Traffic Safety Facts

2013 Data

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Bicyclists and Other Cyclists

Key Findings

- The 743 pedalcyclist deaths in 2013 accounted for 2 percent of all traffic fatalities during the year.
- Sixty-eight percent of all pedalcyclists who died in motor vehicle crashes in 2013 died in urban area crashes.
- Over a 10-year period (2004 to 2013), the average age of pedalcyclists killed in motor vehicle crashes has steadily increased from 39 to 44.
- The pedalcyclist fatality rate per capita (rate per *million* people) was almost 7 times greater for males than females in 2013.
- Alcohol involvement—either for the motor vehicle operator or for the pedalcyclist—was reported in more than 34 percent of all fatal pedalcyclist crashes in 2013.
- Of the pedalcyclists who died in 2013, 24 percent of them had blood alcohol concentrations (BACs) of .01 g/dL or greater.

Pedalcyclists, as defined for this fact sheet, are bicyclists and other cyclists including riders of two-wheel, nonmotorized vehicles, tricycles, and unicycles powered solely by pedals. A traffic crash is defined as an incident that involved one or more motor vehicles where at least one vehicle was in transport and the crash originated on a public traffic way, such as a road or highway. Crashes that occurred on private property, including parking lots and driveways, are excluded. Pedalcyclist crashes in this fact sheet will not include bicycle wrecks that do not involve motor vehicles.

In this fact sheet, the 2013 pedalcyclist information is presented in the following order.

- Overview
- Environmental Characteristics
- Age
- Gender
- Alcohol Involvement
- Fatalities by State
- Important Safety Reminders

Overview

In 2013, there were 743 pedalcyclists killed and an estimated 48,000 injured in motor vehicle traffic crashes. Pedalcyclist deaths accounted for 2 percent of all motor vehicle traffic fatalities (Table 1) and injured pedalcyclists made up 2 percent of the people injured in traffic crashes during the year.

The number of pedalcyclists killed in 2013 is 1 percent higher than the 734 pedalcyclists killed in 2012. The increase in 2013 is the third straight increase in pedalcyclist fatalities, a 19-percent increase since 2010.

Table 1
Total Fatalities and Pedalcyclist Fatalities in Traffic Crashes, 2004-2013

Year	Total Fatalities	Pedalcyclist Fatalities	Percentage of Total Fatalities
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	32,479	682	2.1%
2012	33,782	734	2.2%
2013	32,719	743	2.3%

Source: Fatality Analysis Reporting System (FARS) 2004-2012 Final File, 2013 Annual Report File (ARF).

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National Highway Traffic Safety Administration
1200 New Jersey Avenue SE.
Washington, DC 20590

Environmental Characteristics

Table 2 shows information about the setting surrounding the pedalcyslist fatalities in 2013 including land use, pedalcyclist location, and time of day.

- The majority occurred in urban areas (68%) as opposed to rural areas (32%).
- Most occurred at non-intersections (57%); a decrease from the 60 percent at non-intersections in 2012.
- Over half (56%) occurred from 3 p.m. to 11:59 p.m.
- The fewest pedalcyclist fatalities occurred from midnight to 5:59 a.m. (5% in each time frame).

Table 2

Percentage of Pedalcyclist Fatalities in Relation to Land Use, Pedalcyclist Location, and Time of Day, 2013

Crash Setting Characteristic	Percentage of the Pedalcyclists Killed	
	2012	2013
Land Use		
Rural	31%	32%
Urban	69%	68%
Pedalcyclist Location		
Intersection	30%	34%
Non-Intersection	60%	57%
Other	10%	9%
Time of Day		
Midnight – 2:59 a.m.	6%	5%
3 a.m. – 5:59 a.m.	5%	5%
6 a.m. – 8:59 a.m.	12%	11%
9 a.m. – 11:59 a.m.	10%	11%
Noon – 2:59 p.m.	14%	11%
3 p.m. – 5:59 p.m.	13%	17%
6 p.m. – 8:59 p.m.	24%	22%
9 p.m. – 11:59 p.m.	16%	17%

Source: FARS 2012 Final File, 2013 ARF.
Note: Percentage of unknown values are not displayed.

Age

In 2013, the average age of pedalcyclists killed in traffic crashes was 44. During the decade from 2004 to 2013, there was a steady increase in the average age of pedalcyclists both killed and injured in incidents involving motor vehicles as shown in Table 3.

Table 3

Average Age of Pedalcyclists Killed and Injured 2004–2013

Year	Average Age of Pedalcyclist Killed	Average Age of Pedalcyclist Injured
2004	39	29
2005	39	29
2006	41	30
2007	40	29
2008	41	30
2009	41	30
2010	42	31
2011	43	32
2012	43	32
2013	44	32
2004–2013	**41**	**31**

Sources: FARS 2004–2012 Final File, 2013 ARF. National Automotive Sampling System (NASS) General Estimates System (GES) 2004–2013.

Pedalcyclists 55 to 59 years old had the highest fatality rate (4.86 per *million* people) based on population. However, the highest injury rate (376 per *million* people) occurred in the 20-to-24 age group.

