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

NHTSA
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# TRAFFIC SAFETY FACTS
2009 Data

DOT HS 811 386

# Bicyclists and Other Cyclists

For the purpose of this Traffic Safety Fact Sheet, bicyclists and other cyclists include riders of two-wheel nonmotorized vehicles, tricycles, and unicycles powered solely by pedals. Throughout the remainder of this fact sheet the term pedalcyclists will be used to identify these cyclists.

In 2009, 630 pedalcyclists were killed and an additional 51,000 were injured in motor vehicle traffic crashes. Pedalcyclist deaths accounted for 2 percent of all motor vehicle traffic fatalities, and made up 2 percent of all the people injured in traffic crashes during the year.

The number of pedalcyclist fatalities in 2009 is 12 percent lower than the 718 pedalcyclists fatalities report in 2008.

*The 630 pedalcyclist deaths in 2009 accounted for 2 percent of all traffic fatalities during the year.*

Table 1
**Total Fatalities and Pedalcyclist Fatalities in Traffic Crashes, 2000–2009**

| Year | Total Fatalities | Pedalcyclist Fatalities | Percent of Total Fatalities |
|---|---|---|---|
| 2000 | 41,945 | 693 | 1.7 |
| 2001 | 42,196 | 732 | 1.7 |
| 2002 | 43,005 | 665 | 1.5 |
| 2003 | 42,884 | 629 | 1.5 |
| 2004 | 42,836 | 727 | 1.7 |
| 2005 | 43,510 | 786 | 1.8 |
| 2006 | 42,708 | 772 | 1.8 |
| 2007 | 41,259 | 701 | 1.7 |
| 2008 | 37,423 | 718 | 1.9 |
| 2009 | 33,808 | 630 | 1.9 |

The majority of pedalcyclist fatalities in 2009 occurred in urban areas (70%). In respect to vehicle crash location in relation to an intersection, most pedalcyclist fatalities in 2009 occurred at non-intersections. Compared to 2008 these numbers increased by 5 percent.

Almost three-fourths (72%) of the pedalcyclist fatalities were killed during the daytime between the hours of 4 a.m. and 8 p.m., a 6-percent increase from the previous year. The remaining 27 percent were killed during the nighttime hours, a 13-percent decrease from the previous year. Table 2 shows the pedalcyclist fatalities by time of day for 2008 and 2009.

Table 2
**Percentage of Pedalcyclist Fatalities in Relation to Land Use, Non-Motorist Location and Time of Day**

| Pedalcyclists Killed | Percentage of the Pedalcyclists Killed | |
|---|---|---|
| | 2008 | 2009 |
| **Land Use** | | |
| Rural | 31% | 30% |
| Urban | 69% | 70% |
| **Non-Motorist Location** | | |
| Intersection | 36% | 33% |
| Non-Intersection | 64% | 67% |
| **Time of Day** | | |
| Midnight – 3:59 a.m. | 9% | 8% |
| 4 a.m. – 7:59 a.m. | 12% | 12% |
| 8 a.m. – 11:59 a.m. | 13% | 14% |
| Noon – 3:59 p.m. | 17% | 17% |
| 4 p.m. – 7:59 p.m. | 26% | 29% |
| 8 p.m. – 11:59 p.m. | 22% | 19% |

## Important Safety Reminders

All bicyclists should wear properly fitted bicycle helmets every time they ride. A helmet is the single most effective way to prevent head injury resulting from a bicycle crash.

Bicyclists are considered vehicle operators; they are required to obey the same rules of the road as other vehicle operators, including obeying traffic signs, signals, and lane markings. When cycling in the street, cyclists must ride in the same direction as traffic.

Drivers of motor vehicles need to share the road with bicyclists. Be courteous—allow at least three feet clearance when passing a bicyclist on the road, look for cyclists before opening a car door or pulling out from a parking space, and yield to cyclists at intersections and as directed by signs and signals. Be especially watchful for cyclists when making turns, either left or right.

Bicyclists should increase their visibility to drivers by wearing fluorescent or brightly colored clothing during the day, dawn, and dusk. To be noticed when riding at night, use a front light and a red reflector or flashing rear light, and use retro-reflective tape or markings on equipment or clothing.

