



# Traffic Safety Facts 2002

## Pedalcyclists



**A Public Information Fact Sheet on Motor Vehicle and Traffic Safety Published by the National Highway Traffic Safety Administration's National Center for Statistics and Analysis**

The first automobile crash in the United States occurred in New York City in 1896, when a motor vehicle collided with a pedalcycle rider (*Famous First Facts*, by Joseph Kane).

More than 47,000 pedalcyclists have died in traffic crashes in the United States since 1932 — the first year in which estimates of pedalcyclist fatalities were recorded. The 350 pedalcyclists killed in 1932 accounted for 1.3 percent of the 27,979 persons who died in traffic crashes that year.

In 2002, 662 pedalcyclists were killed and an additional 48,000 were injured in traffic crashes. Pedalcyclist deaths accounted for 2 percent of all traffic fatalities, and pedalcyclists made up 2 percent of all the people injured in traffic crashes during the year.

The number of pedalcyclist fatalities in 2002 was 8 percent lower than the 723 fatalities reported in 1992. The highest number of pedalcyclist fatalities ever recorded in the Fatality Analysis Reporting System (FARS) was 1,003 in 1975.

Pedalcyclists accounted for 12 percent of all nonmotorist traffic fatalities in 2002. Pedestrians accounted for 86 percent, and the remaining 2 percent were skateboard riders, roller skaters, etc.

**“The 662 pedalcyclist deaths in 2002 accounted for 2 percent of all traffic fatalities during the year.”**

**Figure 1. Trends in Pedalcyclist and Total Traffic Fatalities, 1992-2002**

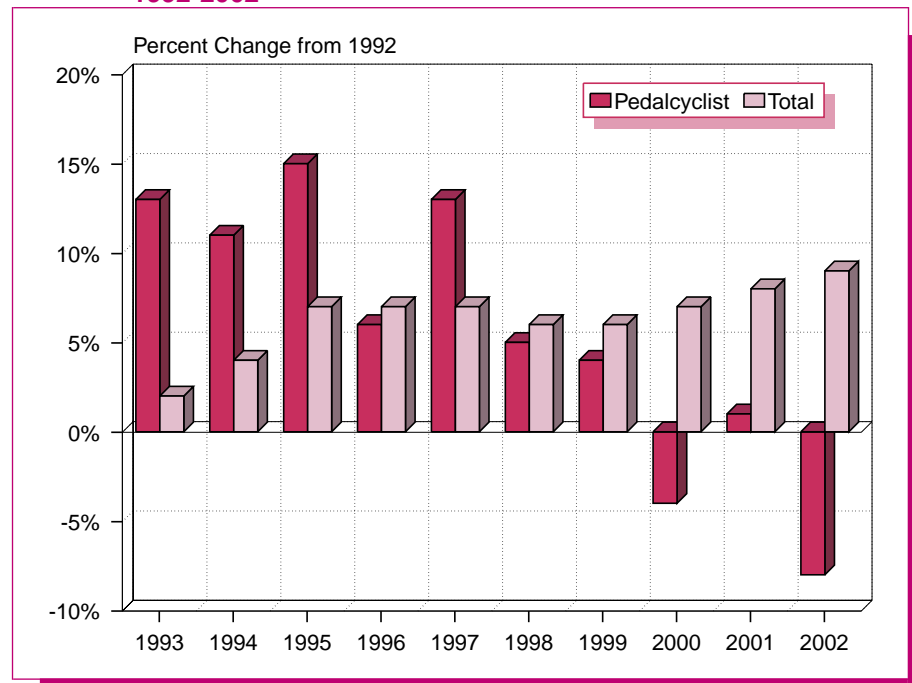


Table 1. Nonoccupant Traffic Fatalities, 1992-2002

| Year | Pedalcyclist | Pedestrian | Other | Total |
|------|--------------|------------|-------|-------|
| 1992 | 723          | 5,549      | 98    | 6,370 |
| 1993 | 816          | 5,649      | 111   | 6,576 |
| 1994 | 802          | 5,489      | 107   | 6,398 |
| 1995 | 833          | 5,584      | 109   | 6,526 |
| 1996 | 765          | 5,449      | 154   | 6,368 |
| 1997 | 814          | 5,321      | 153   | 6,288 |
| 1998 | 760          | 5,228      | 131   | 6,119 |
| 1999 | 754          | 4,939      | 149   | 5,842 |
| 2000 | 693          | 4,763      | 141   | 5,597 |
| 2001 | 732          | 4,901      | 123   | 5,756 |
| 2002 | 662          | 4,808      | 113   | 5,583 |

**“More than one-fifth of the pedalcyclists killed in traffic crashes in 2002 were between 5 and 15 years old.”**

Pedalcyclist fatalities occurred more frequently in urban areas (68 percent), at nonintersection locations (68 percent), between the hours of 5:00 PM and 9:00 PM (33 percent), and during the months of July, August, and September (35 percent).

