# Traffic Safety Facts

### 2013 Data

July 2015

DOT HS 812 169



#### **Key Findings**

- In 2013, there were an estimated 5,687,000 police-reported traffic crashes, in which 32,719 people were killed and an estimated 2,313,000 people were injured.
- An average of 90 people died each day in motor vehicle crashes in 2013, one fatality every 16 minutes.
- There were 10,076 alcohol-impaireddriving fatalities representing an average of one alcohol-impaired-driving fatality every 52 minutes.
- Thirty-four percent of all motorcycle riders involved in fatal crashes were speeding, the highest of any vehicle type.
- NHTSA estimates that 12,584 lives were saved in 2013 by the use of seat belts.
- On average, a pedestrian is killed in a motor vehicle crash every 111 minutes, and one is injured about every 8 minutes.
- Drivers 15 to 20 years old made up 9 percent of drivers in fatal crashes, and 13 percent of those in all policereported crashes. Eight percent of the U.S. population is in this age group.
- Of the 200 children 14 and younger who died in alcohol-impaired-driving crashes, 61 percent were occupants of vehicles where the drivers had a blood alcohol concentrations (BACs) of .08 g/dL or higher.
- In 2013, 14 percent of the U.S. population was 65 or older. They accounted for 17 percent of all those killed and 10 percent of all those injured in traffic crashes.



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## **Overview**

In this fact sheet, the overview of 2013 is presented in the following order.

- Overview
- Economic Cost
- Driver Behaviors
  - Alcohol
  - Speeding
- Vehicles
  - Passenger Vehicles
  - Motorcycles
  - Large Trucks

#### Overview

- People
  - Occupant Protection
  - Pedestrians
  - Pedalcyclists
  - Young Drivers
  - Children
  - Older Population

Motor vehicle travel is the primary means of transportation in the United States, providing an unparalleled degree of mobility. Yet for all its advantages, motor vehicle crashes in 2013 were the leading cause of death for children age 4 and every age from 16 to 24.<sup>1</sup> The mission of the National Highway Traffic Safety Administration is to reduce deaths, injuries, and economic losses from motor vehicle crashes.

In 2013, there were 32,719 people killed in the estimated 5,687,000 police-reported motor vehicle traffic crashes; an estimated 2,313,000 people were injured; and an estimated 4,066,000 crashes resulted in property damage only. An average of 90 people died each day in motor vehicle crashes in 2013, one fatality every 16 minutes. Compared to 2012, this is a 3.1-percent decrease in the number of fatalities and a 2.1-percent decrease in the number of people injured. The number of police-reported motor vehicle traffic crashes increased 1.3 percent from 2012; non-fatal injury crashes decreased 2.6 percent while crashes resulting in property damage increased 2.9 percent.

Table 1 presents data on those killed and injured in motor vehicle crashes for the years 2004 through 2013. Also presented are the fatality and injury rates based on population, licensed drivers, registered vehicles, and vehicle miles traveled (VMT).

#### Table 1

#### People Killed and Injured, and Fatality and Injury Rates, 2004–2013

| Year | Killed | Resident<br>Population<br>(Thousands) | Fatality Rate<br>per 100,000<br>Population | Licensed<br>Drivers<br>(Thousands) | Fatality Rate<br>per 100,000<br>Licensed<br>Drivers | Registered<br>Motor Vehicles<br>(Thousands) | Fatality Rate<br>per 100,000<br>Registered<br>Vehicles | Vehicle Miles<br>Traveled<br>(Billions) | Fatality Rate<br>per 100<br>Million VMT |
|------|--------|---------------------------------------|--|------------------------------------|---|---|--|---|---|
|      |        |                                       |  |                                    | Killed  |   |  |   |   |
| 2004 | 42,836 | 292,805                               | 14.63                                      | 198,889                            | 21.54   | 237,949                                     | 18.00  | 2,965                                   | 1.44                                    |
| 2005 | 43,510 | 295,517                               | 14.72                                      | 200,549                            | 21.70   | 245,628                                     | 17.71  | 2,989                                   | 1.46                                    |
| 2006 | 42,708 | 298,380                               | 14.31                                      | 202,810                            | 21.06   | 251,415                                     | 16.99  | 3,014                                   | 1.42                                    |
| 2007 | 41,259 | 301,231                               | 13.70                                      | 205,742                            | 20.05   | 257,472                                     | 16.02  | 3,031                                   | 1.36                                    |
| 2008 | 37,423 | 304,094                               | 12.31                                      | 208,321                            | 17.96   | 259,360                                     | 14.43  | 2,977                                   | 1.26                                    |
| 2009 | 33,883 | 306,772                               | 11.05                                      | 209,618                            | 16.16   | 258,958                                     | 13.08  | 2,957                                   | 1.15                                    |
| 2010 | 32,999 | 309,326                               | 10.67                                      | 210,115                            | 15.71   | 257,312                                     | 12.82  | 2,967                                   | 1.11                                    |
| 2011 | 32,479 | 311,583                               | 10.42                                      | 211,875                            | 15.33   | 265,043                                     | 12.25  | 2,950                                   | 1.10                                    |
| 2012 | 33,782 | 313,874                               | 10.76                                      | 211,815                            | 15.95   | 265,647                                     | 12.72  | 2,969                                   | 1.14                                    |
| 2013 | 32,719 | 316,129                               | 10.35                                      | 212,160                            | 15.42   | 266,975                                     | 12.26  | 2,988                                   | 1.09                                    |

