## Passenger Vehicles

A passenger vehicle is a motor vehicle weighing less than 10,000 pounds and includes passenger cars and light trucks (pickup trucks, vans, SUVs, and other light trucks). Passenger vehicles make up over 90 percent of registered vehicles, and account for nearly 90 percent of total vehicle miles traveled (VMT). In 2010 there were an estimated $9,442,000$ vehicles involved in police-reported crashes, 97 percent $(9,125,000)$ of which were passenger vehicles. There were 44,712 vehicles involved in fatal crashes, of which 79 percent $(35,146)$ were passenger vehicles. More than 22,000 passenger vehicle occupants lost their lives in traffic crashes in 2010, and an estimated 1.99 million were injured.

From 2001 to 2010, passenger vehicle registrations increased 14 percent. Light trucks (LTVs) experienced a 30-percent increase in registrations, while passenger cars had an increase of about 5 percent (see Figure 1). Among the light-truck categories, pickup truck registrations increased 15 percent and van registrations decreased 3 percent; however, SUV registrations increased by 84 percent.

Figure 1
Passenger Vehicle Registrations, 2001-2010


Figure 2 shows that fatality rates per 100,000 registered vehicles have declined since 2001 for all passenger vehicle types; however, this decline has been most pronounced for passenger cars. (The data for Figure 2 are presented in Tables 1 and 2.) Similarly, the proportion of passenger vehicle occupant fatalities that were occupants of light trucks increased to 44 percent in 2010, from 37 percent in 2001,

> Passenger vehicles make up over 90 percent of the fleet of registered vehicles, and account for nearly 90 percent of total VMT.

## The registration-based fatality and injury rates among passenger vehicle occupants have declined over the past decade.

while the proportion of passenger car occupant fatalities declined from 63 percent to 56 percent during the same time span. In 2006, the number of overall light truck occupant fatalities $(12,761)$ experienced a 2-percent decrease, the first decline since 1992. Since this decrease in 2006, light truck occupant fatalities decreased an additional 24 percent by 2010.

Figure 2
Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles, by Type of Vehicle, 2001-2010


Table 1 shows the number of occupant fatalities, registered vehicles, and fatality rate for total passenger vehicles, as well as separately for passenger cars and light trucks. Both types of passenger vehicles have seen reductions in the registrationbased fatality rate. Note also that the number of registered light trucks has increased at a much greater rate than that of passenger cars. Light trucks are then separated by type and shown separately as SUVs, pickup trucks, and vans in Table 2. Again, each group has consistently seen a reduction in the registration-based fatality rate. Among the three types of light trucks, SUVs saw the steepest increase in the number of registered vehicles. Looking at each type of passenger vehicle, vans have the lowest registration-based fatality rate.

Passenger cars exhibited a greater decline in both injury and fatality rates in 2010 than did light trucks. As shown in Table 3, the proportion of injured passenger vehicle occupants who were occupants of light trucks increased to 37 percent in 2010, from 31 percent in 2001, while the proportion of injured passenger car occupants declined from 69 percent to 63 percent over these same years.

As shown in Table 3, rates for occupants injured per 100,000 registered vehicles have shown a steady decline since 2000 for all passenger vehicle types; however, injured passenger car occupants experienced the largest decline in rates, from 1,493 in 2001 to 926 in 2010.

Table 4 shows that the occupant injury rate in all of the light truck categories has steadily declined since 2001, with the largest decline being in pickup trucks.

Table 1
Passenger Vehicle Occupant Fatalities, Registered Vehicles, and Fatality Rates*, by Vehicle Type, 2001-2010

|  | 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* |
| 2001 | 20,320 | 129,044,240 | 15.75 | 11,723 | 78,675,630 | 14.90 | 32,043 | 207,719,870 | 15.43 |
| 2002 | 20,569 | 130,349,393 | 15.78 | 12,274 | 81,643,269 | 15.03 | 32,843 | 211,992,662 | 15.49 |
| 2003 | 19,725 | 131,665,783 | 14.98 | 12,546 | 85,063,823 | 14.75 | 32,271 | 216,729,606 | 14.89 |
| 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 | 12,435 | 135,310,480 | 9.19 | 9,752 | 102,376,147 | 9.53 | 22,187 | 237,686,627 | 9.33 |

