Traffic Safety Facts
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Key Findings

- In 2013, there were 21,132 passenger vehicle occupants who lost their lives in motor vehicle traffic crashes and an estimated 2.05 million passenger vehicle occupants who were injured.
- Among the passenger vehicle occupants killed in motor vehicle traffic crashes in 2013, about 57 percent were passenger car occupants and 43 percent were light-truck occupants.
- Passenger vehicles made up 93 percent of registered vehicles and accounted for nearly 90 percent of total vehicle miles traveled in 2013. There were 44,811 vehicles involved in fatal crashes in 2013, of which 77 percent (34,691) were passenger vehicles.
- Fatality rates per 100,000 registered vehicles from 2012 to 2013 decreased for both passenger cars and light trucks (5% and 4%, respectively). Among light-truck categories, fatality rates decreased for SUVs and pickup trucks (6% and 4%, respectively). However, fatality rates for vans had almost no change.
- In fatal crashes in 2013, some 79 percent of passenger vehicle occupants who were totally ejected from vehicles were killed.
- Among passenger vehicle occupants killed in 2013, the percentage of fatalities in rollover crashes was highest for SUVs (51%), followed by pickup trucks (46%), vans (29%), and passenger cars (24%).
- In two-vehicle crashes between one passenger car and one light truck in 2013, an occupant was killed in a passenger car 18 times more frequently than in a light truck when the front of a light truck hit the side of a passenger car.
- Drivers of pickup trucks had the highest percentage of alcohol impairment in fatal crashes (24%) compared to other passenger vehicle drivers (23% for passenger cars, 21% for SUVs, and 12% for vans) in 2013.

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Passenger Vehicles

For the purpose of this fact sheet, passenger vehicles are motor vehicles weighing less than 10,000 pounds and include passenger cars and light trucks (sport utility vehicles (SUVs), pickup trucks, vans, and other light trucks).

In this fact sheet, the 2013 passenger vehicle information is presented in the following order:

Overview

In 2013:

- There were 21,132 passenger vehicle occupants who lost their lives in traffic crashes and an estimated 2.05 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).
- There were an estimated 9,892,000 vehicles involved in police-reported traffic crashes; 96 percent (9,538,000) were passenger vehicles.
- There were 44,811 vehicles involved in fatal crashes, of which 77 percent (34,691) were passenger vehicles.

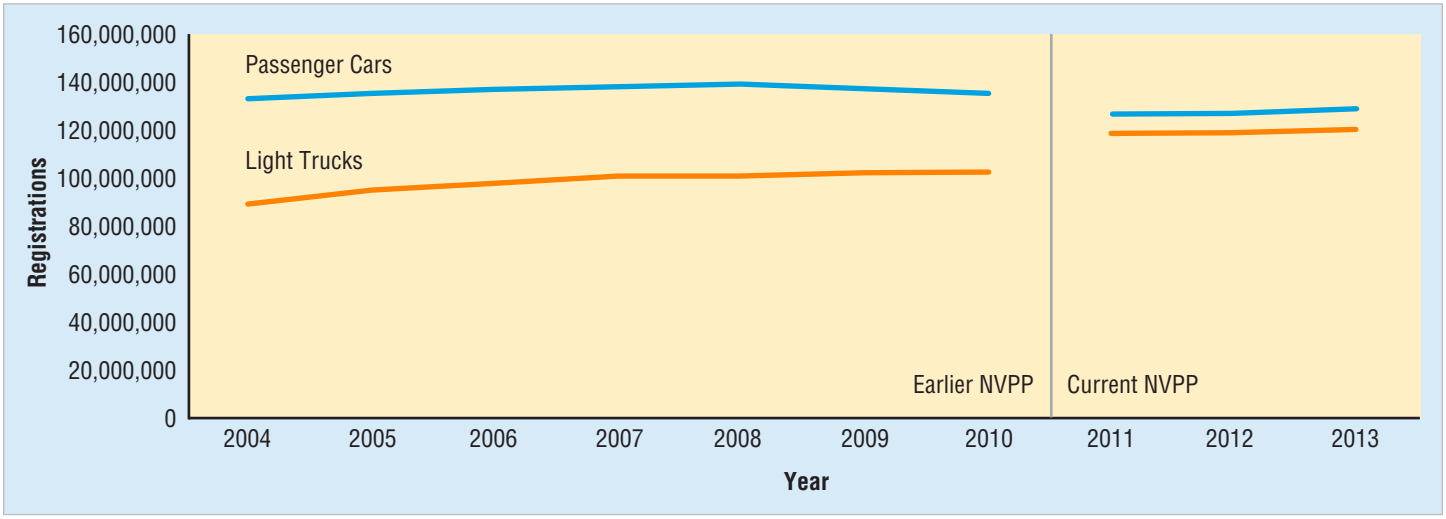
Registration Data Changes

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

Due to the enhancement in the passenger vehicle registration data from 2011 to 2013, registration counts for these years changed considerably from the counts provided for 2010 and earlier years (Table 1 and Appendix). Consequently, the 2011-2013 data in this fact sheet for vehicle registration and fatality rates are not strictly comparable with the data for all prior years, which were based on Polk's earlier NVPP. Hence, in order to make suitable comparisons over the 10-year period, all vehicle registration and fatality rate data are presented across two sets of years, 2004-2010 and 2011-2013.

Figure 1 highlights the passenger car and light-truck registration data changes between the earlier NVPP (2004-2010) and the current NVPP (2011-2013). From 2012 to 2013, passenger car and light-truck registrations each increased by 1 percent. Among the light-truck categories in 2013 compared to 2012, SUV registrations increased by 4 percent, pickup truck registrations remained almost unchanged, and van registrations decreased by 3 percent.