Children under 15 accounted for 7 percent of all pedalcyclists killed and 11 percent of those injured in traffic crashes in 2013. Table 4 provides a breakdown of pedalcyclist killed and injured in 2013, as well as fatality and injury rates according to the age of the pedalcyclist.

Table 4

Pedalcyclists Killed and Injured and Fatality and Injury Rates by Age and Gender, 2013

Age (Years)	Male			Female			Total		
	Killed	Population (thousands)	Fatality Rate*	Killed	Population (thousands)	Fatality Rate*	Killed	Population (thousands)	Fatality Rate*
<5	3	10,152	0.30	0	9,716	0.00	3	19,868	0.15
5–9	15	10,509	1.43	2	10,062	0.20	17	20,571	0.83
10–14	30	10,553	2.84	2	10,098	0.20	32	20,650	1.55
Children (≤14)	48	31,214	1.54	4	29,875	0.13	52	61,089	0.85
15–19	49	10,846	4.52	8	10,313	0.78	57	21,159	2.69
20–24	37	11,679	3.17	17	11,116	1.53	54	22,795	2.37
25–29	35	10,960	3.19	7	10,620	0.66	42	21,580	1.95
30–34	26	10,682	2.43	4	10,583	0.38	30	21,264	1.41
35–39	25	9,785	2.55	4	9,819	0.41	29	19,604	1.48
40–44	40	10,360	3.86	4	10,489	0.38	44	20,849	2.11
45–49	66	10,498	6.29	10	10,710	0.93	76	21,208	3.58
50–54	79	11,071	7.14	12	11,488	1.04	91	22,559	4.03
55–59	91	10,282	8.85	12	10,912	1.10	103	21,194	4.86
60–64	52	8,674	5.99	7	9,448	0.74	59	18,122	3.26
65–69	41	6,913	5.93	4	7,696	0.52	45	14,609	3.08
70–74	22	4,884	4.50	2	5,724	0.35	24	10,608	2.26
75–79	12	3,390	3.54	1	4,288	0.23	13	7,678	1.69
80+	17	4,412	3.85	1	7,397	0.14	18	11,809	1.52
Seniors (≥65)	92	19,600	4.69	8	25,104	0.32	100	44,704	2.24
Total†	645	155,652	4.14	97	160,477	0.60	742	316,129	2.35

Age (Years)	Male			Female			Total		
	Injured	Population (thousands)	Injury Rate*	Injured	Population (thousands)	Injury Rate*	Injured	Population (thousands)	Injury Rate*
<5	**	10,152	**	**	9,716	**	**	19,868	**
5–9	1,000	10,509	73	**	10,062	**	1,000	20,571	50
10–14	3,000	10,553	325	1,000	10,098	53	4,000	20,650	192
Children (≤14)	4,000	31,214	136	1,000	29,875	29	5,000	61,089	83
15–19	5,000	10,846	486	1,000	10,313	130	7,000	21,159	313
20–24	7,000	11,679	623	1,000	11,116	117	9,000	22,795	376
25–29	5,000	10,960	428	1,000	10,620	81	6,000	21,580	257
30–34	4,000	10,682	331	1,000	10,583	61	4,000	21,264	197
35–39	2,000	9,785	164	**	9,819	**	2,000	19,604	101
40–44	3,000	10,360	327	**	10,489	**	4,000	20,849	176
45–49	3,000	10,498	282	1,000	10,710	89	4,000	21,208	184
50–54	3,000	11,071	245	**	11,488	**	3,000	22,559	139
55–59	1,000	10,282	142	**	10,912	**	2,000	21,194	82
60–64	1,000	8,674	142	**	9,448	**	1,000	18,122	76
65–69	1,000	6,913	88	**	7,696	**	1,000	14,609	70
70–74	1,000	4,884	117	**	5,724	**	1,000	10,608	61
75–79	**	3,390	**	**	4,288	**	**	7,678	**
80+	**	4,412	**	**	7,397	**	**	11,809	**
Seniors (≥65)	2,000	19,600	88	1,000	25,104	22	2,000	44,704	51
Total	40,000	155,652	258	8,000	160,477	50	48,000	316,129	152

Sources: FARS 2012 Final File, 2013 ARF. NASS GES 2013. Bureau of the Census population.
*Rate per million population.
**Less than 500 injured; injury rate not shown.
†Total inludes 5 male fatalities of unknown age. One pedalcyclist of unknown gender is not included.
Note: Injured totals may not equal sum of components due to independent rounding.

Gender

The majority of the pedalcyclists killed (87%) or injured (83%) in 2013 were males. The highest number of male fatalities were 55 to 59 years old (91), and the most males injured were between 20 to 24 years old (7,000). In 2013, the pedalcycist fatality rate per capita was almost 7 times higher for males than for females, and the injury rate per capita was over 5 times higher for males (Table 4).

Alcohol Involvement

Almost one-fourth (24%) of the pedalcyclists killed in 2013 had BACs of .01 g/dL or higher, and one-fifth (20%) had BACs of .08 g/dL or higher.

Alcohol involvement (BAC of .01+ g/dL)—either for the motor vehicle driver or the pedalcyclist—was reported in 34 percent of the traffic crashes that resulted in pedalcyclist fatalities in 2013 as shown in Table 5. In 29 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 5 percent of the crashes.