| Year | Injured   | Resident<br>Population<br>(Thousands) | Injury Rate<br>per 100,000<br>population | Licensed<br>Drivers<br>(Thousands) | Injury Rate<br>per 100,000<br>Licensed<br>Drivers | Registered<br>Motor<br>Vehicles<br>(Thousands) | Injury Rate<br>per 100,000<br>Registered<br>Vehicles | Vehicle Miles<br>Traveled<br>(Billions) | Injury Rate<br>per 100<br>Million VMT |
|------|-----------|---------------------------------------|--|------------------------------------|---|--|--|---|---------------------------------------|
|      |           |                                       |  |                                    | Injured   |  |  |   |                                       |
| 2004 | 2,788,000 | 292,805                               | 952                                      | 198,889                            | 1,402   | 237,949  | 1,172  | 2,965                                   | 94                                    |
| 2005 | 2,699,000 | 295,517                               | 913                                      | 200,549                            | 1,346   | 245,628  | 1,099  | 2,989                                   | 90                                    |
| 2006 | 2,575,000 | 298,380                               | 863                                      | 202,810                            | 1,269   | 251,415  | 1,024  | 3,014                                   | 85                                    |
| 2007 | 2,491,000 | 301,231                               | 827                                      | 205,742                            | 1,211   | 257,472  | 967  | 3,031                                   | 82                                    |
| 2008 | 2,346,000 | 304,094                               | 771                                      | 208,321                            | 1,126   | 259,360  | 904  | 2,977                                   | 79                                    |
| 2009 | 2,217,000 | 306,772                               | 723                                      | 209,618                            | 1,058   | 258,958  | 856  | 2,957                                   | 75                                    |
| 2010 | 2,239,000 | 309,326                               | 724                                      | 210,115                            | 1,066   | 257,312  | 870  | 2,967                                   | 75                                    |
| 2011 | 2,217,000 | 311,583                               | 712                                      | 211,875                            | 1,046   | 265,043  | 836  | 2,950                                   | 75                                    |
| 2012 | 2,362,000 | 313,874                               | 753                                      | 211,815                            | 1,115   | 265,647  | 889  | 2,969                                   | 80                                    |
| 2013 | 2,313,000 | 316,129                               | 732                                      | 212,160                            | 1,090   | 266,975  | 866  | 2,988                                   | 77                                    |

Sources: Fatality Analysis Reporting System (FARS) 2004–2012 (Final File) and 2013 Annual Report File (ARF); National Automotive Sampling System (NASS) General Estimates System (GES); Vehicle Miles of Travel and Licensed Drivers—Federal Highway Administration; Registered Vehicles—R. L. Polk & Co. (2004–2010 Old NVPP and 2011-2013 New NVPP) and Federal Highway Administration; Population—U.S. Bureau of the Census.

Fortunately, much progress has been made in reducing the number of deaths and injuries on our Nation's highways. In 2013, the fatality rate per 100 million VMT decreased to 1.09, the historic low. A decade ago, the 2004 rate was 1.44 per 100 million VMT.

The fatality rates per miles traveled, population, licensed drivers, and registered vehicles all decreased from 2012 to 2013. The injury rate per 100 million VMT decreased to 77 in 2013 from 80 in 2012. The injury rates based on population, licensed drivers, and registered vehicles also decreased from 2012.

The number of motor vehicle crashes, by crash type and severity, is presented in Table 2. The total number of police-reported traffic crashes increased by 1.3 percent from 2012 to 2013. This increase is driven by the 2.9-percent increase in property-damage-only crashes – crashes in which there were no injuries to occupants or nonoccupants during the crash. The number of fatal crashes and injury crashes both fell from 2012 to 2013.

#### Table 2 Number of Crashes, by Crash Type

| Crash Type               | 2012      | 2013      | Change   | % Change |
|--------------------------|-----------|-----------|----------|----------|
| Fatal Crashes            | 31,006    | 30,057    | -949     | -3.1%    |
| Non-Fatal Crashes        | 5,584,000 | 5,657,000 | +73,000  | +1.3%    |
| Injury Crashes           | 1,634,000 | 1,591,000 | -43,000  | -2.6%    |
| Property-<br>Damage Only | 3,950,000 | 4,066,000 | +116,000 | +2.9%    |
| Total Crashes            | 5,615,000 | 5,687,000 | +72,000  | +1.3%    |

Sources: FARS 2012 [Final], 2013 [ARF); NASS GES

The National Occupant Protection Use Survey (NOPUS) reported an 87-percent seat belt use rate nationwide for 2013, a nonsignificant increase of one percent over the 2012 use rate.<sup>2</sup>

The data shows a 2.5 percent decrease in alcohol-impaired-driving crashes from 2012 (10,336) to 2013 (10,076), and a 23 percent decrease over the past decade, from 13,099 in 2004.

Presented in Table 3 are the numbers of occupants by vehicle type, and nonoccupants, who were killed or injured in motor vehicle crashes in the years 2004 through 2013. Vehicle occupants accounted for 68 percent of traffic fatalities in 2013, and motorcyclists accounted for 14 percent. The remaining 17 percent were pedestrians, pedalcyclists, and other nonoccupants. Males accounted for 71 percent of all traffic fatalities, 69 percent of all pedestrian fatalities, and 87 percent of all pedalcyclist fatalities in 2013.

