



TRAFFIC SAFETY FACTS

2011 Data

DOT HS 811 743

April 2013

Bicyclists and Other Cyclists

In 2011, 677 pedalcyclists were killed and an additional 48,000 were injured in motor vehicle traffic crashes. Pedalcyclist deaths accounted for 2 percent of all motor vehicle traffic fatalities (Table 1), and made up 2 percent of the people injured in traffic crashes during the year.

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 pedalcyclist will be used to identify these cyclists.

The number of pedalcyclists killed in 2011 is 9 percent higher than the 623 pedalcyclists killed in 2010.

The 677 pedalcyclist deaths in 2011 accounted for 2 percent of all traffic fatalities during the year.

Table 1

Total Fatalities and Pedalcyclist Fatalities in Traffic Crashes, 2002–2011

Year	Total Fatalities	Pedalcyclist Fatalities	Percent of Total Fatalities
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	33,883	628	1.9
2010	32,999	623	1.9
2011	32,367	677	2.1

As shown in Table 2, the majority of pedalcyclist fatalities in 2011 occurred in urban areas (69%) and at non-intersections (59%).

The majority of pedalcyclist fatalities, 201 (30%), occurred between the hours of 4 p.m. and 7:59 p.m. The second highest number of fatalities, 142 (21%), occurred between the hours of 8 p.m. and 11:59 p.m. The fewest pedalcyclist fatalities occurred between the hours of midnight and 3:59 a.m. (Table 2).

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. (NHTSA's Office of Safety Programs)

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	
	2010	2011
Land Use		
Rural	28%	31%
Urban	72%	69%
Non-Motorist Location		
Intersection	33%	31%
Non-Intersection	57%	59%
Other	8%	10%
Time of Day		
Midnight – 3:59 a.m.	7%	8%
4 a.m. – 7:59 a.m.	11%	9%
8 a.m. – 11:59 a.m.	13%	14%
Noon – 3:59 p.m.	17%	18%
4 p.m. – 7:59 p.m.	28%	30%
8 p.m. – 11:59 p.m.	25%	21%

Note: Percentage of unknown values are not displayed.

Age

In 2011, the average age of pedalcyclists killed in traffic crashes was 43. During the past 10 years, there has been a steady increase in the average age of pedalcyclists killed and injured (Table 3).

Table 3

Average Age of Pedalcyclists Killed and Injured, 2002–2011

Year	Pedalcyclists Killed Average Age	Pedalcyclists Injured Average Age
2002	36	28
2003	36	27
2004	39	29
2005	39	29
2006	41	30
2007	40	30
2008	41	31
2009	41	31
2010	42	31
2011	43	32
2002–2011	40	30

Pedalcyclists ages 45–54 had the highest fatality rate (3.51) based on population (Table 4). However, the highest injury rate (380) occurred in the 16–20 age group. The age group 16 and younger accounted for 10 percent of all pedalcyclists killed and 19 percent of all those injured in traffic crashes in 2011, compared to 23 percent of those killed and 39 percent of those injured in 2002.

Gender

The majority of the pedalcyclists killed or injured in 2011 were males (85% and 78%, respectively). The highest number of male fatalities were between the ages of 45–54 (130), and the most males injured were between 16–20 (6,000).

In 2011, the pedalcyclist fatality rate per capita was almost six times higher for males than for females, and the injury rate per capita was almost four times higher for males (Table 4).

Table 4

Pedalcyclists Killed and Injured and Fatality and Injury Rates by Age and Sex, 2011

Age (Years)	Male			Female			Total		
	Killed	Population (thousands)	Fatality Rate*	Killed	Population (thousands)	Fatality Rate*	Killed	Population (thousands)	Fatality Rate*
<5	3	10,300	0.29	2	9,863	0.20	5	20,162	0.25
5–9	17	10,384	1.64	9	9,950	0.90	26	20,334	1.28
10–15	27	12,717	2.12	8	12,145	0.66	35	24,862	1.41
16–20	44	11,339	3.88	6	10,745	0.56	50	22,083	2.26
21–24	42	8,963	4.69	11	8,594	1.28	53	17,558	3.02
25–34	59	21,044	2.80	12	20,746	0.58	71	41,790	1.70
35–44	72	20,223	3.56	6	20,404	0.29	78	40,628	1.92
45–54	130	22,019	5.90	27	22,699	1.19	157	44,718	3.51
55–64	98	18,358	5.34	10	19,704	0.51	108	38,062	2.84
65–74	50	10,476	4.77	8	12,005	0.67	58	22,482	2.58
75–84	23	5,573	4.13	0	7,602	0.00	23	13,175	1.75
85+	9	1,894	4.75	0	3,843	0.00	9	5,737	1.57
Total†	578	153,291	3.77	99	158,301	0.63	677	311,592	2.17
Age (Years)	Male			Female			Total		
	Injured	Population (thousands)	Injury Rate*	Injured	Population (thousands)	Injury Rate*	Injured	Population (thousands)	Injury Rate*
<5	**	10,300	**	**	9,863	**	**	20,162	**
5–9	2,000	10,384	175	1,000	9,950	57	2,000	20,334	117
10–15	5,000	12,717	409	2,000	12,145	137	7,000	24,862	276
16–20	6,000	11,339	497	3,000	10,745	257	8,000	22,083	380
21–24	3,000	8,963	360	1,000	8,594	129	4,000	17,558	247
25–34	5,000	21,044	252	2,000	20,746	83	7,000	41,790	168
35–44	4,000	20,223	213	**	20,404	**	5,000	40,628	116
45–54	5,000	22,019	236	1,000	22,699	57	7,000	44,718	146
55–64	4,000	18,358	243	1,000	19,704	41	5,000	38,062	138
65–74	2,000	10,476	155	**	12,005	**	2,000	22,482	80
75–84	1,000	5,573	110	**	7,602	**	1,000	13,175	48
85+	**	1,894	**	**	3,843	**	**	5,737	**
Total	38,000	153,291	245	11,000	158,301	67	48,000	311,592	154

* Rate per million population.