Source: Registered Vehicles-NCSA, R.L. Polk
*Fatality Rate Per 100,000 Registered Vehicles
**Includes other/unknown light truck vehicle types
Table 2
Light Truck Occupant Fatalities, Registered Vehicles, and Fatality Rates*, by Vehicle Type, 2001-2010

| Year | SUVs |  |  | Pickup Trucks |  |  | Vans |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Occupant Fatalities | Registered Vehicles | Fatality Rate* | Occupant Fatalities | Registered Vehicles | Fatality Rate* | Occupant Fatalities | Registered Vehicles | Fatality Rate* |
| 2001 | 3,530 | 23,007,060 | 15.34 | 6,139 | 36,170,162 | 16.97 | 2,019 | 18,272,860 | 11.05 |
| 2002 | 4,031 | 25,530,657 | 15.79 | 6,100 | 36,598,265 | 16.67 | 2,109 | 18,422,812 | 11.45 |
| 2003 | 4,483 | 28,357,698 | 15.81 | 5,957 | 37,116,234 | 16.05 | 2,080 | 18,615,310 | 11.17 |
| 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 | 3,930 | 42,378,757 | 9.27 | 4,473 | 41,596,353 | 10.75 | 1,342 | 17,732,967 | 7.57 |

Source: Registered Vehicles—NCSA, R.L. Polk
*Fatality Rate Per 100,000 Registered Vehicles
Table 3
Passenger Vehicle Occupants Injured, Registered Vehicles, and Injury Rates*, by Vehicle Type, 2001-2010

| Year | Passenger Cars |  |  | Light Trucks** |  |  | Total Passenger Vehicles |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Occupants Injured | Registered Vehicles | Injury Rate* | Occupants Injured | Registered Vehicles | Injury <br> Rate* | Occupants Injured | Registered Vehicles | Injury Rate* |
| 2001 | 1,927,000 | 129,044,240 | 1,493 | 861,000 | 78,675,630 | 1,094 | 2,787,000 | 207,719,870 | 1,342 |
| 2002 | 1,805,000 | 130,349,393 | 1,385 | 879,000 | 81,643,269 | 1,077 | 2,684,000 | 211,992,662 | 1,266 |
| 2003 | 1,756,000 | 131,665,783 | 1,334 | 889,000 | 85,063,823 | 1,045 | 2,646,000 | 216,729,606 | 1,221 |
| 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 |

[^0]Table 4
Light Truck Occupants Injured, Registered Vehicles, and Injury Rates*, by Vehicle Type, 2001-2010

| Year | SUVs |  |  | Pickup Trucks |  |  | Vans |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Occupants Injured | Registered Vehicles | $\begin{aligned} & \text { Injury } \\ & \text { Rate* } \end{aligned}$ | Occupants Injured | Registered Vehicles | $\begin{aligned} & \text { Injury } \\ & \text { Rate* } \end{aligned}$ | Occupants Injured | Registered Vehicles | $\begin{aligned} & \text { Injury } \\ & \text { Rate* } \end{aligned}$ |
| 2001 | 290,000 | 23,007,060 | 1,262 | 360,000 | 36,170,162 | 996 | 204,000 | 18,272,860 | 1,117 |
| 2002 | 315,000 | 25,530,657 | 1,234 | 344,000 | 36,598,265 | 941 | 208,000 | 18,422,812 | 1,128 |
| 2003 | 338,000 | 28,357,698 | 1,190 | 333,000 | 37,116,234 | 898 | 203,000 | 18,615,310 | 1,090 |
| 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 |

Source: Registered Vehicles—NCSA, R.L. Polk
*Injury Rate Per 100,000 Registered Vehicles

> Seat belt use for occupants of passenger vehicles was 84 percent in 2011, according to NOPUS.

## Restraint Use

According to the National Occupant Protection Use Survey (NOPUS), which provides the only probability-based observed data on seat belt use in the United States, seat belt use for passenger vehicles in 2011 was 84 percent; 85 percent for passenger cars, 87 percent for vans and SUVs, and 74 percent for pickup trucks.

