

# TRAFFIC SAFETY FACTS

DOT HS 811 767

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# Children

In 2011, there were 61 million children age 14 and younger in the United States, 20 percent of the total U.S. resident population in 2011.

Motor vehicle crashes were the leading cause of death for children age 4 and every age 11 through 14 (based on 2009 figures, which are the latest mortality data currently available from the National Center for Health Statistics).

During 2011, there were a total of 32,367 traffic fatalities in the United States. The 14-and-younger age group accounted for 1,140 (4%) of those traffic fatalities, which is a 6-percent decrease from the 1,211 fatalities in 2010. In 2011, there were 171,000 children age 14 and younger injured, which remained the same as in 2010.

An average of 3 children age 14 and younger were killed and 469 were injured every day in the United States in motor vehicle crashes during 2011. From 2002 to 2011, the number of fatalities in the 14-and-younger age group decreased by 46 percent, with the 8- to 14-year-old age group showing the largest decrease (49%) (see Figure 1).

#### Figure 1 Traffic Fatalities Among Children Age 14 and Younger, by Age Group, 2002–2011



In the 14-and-younger age group, males accounted for 56 percent of the fatalities and 52 percent of those injured in motor vehicle crashes during 2011.

Motor vehicle crashes were the leading cause of death for children age 4 and every age 11 through 14.

#### **Restraint Use and Its Effectiveness**

Research has shown that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front seat occupants (age 5 and older) of passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 60 percent and the risk of moderate-to-critical injury by 60 percent.

During 2011, 4,953 passenger vehicle occupants age 14 and younger were involved in fatal crashes. For these children for whom restraint use was known, 20 percent were unrestrained (Table 1); among these who were fatally injured, 41 percent were unrestrained.

Table 1

# Percent of Passenger Vehicle Occupants Involved in Fatal Crashes, by Restraint Use and Age Group, 2011

	Age Group (Years)							
Restraint Use (%)	<1	1–3	4–7	8–14	<15	15–20	All Other	Total
Restraint Used	91	88	81	74	80	60	69	69
Restraint Not Used	9	12	19	26	20	40	31	31

Note: Excluding unknown age and unknown restraint use.

Research on the effectiveness of child safety seats has found them to reduce fatal injury by 71 percent for infants (younger than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively.

In 2011, there were 274 passenger vehicle occupant fatalities among children age 4 and younger. Of those 274 fatalities, where restraint use was known (255), 76 (30%) were totally unrestrained (Table 2).

#### Table 2

## Children Age 4 and Younger Killed in Passenger Vehicles, by Type of Restraint and Age Group, 2011

	Age Grou		
Type of Restraint	<1	1–4	Total
None Used	12	64	76
Adult Seat Belt	2	19	21
Child Seat	40	117	157
Restraint Used—Unknown	0	1	1
Unknown	5	14	19
Total	59	215	274

Among children under age 5 in passenger vehicles, an estimated 263 lives were saved in 2011 by restraint use. Of these 263 lives saved, 245 were associated with the use of child safety seats and 18 with the use of adult seat belts. At 100-percent child safety seat use for children under age 5, an estimated 314 lives (that is, an additional 51) could have been saved in 2011.

Over the period 1975 through 2011 an estimated 9,874 lives were saved by child restraints (child safety seats or adult seat belts) for children under the age of 5 in passenger vehicles.

Child safety seats reduce the risk of fatal injury by 71 percent for infants and by 54 percent for toddlers in passenger cars. NHTSA conducted the National Survey of the Use of Booster Seats (NSUBS) and produced a Technical Report (DOT HS 811 377) in September 2010 titled "The 2009 National Survey of the Use of Booster Seats." Table 3 provides data on the use of child restraints by age and race/ethnicity in 2009. Child restraints include child safety seats, seat belts, and booster seats.

#### Table 3

#### Child Restraint Use, by Age and Race/Ethnicity in 2009

Race/Ethnicity (Percent)	Age <1 Year	Age 1–3 Years	Age 4–7 Years	Age 8–12 Years
Hispanic	94%	88%	74%	79%
African American Non-Hispanic	98%	92%	83%	75%
White Non-Hispanic	99%	99%	93%	91%
Asian Non-Hispanic	NA	100%	97%	80%
Other	NA	99%	94%	90%

NA: Data not sufficient to produce a reliable estimate

Source: The 2009 National Survey of the Use of Booster Seats, NCSA/NHTSA (DOT HS 811 377)

#### **Pedestrians**

There were a total of 4,432 pedestrian fatalities in 2011, the 14-and-younger age group accounted for 230 (5%) of those fatalities. One-fifth (20%) of the traffic fatalities in the 14-and-younger age group were pedestrians.

In 2002, there were 391 pedestrian fatalities in the 14-and-younger age group. From 2002 to 2011, the number of pedestrian fatalities in this age group decreased by 41 percent, with the 4- to 7-year-old age group showing the largest percentage decrease (52%) (see Figure 2).

#### Figure 2





#### **Important Safety Reminders**

- Failure to read the child safety seat instructions, in addition to vehicle owner's manual instructions regarding seat belts, could result in death or serious injury as a result of a failure of the child safety seat to be properly secured and/or properly restrained.
- Children in rear-facing child seats should not be placed in the front seat of vehicles equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child seat could result in injury to the child. NHTSA also recommends that children 12 and younger sit in the rear seat away from the force of a deploying air bag.
- Children age 12 and younger are safest when properly buckled in the back seat of a motor vehicle.
- Always read the child restraint manufacturer instructions and the vehicle owner manual instructions.