Figure 1
Passenger Car and Light-Truck Registrations, 2004–2013



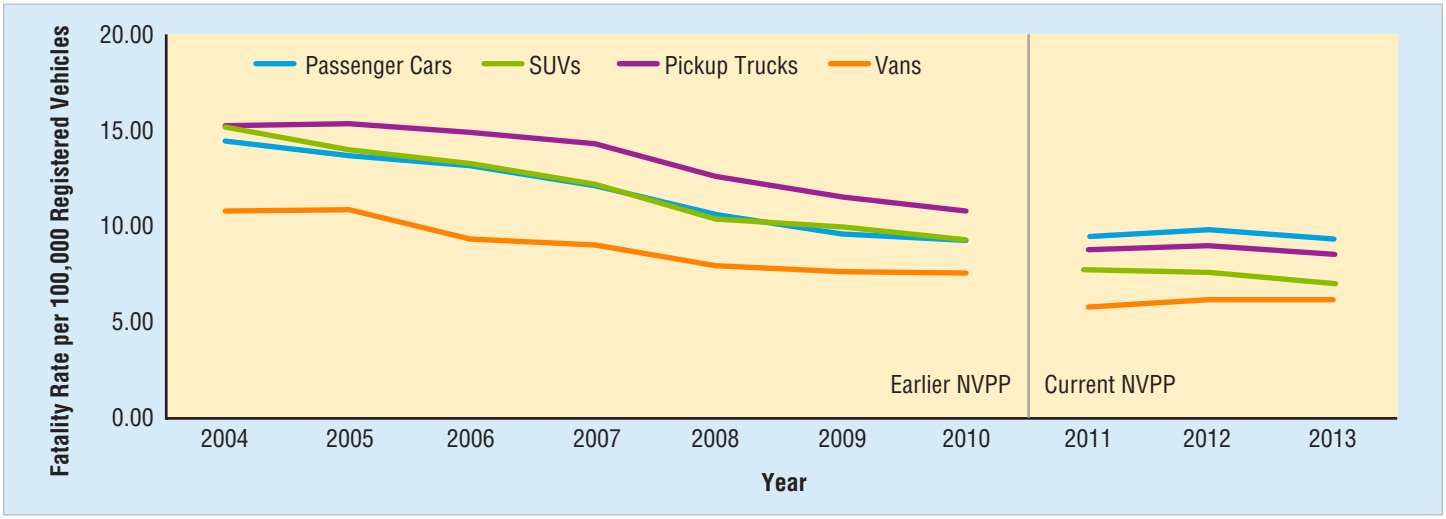
Source: Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 passenger vehicle registration data processes, results for these years are not strictly comparable to prior years.

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 2004 to 2013. 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 2012 to 2013 decreased for both passenger cars and light trucks (5% and 4%, respectively). Among light-truck categories, fatality rates decreased for SUVs and pickup trucks (6% and 4%, respectively). However, fatality rates for vans had almost no change.

Figure 2
Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles, by Vehicle Type, 2004–2013



Sources: Fatalities – Fatality Analysis Reporting System (FARS) 2004–2012 Final File, 2013 Annual Report File (ARF); Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011-2013 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 2004 to 2013.

- Among passenger vehicle occupant fatalities, the percentage of passenger car occupant fatalities decreased from 60 percent (19,192 of 31,866) in 2004 to 57 percent (11,977 of 21,132) in 2013, while the percentage of light-truck occupant fatalities increased from 40 percent (12,674 of 31,866) in 2004 to 43 percent (9,155 of 21,132) in 2013.
- Earlier NVPP:
  - The total passenger vehicle fatality rate per 100,000 registered vehicles decreased from 14.28 in 2004 to 9.37 in 2010.
  - The passenger car fatality rate decreased from 14.39 in 2004 to 9.23 in 2010.
  - The light-truck fatality rate decreased from 14.11 in 2004 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 8.47 in 2013.
  - The passenger car fatality rate increased from 9.46 in 2011 to 9.73 in 2012 and then decreased to 9.29 in 2013.
  - The light-truck fatality rate increased from 7.84 in 2011 to 7.94 in 2012 and then decreased to 7.60 in 2013.

Table 1

Passenger Vehicle Occupant Fatalities, Registered Vehicles, and Fatality Rates,* by Vehicle Type, 2004–2013

Year	Passenger Cars			Light Trucks**			Total Passenger Vehicles**		
	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*
2004	19,192	133,414,552	14.39	12,674	89,799,406	14.11	31,866	223,213,958	14.28
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	126,974,845	9.46	9,302	118,694,258	7.84	21,316	245,669,103	8.68
2012	12,361	127,091,286	9.73	9,418	118,677,080	7.94	21,779	245,768,366	8.86
2013	11,977	128,974,640	9.29	9,155	120,453,070	7.60	21,132	249,427,710	8.47

Sources: Fatalities: FARS 2004–2012 Final File, 2013 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 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 2004 to 2013.

- Earlier NVPP:
  - The SUV fatality rate per 100,000 registered vehicles decreased from 15.15 in 2004 to 9.30 in 2010.
  - The pickup truck fatality rate increased from 15.22 in 2004 to 15.28 in 2005 and then decreased to 10.78 in 2010.
  - The van fatality rate increased from 10.78 in 2004 to 10.86 in 2005 and then decreased to 7.59 in 2010.
- Current NVPP:
  - The SUV fatality rate decreased from 7.74 in 2011 to 7.13 in 2013.
  - The pickup truck fatality rate increased from 8.73 in 2011 to 8.96 in 2012 and then decreased to 8.57 in 2013.
  - The van fatality rate increased from 5.76 in 2011 to 6.20 in 2013.

Table 2

Light-Truck Occupant Fatalities, Registered Vehicles, and Fatality Rates,* by Vehicle Type, 2004–2013**

Year	SUVs			Pickup Trucks			Vans		
	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*	Occupant Fatalities	Registered Vehicles	Fatality Rate*
2004	4,760	31,416,857	15.15	5,838	38,362,205	15.22	2,046	18,982,049	10.78
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	50,161,564	7.74	4,270	48,912,291	8.73	1,128	19,584,184	5.76
2012	3,885	51,300,136	7.57	4,343	48,465,433	8.96	1,167	18,878,709	6.18
2013	3,811	53,447,620	7.13	4,171	48,644,888	8.57	1,136	18,331,287	6.20

Sources: Fatalities: FARS 2004–2012 Final File, 2013 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 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 2004 to 2013.

- The percentage of injured passenger cars decreased from 65 percent (1,643,000 of 2,543,000) in 2004 to 63 percent (1,296,000 of 2,046,000) in 2013, while the percentage of injured passenger vehicle occupants who were occupants of light trucks increased from 35 percent (900,000 of 2,543,000) in 2004 to 37 percent (750,000 of 2,046,000) in 2013.
- Earlier NVPP:
  - The total passenger vehicle injury rate per 100,000 registered vehicles decreased from 1,139 in 2004 to 826 in 2009 and then increased slightly to 835 in 2010.
  - The passenger car injury rate decreased from 1,231 in 2004 to 887 in 2009 and then increased to 926 in 2010.
  - The light-truck injury rate decreased from 1,002 in 2004 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 820 in 2013.
  - The passenger car injury rate increased from 976 in 2011 to 1,045 in 2012 and then decreased to 1,005 in 2013.
  - The light-truck injury rate increased from 614 in 2011 to 642 in 2012 and then decreased to 623 in 2013.