In fatal crashes in 2010, 22,187 passenger vehicle occupants were killed. Rural areas accounted for 61 percent of these occupant fatalities. For these passenger vehicle occupant fatalities occurring in rural areas, 53 percent were unrestrained, compared to 48 percent in urban areas. Nearly two-thirds ( $65 \%$ ) of rural pickup truck occupants killed were unrestrained-the highest percentage of any passenger vehicle occupants killed among both rural and urban areas.

Figure 3 below shows the gradual decline of the proportion of passenger vehicle occupants killed who were unrestrained, from 2001 to 2010. Passenger car occupant fatalities had the lowest percentage ( $44 \%$ ) of unrestrained occupant fatalities in 2010, while pickup truck occupant fatalities, as in previous years, had the highest percent ( $65 \%$ ) of unrestrained occupant deaths-see Table 5.

Figure 3
Percent of Unrestrained Passenger Vehicle Occupant Fatalities, 2001-2010


In fatal crashes in 2010, 78 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. In passenger cars, 19 percent of fatally injured occupants were ejected (totally or partially) from the vehicle, while 37 percent of those killed in light trucks were ejected.

Seat belts are effective in preventing total ejections: in fatal crashes from 2003 through 2007, only 2 percent of the occupants reported to have been using restraints in fatal crashes were ejected, while over 35 percent of the unrestrained occupants were ejected (Factors Related to the Likelihood of a Passenger Vehicle Occupant Being Ejected in a Fatal Crash; DOT HS 811 209). 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. In 2010 alone, seat belts saved an estimated 12,546 lives.

Table 5
Percent of Passenger Vehicle Occupant Fatalities Who Were Unrestrained*, by Vehicle Type, 2001-2010

| Year | Passenger Vehicle Type |  |  |  |  | Total Passenger Vehicles** |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Light Trucks |  |  |  |  |
|  |  | SUVs | Pickups | Vans | Total** |  |
| 2001 | 53 | 67 | 75 | 61 | 70 | 59 |
| 2002 | 53 | 66 | 74 | 56 | 69 | 59 |
| 2003 | 50 | 65 | 71 | 57 | 67 | 56 |
| 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 | 60 | 51 |

*Based on known restraint use
**Includes other/unknown light truck vehicle types

## Rollover

The rollover crash is one of the most deadly forms of crashes among passenger vehicles, accounting for more than one-third ( $35 \%$ ) of all occupant fatalities in 2010. Among fatally injured passenger vehicle occupants in 2010, the proportion of fatalities in rollover crashes was highest for SUVs ( $57 \%$ ), followed by pickup trucks ( $47 \%$ ), vans ( $30 \%$ ), and passenger cars ( $23 \%$ ).

Figure 4
Passenger Vehicle Occupants Killed in Rollover Crashes, by Vehicle Type, 2001-2010


Rollover rates for passenger vehicles involved in fatal crashes were much lower in urban areas than in rural areas.

As seen in Figure 4, each passenger vehicle category showed a decrease in the number of occupant fatalities occurring in rollover crashes in 2010. The number of pickup truck occupant fatalities declined by 21 percent over the past decade, while those in SUVs have increased by 5 percent. Fatalities in vans, already the lowest number, declined by 48 percent, and in passenger cars, declined by 36 percent over these years. The data used in Figure 4 are shown in Table 6 below.

Table 6
Passenger Vehicle Occupant Fatalities in Rollovers, by Vehicle Type, 2001-2010

| Year | Passenger Vehicle Type |  |  |  |  | Total Passenger Vehicles* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Light Trucks |  |  |  |  |
|  |  | SUVs | Pickups | Vans | Total* |  |
| 2001 | 4,559 | 2,149 | 2,651 | 786 | 5,598 | 10,157 |
| 2002 | 4,794 | 2,471 | 2,755 | 699 | 5,935 | 10,729 |
| 2003 | 4,464 | 2,661 | 2,580 | 728 | 5,978 | 10,442 |
| 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 | 2,912 | 2,251 | 2,088 | 407 | 4,747 | 7,659 |

*Includes other/unknown light truck vehicle types
In 2010, among passenger vehicles involved in rural fatal crashes, SUVs experienced the highest rollover percentage ( $42 \%$ ) compared to 33 percent for pickup trucks, and 22 percent for both vans and passenger cars. The rollover rates for passenger vehicles in urban areas were much lower: 22 percent for SUVs, 17 percent for pickup trucks, 10 percent for vans, and 9 percent for passenger cars.