Table 5

Crashes Involving Pedalcyclist Fatalities by the Highest BAC of Involved Pedalcyclists and Drivers

	BAC=.00		BAC=.01-.07		BAC=.08+		BAC=.01+		Total
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
2012	456	62%	39	5%	236	32%	275	38%	730
2013	488	66%	39	5%	213	29%	252	34%	740

Source: FARS 2012 Final File, 2013 ARF.

Fatalities by State

Table 6 shows total traffic fatalities, pedalcyclist fatalities, population, and fatality rates by State in 2013. Among all States and the District of Columbia (DC), fatalities in all motor vehicle traffic crashes in 2013 ranged from 3,382 (highest) to 20 (lowest) depending on the size and population of the State and DC. Included also in Table 6 is Puerto Rico, which is not included in the overall U.S. total. In 2013:

- Pedalcyclist fatalities were highest in California (141), Florida (133) and Texas (48).
- There were no pedalcyslist fatalities in Vermont, Wyoming, South Dakota, Nebraska, and West Virginia.
- The proportion of pedalcyclist fatalities among total fatalities in States ranged from a high of 5.5 percent (Florida) to a low of 0.4 percent (Montana) for those States experiencing pedalcyclist fatalities, compared to the national proportion of 2.3 percent.
- The highest fatality rate per *million* population was in Florida (6.80 fatalities per *million* residents) followed by Arizona (4.70 fatalities per *million* residents), compared to the national rate of 2.35.

Table 6

Total and Pedalcyclist Traffic Fatalities and Fatality Rates by State, 2013

State	Total Traffic Fatalities	Pedalcyclist Fatalities	Percentage of Total Traffic Fatalities	Resident Population (thousands)	Pedalcyclist Fatalities per Million Population
Alabama	852	6	0.7%	4,834	1.24
Alaska	51	1	2.0%	735	1.36
Arizona	849	31	3.7%	6,627	4.68
Arkansas	483	4	0.8%	2,959	1.35
California	3,000	141	4.7%	38,333	3.68
Colorado	481	12	2.5%	5,268	2.28
Connecticut	276	3	1.1%	3,596	0.83
Delaware	99	1	1.0%	926	1.08
Dist of Columbia	20	1	5.0%	646	1.55
Florida	2,407	133	5.5%	19,553	6.80
Georgia	1,179	28	2.4%	9,992	2.80
Hawaii	102	2	2.0%	1,404	1.42
Idaho	214	3	1.4%	1,612	1.86
Illinois	991	30	3.0%	12,882	2.33
Indiana	783	14	1.8%	6,571	2.13
Iowa	317	3	0.9%	3,090	0.97
Kansas	350	6	1.7%	2,894	2.07
Kentucky	638	3	0.5%	4,395	0.68
Louisiana	703	14	2.0%	4,625	3.03
Maine	145	4	2.8%	1,328	3.01
Maryland	465	6	1.3%	5,929	1.01
Massachusetts	326	6	1.8%	6,693	0.90
Michigan	947	27	2.9%	9,896	2.73
Minnesota	387	6	1.6%	5,420	1.11
Mississippi	613	6	1.0%	2,991	2.01
Missouri	757	4	0.5%	6,044	0.66
Montana	229	1	0.4%	1,015	0.99
Nebraska	211	0	0.0%	1,869	0.00
Nevada	262	7	2.7%	2,790	2.51
New Hampshire	135	4	3.0%	1,323	3.02
New Jersey	542	14	2.6%	8,899	1.57
New Mexico	310	4	1.3%	2,085	1.92
New York	1,199	40	3.3%	19,651	2.04
North Carolina	1,289	22	1.7%	9,848	2.23
North Dakota	148	1	0.7%	723	1.38
Ohio	989	19	1.9%	11,571	1.64
Oklahoma	678	13	1.9%	3,851	3.38
Oregon	313	3	1.0%	3,930	0.76
Pennsylvania	1,208	11	0.9%	12,774	0.86
Rhode Island	65	3	4.6%	1,052	2.85
South Carolina	767	15	2.0%	4,775	3.14
South Dakota	135	0	0.0%	845	0.00
Tennessee	995	8	0.8%	6,496	1.23
Texas	3,382	48	1.4%	26,448	1.81
Utah	220	6	2.7%	2,901	2.07
Vermont	69	0	0.0%	627	0.00
Virginia	740	8	1.1%	8,260	0.97
Washington	436	11	2.5%	6,971	1.58
West Virginia	332	0	0.0%	1,854	0.00
Wisconsin	543	10	1.8%	5,743	1.74
Wyoming	87	0	0.0%	583	0.00
U.S. Total	32,719	743	2.3%	316,129	2.35
Puerto Rico	344	11	3.2%	3,615	3.04

Source: FARS 2013 ARF. Bureau of Census population.

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 of clearance when passing bicyclists on the road, look for cyclists before opening a car door or pulling 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, and at 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

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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 by e-mail at ncsaweb@dot.gov. General information on highway traffic safety can be found 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, 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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