Table 3

Passenger Vehicle Occupants Injured, Registered Vehicles, and Injury Rates,* by Vehicle Type, 2004–2013

Year	Passenger Cars			Light Trucks**			Total Passenger Vehicles**		
	Occupant Injured	Registered Vehicles	Injury Rate*	Occupant Injured	Registered Vehicles	Injury Rate*	Occupant Injured	Registered Vehicles	Injury Rate*
2004	1,643,000	133,414,552	1,231	900,000	89,799,406	1,002	2,543,000	223,213,958	1,139
2005	1,573,000	135,324,121	1,163	872,000	94,787,880	920	2,446,000	230,112,001	1,063
2006	1,475,000	137,031,279	1,076	857,000	98,064,117	874	2,331,000	235,095,396	992
2007	1,379,000	137,929,951	1,000	841,000	100,817,496	835	2,221,000	238,747,447	930
2008	1,304,000	139,028,041	938	768,000	100,862,944	762	2,072,000	239,890,985	864
2009	1,216,000	137,203,972	887	759,000	102,008,600	744	1,976,000	239,212,572	826
2010	1,253,000	135,310,480	926	733,000	102,376,147	716	1,986,000	237,686,627	835
2011	1,240,000	126,974,845	976	728,000	118,694,258	614	1,968,000	245,669,103	801
2012	1,328,000	127,091,286	1,045	762,000	118,677,080	642	2,091,000	245,768,366	851
2013	1,296,000	128,974,640	1,005	750,000	120,453,070	623	2,046,000	249,427,710	820

Sources: Injured – National Automotive Sampling System (NASS) General Estimates System (GES) 2004–2013; Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 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 2004 to 2013.

- Earlier NVPP:
  - The SUV injury rate per 100,000 registered vehicles decreased from 1,159 in 2004 to 823 in 2009 and then increased to 851 in 2010.
  - The pickup truck injury rate decreased from 806 in 2004 to 524 in 2010.
  - The van injury rate decreased from 1,110 in 2004 to 761 in 2010.
- Current NVPP:
  - The SUV injury rate increased from 703 in 2011 to 753 in 2012 and then decreased to 716 in 2013.
  - The pickup truck injury rate increased from 484 in 2011 to 497 in 2012 and then decreased to 462 in 2013.
  - The van injury rate increased from 705 in 2011 to 763 in 2013.

Table 4
Light-Truck Occupants Injured, Registered Vehicles, and Injury Rates,* by Vehicle Type, 2004–2013**

	SUVs			Pickup Trucks			Vans		
Year	Occupant Injured	Registered Vehicles	Injury Rate*	Occupant Injured	Registered Vehicles	Injury Rate*	Occupant Injured	Registered Vehicles	Injury Rate*
2004	364,000	31,416,857	1,159	309,000	38,362,205	806	211,000	18,982,049	1,110
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	50,161,564	703	237,000	48,912,291	484	138,000	19,584,184	705
2012	386,000	51,300,136	753	241,000	48,465,433	497	135,000	18,878,709	713
2013	383,000	53,447,620	716	225,000	48,644,888	462	140,000	18,331,287	763

Sources: Injured – NASS GES 2004–2013; Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 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 2013 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, 90 percent for vans and SUVs, and 78 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 2013, seat belts saved an estimated 12,584 lives of passenger vehicle occupants 5 and older.[3]

In fatal crashes in 2013, there were 21,132 passenger vehicle occupants who were killed. Rural areas accounted for 62 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 46 percent in urban areas (based on known restraint use). Nearly two-thirds (64%) 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.

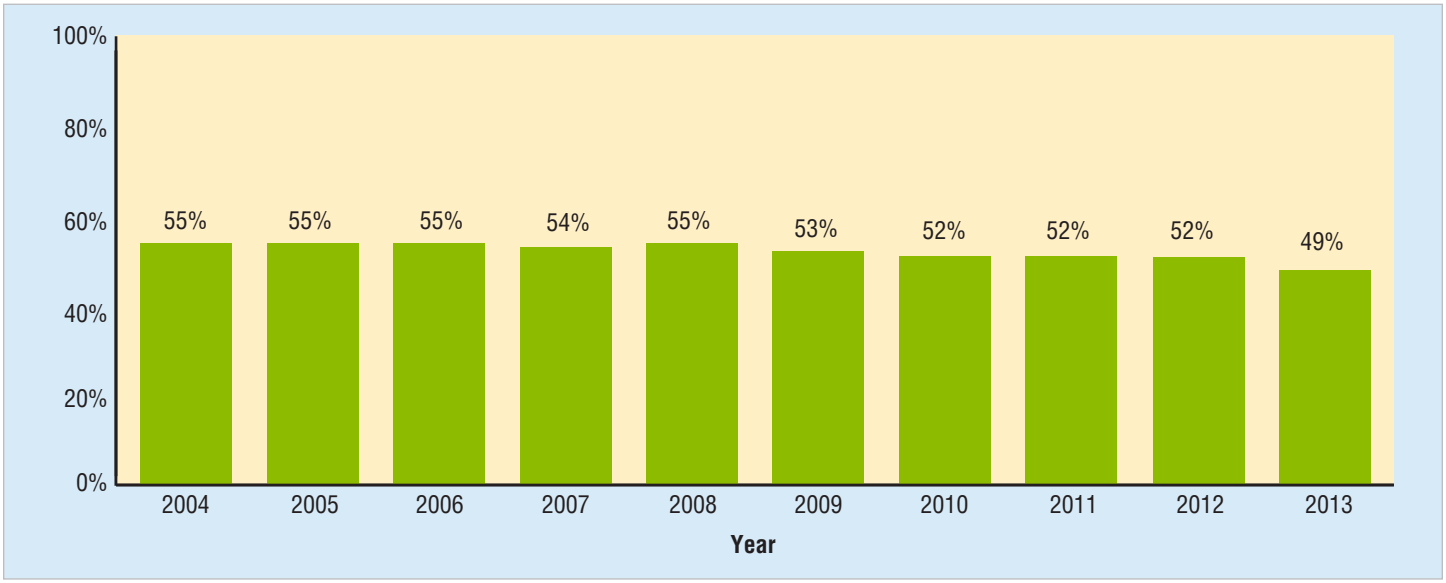
Figure 3 displays the gradual decline of the percentage of passenger vehicle occupants killed who were unrestrained (based on known restraint use), from 55 percent in 2004 to 49 percent in 2013.