Figure 5 shows that in 2010, passenger vehicle occupant fatality rates per 100,000 registered vehicles in rollover crashes declined for all body types. The lowest occupant fatality rates in rollover crashes in 2010 were 2.15 for passenger cars, and 2.30 for vans, compared to the highest rates of 5.02 for pickups and 5.31 for SUVs.

Figure 5
Passenger Vehicle Occupant Fatality Rates in Rollover Crashes per 100,000 Registered Vehicles, by Vehicle Type, 2001-2010


Table 7 below presents the data displayed in Figure 5, showing the decline in occupant fatality rates in rollover crashes for all passenger vehicle categories from 2001 to 2010. From 2001 to 2010, the occupant fatality rate in rollover crashes for vans has decreased by 47 percent, followed by 43 percent for SUVs, 39 percent for passenger cars, and 32 percent for pickup trucks.

Table 7
Passenger Vehicle Occupant Fatality Rates* in Rollovers by Vehicle Type, 2001-2010

| Year | Passenger Vehicle Type |  |  |  |  | Total Passenger Vehicles** |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Light Trucks |  |  |  |  |
|  |  | SUVs | Pickups | Vans | Total** |  |
| 2001 | 3.53 | 9.34 | 7.33 | 4.30 | 7.12 | 4.89 |
| 2002 | 3.68 | 9.68 | 7.53 | 3.79 | 7.27 | 5.06 |
| 2003 | 3.39 | 9.38 | 6.95 | 3.91 | 7.03 | 4.82 |
| 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 | 2.15 | 5.31 | 5.02 | 2.30 | 4.64 | 3.22 |

*Per 100,000 registered vehicles
**Includes other/unknown light truck vehicle types

## Two-Vehicle Crashes Between Passenger Cars and LTVs

The number of occupants killed in two-vehicle crashes between a passenger car and an LTV (pickup truck, van, or SUV) declined from 2009 to 2010 (see Table 8). The number of fatally injured occupants in passenger cars declined by 7 percent, and those in light trucks decreased by 6 percent.

Table 8
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV, 2009 and 2010

|  | Year |  | \% Change |
| :--- | ---: | ---: | :---: |
|  | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ |  |
| Killed in Passenger Car | 2,940 | 2,740 | $-6.8 \%$ |
| Killed in LTV | 793 | 749 | $-5.6 \%$ |

LTV = Pickup Truck, Van, or SUV

Figure 6 graphically shows the number of occupant fatalities in each vehicle type in two-vehicle crashes involving a car and a light truck, for the years 2001 through 2010. In these crashes there were about four times as many passenger car occupant fatalities as light-truck occupant fatalities.

Figure 6
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV, 2001-2010


> In head-on collisions
> between a passenger car and a light truck, nearly four times as many passenger car occupants as light-truck occupants were killed.

In head-on collisions, nearly four times as many passenger car occupants as light-truck occupants were killed (see Table 9). The number of occupant fatalities decreased for passenger cars and light trucks from 2009 to 2010. In addition, when the front of the passenger car struck the side of the LTV, occupant fatalities declined for both passenger cars and LTVs in the crash. When the front of the LTV struck the side of the passenger car, occupant fatalities decreased for both passenger cars and light trucks in the crash. The largest number of occupant fatalities in these crashes was those in passenger cars struck in the side by the front of an LTV. When LTV s were struck in the side by a passenger car, 1.4 times as many LTV occupants were killed as passenger car occupants. When passenger cars were struck in the side by LTVs, 15 times as many passenger car occupants were killed as LTV occupants.