#### Table 3

#### Motor Vehicle Occupants and Nonoccupants Killed and Injured, 2004–2013

|          | accondar |  | Ocoupa         |                 |        | Person Type       |         |            |                   |                   |         |           |  |  |  |
|----------|----------|--|----------------|-----------------|--------|-------------------|---------|------------|-------------------|-------------------|---------|-----------|--|--|--|
|          | accondor | Occupants by Vehicle Type Nonoccupants |                |                 |        |                   |         |            |                   |                   |         |           |  |  |  |
| Year Pas | Car      | Light<br>Truck                         | Large<br>Truck | Motor-<br>cycle | Buses  | Other/<br>Unknown | Total   | Pedestrian | Pedal-<br>cyclist | Other/<br>Unknown | Total   | Total     |  |  |  |
|          |          |  |                |                 |        | Killed            |         |            |                   |                   |         |           |  |  |  |
| 2004     | 19,192   | 12,674                                 | 766            | 4,028           | 42     | 602               | 37,304  | 4,675      | 727               | 130               | 5,532   | 42,836    |  |  |  |
| 2005     | 18,512   | 13,037                                 | 804            | 4,576           | 58     | 659               | 37,646  | 4,892      | 786               | 186               | 5,864   | 43,510    |  |  |  |
| 2006     | 17,925   | 12,761                                 | 805            | 4,837           | 27     | 601               | 36,956  | 4,795      | 772               | 185               | 5,752   | 42,708    |  |  |  |
| 2007     | 16,614   | 12,458                                 | 805            | 5,174           | 36     | 614               | 35,701  | 4,699      | 701               | 158               | 5,558   | 41,259    |  |  |  |
| 2008 1   | 14,646   | 10,816                                 | 682            | 5,312           | 67     | 580               | 32,103  | 4,414      | 718               | 188               | 5,320   | 37,423    |  |  |  |
| 2009 1   | 13,135   | 10,312                                 | 499            | 4,469           | 26     | 554               | 28,995  | 4,109      | 628               | 151               | 4,888   | 33,883    |  |  |  |
| 2010 1   | 12,491   | 9,782                                  | 530            | 4,518           | 44     | 524               | 27,889  | 4,302      | 623               | 185               | 5,110   | 32,999    |  |  |  |
| 2011 1   | 12,014   | 9,302                                  | 640            | 4,630           | 55     | 499               | 27,140  | 4,457      | 682               | 200               | 5,339   | 32,479    |  |  |  |
| 2012 1   | 12,361   | 9,418                                  | 697            | 4,986           | 39     | 502               | 28,003  | 4,818      | 734               | 227               | 5,779   | 33,782    |  |  |  |
| 2013 1   | 11,977   | 9,155                                  | 691            | 4,668           | 48     | 512               | 27,051  | 4,735      | 743               | 190               | 5,668   | 32,719    |  |  |  |
|          |          |  |                |                 |        | Injured           | I       |            |                   |                   |         |           |  |  |  |
| 2004 1,6 | ,643,000 | 900,000                                | 27,000         | 16,000          | 7,000  | 2,594,000         | 76,000  | 68,000     | 41,000            | 9,000             | 118,000 | 2,788,000 |  |  |  |
| 2005 1,5 | ,573,000 | 872,000                                | 27,000         | 11,000          | 10,000 | 2,494,000         | 87,000  | 64,000     | 45,000            | 8,000             | 118,000 | 2,699,000 |  |  |  |
| 2006 1,4 | ,475,000 | 857,000                                | 23,000         | 10,000          | 11,000 | 2,375,000         | 88,000  | 61,000     | 44,000            | 7,000             | 112,000 | 2,575,000 |  |  |  |
| 2007 1,3 | ,379,000 | 841,000                                | 23,000         | 12,000          | 8,000  | 2,264,000         | 103,000 | 70,000     | 43,000            | 10,000            | 124,000 | 2,491,000 |  |  |  |
| 2008 1,3 | ,304,000 | 768,000                                | 23,000         | 15,000          | 9,000  | 2,120,000         | 96,000  | 69,000     | 52,000            | 9,000             | 130,000 | 2,346,000 |  |  |  |
| 2009 1,2 | ,216,000 | 759,000                                | 17,000         | 12,000          | 7,000  | 2,011,000         | 90,000  | 59,000     | 51,000            | 7,000             | 116,000 | 2,217,000 |  |  |  |
| 2010 1,2 | ,253,000 | 733,000                                | 20,000         | 17,000          | 5,000  | 2,027,000         | 82,000  | 70,000     | 52,000            | 8,000             | 130,000 | 2,239,000 |  |  |  |
| 2011 1,2 | ,240,000 | 728,000                                | 23,000         | 13,000          | 6,000  | 2,010,000         | 81,000  | 69,000     | 48,000            | 9,000             | 126,000 | 2,217,000 |  |  |  |
| 2012 1,3 | ,328,000 | 762,000                                | 25,000         | 12,000          | 6,000  | 2,134,000         | 93,000  | 76,000     | 49,000            | 10,000            | 136,000 | 2,362,000 |  |  |  |
| 2013 1,2 | ,296,000 | 750,000                                | 24,000         | 23,000          | 5,000  | 2,099,000         | 88,000  | 66,000     | 48,000            | 11,000            | 125,000 | 2,313,000 |  |  |  |

#### **Economic Cost**

The estimated economic cost of all motor vehicle traffic crashes in the United States in 2010 (the most recent year for which cost data is available) was \$242 billion. Included in the economic costs are:

- lost productivity,
- workplace losses,
- legal and court expenses,
- medical costs,
- emergency medical services,
- insurance administration costs,
- congestion costs, and
- property damage costs.