[1] Pickrell, T. M., & Liu, C. (2014, January). *Seat belt use in 2013 – overall results* (Traffic Safety Facts Research Note. Report No. DOT HS 811 875). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/811875.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] Longthorne, A. (2015, April). *Lives saved in 2013 by restraint use and minimum drinking age laws* (Report No. DOT HS 812 137). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/812137.pdf

Figure 3
Percentage of Unrestrained* Passenger Vehicle Occupant Fatalities, 2004–2013



Source: FARS 2004–2012 Final File, 2013 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 2004 to 2013. Passenger car occupant fatalities had the lowest percentage (43%) of unrestrained occupant fatalities in 2013 (based on known restraint use), while pickup truck occupant fatalities had the highest percentage (63%).

Table 5
Percentage of Unrestrained* Passenger Vehicle Occupant Fatalities, by Vehicle Type, 2004–2013

Year	Passenger Vehicle Type					Total Passenger Vehicles**
	Passenger Cars	Light Trucks				
		SUVs	Pickup Trucks	Vans	Total**	
2004	49%	62%	69%	55%	64%	55%
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%

Source: FARS 2004–2012 Final File, 2013 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 have been 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 2013, some 79 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 2013. 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, 18 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, 2013

Vehicle Type		Ejection Status						Total	
		Not Ejected		Ejected**		Unknown			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Cars	Killed	9,810	82%	2,128	18%	39	<0.5%	11,977	100%
	Survived	14,872	96%	460	3%	128	1%	15,460	100%
	Total	24,682	90%	2,588	9%	167	1%	27,437	100%
Light Trucks*	Killed	6,047	66%	3,066	33%	42	<0.5%	9,155	100%
	Survived	17,526	94%	798	4%	267	1%	18,591	100%
	Total	23,573	85%	3,864	14%	309	1%	27,746	100%
Passenger Vehicles*	Killed	15,857	75%	5,194	25%	81	<0.5%	21,132	100%
	Survived	32,398	95%	1,258	4%	395	1%	34,051	100%
	Total	48,255	87%	6,452	12%	476	1%	55,183	100%

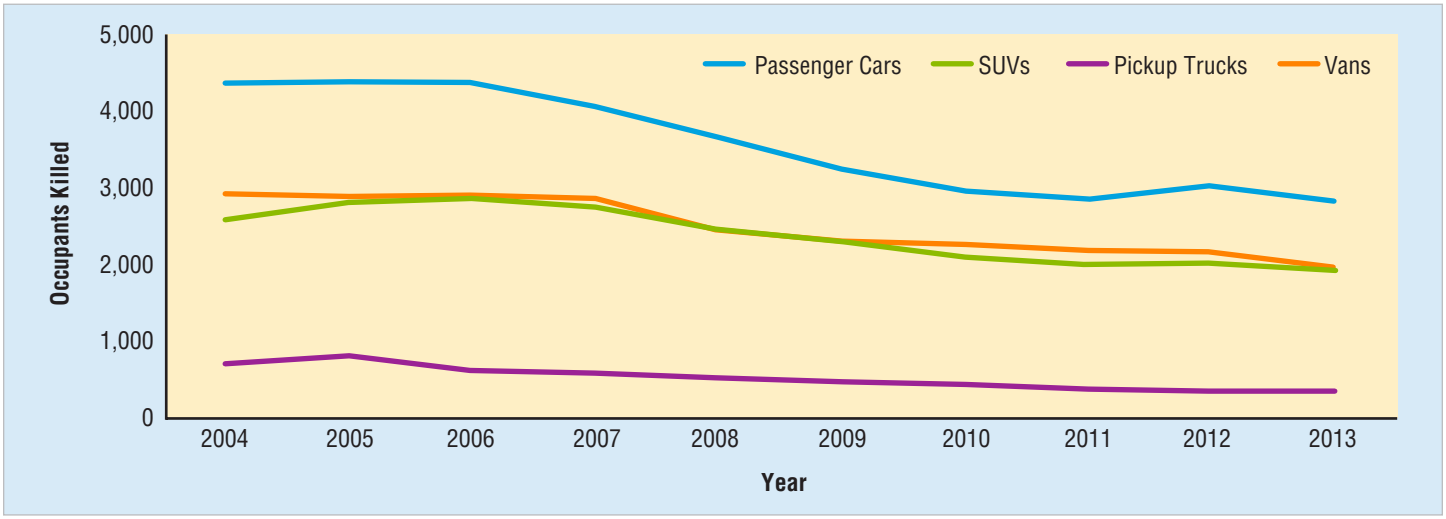
Source: FARS 2013 ARF
*Includes SUVs, pickup trucks, vans, and other/unknown light-truck vehicle types.
**Includes totally and partially ejected.

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 2013. Among passenger vehicle occupants killed in 2013, the percentage of fatalities in rollover crashes was highest for SUVs (51%), followed by pickup trucks (46%), vans (29%), and passenger cars (24%).

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 2004 to 2013. The data used in Figure 4 is shown in Table 7.

Figure 4
Passenger Vehicle Occupants Killed in Rollover Crashes, by Vehicle Type, 2004–2013



Source: FARS 2004–2012 Final File, 2013 ARF

Table 7 presents the number of passenger vehicle occupants killed in rollover crashes by vehicle type from 2004 to 2013. In the past 10 years, the percentages of rollover occupant fatalities for:

- Passenger cars decreased by 35 percent from 4,353 in 2004 to 2,817 in 2013,
- SUVs decreased by 33 percent from 2,929 in 2004 to 1,959 in 2013,
- Pickup trucks decreased by 27 percent from 2,597 in 2004 to 1,904 in 2013, and
- Vans decreased by 53 percent from 695 in 2004 to 325 in 2013.