** Less than 500 injured, injury rate not shown.

† Total includes 4 males killed of unknown age.

Source: Fatalities — Fatality Analysis Reporting System, NHTSA. Injured — General Estimates System, NHTSA. Population — Bureau of the Census projections.

Alcohol Involvement

More than one-fourth (28%) of the pedalcyclists killed in 2011 had a blood alcohol concentration (BAC) of .01 grams per deciliter (g/dL) or higher, and around one-fourth (23%) had a BAC of .08 g/dL or higher. Alcohol-involvement—either for the driver of a motor vehicle or the pedalcyclist—was reported in more than 37 percent of the traffic crashes that resulted in pedalcyclist fatalities in 2011. In 31 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 6 percent of the crashes (Table 5).

Table 5

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

Year	BAC=.00		BAC=.01–.07		BAC=.08+		BAC=.01+		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
2010	413	66	28	4	182	29	209	34	622
2011	424	63	41	6	210	31	251	37	675

Alcohol involvement was reported in more than 37 percent of all fatal pedalcyclist crashes in 2011.

Table 6 shows total traffic fatalities, pedalcyclist fatalities, population and fatality rates by State in 2011. Among all States, fatalities in motor vehicle traffic crashes in 2011 ranged from 3,016 (highest) to 27 (lowest) depending on the size and population of the State. Pedalcyclists fatalities were highest in Florida (125), followed by California (114), and New York (57). There were no pedalcyclist fatalities in Delaware, Idaho, Maine, Rhode Island, Vermont and West Virginia. The proportion of pedalcyclist fatalities among total fatalities in States ranged from a high of 5.2 percent (Florida) to a low of 0.1 percent (Missouri and Oklahoma). The highest fatality rate per million population was in Florida (6.56) followed by Oregon (3.87).

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.



U.S. Department
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**National Highway
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Table 6

Total and Pedalcyclist Traffic Fatalities and Fatality Rates by State, 2011

State	Total Traffic Fatalities	Resident Population (thousands)	Pedalcyclist Fatalities	Percent of Total	Pedalcyclist Fatalities per Million Population
Alabama	894	4,803	5	0.6	1.04
Alaska	72	723	2	2.8	2.77
Arizona	825	6,483	23	2.8	3.55
Arkansas	549	2,938	6	1.1	2.04
California	2,791	37,692	114	4.1	3.02
Colorado	447	5,117	8	1.8	1.56
Connecticut	220	3,581	8	3.6	2.23
Delaware	99	907	0	0	0
Dist of Columbia	27	618	1	3.7	1.62
Florida	2,398	19,058	125	5.2	6.56
Georgia	1,223	9,815	14	1.1	1.43
Hawaii	100	1,375	2	2.0	1.45
Idaho	167	1,585	0	0	0
Illinois	918	12,869	27	2.9	2.10
Indiana	750	6,517	11	1.5	1.69
Iowa	360	3,062	5	1.4	1.63
Kansas	386	2,871	2	0.5	0.70
Kentucky	721	4,369	2	0.3	0.46
Louisiana	675	4,575	18	2.7	3.93
Maine	136	1,328	0	0	0
Maryland	485	5,828	5	1.0	0.86
Massachusetts	337	6,588	5	1.5	0.76
Michigan	889	9,876	24	2.7	2.43
Minnesota	368	5,345	5	1.4	0.94
Mississippi	630	2,979	7	1.1	2.35
Missouri	784	6,011	1	0.1	0.17
Montana	209	998	1	0.5	1.00
Nebraska	181	1,843	2	1.1	1.09
Nevada	246	2,723	4	1.6	1.47
New Hampshire	90	1,318	4	4.4	3.03
New Jersey	627	8,821	17	2.7	1.93
New Mexico	353	2,082	4	1.1	1.92
New York	1,169	19,465	57	4.9	2.93
North Carolina	1,227	9,656	25	2.0	2.59
North Dakota	148	684	1	0.7	1.46
Ohio	1,016	11,545	16	1.6	1.39
Oklahoma	696	3,792	1	0.1	0.26
Oregon	331	3,872	15	4.5	3.87
Pennsylvania	1,286	12,743	11	0.9	0.86
Rhode Island	66	1,051	0	0	0
South Carolina	828	4,679	15	1.8	3.21
South Dakota	111	824	1	0.9	1.21
Tennessee	946	6,403	5	0.5	0.78
Texas	3,016	25,675	43	1.4	1.67
Utah	240	2,817	5	2.1	1.77
Vermont	55	626	0	0	0
Virginia	764	8,097	6	0.8	0.74
Washington	457	6,830	11	2.4	1.61
West Virginia	337	1,855	0	0	0
Wisconsin	582	5,712	12	2.1	2.10
Wyoming	135	568	1	0.7	1.76
U.S. Total	32,367	311,592	677	2.1	2.17
Puerto Rico	359	3,707	7	1.9	1.89

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