These costs represent the tangible losses that result from motor vehicle crashes. However, in cases of serious injury or death, such costs fail to capture the rather intangible value of lost quality-oflife that results from these injuries. When quality of life valuations are considered, the total value of societal harm from motor vehicle crashes in the United States in 2010 was an estimated \$836 billion.

The costs related to specific types of crashes have also been estimated. Table 4 presents the economic and comprehensive costs of crash topics discussed in this fact sheet.

#### Table 4

### Economic and Comprehensive Cost Estimates in Billions, 2010

| Type of Crashes      | Economic Cost | Comprehensive Cost |
|----------------------|---------------|--------------------|
| Total                | \$242.0       | \$835.8            |
| Alcohol Impaired     | \$44.0        | \$201.1            |
| Speeding             | \$52.0        | \$203.2            |
| Motorcycle Crashes   | \$12.9        | \$65.7             |
| Helmet nonuse        | \$1.2         | \$7.6              |
| Seat Belt nonuse     | \$10.4        | \$68.6             |
| Pedestrian Crashes   | \$11.5        | \$65.0             |
| Pedalcyclist Crashes | \$4.4         | \$21.7             |
|                      |               |                    |

Source: Blincoe, et al., 2015.

Each fatality resulted in an average discounted lifetime economic cost of \$1.4 million, and an average comprehensive cost of \$9.1million. For further information on cost estimates, see *The Economic and Societal Impact of Motor Vehicle Crashes, 2010.*<sup>3</sup>

#### **Driver Behaviors**—Alcohol

In all States and the District of Columbia, drivers are considered by law to be alcohol-impaired when their blood alcohol concentrations (BAC) are .08 grams per deciliter (g/dL) or higher. Thus, any fatality occurring in a crash involving a driver with a BAC of .08 or higher is considered to be an alcohol-impaired-driving fatality. The term "driver" refers to the operator of any motor vehicle, including a motorcycle.

In 2013, there were 10,076 alcohol-impaired-driving fatalities, This is a decrease of 2.5 percent from 2012 (10,336), and it represents an average of one alcohol-impaired-driving fatality every 52 minutes.

The 10,076 alcohol-impaired-driving fatalities in 2013 represent a 23-percent decrease from the 13,099 alcohol-impaired-driving fatalities reported in 2004. In both 2004 and 2013, alcohol-impaireddriving fatalities were 31 percent of all traffic fatalities.

Nearly 1.17 million drivers were arrested in 2013 for driving under the influence of alcohol or narcotics (FBI Uniform Crime Reports, Crime in the United States 2013).<sup>4</sup> This is an arrest rate of 1 for every 181 licensed drivers in the United States. In fatal crashes in 2013, 27 percent of motorcycle riders had BACs of .08 g/dL or higher, as compared with 23 percent for drivers of passenger cars, 21 percent for light-truck drivers, and 2 percent for drivers of large trucks. Table 5 shows the number and percentage of drivers involved in fatal crashes with BACs of .08 or higher, by vehicle type, for the years 2004 and 2013.

In fatal crashes in 2013, the highest percentages of drivers with BACs of .08 g/dL or higher were recorded for drivers 21 to 24 years old (33%), followed by 25 to 34 (29%) and 35 to 44 (24%) age groups. Figure 1 shows the percentage of drivers in fatal crashes with BACs of .08 or higher, by age group, for 2013.

### Table 5 Drivers With BACs of .08 or Higher Involved in Fatal Crashes, by Vehicle Type, 2004 and 2013

| Total Drivers    |                 |        |                  |                 |          |                  |                         |  |  |  |  |
|------------------|-----------------|--------|------------------|-----------------|----------|------------------|-------------------------|--|--|--|--|
|                  |                 | 2004   |                  |                 | 2013     |                  |                         |  |  |  |  |
| Drivers Involved | Total Number of | BA     | \C=.08+          | Total Number of | BAC=.08+ |                  | Change in Percentage    |  |  |  |  |
| in Fatal Crashes | Drivers         | Number | Percent of Total | Drivers         | Number   | Percent of Total | With BAC=.08+ 2004–2013 |  |  |  |  |
| Total            | 58,395          | 12,057 | 21%              | 44,574          | 9,461    | 21%              | 0                       |  |  |  |  |
|                  |                 |        | Drivers          | by Vehicle Type |          |                  |                         |  |  |  |  |
| Passenger Cars   | 25,568          | 5,852  | 23%              | 17,731          | 4,062    | 23%              | 0                       |  |  |  |  |
| Light Trucks     | 22,367          | 4,808  | 21%              | 16,738          | 3,584    | 21%              | 0                       |  |  |  |  |
| Large Trucks     | 4,837           | 53     | 1%               | 3,858           | 92       | 2%               | 1                       |  |  |  |  |
| Motorcycles      | 4,116           | 1,116  | 27%              | 4,769           | 1,295    | 27%              | 0                       |  |  |  |  |

Note: Numbers shown for groups of drivers do not add to the total number of drivers due to unknown/not reported or other data not included. Source: FARS 2004 Final File and 2013 ARF.