Table 9
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV, by Collision Type, 2009 and 2010

|  | Year |  | $*$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ |  |  |
| Head-On Collisions |  |  |  |  |
| Killed in Passenger Car | 1,178 | 1,092 | $-7.3 \%$ |  |
| Killed in LTV | 371 | 298 | $-19.7 \%$ |  |
| Passenger Car Front to LTV Side |  |  |  |  |
| Killed in Passenger Car | 135 | 127 | $-5.9 \%$ |  |
| Killed in LTV | 184 | 175 | $-4.9 \%$ |  |
| LTV Front to Passenger Car Side |  |  |  |  |
| Killed in Passenger Car | 1,317 | 1,233 | $-6.4 \%$ |  |
| Killed in LTV | 83 | 80 | $-3.6 \%$ |  |

LTV = Pickup Truck, Van, or SUV
Figures 7, 8, and 9 graphically show each of the above types of crashes from 2001 through 2010. When a passenger car and a light truck hit each other head-on, a fatality in the passenger car is 3.5 times more likely than one in the LTV. Note also that when one vehicle is struck in the side by the front of the other vehicle, the vehicle struck in the side is more likely to have an occupant fatality. This is far more likely when a light truck strikes the side of a passenger car, as shown in Figure 9.

Figure 7
Occupants Killed in Two-Vehicle Head-On Collisions Involving a Passenger Car and an LTV, 2001-2010


When a passenger car and a light truck are involved in a sideimpact crash, the vehicle struck in the side is more likely to have an occupant fatality.

Figure 8
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV, When Passenger Car Front Hit LTV in the Side, 2001-2010


Figure 9
Occupants Killed in Two-Vehicle Crashes Involving a Passenger Car and an LTV, When the LTV Front Hit the Passenger Car in the Side, 2001-2010


## Alcohol

A driver is considered to be alcohol-impaired when the driver's blood alcohol concentration (BAC) is .08 grams per deciliter ( $\mathrm{g} / \mathrm{dL}$ ) or higher. From 2001 to 2010, the percent of alcohol-impaired passenger vehicle drivers involved in fatal crashes remained virtually unchanged among each of the vehicle types. Pickup truck drivers continue to have the highest percentage of alcohol impairment compared to other passenger vehicle drivers (see Table 10). The percentage of alcohol-impaired van drivers involved in fatal crashes is substantially below that of other passenger vehicle drivers.

Table 10
Percent of Alcohol-Impaired (BAC $=.08+\mathrm{g} / \mathrm{dL}$ ) Passenger Vehicle Drivers in
Fatal Crashes by Vehicle Type, 2001-2010 Fatal Crashes by Vehicle Type, 2001-2010

| Year | Passenger Vehicle Type |  |  |  |  | Total Passenger Vehicles* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Light Trucks |  |  |  |  |
|  |  | SUVs | Pickups | Vans | Total* |  |
| 2001 | 23 | 22 | 26 | 13 | 23 | 23 |
| 2002 | 22 | 22 | 27 | 14 | 23 | 23 |
| 2003 | 22 | 21 | 25 | 13 | 22 | 22 |
| 2004 | 23 | 22 | 24 | 13 | 21 | 22 |
| 2005 | 24 | 21 | 25 | 14 | 22 | 23 |
| 2006 | 23 | 24 | 27 | 14 | 24 | 23 |
| 2007 | 23 | 23 | 27 | 14 | 23 | 23 |
| 2008 | 23 | 23 | 26 | 12 | 23 | 23 |
| 2009 | 23 | 23 | 27 | 12 | 23 | 23 |
| 2010 | 23 | 23 | 25 | 12 | 22 | 23 |

*Includes other/unknown light truck vehicle types

Table 11 presents the number of passenger vehicle occupant fatalities in 2010, by vehicle type, for each State and Puerto Rico.

## 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 via the following e-mail address: ncsaweb@dot.gov. General information on highway traffic safety can be accessed by Internet users 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, Race and Ethnicity, Rural/ Urban Comparisons, 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 accessed online at www-nrd.nhtsa.dot.gov/CATS/index.aspx.