## Age

In 2009, the average age of pedalcyclists killed in traffic crashes was 41. During the past 10 years, there has been a steady increase in the average age of both pedalcyclists killed and those injured (Table 3).

Table 3
**Average Age of Pedalcyclists Killed and Injured 2000–2009**

| Year | Pedalcyclists Killed Average Age | Pedalcyclists Injured Average Age |
|---|---|---|
| 2000 | 35 | 25 |
| 2001 | 36 | 26 |
| 2002 | 37 | 28 |
| 2003 | 36 | 27 |
| 2004 | 39 | 29 |
| 2005 | 39 | 29 |
| 2006 | 41 | 30 |
| 2007 | 40 | 30 |
| 2008 | 41 | 31 |
| 2009 | 41 | 31 |
| **2000-2009** | **39** | **29** |

Pedalcyclists under age 16 accounted for 13 percent of all pedalcyclists killed and 20 percent of all those injured in traffic crashes in 2009. By comparison, pedalcyclists under age 16 accounted for 28 percent of all those killed and 40 percent of those injured in 2000.

Pedalcyclists ages 25 to 64 have made up an increasing proportion of all pedalcyclist deaths since 2000. The proportion of pedalcylist fatalities among those ages 25 to 64 was 1.2 times higher in 2009 as in 2000 (64% and 52%, respectively).

About one-eighth (13%) of the pedalcyclists killed in traffic crashes in 2009 were between 5 and 15 years old. The pedalcylist fatality rate for this age group in 2009 was 1.8 per million population—about 14 percent lower than the rate for all pedalcyclists (2.05 per million population). The injury rate for this age group was 223 per million population, compared with 165 per million population for pedalcyclists of all ages.

*Seventy percent of all pedalcyclist deaths in 2009 occurred in urban areas.*

## Gender

Most of the pedalcyclists killed or injured in 2009 were males (87% and 80%, respectively). The most killed were between the ages of 45 and 54 (20%), and the most injured were between 25 and 34 (20%).

In 2009, the pedalcyclist fatality rate per capita was seven times higher for males than for females, and the injury rate per capita was more than four times higher for males.

Table 4

**Pedalcyclists Killed and Injured and Fatality and Injury Rates by Age and Sex, 2009**

| Age (Years) | Male | | | Female | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Killed | Population (thousands) | Fatality Rate* | Killed | Population (thousands) | Fatality Rate* | Killed | Population (thousands) | Fatality Rate* |
| <5 | 3 | 10,887 | 0.28 | 0 | 10,413 | 0.00 | 3 | 21,300 | 0.14 |
| 5-9 | 12 | 10,536 | 1.14 | 6 | 10,074 | 0.60 | 18 | 20,610 | 0.87 |
| 10-15 | 50 | 12,340 | 4.05 | 14 | 11,767 | 1.19 | 64 | 24,107 | 2.65 |
| 16-20 | 32 | 11,166 | 2.87 | 5 | 10,578 | 0.47 | 37 | 21,744 | 1.70 |
| 21-24 | 23 | 8,861 | 2.60 | 6 | 8,339 | 0.72 | 29 | 17,200 | 1.69 |
| 25-34 | 60 | 21,224 | 2.83 | 11 | 20,343 | 0.54 | 71 | 41,566 | 1.71 |
| 35-44 | 93 | 20,857 | 4.46 | 12 | 20,673 | 0.58 | 105 | 41,530 | 2.53 |
| 45-54 | 124 | 21,973 | 5.64 | 15 | 22,619 | 0.66 | 139 | 44,592 | 3.12 |
| 55-64 | 82 | 16,782 | 4.89 | 6 | 18,005 | 0.33 | 88 | 34,787 | 2.53 |
| 65-74 | 49 | 9,593 | 5.11 | 4 | 11,199 | 0.36 | 53 | 20,792 | 2.55 |
| 75-84 | 18 | 5,447 | 3.30 | 2 | 7,700 | 0.26 | 20 | 13,148 | 1.52 |
| 85+ | 3 | 1,783 | 1.68 | 0 | 3,848 | 0.00 | 3 | 5,631 | 0.53 |
| **Total** | **549** | **151,449** | **3.62** | **81** | **155,557** | **0.52** | **630** | **307,007** | **2.05** |
| **Age (Years)** | **Male** | | | **Female** | | | **Total** | | |
| | **Injured** | **Population (thousands)** | **Injury Rate*** | **Injured** | **Population (thousands)** | **Injury Rate*** | **Injured** | **Population (thousands)** | **Injury Rate*** |
| <5 | ** | 10,887 | ** | ** | 10,413 | ** | ** | 21,300 | ** |
| 5-9 | 2,000 | 10,536 | 172 | ** | 10,074 | ** | 2,000 | 20,610 | 107 |
| 10-15 | 6,000 | 12,340 | 501 | 2,000 | 11,767 | 135 | 8,000 | 24,107 | 322 |
| 16-20 | 6,000 | 11,166 | 510 | 1,000 | 10,578 | 122 | 7,000 | 21,744 | 321 |
| 21-24 | 4,000 | 8,861 | 501 | 2,000 | 8,339 | 251 | 7,000 | 17,200 | 380 |
| 25-34 | 8,000 | 21,224 | 399 | 1,000 | 20,343 | 68 | 10,000 | 41,566 | 237 |
| 35-44 | 3,000 | 20,857 | 152 | ** | 20,673 | ** | 4,000 | 41,530 | 86 |
| 45-54 | 6,000 | 21,973 | 280 | 2,000 | 22,619 | 81 | 8,000 | 44,592 | 179 |
| 55-64 | 3,000 | 16,782 | 187 | 1,000 | 18,005 | 53 | 4,000 | 34,787 | 118 |
| 65-74 | 1,000 | 9,593 | 91 | ** | 11,199 | ** | 1,000 | 20,792 | 48 |
| 75-84 | ** | 5,447 | ** | ** | 7,700 | ** | ** | 13,148 | ** |
| 85+ | ** | 1,783 | ** | ** | 3,848 | ** | ** | 5,631 | ** |
| **Total** | **41,000** | **151,449** | **268** | **10,000** | **155,557** | **65** | **51,000** | **307,007** | **165** |