Of the 230 pedestrian fatalities among children age 14 and younger in 2011, 140 (61%) of those killed were males.

In 2011, an estimated 69,000 pedestrians were injured, 11,000 of those injured were age 14 and younger, and males accounted for 65 percent (7,000) of those 11,000 injured.

During 2011, the highest percentage of fatalities among pedestrians 14 and younger occurred between 4 p.m. and 7:59 p.m. (43%). The second highest percentage of fatalities among young pedestrians were between the hours of 8 p.m. and 11:59 p.m. (25%). Between the hours of noon and 3:59 p.m. the 14-and-younger age group accounted for 16 percent of the pedestrian fatalities.

Seventy-nine percent of the pedestrian fatalities among the 14-and-younger age group occurred at non-intersection locations, a decrease from 82 percent in 2010.

#### Pedalcyclists

Pedalcyclists are riders of bicycles (two-wheel non-motorized cycles) and other cycles (tricycles and unicycles) powered solely by pedals.

A total of 677 pedalcyclists were killed in motor vehicle crashes in 2011. The 14-and-younger age group accounted for 9 percent (59) of those fatalities, and males accounted for 69 percent (41) of the fatalities among pedalcyclists age 14 and younger.

The 59 pedalcyclist fatalities in 2011 for the 14-and-younger age group represent a decrease of 58 percent from the 141 killed in 2002, with the 8- to 14-year-old age group showing the largest percentage decrease (65%) (see Figure 3).

#### Figure 3

Pedalcyclist Fatalities Among Children 14 and Younger, by Age Group, 2002–2011



In 2011, an estimated 48,000 pedalcyclists were injured in motor vehicle traffic crashes. Sixteen percent (or an estimated 8,000) of the pedalcyclists who were injured were age 14 and younger.

In 2011, 16 percent of the pedalcyclists injured in motor vehicle crashes were 14 years old and younger.

#### **Alcohol-Impaired Driving Crashes and Children**

In 2011, of the 1,140 children age 14 and younger killed, 181 (16%) were killed in alcohol-impaired-driving crashes. Out of those 181 deaths, 50 percent (91) were passengers of a vehicle with a driver who had a blood alcohol concentration (BAC) of .08 grams per deciliter (g/dL) or higher.

Twenty-five children age 14 and younger who were killed in traffic crashes in 2011 were pedestrians or pedalcyclists who were struck by drivers with a BAC of .08 g/dL or higher.

#### **Fatalities Among Children by State**

Table 4 shows traffic fatalities among children age 14 and younger by State and age group in 2011. Among children age 14 and younger who died in motor vehicle traffic crashes in 2011, more than half (576) were 8 to 14 years old, highest among all age groups. The second highest age group was 4- to 7-year-old age group (282), followed by toddlers (220) and infants (62). Among all States, children fatalities in the 14-and-younger age group ranged from 119 (highest) to 0 (lowest) depending on the size and population of the State.

In 2011, 16 percent of the children age 14 and younger killed in crashes were killed in alcohol-impaired driving crashes.

#### 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 on 800-934-8517 or via the following email address: ncsaweb@dot.gov. General information on highway traffic safety can be accessed by Internet users at www.nhtsa.gov/portal/site/nhtsa/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, Bicyclists and Other Cyclists, 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 of Transportation

National Highway Traffic Safety Administration

### Table 4Fatalities Among Children Age 14 and Younger, by State and Age Group, 2011

	Age Group (Years)				
State	<1	1–3	4–7	8–14	Total
Alabama	3	8	12	19	42
Alaska	1	0	4	2	7
Arizona	4	7	7	16	34
Arkansas	0	4	4	10	18
California	2	20	27	42	91
Colorado	0	0	5	11	16
Connecticut	0	1	1	3	5
Delaware	0	0	3	1	4
Dist of Columbia	0	0	0	0	0
Florida	3	11	16	38	68
Georgia	5	10	10	29	54
Hawaii	0	1	0	1	2
Idaho	0	0	4	4	8
Illinois	2	9	9	16	36
Indiana	3	5	7	15	30
lowa	2	1	3	4	10
Kansas	0	4	4	8	16
Kentucky	1	5	7	9	22
Louisiana	1	5	8	14	28
Maine	0	<u>5</u>	1	3	5
Maryland	1	3	4	8	16
Massachusetts	0	<u> </u>	2	0	3
	0			12	22
Michigan		4	6		
Minnesota	1	2	2	7	12
Mississippi	0	7	16	13	36
Missouri	0	6	6	23	35
Montana	0	0	2	4	6
Nebraska	0	3	0	0	3
Nevada	0	1	1	4	6
New Hampshire	0	0	1	1	2
New Jersey	2	1	1	14	18
New Mexico	1	6	6	10	23
New York	0	4	10	18	32
North Carolina	3	8	10	20	41
North Dakota	0	2	3	3	8
Ohio	1	7	9	19	36
Oklahoma	1	10	8	14	33
Oregon	1	2	1	10	14
Pennsylvania	0	7	5	13	25
Rhode Island	0	1	0	0	1
South Carolina	0	8	7	16	31
South Dakota	0	0	1	1	2
Tennessee	4	2	10	19	35
Texas	12	28	23	56	119
Utah	2	8	4	8	22
Vermont	1	1	0	0	2
Virginia	2	2	5	12	21
Washington	1	1	2	7	11
West Virginia	0	1	1	6	8
Wisconsin	2	1	2	10	15
Wyoming	0	1	2	3	6
National	<b>62</b>	220	282	<b>576</b>	<u> </u>
Puerto Rico	02	220	4	5	1,140 11

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