In 1992, the average age of pedalcyclists killed in traffic crashes was 27.5 years; in 2002 the average age of those killed was 35.7 years, and the average age of those injured was 26.7 years.

Pedalcyclists under age 16 accounted for 24 percent of all pedalcyclists killed and 39 percent of those injured in traffic crashes in 2002.

In comparison, pedalcyclists under age 16 accounted for 42 percent of all those killed in 1992.

Pedalcyclists 25 years of age and older have made up an increasing proportion of all pedalcyclist deaths since 1992. The proportion of pedalcyclist fatalities age 25 to 64 was 1.4 times as high in 2002 as in 1992 (57 percent and 40 percent, respectively).

More than one-fifth (22 percent) of the pedalcyclists killed in traffic crashes in 2002 were between 5 and 15 years old. The pedalcyclist fatality rate for this age group in 2002 was 3.2 per million population — about 40 percent higher than the rate for all pedalcyclists (2.3 per million population). The injury rate for this age group was 411 per million population, compared with 166 per million population for pedalcyclists of all ages.

*In 2001, NHTSA began using a revised method — **multiple imputation** — to estimate missing information about blood alcohol concentration (BAC) levels for persons involved in fatal crashes. The alcohol estimates in this fact sheet are based on the new imputation method. More information on the new multiple imputation method, including detailed tabulations of alcohol involvement in various categories (age, sex, time of day, etc.), is available in NHTSA Technical Report DOT HS 809 403, Transitioning to Multiple Imputation: A New Method to Estimate Missing Blood Alcohol Concentration (BAC) Values in FARS.*

Alcohol involvement — either for the driver or the pedalcyclist — was reported in more than one-third of the traffic crashes that resulted in pedalcyclist fatalities in 2002. In 31 percent of the crashes, either the driver or the cyclist was intoxicated, with blood alcohol concentrations (BAC) of 0.08 grams per deciliter (g/dl) or greater. Lower alcohol levels (BAC 0.01 to 0.07 g/dl) were reported in an additional 6 percent. More than one-fourth (27 percent) of the pedalcyclists killed had a BAC of 0.01 g/dl or greater, and almost one-fourth (24 percent) were intoxicated.

**“Alcohol Involvement was reported in more than one-third of the pedalcyclist fatalities in 2002.”**

Most of the pedalcyclists killed or injured in 2002 were males (90 percent and 75 percent, respectively), and most were between the ages of 5 and 44 years (64 percent and 82 percent, respectively).

In 2002, the pedalcyclist fatality rate per capita was more than 8 times as high for males as for females, and the injury rate per capita was more than 3 times as high for males as for females.

**Table 2. Pedalcyclists Killed and Injured and Fatality and Injury Rates by Age and Sex, 2002**

| Age (years)  | Male       |                        |                | Female    |                        |                | Total      |                        |                |
|--------------|------------|------------------------|----------------|-----------|------------------------|----------------|------------|------------------------|----------------|
|              | Killed     | Population (thousands) | Fatality Rate* | Killed    | Population (thousands) | Fatality Rate* | Killed     | Population (thousands) | Fatality Rate* |
| 0-4          | 9          | 10,025                 | 0.90           | 0         | 9,584                  | 0.00           | 9          | 19,609                 | 0.46           |
| 5-9          | 26         | 10,188                 | 2.55           | 13        | 9,713                  | 1.34           | 39         | 19,901                 | 1.96           |
| 10-15        | 88         | 12,920                 | 6.81           | 19        | 12,308                 | 1.54           | 107        | 25,228                 | 4.24           |
| 16-20        | 42         | 10,488                 | 4.00           | 3         | 9,909                  | 0.30           | 45         | 20,397                 | 2.21           |
| 21-24        | 20         | 8,238                  | 2.43           | 3         | 7,863                  | 0.38           | 23         | 16,101                 | 1.43           |
| 25-34        | 70         | 20,203                 | 3.46           | 7         | 19,726                 | 0.35           | 77         | 39,928                 | 1.93           |
| 35-44        | 120        | 22,367                 | 5.37           | 7         | 22,550                 | 0.31           | 127        | 44,917                 | 2.83           |
| 45-54        | 110        | 19,676                 | 5.59           | 9         | 20,408                 | 0.44           | 119        | 40,084                 | 2.97           |
| 55-64        | 45         | 12,784                 | 3.52           | 8         | 13,817                 | 0.58           | 53         | 26,602                 | 1.99           |
| 65-69        | 16         | 4,439                  | 3.60           | 1         | 5,142                  | 0.19           | 17         | 9,581                  | 1.77           |
| 70-79        | 26         | 6,933                  | 3.75           | 2         | 9,181                  | 0.22           | 28         | 16,114                 | 1.74           |
| 80+          | 10         | 3,399                  | 2.94           | 0         | 6,508                  | 0.00           | 10         | 9,907                  | 1.01           |
| Unknown      | 8          | —                      | —              | 0         | —                      | —              | 8          | —                      | —              |
| <b>Total</b> | <b>590</b> | <b>141,661</b>         | <b>4.16</b>    | <b>72</b> | <b>146,708</b>         | <b>0.49</b>    | <b>662</b> | <b>288,369</b>         | <b>2.30</b>    |