Table 7
Passenger Vehicle Occupant Fatalities in Rollover Crashes, by Vehicle Type, 2004–2013

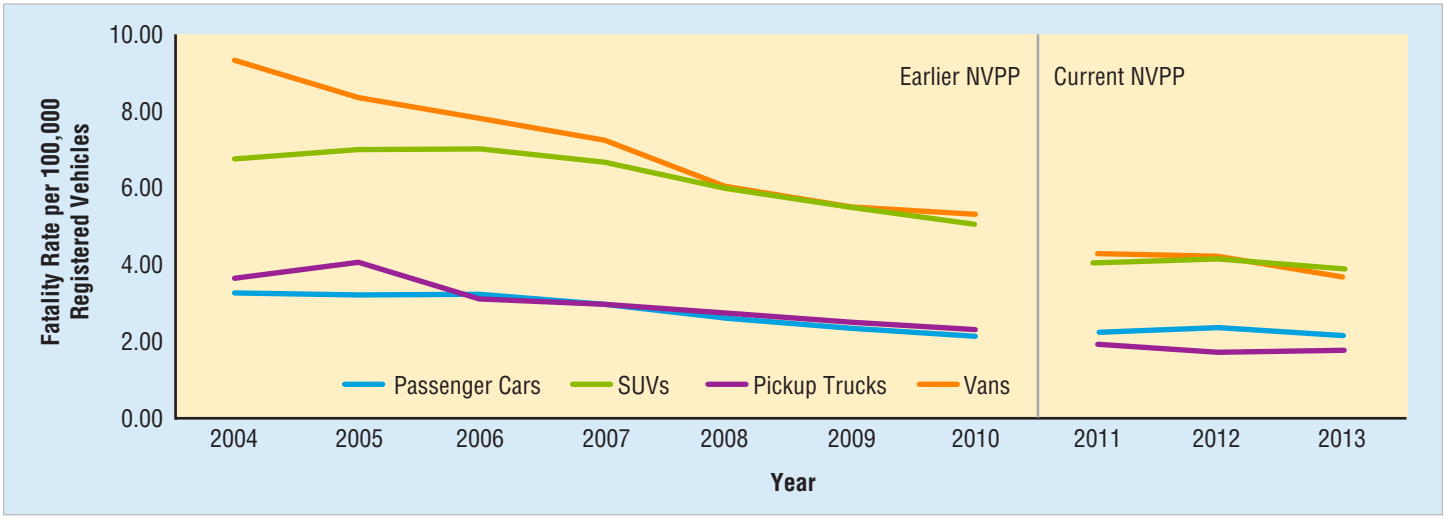
Year	Passenger Vehicle Type					Total Passenger Vehicles*
	Passenger Cars	Light Trucks				
		SUVs	Pickup Trucks	Vans	Total*	
2004	4,353	2,929	2,597	695	6,237	10,590
2005	4,371	2,895	2,796	794	6,499	10,870
2006	4,376	2,899	2,844	609	6,366	10,742
2007	4,055	2,861	2,748	572	6,185	10,240
2008	3,653	2,435	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	2,817	1,959	1,904	325	4,200	7,017

Source: FARS 2004–2012 Final File, 2013 ARF.
*Includes occupants of other/unknown light-truck vehicle types.

In 2013, among passenger vehicles involved in rural fatal crashes, SUVs experienced the highest rollover percentage (38%) compared to 32 percent for pickup trucks, 21 percent for passenger cars, and 20 percent for vans. The rollover percentages for passenger vehicles in urban areas were much lower: 18 percent for SUVs, 14 percent for pickup trucks, 10 percent for vans, and 9 percent for passenger cars.

Figure 5 displays the fatality rates per 100,000 registered vehicles by vehicle type from 2004 to 2013. 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, 2004–2013



Sources: Fatalities – FARS 2004–2012 Final File, 2013 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2004-2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011-2013 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 2004 to 2013.

- The occupant fatality rates per 100,000 registered vehicles in rollover crashes in earlier NVPP for:
  - Passenger cars decreased by 33 percent from 3.26 in 2004 to 2.17 in 2010,
  - SUVs decreased by 43 percent from 9.32 in 2004 to 5.34 in 2010,
  - Pickup trucks decreased by 26 percent from 6.77 in 2004 to 5.04 in 2010, and
  - Vans decreased by 36 percent from 3.66 in 2004 to 2.33 in 2010.

- The occupant fatality rates in rollover crashes in current NVPP for:
  - Passenger cars decreased by 3 percent from 2.24 in 2011 to 2.18 in 2013,
  - SUVs decreased 15 percent from 4.33 in 2011 to 3.67 in 2013,
  - Pickup trucks decreased by 4 percent from 4.07 in 2011 to 3.91 in 2013, and
  - Vans decreased by 7 percent from 1.91 in 2011 to 1.77 in 2013.

Table 8
Passenger Vehicle Occupant Fatality Rates* in Rollover Crashes, by Vehicle Type, 2004–2013

Year	Passenger Vehicle Type					Total Passenger Vehicles**
	Passenger Cars	Light Trucks				
		SUVs	Pickup Trucks	Vans	Total**	
2004	3.26	9.32	6.77	3.66	6.95	4.74
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	2.18	3.67	3.91	1.77	3.49	2.81

Sources: Fatalities – FARS 2004–2012 Final File, 2013 ARF; Registered Vehicles – R. L. Polk, earlier NVPP (2004–2010) and current NVPP (2011–2013)
Note: Due to an enhancement in Polk's 2011–2013 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.

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 (LTV includes SUV, pickup truck, or van) from 2012 to 2013:

- The number of passenger car occupants killed decreased by 6 percent from 2,607 in 2012 to 2,441 in 2013.
- The number of LTV occupants killed increased by 7 percent from 663 in 2012 to 711 in 2013.

Table 9
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and LTV,* 2012 and 2013