Source: FARS 2013 ARF.

A driver with a BAC of .08 g/dL or higher involved in a fatal crash in 2013 was six times more likely to have a prior conviction for driving while impaired (DWI) than was a driver with no alcohol (6% and 1%, respectively). Note: FARS records previous DWI convictions of

drivers that occurred up to three years prior to the date of the crash. Figure 2 presents previous driving record data for drivers involved in fatal crashes, by BAC grouping.







Source: FARS 2013 ARF.

#### **Driver Behaviors—Speeding**

NHTSA considers a crash to be speeding-related if the driver was charged with a speeding-related offense or if an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash.

Speeding is one of the most prevalent factors contributing to traffic crashes. In 2013, speeding was a contributing factor in 29 percent of all fatal crashes, and 9,613 lives (29%) were lost in speeding-related crashes. The number of fatalities in fatal crashes for both crashes involving speeding and those that did not, is shown in Table 6 for 2004 to 2013.

#### Table 6

| Year | Fatalities in<br>Speeding<br>Crashes | Fatalities in<br>Non-Speeding<br>Crashes | Total<br>Fatalities | Percent in<br>Speeding<br>Crashes |
|------|--------------------------------------|--|---------------------|-----------------------------------|
| 2004 | 13,291                               | 29,545                                   | 42,836              | 31%                               |
| 2005 | 13,583                               | 29,927                                   | 43,510              | 31%                               |
| 2006 | 13,609                               | 29,099                                   | 42,708              | 32%                               |
| 2007 | 13,140                               | 28,119                                   | 41,259              | 32%                               |
| 2008 | 11,767                               | 25,656                                   | 37,423              | 31%                               |
| 2009 | 10,664                               | 23,219                                   | 33,883              | 31%                               |
| 2010 | 10,508                               | 22,491                                   | 32,999              | 32%                               |
| 2011 | 10,001                               | 22,478                                   | 32,479              | 31%                               |
| 2012 | 10,329                               | 23,453                                   | 33,782              | 31%                               |
| 2013 | 9,613                                | 23,106                                   | 32,719              | 29%                               |

Fatalities in Motor Vehicle Traffic Crashes by Speeding Involvement, 2004–2013

Source: FARS 2004–2012 Final File and 2013 ARF.

For drivers involved in fatal crashes, young males are the most likely to be speeding. In 2013, 35 percent of both 15- to 20-year-old and 21- to 24-year-old male drivers who were involved in fatal crashes were speeding at the time of the crash. The percentage of speeding drivers in fatal crashes, by age group and gender, is shown in Figure 3, for 2013.





Source: FARS 2013 ARF.

In 2013, 88 percent of speeding-related fatalities occurred on roads that were not interstate highways. Alcohol involvement was prevalent for drivers who were speeding in fatal crashes in 2013. Forty-two percent of the drivers who were speeding in fatal crashes in 2013 had BACs of .08 g/dL or higher, compared with only 16 percent for drivers who were not speeding. Figure 4 shows the percentage of speeding and non-speeding drivers in fatal crashes by BAC group for 2013.



Percentage of Drivers Involved in Fatal Crashes by Speeding Involvement and BAC, 2013



Source: FARS 2013 ARF.

In 2013, 34 percent of all motorcycle riders involved in fatal crashes were speeding, as compared to 21 percent for passenger car drivers, 18 percent for light-truck drivers, and 8 percent for large-truck drivers. Thirteen percent of all motorcycle riders involved in fatal crashes were speeding and had BACs of .08 g/dL or higher, compared to 10 percent for passenger car drivers, 8 percent for light-truck drivers, and less than 0.3 percent for large-truck drivers. Fourteen percent of motorcycle riders involved in fatal crashes in 2013 were both speeding and not wearing a helmet. Ten percent of passenger car drivers, 9 percent of light truck drivers, and 2 percent of large truck drivers were both speeding and unrestrained (Figure 5). The percentage of passenger vehicle drivers involved in fatal crashes in 2013 that were speeding, speeding while alcohol-impaired, and speeding while unrestrained, is shown in Figure 5 by vehicle type.

#### Figure 5

Speeding, Alcohol-Impaired, and Failure to Use Restraints Among Drivers Involved in Fatal Crashes, by Vehicle Type, 2013



Note: Among large-truck drivers, speeding and alcohol impairment was less than 0.3 percent. Source: FARS 2013 ARF.

#### Vehicles—Passenger Vehicles

The term "passenger vehicles" refers to passenger cars and light trucks. Likewise, the term "light trucks" consists of sport utility vehicles (SUVs), pickup trucks, and vans. In 2013 there were an estimated 9,892,000 vehicles involved in police-reported traffic crashes, 96 percent (an estimated 9,538,000) of which were passenger vehicles. There were 44,811 vehicles involved in fatal crashes, of which 77 percent (34,691) were passenger vehicles. In

2013, there were 21,132 passenger vehicle occupants who lost their lives in traffic crashes, and an estimated 2.05 million were injured.

Passenger vehicles make up over 90 percent of registered vehicles, and account for nearly 90 percent of total VMT. The makeup of this group has changed somewhat over time, as shown in Figure 6. In 2004, about 60 percent of registered passenger vehicles were passenger cars. By 2013, just slightly over half (52%) of registered passenger vehicles were passenger cars.