| Age (years)  | Male          |                        |              | Female        |                        |              | Total         |                        |              |
|--------------|---------------|------------------------|--------------|---------------|------------------------|--------------|---------------|------------------------|--------------|
|              | Injured       | Population (thousands) | Injury Rate* | Injured       | Population (thousands) | Injury Rate* | Injured       | Population (thousands) | Injury Rate* |
| 0-4          | **            | 10,025                 | 13           | **            | 9,584                  | 2            | **            | 19,609                 | 8            |
| 5-9          | 4,000         | 10,188                 | 429          | 2,000         | 9,713                  | 208          | 6,000         | 19,901                 | 321          |
| 10-15        | 9,000         | 12,920                 | 661          | 4,000         | 12,308                 | 292          | 12,000        | 25,228                 | 481          |
| 16-20        | 3,000         | 10,488                 | 302          | 2,000         | 9,909                  | 171          | 5,000         | 20,397                 | 239          |
| 21-24        | 3,000         | 8,238                  | 335          | **            | 7,863                  | 42           | 3,000         | 16,101                 | 192          |
| 25-34        | 5,000         | 20,203                 | 250          | 2,000         | 19,726                 | 91           | 7,000         | 39,928                 | 172          |
| 35-44        | 5,000         | 22,367                 | 222          | 1,000         | 22,550                 | 54           | 6,000         | 44,917                 | 138          |
| 45-54        | 3,000         | 19,676                 | 160          | 1,000         | 20,408                 | 43           | 4,000         | 40,084                 | 100          |
| 55-64        | 2,000         | 12,784                 | 181          | **            | 13,817                 | 21           | 3,000         | 26,602                 | 98           |
| 65-69        | **            | 4,439                  | 83           | **            | 5,142                  | 34           | 1,000         | 9,581                  | 57           |
| 70-79        | 1,000         | 6,933                  | 132          | **            | 9,181                  | 10           | 1,000         | 16,114                 | 63           |
| 80+          | **            | 3,399                  | 40           | **            | 6,508                  | 3            | **            | 9,907                  | 16           |
| <b>Total</b> | <b>36,000</b> | <b>141,661</b>         | <b>253</b>   | <b>12,000</b> | <b>146,708</b>         | <b>83</b>    | <b>48,000</b> | <b>288,369</b>         | <b>166</b>   |

\* Rate per million population.

\*\* Less than 500 injured.

Source: Population — Bureau of the Census projections.

**For more information:**

Information on pedalcyclist traffic fatalities is available from the National Center for Statistics and Analysis, NPO-121, 400 Seventh Street, S.W., Washington, D.C. 20590. NCSA information can also be obtained by telephone or by fax-on-demand at 1-800-934-8517. FAX messages should be sent to (202) 366-7078. General information on highway traffic safety can be accessed by Internet users at <http://www-nrd.nhtsa.dot.gov/people/nrsa>. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Auto Safety Hotline at 1-800-424-9393.

Other fact sheets available from the National Center for Statistics and Analysis are *Overview, Alcohol, Occupant Protection, Older Population, Speeding, Young Drivers, Pedestrians, Children, Large Trucks, Motorcycles, School Transportation-Related Crashes, State Traffic Data, and State Alcohol Estimates*. 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*.