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

Table 11
Passenger Vehicle Occupant Fatalities, by State and Vehicle Type, 2010

| State | Passenger Vehicle Type |  |  |  |  |  |  |  |  |  | Total Passenger Vehicles* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars |  | Light Trucks |  |  |  |  |  |  |  |  |
|  |  |  | Pickups |  | SUVs |  | Vans |  | Total* |  |  |
|  | \# | \% | \# | \% | \# | \% | \# | \% | \# | \% |  |
| Alabama | 376 | 55\% | 153 | 22\% | 125 | 18\% | 33 | 5\% | 313 | 45\% | 689 |
| Alaska | 19 | 50\% | 8 | 21\% | 9 | 24\% | 2 | 5\% | 19 | 50\% | 38 |
| Arizona | 184 | 44\% | 111 | 27\% | 100 | 24\% | 23 | 6\% | 234 | 56\% | 418 |
| Arkansas | 209 | 51\% | 108 | 27\% | 71 | 17\% | 19 | 5\% | 198 | 49\% | 407 |
| California | 930 | 59\% | 257 | 16\% | 301 | 19\% | 101 | 6\% | 659 | 41\% | 1,589 |
| Colorado | 154 | 50\% | 61 | 20\% | 79 | 26\% | 12 | 4\% | 152 | 50\% | 306 |
| Connecticut | 150 | 74\% | 13 | 6\% | 33 | 16\% | 6 | 3\% | 52 | 26\% | 202 |
| Delaware | 41 | 61\% | 12 | 18\% | 11 | 16\% | 3 | 4\% | 26 | 39\% | 67 |
| Dist of Columbia | 8 | 100\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Florida | 839 | 60\% | 222 | 16\% | 259 | 18\% | 83 | 6\% | 564 | 40\% | 1,403 |
| Georgia | 467 | 53\% | 204 | 23\% | 165 | 19\% | 49 | 6\% | 418 | 47\% | 885 |
| Hawaii | 32 | 58\% | 16 | 29\% | 6 | 11\% | 1 | 2\% | 23 | 42\% | 55 |
| Idaho | 81 | 52\% | 42 | 27\% | 27 | 17\% | 6 | 4\% | 75 | 48\% | 156 |
| Illinois | 397 | 64\% | 103 | 16\% | 91 | 15\% | 34 | 5\% | 228 | 36\% | 625 |
| Indiana | 327 | 60\% | 100 | 18\% | 67 | 12\% | 53 | 10\% | 220 | 40\% | 547 |
| Iowa | 160 | 57\% | 54 | 19\% | 34 | 12\% | 32 | 11\% | 120 | 43\% | 280 |
| Kansas | 171 | 49\% | 101 | 29\% | 55 | 16\% | 24 | 7\% | 180 | 51\% | 351 |
| Kentucky | 297 | 53\% | 132 | 24\% | 83 | 15\% | 45 | 8\% | 260 | 47\% | 557 |
| Louisiana | 230 | 44\% | 159 | 31\% | 109 | 21\% | 20 | 4\% | 288 | 56\% | 518 |
| Maine | 76 | 62\% | 23 | 19\% | 16 | 13\% | 7 | 6\% | 46 | 38\% | 122 |
| Maryland | 206 | 70\% | 36 | 12\% | 37 | 13\% | 17 | 6\% | 90 | 30\% | 296 |
| Massachusetts | 119 | 64\% | 22 | 12\% | 35 | 19\% | 9 | 5\% | 67 | 36\% | 186 |
| Michigan | 373 | 62\% | 76 | 13\% | 106 | 18\% | 44 | 7\% | 226 | 38\% | 599 |
| Minnesota | 187 | 63\% | 25 | 8\% | 49 | 16\% | 37 | 12\% | 111 | 37\% | 298 |
| Mississippi | 266 | 50\% | 144 | 27\% | 107 | 20\% | 12 | 2\% | 263 | 50\% | 529 |
