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



Analysis

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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).

Traffic Safety Facts 2002

Pedalcyclists

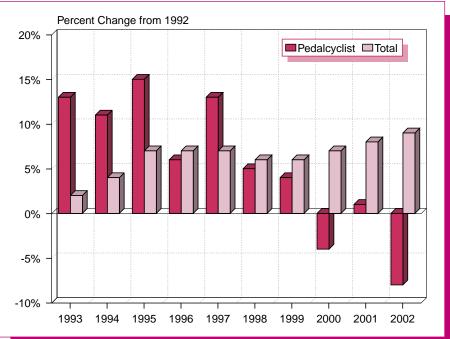
More than 47,000 pedalcyclists have died in traffic crashes in the United States since 1932 — the first year in which estimates of pedalcyclist fatalities were recorded. The 350 pedalcyclists killed in 1932 accounted for 1.3 percent of the 27,979 persons who died in traffic crashes that year.

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.

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



NCSA





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

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

Table 1. Nonoccupant Traffic Fatalities, 1992-2002

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.

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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.

	Male		Female			Total			
Age (years)	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	—	—
Total	590	141,661	4.16	72	146,708	0.49	662	288,369	2.30
		Male			Female		Total		
Age (years)	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
Total	36,000	141,661	253	12,000	146,708	83	48,000	288,369	166

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

* 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/ ncsa. 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.



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
	47		4		
District of Columbia		571	•	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
					2.19
Michigan Mise sosts	1,277	10,050	22	1.7	
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	1.4	0.93
South Carolina	1,053	4,107	12		2.92
				1.1	
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
U.S. Total	42,815	288,369	662	1.5	2.30
Puerto Rico	510	3,859	15	2.9	3.89

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

Note: Totals may not equal sum of components due to independent rounding. Sources: Fatalities — Fatality Analysis Reporting System, NHTSA. Population — Bureau of the Census.