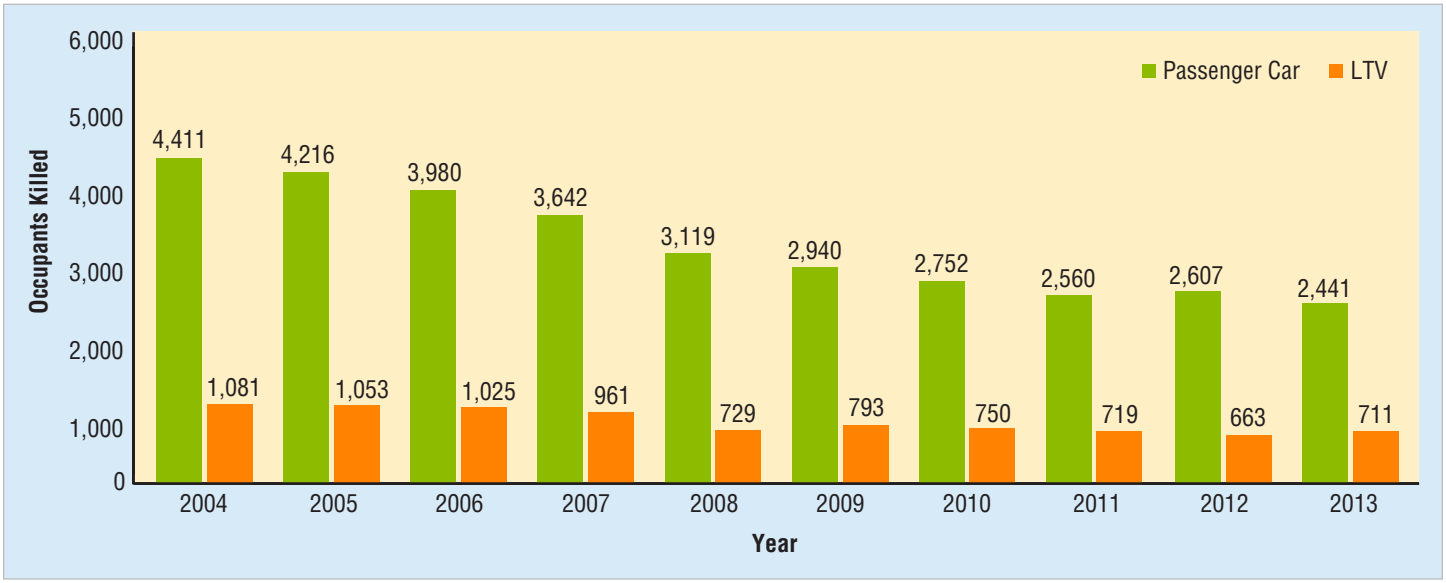
Occupants	Year		Percent Change
	2012	2013	
Killed in Passenger Car	2,607	2,441	-6.4%
Killed in LTV*	663	711	+7.2%

Source: FARS 2012 Final File, 2013 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 2004 to 2013. In these crashes, there were about 3.4 to 4 times as many passenger car occupant fatalities as LTV occupant fatalities.

Figure 6

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* 2004–2013



Source: FARS 2004–2012 Final File, 2013 ARF.
*LTV includes SUV, pickup truck, or van.

Table 10 presents 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 2012 to 2013:

- Head-on collisions decreased 6 percent for passenger car occupants killed and increased 9 percent for LTV occupants killed.
- Passenger car front to LTV side collisions increased 31 percent for passenger car occupants killed and 8 percent for LTV killed.
- LTV front to passenger car side collisions decreased 11 percent for passenger car occupants killed and increased 9 percent for LTV occupants killed.

In 2013:

- When a passenger car and an LTV hit head-on, an occupant was killed in a passenger car 3 times more frequently than in an LTV.
- When a passenger car front hit the side of an LTV, an occupant was killed in an LTV 1.4 times more frequently than in a passenger car.
- However, when an LTV front hit the side of a passenger car, an occupant was killed in a passenger car 18 times more frequently than in an LTV.

Table 10

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* by Collision Type, 2012 and 2013

Occupants	Year		Percent Change
	2012	2013	
Head-On Collisions			
Killed in Passenger Car	1,071	1,011	-5.6%
Killed in LTV*	290	317	+9.3%
Passenger Car Front to LTV* Side			
Killed in Passenger Car	95	124	+30.5%
Killed in LTV*	160	172	+7.5%
LTV* Front to Passenger Car Side			
Killed in Passenger Car	1,178	1,054	-10.5%
Killed in LTV*	54	59	+9.3%

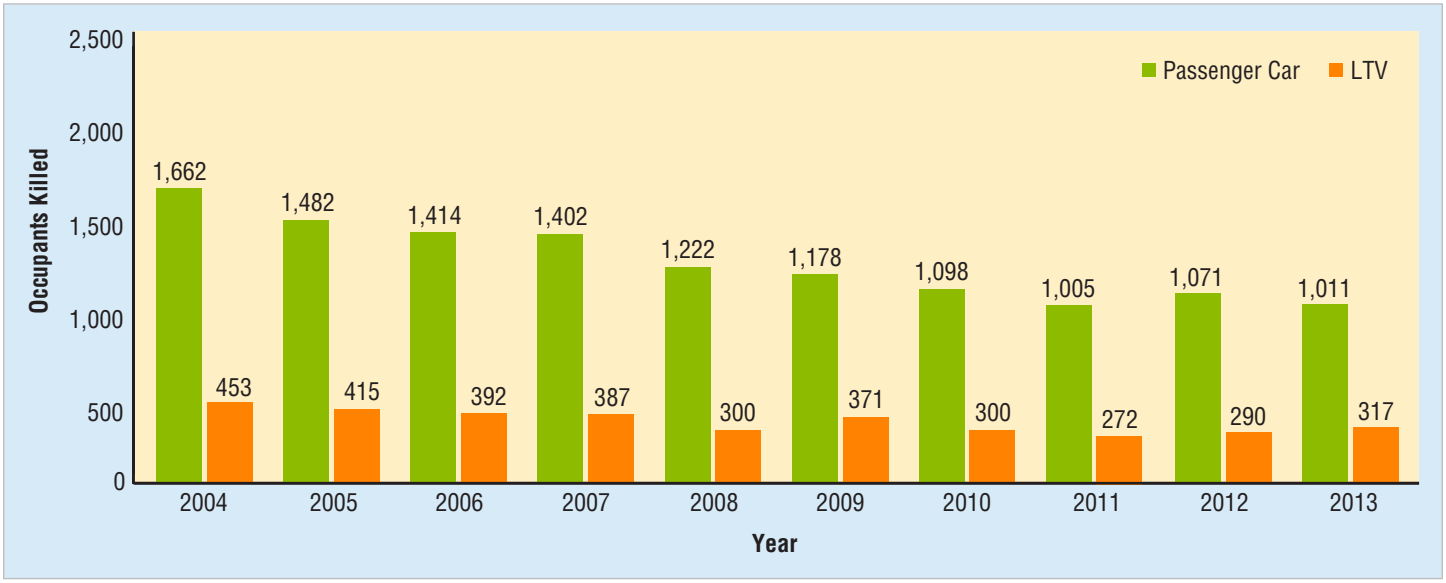
Source: FARS 2012 Final File, 2013 ARF.
*LTV includes SUV, pickup truck, or van.

Figures 7, 8, and 9 highlight three crash types mentioned in Table 10 involving one passenger car and one LTV from 2004 to 2013:

- When they hit each other head-on, a passenger car occupant fatality occurred 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 likely 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).