* Rate per million population.
** Less than 500 injured, injury rate not shown.
**Source:** Fatalities — Fatality Analysis Reporting System, NHTSA. Injured — General Estimates System, NHTSA. Population — Bureau of the Census.

## Alcohol Involvement

Over one-fourth (28%) of the pedalcyclists killed in 2009 had a blood alcohol concentration (BAC) of .01 grams per deciliter (g/dL) or higher, and nearly one-fourth (24%) had a BAC of .08 g/dL or higher. Alcohol-involvement—either for the driver or the pedalcyclists—was reported in more than 40 percent of the traffic crashes that resulted in pedalcyclist fatalities in 2009. In 33 percent of the crashes, either the driver or the pedalcyclist was reported to have a BAC) of .08 g/dL or higher. Lower alcohol levels (BAC .01 to .07 g/dL) were reported in an additional 6 percent of crashes.

*Alcohol involvement was reported in more than 40 percent of all fatal pedalcyclist crashes in 2009.*

Table 5

**Crashes Involving a Pedalcyclist Fatality by the Highest BAC of Involved Riders and Drivers**

| | .00 BAC | | .01-.07 BAC | | .08+ BAC | | .01+ BAC | | Total |
|---|---|---|---|---|---|---|---|---|---|
| Year | # | % | # | % | # | % | # | % | # |
| 2008 | 448 | 63 | 45 | 6 | 218 | 31 | 263 | 37 | 711 |
| 2009 | 378 | 60 | 39 | 6 | 210 | 33 | 249 | 40 | 627 |

## 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, Children, Large Trucks, Motorcycles, Occupant Protection, Older Population, Overview, Passenger Vehicles, 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.