### Figure 6 Passenger Vehicle Registrations, 2004—2013



Source: R. L. Polk & Co. (2004-2010 Old NVPP and 2011-2013 New NVPP).

In 2013, there were 21,132 passenger vehicle occupants fatally injured, accounting for 78 percent of all occupant fatalities (passenger car occupants made up 44%, and light truck occupants, 34%). Additionally, an estimated 2,046,000 passenger vehicle occupants were injured, representing 94 percent of all occupants injured (passenger cars 60%, light trucks 34%). The average age of passenger vehicle occupants killed in crashes in 2013 was 43, which has gradually increased since it was age 40 in 2004. According to the U.S. Census bureau,<sup>5</sup> the median age in the United States has increased from 30.0 in 1980, to 32.8 in 1990, to 35.3 in 2000, to 37.2 in 2010.

Nearly half (49%) of the passenger vehicle occupants killed in traffic crashes in 2013 were unrestrained. Looking separately at each passenger vehicle type, in 2013, 43 percent of fatalities in passenger car, 63 percent of fatalities in pickup trucks, 56 percent of fatalities in sport utility vehicles, and 46 percent of fatalities in vans unrestrained.

In 2013:

- 53 percent of passenger vehicle occupant fatalities occurred in vehicles that sustained frontal damage.
- Ejection from the vehicle accounted for 25 percent of all passenger vehicle occupant fatalities.
- The ejection rate for occupants of passenger cars in fatal crashes was 18 percent, and for light trucks was 33 percent.
- SUVs had the highest rollover involvement rate of any vehicle type in fatal crashes - 28 percent, compared to 25 percent for pickup trucks, and 15 percent for both passenger cars and vans.

#### Vehicles—Motorcycles

The following terms are used when discussing those on motorcycles: A motorcycle rider is the operator only; a passenger is any person seated on the motorcycle but not in control of the motorcycle; and any combined reference to the "motorcycle rider" (operator) as well as the "passenger" is referred to as motorcyclists. NHTSA publications prior to 2007 may not reflect this terminology.

The 4,668 motorcyclist fatalities in 2013 accounted for 14 percent of all traffic fatalities for the year. Additionally an estimated 88,000 motorcyclists were injured. One-fourth of motorcycle riders (25%) involved in fatal crashes in 2013 did not have valid licenses at the time of the crashes.

Per vehicle mile traveled in 2013, motorcyclists were more than 26 times more likely than passenger car occupants to die in motor vehicle traffic crashes and more than 4 times more likely to be injured. In 2013, 40 percent of fatally injured motorcycle riders and 51 percent of fatally injured motorcycle passengers were not wearing helmets at the time of the crashes.

The percentage of motorcycle riders involved in fatal crashes in 2013 who had BACs of .08 g/dL or higher - 27 percent - was higher than for any other type of motor vehicle driver (previously shown in Table 5). NHTSA estimates that helmets saved the lives of 1,630 motorcyclists in 2013. If all motorcyclists had worn helmets, an additional 715 lives could have been saved.

#### Vehicles—Large Trucks

A large truck is defined as a vehicle with a gross vehicle weight rating greater than 10,000 pounds. Of the 269,294,302 total registered vehicles in the United States in 2013, 4 percent (10,597,356) were large trucks. However, large trucks are driven more frequently than other types of vehicles. In 2013, all vehicles in the United States drove 269,294,302 million miles, of which 275,018 million miles (9%) were driven by large trucks.

Large trucks accounted for 9 percent of all vehicles involved in fatal crashes and 3 percent of all vehicles involved in injury and propertydamage-only crashes in 2013. Nearly three-fourths (73%) of the large trucks involved in fatal crashes in 2013 collided with other motor vehicles in transport.

In 2013, 12 percent (3,964) of all the motor vehicle traffic fatalities involved large trucks. Of these fatalities, 71 percent were occupants of other vehicles, 17 percent were occupants of large trucks, and 11 percent were nonoccupants. Table 7 provides the number and percentage of people killed and injured in crashes involving large trucks, by their role in the crashes.

Table 7

Trucks 2013

|         |  | Number | Percentage<br>of Total |
|---------|--|--------|------------------------|
| Killed  | Occupants of Large Trucks  | 691    | 17%                    |
|         | in Single-Vehicle Crashes  | 427    | 11%                    |
|         | in Multiple-Vehicle Crashes                                      | 264    | 7%                     |
|         | Occupants of Other Vehicles in<br>Crashes Involving Large Trucks | 2,834  | 71%                    |
|         | Nonoccupants (Pedestrians,<br>Pedalcyclists, etc.)               | 439    | 11%                    |
|         | Total  | 3,964  | 100%                   |
| Injured | Occupants of Large Trucks  | 24,000 | 25%                    |
|         | in Single-Vehicle Crashes  | 9,000  | 9%                     |
|         | in Multiple-Vehicle Crashes                                      | 15,000 | 16%                    |
|         | Occupants of Other Vehicles in<br>Crashes Involving Large Trucks | 69,000 | 72%                    |
|         | Nonoccupants (Pedestrians,<br>Pedalcyclists, etc.)               | 2,000  | 2%                     |
|         | Total  | 95,000 | 100%                   |

People Killed and Injured in Crashes Involving Large

Source: FARS 2013 ARF; NASS GES.