Figure 7

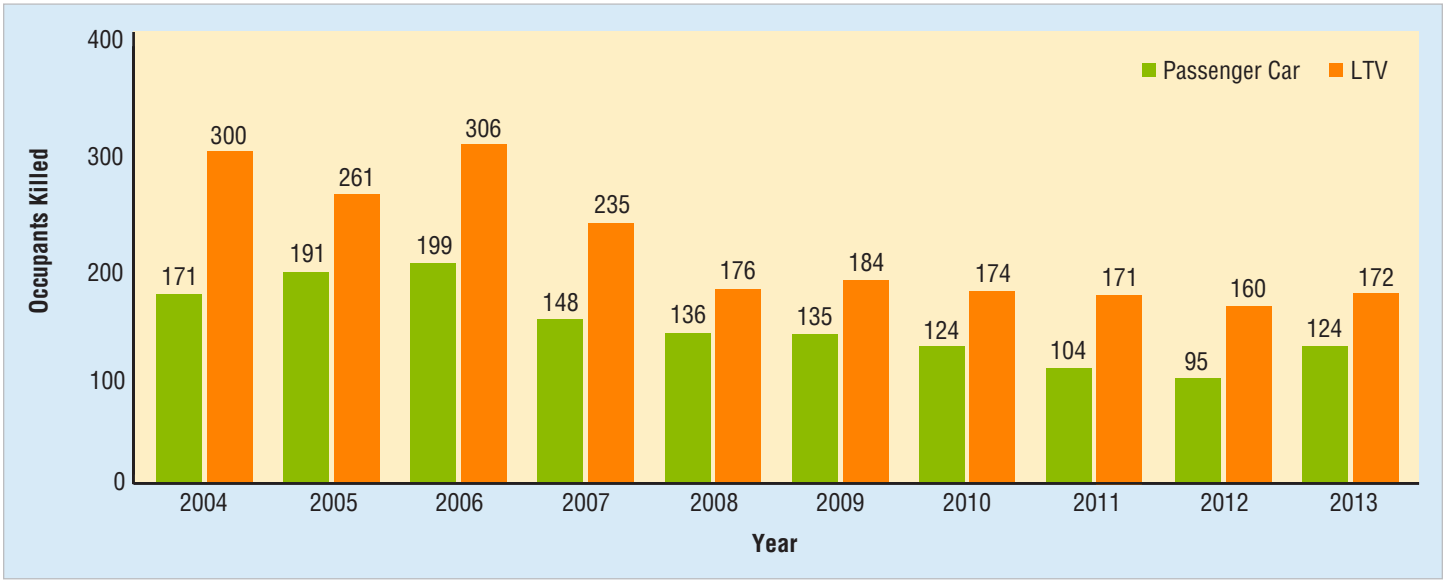
Occupants Killed in Two-Vehicle Head-On Collisions Involving a Passenger Car and an LTV,* 2004-2013



Source: FARS 2004–2012 Final File, 2013 ARF.
*LTV includes SUV, pickup truck, or van.

Figure 8

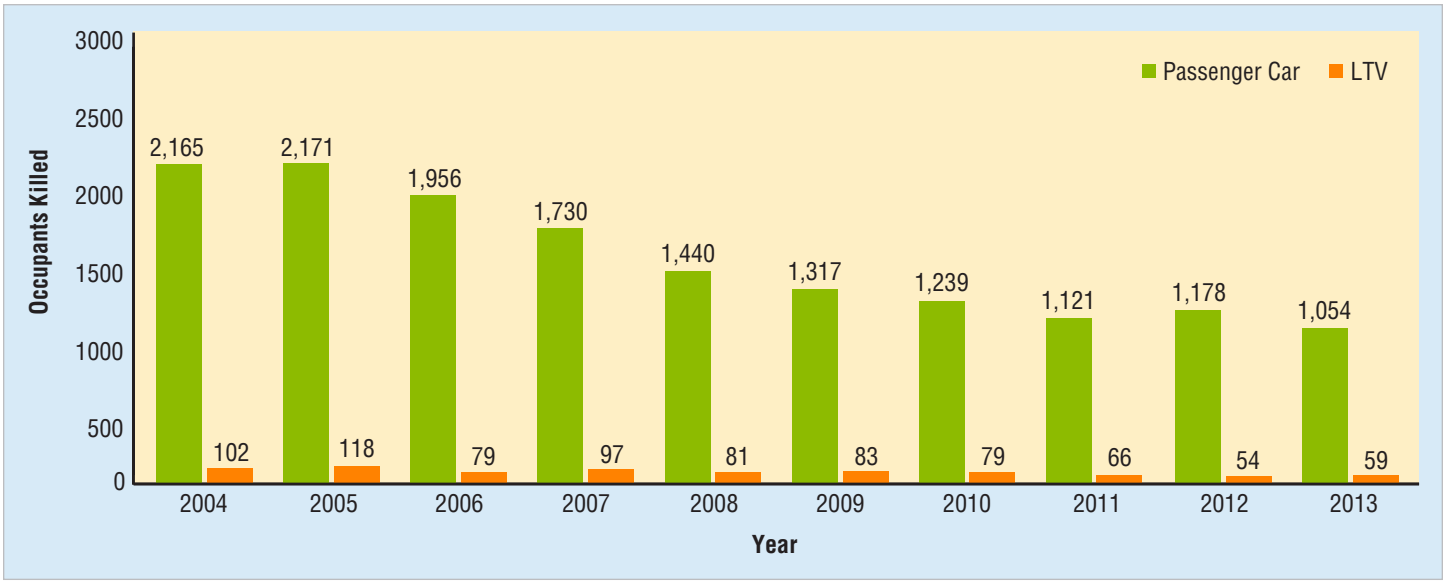
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* When Passenger Car Front Hit LTV in The Side, 2004–2013



Source: FARS 2004–2012 Final File, 2013 ARF.
*LTV includes SUV, pickup truck, or van.

Figure 9

Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV,* When LTV Front Hit Passenger Car in The Side, 2004–2013



Source: FARS 2004–2012 Final File, 2013 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 2004 to 2013, 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 (23% for passenger cars, 21% for SUVs, and 12% for vans) in 2013. 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, 2004–2013

	Drivers by Passenger Vehicle Type											
			Light Trucks									
	Passenger Cars		SUVs		Pickup Trucks		Vans		Total*		All Passenger Vehicles*	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2004	5,852	23%	1,743	22%	2,586	24%	466	13%	4,808	21%	10,660	22%
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	4,062	23%	1,414	21%	1,902	24%	253	12%	3,584	21%	7,646	22%

Source: FARS 2004–2012 Final File, 2013 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 2013 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 2013:

- The States with the largest percentages of passenger car fatalities were Rhode Island (78%), Connecticut (70%), Massachusetts (69%), and New York (69%).
- The States with the largest percentages of SUV fatalities were Colorado (27%), Kansas (24%), and New Mexico (24%).
- The States with the largest percentages of pickup truck fatalities were North Dakota (38%), Wyoming (35%), Montana (33%), and West Virginia (30%).
- The States with the largest percentages of van fatalities were Iowa (11%), Maine (11%), South Dakota (11%), and New Jersey (10%).