Table 6

## Total and Pedalcyclist Traffic Fatalities and Fatality Rates by State, 2009

| State | Total Traffic Fatalities | Resident Population (thousands) | Pedalcyclist Fatalities | Percent of Total | Pedalcyclist Fatalities per Million Population |
|---|---|---|---|---|---|
| Alabama | 848 | 4,709 | 6 | 0.7 | 1.27 |
| Alaska | 64 | 698 | 2 | 3.1 | 2.86 |
| Arizona | 807 | 6,596 | 25 | 3.1 | 3.79 |
| Arkansas | 585 | 2,889 | 5 | 0.9 | 1.73 |
| California | 3,081 | 36,962 | 99 | 3.2 | 2.68 |
| Colorado | 465 | 5,025 | 10 | 2.2 | 1.99 |
| Connecticut | 223 | 3,518 | 1 | 0.4 | 0.28 |
| Delaware | 116 | 885 | 6 | 5.2 | 6.78 |
| District of Columbia | 29 | 600 | 0 | 0 | 0 |
| Florida | 2,558 | 18,538 | 107 | 4.2 | 5.77 |
| Georgia | 1,284 | 9,829 | 21 | 1.6 | 2.14 |
| Hawaii | 109 | 1,295 | 3 | 2.8 | 2.32 |
| Idaho | 226 | 1,546 | 7 | 3.1 | 4.53 |
| Illinois | 911 | 12,910 | 20 | 2.2 | 1.55 |
| Indiana | 693 | 6,423 | 7 | 1.0 | 1.09 |
| Iowa | 372 | 3,008 | 2 | 0.5 | 0.66 |
| Kansas | 386 | 2,819 | 5 | 1.3 | 1.77 |
| Kentucky | 791 | 4,314 | 5 | 0.6 | 1.16 |
| Louisiana | 821 | 4,492 | 13 | 1.6 | 2.89 |
| Maine | 159 | 1,318 | 0 | 0 | 0 |
| Maryland | 547 | 5,699 | 11 | 2.0 | 1.93 |
| Massachusetts | 334 | 6,594 | 6 | 1.8 | 0.91 |
| Michigan | 871 | 9,970 | 19 | 2.2 | 1.91 |
| Minnesota | 421 | 5,266 | 10 | 2.4 | 1.90 |
| Mississippi | 700 | 2,952 | 10 | 1.4 | 3.39 |
| Missouri | 878 | 5,988 | 2 | 0.2 | 0.33 |
| Montana | 221 | 975 | 1 | 0.5 | 1.03 |
| Nebraska | 223 | 1,797 | 3 | 1.3 | 1.67 |
| Nevada | 243 | 2,643 | 6 | 2.5 | 2.27 |
| New Hampshire | 110 | 1,325 | 1 | 0.9 | 0.75 |
| New Jersey | 583 | 8,708 | 13 | 2.2 | 1.49 |
| New Mexico | 361 | 2,010 | 3 | 0.8 | 1.49 |
| New York | 1,156 | 19,541 | 29 | 2.5 | 1.48 |
| North Carolina | 1,314 | 9,381 | 16 | 1.2 | 1.71 |
| North Dakota | 140 | 647 | 1 | 0.7 | 1.55 |
| Ohio | 1,021 | 11,543 | 19 | 1.9 | 1.65 |
| Oklahoma | 738 | 3,687 | 11 | 1.5 | 2.98 |
| Oregon | 377 | 3,826 | 8 | 2.1 | 2.09 |
| Pennsylvania | 1,256 | 12,605 | 15 | 1.2 | 1.19 |
| Rhode Island | 83 | 1,053 | 0 | 0 | 0 |
| South Carolina | 894 | 4,561 | 11 | 1.2 | 2.41 |
| South Dakota | 131 | 812 | 0 | 0 | 0 |
| Tennessee | 989 | 6,296 | 9 | 0.9 | 1.43 |
| Texas | 3,071 | 24,782 | 48 | 1.6 | 1.94 |
| Utah | 244 | 2,785 | 5 | 2.0 | 1.80 |
| Vermont | 74 | 622 | 0 | 0 | 0 |
| Virginia | 757 | 7,883 | 11 | 1.5 | 1.40 |
| Washington | 492 | 6,664 | 9 | 1.8 | 1.35 |
| West Virginia | 356 | 1,820 | 0 | 0 | 0 |
| Wisconsin | 561 | 5,655 | 7 | 1.2 | 1.24 |
| Wyoming | 134 | 544 | 2 | 1.5 | 3.67 |
| **U.S. Total** | **33,808** | **307,007** | **630** | **1.9** | **2.05** |
| Puerto Rico | 365 | 3,967 | 17 | 4.7 | 4.29 |

**Sources:** Fatalities — Fatality Analysis Reporting System, NHTSA. Population — Bureau of the Census.