#### **People—Occupant Protection**

In 2013, there were 33 States and the District of Columbia that had primary seat belt use laws for front seat occupants in effect.<sup>6,7</sup> Sixteen additional States had secondary seat belt laws. New Hampshire had no seat belt law for adults. Use rates vary widely from State to State, reflecting factors such as differences in public attitudes, enforcement practices, legal provisions, and public information and education programs.

From 1975 to 2013, NHTSA estimates that seat belts saved the lives of 317,645 passenger vehicle occupants 5 and older, including 12,584 lives saved in 2013. If all passenger vehicle occupants 5 and older had worn seat belts, an estimated 15,384 lives (that is, an additional 2,800) would have been saved in 2013. In 2013, it is estimated that 263 children under 5 were saved as a result of child restraint use, which includes child safety seats and seat belts. Among children under 5, an estimated 10,421 lives were saved by restraints from 1975 to 2013.

Overall, 49 percent of passenger vehicle occupants killed in traffic crashes in 2013 were unrestrained. In 2013, 43 percent of passenger car fatalities were unrestrained. Regarding fatally injured light truck occupants, 63 percent of those in pickup trucks, 56 percent in sport utility vehicles, and 46 percent of those in vans were unrestrained.

In fatal crashes in 2013, 79 percent of passenger vehicle occupants who were totally ejected from vehicles were killed. Seat belts are effective in preventing total ejections: Only 1 percent of the occupants reported to have been using restraints were totally ejected, compared with 31 percent of the unrestrained occupants.

Table 8 shows restraint use for passenger vehicle occupants in fatal crashes for 2013 compared to in 2004.

#### Table 8

### Restraint Use Rates for Passenger Vehicle Occupants in Fatal Crashes, 2004 and 2013

|                         | Restraint Use Rate (Percent) |      |  |  |  |
|-------------------------|------------------------------|------|--|--|--|
| Type of Occupant        | 2004                         | 2013 |  |  |  |
| Drivers                 | 66%                          | 73%  |  |  |  |
| All Passengers          | 59%                          | 69%  |  |  |  |
| Front Seat              | 66%                          | 74%  |  |  |  |
| Rear Seat               | 56%                          | 68%  |  |  |  |
| 4 Years Old and Younger | 81%                          | 86%  |  |  |  |
| 5 Years Old and Older   | 57%                          | 68%  |  |  |  |
| All Occupants           | 63%                          | 71%  |  |  |  |

Source: FARS 2004 Final File and 2013 ARF.

#### **People**—Pedestrians

In 2013, there were 4,735 pedestrians who were killed and an estimated 66,000 injured in traffic crashes in the United States, representing 14 percent of all fatalities and 3 percent of all people injured in traffic crashes. Table 9 presents the numbers of non-occupants (pedestrians, as well as pedalcyclists and other nonoccupants), for the last 10 years.

|      | •          | -            |                               |       |
|------|------------|--------------|-------------------------------|-------|
| Year | Pedestrian | Pedalcyclist | Other/Unknown<br>Nonoccupants | Total |
| 2004 | 4,675      | 727          | 130                           | 5,532 |
| 2005 | 4,892      | 786          | 186                           | 5,864 |
| 2006 | 4,795      | 772          | 185                           | 5,752 |
| 2007 | 4,699      | 701          | 158                           | 5,558 |
| 2008 | 4,414      | 718          | 188                           | 5,320 |
| 2009 | 4,109      | 628          | 151                           | 4,888 |
| 2010 | 4,302      | 623          | 185                           | 5,110 |
| 2011 | 4,457      | 682          | 200                           | 5,339 |
| 2012 | 4,818      | 734          | 227                           | 5,779 |
| 2013 | 4,735      | 743          | 190                           | 5,668 |

### Table 9 Nonoccupant Traffic Fatalities, 2004–2013

Source: FARS 2004-2012 Final File and 2013 ARF.

In Table 10, the number and percentage of nonoccupants killed and injured in 2013 is shown for those 14 and under as well as for all ages. In 2013, one-fifth (21%) of the children up to 14 killed in traffic crashes were pedestrians, compared to 14 percent of all traffic fatalities (Table 10). Six percent of children 14 and younger injured in traffic crashes were pedestrians.

On average, a pedestrian is killed in a motor vehicle crash every 111 minutes, and one is injured about every 8 minutes. Alcohol involvement—for a driver and/or a pedestrian—was reported in 49 percent of the traffic crashes that resulted in pedestrian fatalities. Of the pedestrians killed, 34 percent had BACs of .08 g/dL or higher. Of the drivers involved in these fatal crashes, 15 percent had BACs of .08 g/dL or higher. In 6 percent of the crashes, both the driver and the pedestrian had BACs of .08 g/dL or higher.

| nonoooapai    |            |  |         |                                       |            |                                 |           |                              |  |  |  |
|---------------|------------|--|---------|---------------------------------------|------------|---------------------------------|-----------|------------------------------|--|--|--|
|               |            | Age (                                    | ) – 14  |                                       | All Ages   |                                 |           |                              |  |  |  |
|               | Fatalities |  | Injured |                                       | Fatalities |                                 | Injured   |                              |  |  |  |
|               | Number     | Percentage of All<br>Fatalities Age 0-14 | Number  | Percentage of All<br>Injured Age 0-14 | Number     | Percentage of All<br>Fatalities | Number    | Percentage of All<br>Injured |  |  |  |
| Pedestrians   | 236        | 21%                                      | 10,000  | 6%                                    | 4,735      | 14%                             | 66,000    | 3%                           |  |  |  |
| Pedalcyclists | 52         | 5%                                       | 5,000   | 3%                                    | 743        | 2%                              | 48,000    | 2%                           |  |  |  |
| Total         | 1,149      | 100%                                     | 172,000 | 100%                                  | 32,719     | 100%                            | 2,313,000 | 100%                         |  |  |  |

#### Table 10 Nonoccupant Traffic Fatalities and Injuries, 14 and Younger, and All Ages, 2013

Source: FARS 2013 ARF.

