12%	82	69%	118
Wyoming U.S. Total	11,926	57%				34% 20%				43%	
		57%	3,796	18%	4,248	20%	1,020	5%	9,096	43% 20%	21,022
Puerto Rico	115	00%	19	13%	8	0%	1	1%	28	20%	143

Source: FARS 2014 ARF

*Includes occupants of other/unknown light-truck vehicle types

Appendix

Table 13

Polk recently improved the data quality of NVPP, which resulted in a complete rewrite of the data. They:

- Enhanced their business rules for vehicles on the road,
- Have more consistent reporting/processing across States, and
- Upgraded their basis for vehicle coding.

A comparison between Polk's earlier and current version of the NVPP registration data for 2011 shows that Polk's enhancements have resulted in over a 3-percent increase in passenger vehicle registration counts from what was previously reported. When looking at passenger cars and light trucks separately, the passenger car count decreased by 5.6 percent and the light-truck count increased by 14.6 percent between the earlier NVPP and current NVPP for 2011 (see passenger car and light-truck figures in registered vehicle table below).

This fact sheet uses 2011-2014 data for passenger car and light-truck registrations based on Polk's current NVPP. From 2005 to 2010

Registered Vehicle Data, by Vehicle Type, 2005-2014

using Polk's earlier NVPP, passenger vehicle registrations increased 3 percent (Figure 1). Using 2005 to 2010 earlier NVPP, light trucks experienced an 8-percent increase in registrations, while passenger cars had almost no change. Among the light-truck categories, SUV registrations increased by 22 percent, pickup trucks registrations increased by 5 percent, and van registrations decreased by 9 percent.

This fact sheet contains information on motor vehicle fatalities and fatal crashes, based on data from the Fatality Analysis Reporting System (FARS). FARS is a census of fatal crashes within the 50 States, the District of Columbia, and Puerto Rico (although Puerto Rico is not included in U.S. totals). Crash and injury statistics are based on data from the National Automotive Sampling System (NASS) General Estimates System (GES). The NASS GES is a probability-based sample of police-reported crashes, from 60 locations across the country, from which estimates of national totals for injury and property-damage-only crashes are derived.

Registered Vehicles											
	All Passenger	Passenger	Light Trucks								
Year	Vehicles	Cars	All*	SUVs	Pickup Trucks	Vans					
2005 (earlier NVPP)	230,112,001	135,324,121	94,787,880	34,698,739	39,699,056	19,453,034					
2006 (earlier NVPP)	235,095,396	137,031,279	98,064,117	37,170,302	40,478,837	19,539,179					
2007 (earlier NVPP)	238,747,447	137,929,951	100,817,496	39,463,148	41,121,470	19,406,561					
2008 (earlier NVPP)	239,890,985	139,028,041	100,862,944	40,529,579	40,782,963	18,784,452					
2009 (earlier NVPP)	239,212,572	137,203,972	102,008,600	41,383,289	41,676,351	18,222,255					
2010 (earlier NVPP)	237,686,627	135,310,480	102,376,147	42,378,757	41,596,353	17,732,967					
2011 (earlier NVPP)	238,138,184	134,543,655	103,594,529	43,891,547	41,778,775	17,308,359					
2011 (current NVPP)	245,669,103	126,966,714	118,702,389	50,161,565	48,912,291	19,592,314					
2012 (current NVPP)	245,768,366	127,077,676	118,690,690	51,305,806	48,465,436	18,886,646					
2013 (current NVPP)	249,427,710	128,936,225	120,491,485	53,447,838	48,644,891	18,339,481					
2014 (current NVPP)	254,609,203	131,138,925	123,470,278	56,277,894	49,134,966	18,030,322					

Source: Registered Vehicles – R. L. Polk using NCSA vehicle classification *Includes other/unknown light-truck registrations

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2016, July). *Passenger vehicles: 2014 data* (Traffic Safety Facts. Report No. DOT HS 812 302). Washington, DC: National Highway Traffic Safety Administration.

For More Information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis (NCSA), NSA-230, 1200 New Jersey Avenue SE., Washington, DC 20590. NCSA can be contacted at 800-934-8517 or by e-mail at ncsaweb@dot.gov. General information on highway traffic safety can be found at www.nhtsa.gov/NCSA. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Vehicle Safety Hotline at 888-327-4236.

Other fact sheets available from the National Center for Statistics and Analysis are Alcohol-Impaired Driving, Bicyclists and Other Cyclists, Children, Large Trucks, Motorcycles, Occupant Protection, Older Population, Pedestrians, Rural/Urban Comparisons, School Transportation-Related Crashes, Speeding, State Alcohol Estimates, State Traffic Data, Summary of Motor Vehicle Crashes, and Young Drivers. Detailed data on motor vehicle traffic crashes are published annually in Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System. The fact sheets and annual Traffic Safety Facts report can be found at www-nrd.nhtsa.dot.gov/cats/index.aspx.



U.S. Department of Transportation

National Highway Traffic Safety Administration