Table 3. Pedalcyclist Traffic Fatalities and Fatality Rates by State, 2002

| State                | Total Traffic Fatalities | Resident Population (thousands) | Pedalcyclist Fatalities | Percent of Total | Pedalcyclist Fatalities per Million Population |
|----------------------|--------------------------|---------------------------------|-------------------------|------------------|--|
| Alabama              | 1,033                    | 4,487                           | 5                       | 0.5              | 1.11   |
| Alaska               | 87                       | 644                             | 0                       | 0.0              | 0.00   |
| Arizona              | 1,117                    | 5,456                           | 16                      | 1.4              | 2.93   |
| Arkansas             | 640                      | 2,710                           | 8                       | 1.3              | 2.95   |
| California           | 4,078                    | 35,116                          | 116                     | 2.8              | 3.30   |
| Colorado             | 742                      | 4,507                           | 9                       | 1.2              | 2.00   |
| Connecticut          | 322                      | 3,461                           | 4                       | 1.2              | 1.16   |
| Delaware             | 124                      | 807                             | 4                       | 3.2              | 4.95   |
| District of Columbia | 47                       | 571                             | 1                       | 2.1              | 1.75   |
| Florida              | 3,132                    | 16,713                          | 110                     | 3.5              | 6.58   |
| Georgia              | 1,523                    | 8,560                           | 13                      | 0.9              | 1.52   |
| Hawaii               | 119                      | 1,245                           | 4                       | 3.4              | 3.21   |
| Idaho                | 264                      | 1,341                           | 2                       | 0.8              | 1.49   |
| Illinois             | 1,411                    | 12,601                          | 22                      | 1.6              | 1.75   |
| Indiana              | 792                      | 6,159                           | 9                       | 1.1              | 1.46   |
| Iowa                 | 404                      | 2,937                           | 4                       | 1.0              | 1.36   |
| Kansas               | 512                      | 2,716                           | 5                       | 1.0              | 1.84   |
| Kentucky             | 915                      | 4,093                           | 9                       | 1.0              | 2.20   |
| Louisiana            | 875                      | 4,483                           | 20                      | 2.3              | 4.46   |
| Maine                | 216                      | 1,294                           | 0                       | 0.0              | 0.00   |
| Maryland             | 659                      | 5,458                           | 5                       | 0.8              | 0.92   |
| Massachusetts        | 459                      | 6,428                           | 6                       | 1.3              | 0.93   |
| Michigan             | 1,277                    | 10,050                          | 22                      | 1.7              | 2.19   |
| Minnesota            | 657                      | 5,020                           | 7                       | 1.1              | 1.39   |
| Mississippi          | 885                      | 2,872                           | 5                       | 0.6              | 1.74   |
| Missouri             | 1,208                    | 5,673                           | 16                      | 1.3              | 2.82   |
| Montana              | 270                      | 909                             | 1                       | 0.4              | 1.10   |
| Nebraska             | 307                      | 1,729                           | 2                       | 0.7              | 1.16   |
| Nevada               | 381                      | 2,173                           | 6                       | 1.6              | 2.76   |
| New Hampshire        | 127                      | 1,275                           | 0                       | 0.0              | 0.00   |
| New Jersey           | 773                      | 8,590                           | 15                      | 1.9              | 1.75   |
| New Mexico           | 449                      | 1,855                           | 3                       | 0.7              | 1.62   |
| New York             | 1,522                    | 19,158                          | 37                      | 2.4              | 1.93   |
| North Carolina       | 1,575                    | 8,320                           | 17                      | 1.1              | 2.04   |
| North Dakota         | 97                       | 634                             | 1                       | 1.0              | 1.58   |
| Ohio                 | 1,418                    | 11,421                          | 15                      | 1.1              | 1.31   |
| Oklahoma             | 734                      | 3,494                           | 6                       | 0.8              | 1.72   |
| Oregon               | 436                      | 3,522                           | 6                       | 1.4              | 1.70   |
| Pennsylvania         | 1,614                    | 12,335                          | 23                      | 1.4              | 1.86   |
| Rhode Island         | 84                       | 1,070                           | 1                       | 1.2              | 0.93   |
| South Carolina       | 1,053                    | 4,107                           | 12                      | 1.1              | 2.92   |
| South Dakota         | 180                      | 761                             | 1                       | 0.6              | 1.31   |
| Tennessee            | 1,175                    | 5,797                           | 3                       | 0.3              | 0.52   |
| Texas                | 3,725                    | 21,780                          | 50                      | 1.3              | 2.30   |
| Utah                 | 328                      | 2,316                           | 5                       | 1.5              | 2.16   |
| Vermont              | 78                       | 617                             | 1                       | 1.3              | 1.62   |
| Virginia             | 914                      | 7,294                           | 12                      | 1.3              | 1.65   |
| Washington           | 659                      | 6,069                           | 11                      | 1.7              | 1.81   |
| West Virginia        | 439                      | 1,802                           | 1                       | 0.2              | 0.55   |
| Wisconsin            | 803                      | 5,441                           | 9                       | 1.1              | 1.65   |
| Wyoming              | 176                      | 499                             | 2                       | 1.1              | 4.01   |
| <b>U.S. Total</b>    | <b>42,815</b>            | <b>288,369</b>                  | <b>662</b>              | <b>1.5</b>       | <b>2.30</b>                                    |
| Puerto Rico          | 510                      | 3,859                           | 15                      | 2.9              | 3.89   |

Note: Totals may not equal sum of components due to independent rounding.

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