Table 12

Passenger Vehicle Occupant Fatalities, by State and Vehicle Type, 2013

State	Passenger Vehicle Type										Total Passenger Vehicle* Fatalities
	Passenger Cars		Light Trucks								
			SUVs		Pickup Trucks		Vans		Total*		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Alabama	357	54%	137	21%	150	23%	20	3%	308	46%	665
Alaska	10	37%	11	41%	6	22%	0	0%	17	63%	27
Arizona	209	46%	100	22%	116	26%	24	5%	242	54%	451
Arkansas	157	46%	79	23%	86	25%	18	5%	183	54%	340
California	1,070	66%	229	14%	236	15%	65	4%	541	34%	1,611
Colorado	141	44%	85	27%	77	24%	14	4%	176	56%	317
Connecticut	127	70%	37	20%	12	7%	4	2%	55	30%	182
Delaware	30	60%	10	20%	6	12%	4	8%	20	40%	50
Dist of Columbia	4	67%	1	17%	0	0	1	17%	2	33%	6
Florida	726	60%	219	18%	190	16%	81	7%	492	40%	1,218
Georgia	447	55%	137	17%	178	22%	47	6%	364	45%	811
Hawaii	21	50%	9	21%	12	29%	0	0%	21	50%	42
Idaho	77	48%	35	22%	44	28%	3	2%	82	52%	159
Illinois	403	62%	113	17%	87	13%	46	7%	247	38%	650
Indiana	320	59%	84	15%	95	17%	45	8%	224	41%	544
Iowa	130	55%	43	18%	38	16%	26	11%	107	45%	237
Kansas	111	42%	63	24%	75	28%	14	5%	154	58%	265
Kentucky	269	58%	84	18%	92	20%	20	4%	196	42%	465
Louisiana	243	51%	86	18%	137	29%	10	2%	233	49%	476
Maine	55	49%	24	21%	21	19%	12	11%	57	51%	112
Maryland	181	65%	40	14%	39	14%	19	7%	98	35%	279
Massachusetts	143	69%	37	18%	14	7%	11	5%	63	31%	206
Michigan	353	59%	107	18%	91	15%	50	8%	248	41%	601
Minnesota	156	60%	40	15%	40	15%	23	9%	103	40%	259
Mississippi	232	47%	94	19%	140	29%	20	4%	257	53%	489
Missouri	323	58%	91	16%	108	19%	37	7%	236	42%	559
Montana	69	43%	35	22%	53	33%	4	2%	92	57%	161
Nebraska	81	48%	33	20%	47	28%	8	5%	88	52%	169
Nevada	69	56%	16	13%	27	22%	11	9%	54	44%	123
New Hampshire	58	64%	15	16%	14	15%	4	4%	33	36%	91
New Jersey	217	66%	51	16%	24	7%	34	10%	112	34%	329
New Mexico	80	43%	46	24%	55	29%	5	3%	108	57%	188
New York	422	69%	92	15%	59	10%	41	7%	192	31%	614
North Carolina	532	61%	147	17%	149	17%	42	5%	339	39%	871
North Dakota	38	34%	26	23%	43	38%	5	4%	74	66%	112
Ohio	427	61%	121	17%	105	15%	46	7%	272	39%	699
Oklahoma	230	49%	92	19%	130	27%	22	5%	244	51%	474
Oregon	134	62%	33	15%	37	17%	11	5%	82	38%	216
Pennsylvania	515	64%	140	18%	97	12%	46	6%	284	36%	799
Rhode Island	29	78%	3	8%	4	11%	1	3%	8	22%	37
South Carolina	268	55%	94	19%	110	23%	16	3%	220	45%	488
South Dakota	43	43%	20	20%	26	26%	11	11%	57	57%	100
Tennessee	425	59%	114	16%	149	21%	31	4%	294	41%	719
Texas	1,065	48%	436	20%	608	28%	95	4%	1,140	52%	2,205
Utah	69	49%	24	17%	40	29%	7	5%	71	51%	140
Vermont	32	63%	11	22%	5	10%	3	6%	19	37%	51
Virginia	331	60%	99	18%	87	16%	32	6%	218	40%	549
Washington	183	64%	42	15%	52	18%	10	3%	104	36%	287
West Virginia	128	52%	40	16%	73	30%	6	2%	119	48%	247
Wisconsin	213	57%	71	19%	64	17%	27	7%	163	43%	376
Wyoming	24	36%	15	23%	23	35%	4	6%	42	64%	66
U.S. Total	**11,977**	**57%**	**3,811**	**18%**	**4,171**	**20%**	**1,136**	**5%**	**9,155**	**43%**	**21,132**
Puerto Rico	140	74%	32	17%	13	7%	5	3%	50	26%	190

Source: FARS 2013 ARF

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

Appendix

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 2011-2013 data for passenger car and light-truck registrations based on Polk's current NVPP. From 2004 to 2010 using Polk's earlier NVPP, passenger vehicle registrations increased 6 percent (Figure 1). Light trucks experienced a 14-percent increase in registrations, while passenger cars had a 1-percent increase. Among the light-truck categories, SUV registrations increased 35 percent, pickup trucks registrations increased 8 percent, and van registrations decreased 7 percent.

Registered Vehicles						
			Light Trucks			
Year	All Passenger Vehicles	Passenger Cars	All*	SUVs	Pickup Trucks	Vans
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	126,974,845	118,694,258	50,161,564	48,912,291	19,584,184
2012 (current NVPP)	245,768,366	127,091,286	118,677,080	51,300,136	48,465,433	18,878,709
2013 (current NVPP)	249,427,710	128,974,640	120,453,070	53,447,620	48,644,888	18,331,287

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

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.

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For More Information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis (NCSA), NVS-424, 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, Overview, Pedestrians, Rural/Urban Comparison, School Transportation-Related Crashes, Speeding, State Alcohol Estimates, State Traffic Data,* 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