| Missouri | 319 | 52\% | 155 | 25\% | 95 | 15\% | 49 | 8\% | 299 | 48\% | 618 |
| Montana | 57 | 39\% | 45 | 31\% | 33 | 22\% | 12 | 8\% | 90 | 61\% | 147 |
| Nebraska | 68 | 46\% | 33 | 22\% | 29 | 20\% | 18 | 12\% | 80 | 54\% | 148 |
| Nevada | 91 | 57\% | 35 | 22\% | 26 | 16\% | 6 | 4\% | 69 | 43\% | 160 |
| New Hampshire | 54 | 59\% | 15 | 16\% | 21 | 23\% | 1 | 1\% | 37 | 41\% | 91 |
| New Jersey | 221 | 68\% | 23 | 7\% | 56 | 17\% | 23 | 7\% | 102 | 32\% | 323 |
| New Mexico | 108 | 43\% | 83 | 33\% | 56 | 22\% | 6 | 2\% | 145 | 57\% | 253 |
| New York | 440 | 70\% | 55 | 9\% | 97 | 15\% | 40 | 6\% | 192 | 30\% | 632 |
| North Carolina | 534 | 59\% | 168 | 18\% | 159 | 17\% | 48 | 5\% | 375 | 41\% | 909 |
| North Dakota | 28 | 38\% | 26 | 36\% | 13 | 18\% | 6 | 8\% | 45 | 62\% | 73 |
| Ohio | 490 | 64\% | 97 | 13\% | 121 | 16\% | 61 | 8\% | 279 | 36\% | 769 |
| Oklahoma | 213 | 44\% | 167 | 34\% | 85 | 17\% | 21 | 4\% | 273 | 56\% | 486 |
| Oregon | 109 | 56\% | 50 | 26\% | 26 | 13\% | 9 | 5\% | 85 | 44\% | 194 |
| Pennsylvania | 547 | 63\% | 108 | 12\% | 158 | 18\% | 61 | 7\% | 327 | 37\% | 874 |
| Rhode Island | 27 | 71\% | 3 | 8\% | 7 | 18\% | 1 | 3\% | 11 | 29\% | 38 |
| South Carolina | 315 | 53\% | 117 | 20\% | 122 | 21\% | 37 | 6\% | 276 | 47\% | 591 |
| South Dakota | 46 | 49\% | 32 | 34\% | 12 | 13\% | 4 | 4\% | 48 | 51\% | 94 |
| Tennessee | 401 | 52\% | 175 | 23\% | 144 | 19\% | 46 | 6\% | 366 | 48\% | 767 |
| Texas | 1,021 | 49\% | 571 | 27\% | 400 | 19\% | 97 | 5\% | 1,069 | 51\% | 2,090 |
| Utah | 99 | 58\% | 31 | 18\% | 28 | 16\% | 13 | 8\% | 72 | 42\% | 171 |
| Vermont | 35 | 64\% | 5 | 9\% | 11 | 20\% | 4 | 7\% | 20 | 36\% | 55 |
| Virginia | 307 | 57\% | 99 | 19\% | 84 | 16\% | 45 | 8\% | 228 | 43\% | 535 |
| Washington | 199 | 64\% | 48 | 15\% | 49 | 16\% | 16 | 5\% | 113 | 36\% | 312 |
| West Virginia | 128 | 54\% | 56 | 24\% | 42 | 18\% | 10 | 4\% | 108 | 46\% | 236 |
| Wisconsin | 241 | 63\% | 56 | 15\% | 52 | 14\% | 35 | 9\% | 143 | 37\% | 384 |
| Wyoming | 38 | 36\% | 38 | 36\% | 29 | 27\% | 1 | 1\% | 68 | 64\% | 106 |
| National | 12,435 | 56\% | 4,473 | 20\% | 3,930 | 18\% | 1,342 | 6\% | 9,752 | 44\% | 22,187 |
| Puerto Rico | 128 | 76\% | 13 | 8\% | 24 | 14\% | 3 | 2\% | 40 | 24\% | 168 |

*Includes other/unknown light truck vehicle types


[^0]:    Source: Registered Vehicles-NCSA, R.L. Polk
    *Injury Rate Per 100,000 Registered Vehicles
    **Includes other/unknown light truck vehicle types