#### **People**—Pedalcyclists

The term pedalcyclist refers to riders of two-wheel, nonmotorized vehicles, tricycles, and unicycles powered solely by pedals. In 2013, there were 743 pedalcyclists killed and an estimated 48,000 injured in traffic crashes. Most of the pedalcyclists killed (87%) or injured (83%) in 2013 were male.

Pedalcyclists made up 2 percent of all traffic fatalities and 2 percent of all the people injured in traffic crashes during 2013 (Table 10). Among children up to 14 killed in traffic crashes in 2013, 5 percent were pedalcyclists. Of children 14 and younger injured in traffic crashes in 2013, 3 percent were pedalcyclists.

#### **People**—Young Drivers

In 2013, about 8 percent (26 million) of the total U.S. resident population were 15 to 20 years old. Of the 212.2 million licensed drivers in the United States in 2013, young drivers accounted for less than 6 percent (12. 3 million). In 2013, there were 3,966 young drivers 15 to 20 years old who were involved in fatal crashes — a 50-percent decrease from the 7,942 involved in 2004. Driver *fatalities* for this age group decreased by 53 percent from 2004 to 2013, from 3,634 to 1,691. In 2013, 29 percent of the young drivers who were killed in crashes had BACs of .01 g/dL or higher; 24 percent had BACs of .08 g/dL or higher.

Of all drivers involved in fatal crashes (44,574) in 2013, 9 percent (3,966) were young drivers, and of all drivers involved in police-reported crashes (10,043,000), 13 percent (1,273,000) were young drivers.

Dangerous driving behaviors, such and drinking and not using restraints, often go together. In 2013, 49 percent of the young drivers of passenger vehicles involved in fatal crashes who had been drinking were unrestrained. Of the young drivers who had been drinking and were killed in crashes, 65 percent were unrestrained. In comparison; of the non-drinking young drivers killed, 44 percent were unrestrained.

#### People—Children

In 2013, of the 32,719 traffic fatalities in the United States, the 14-and-younger age group accounted for 4 percent (1,149). This age group accounted for 3 percent (834) of all vehicle occupant fatalities, 7 percent (an estimated 172,000) of all those injured in motor vehicle crashes, and 7 percent (an estimated 155,000) of all the vehicle occupants injured in crashes. During 2013, fatalities in this age group (1,149) decreased 2 percent from the 1,173 fatalities in 2012.

In 2013, a total of 1,149 children 14 and younger were killed in motor vehicle traffic crashes. Of those, 200 (17%) occurred in alcoholimpaired-driving crashes. Out of those 200 deaths, 121 (61%) were occupants of vehicles with drivers who had BACs of .08 g/dL or higher. Another 29 children were pedestrians or pedalcyclists who were struck by drivers with BACs of .08 g/dL or higher. Of all children 14 and younger who were killed in motor vehicle traffic crashes in 2013, 21 percent (236) were pedestrians.

#### People—Older Population

In 2013, 14 percent (44.7 million) of the total U.S. resident population were 65 or older. There were 36.8 million licensed older drivers in 2013 accounting for 17 percent of the total licensed drivers.

In 2013, there were 5,671 older people (65+) killed and an estimated 222,000 injured in traffic crashes, accounting for 17 percent of all people killed and 10 percent of all the people injured in traffic crashes. Older people made up 17 percent of all vehicle occupant fatalities, and 19 percent of all pedestrian fatalities.

Some additional points of interest regarding older drivers are:

- The percentage of older drivers involved in fatal crashes in 2013 who had BACs of .08 g/dL or higher (7%) was lower than for any other group of drivers.
- Fatalities in crashes involving older drivers increased by 1 percent, from 5,940 in 2012 to 6,014 in 2013.
- Three-fourths of traffic fatalities involving older drivers in 2013 occurred during the daytime (75%).

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 in 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). 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.

#### References

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- <sup>5</sup> www.census.gov/compendia/statab/2012/tables/12s0007.pdf
- <sup>6</sup> State Traffic Safety Law Chart January 2014, available at www. trafficsafetymarketing.gov/newtsm/ciot/peak/2014/ ciot2014peak-TrafficSafetyLawChart.pdf
- <sup>7</sup> In West Virginia, the seat belt law became primary on July 9, 2013. See www.transportation.wv.gov/dmv/op

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2015, July) Overview: 2013 data. (Traffic Safety Facts. Report No. DOT HS 812 169). Washington, DC: National Highway Traffic Safety Administration.

#### For more information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis, 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 is online 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, Passenger Vehicles, Pedestrians, 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 found at www-nrd.nhtsa.dot.gov/CATS/ index.aspx.



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