



# Traffic Safety Facts 2002

## Children



*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*

In 2002, there were more than 60 million children under 15 years old in the United States. This age group (0-14 years) made up 21 percent of the total U.S. resident population in 2002.

Motor vehicle crashes are the **leading cause of death** for children of every age from 2 to 14 years old (based on 2000 figures, which are the latest mortality data currently available from the National Center for Health Statistics).

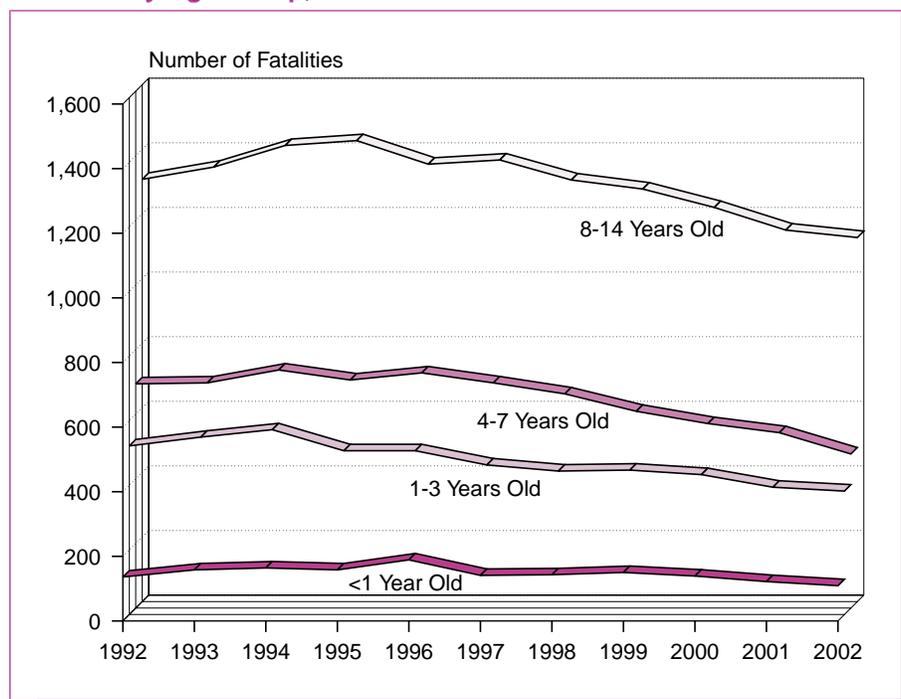
In 2002, there were a total of 42,815 traffic fatalities in the United States. The 0-14 age group accounted for 5 percent (2,095) of those **traffic fatalities**. In addition, children under 15 years old accounted for 4 percent (1,543) of all vehicle **occupant fatalities**, 9 percent (263,000) of all the **people injured** in motor vehicle crashes, and 8 percent (227,000) of all the **vehicle occupants injured** in crashes.

In the United States, an average of 6 children 0-14 years old were killed and 721 were injured every day in motor vehicle crashes during 2002.

In the 0-14 year age group, males accounted for 58 percent of the fatalities and 49 percent of those injured in motor vehicle crashes during 2002.

*“Motor vehicle crashes are the leading cause of death for children from 2 to 14 years old.”*

**Figure 1. Total Traffic Fatalities Among Children 0-14 Years Old by Age Group, 1992-2002**



### Child Endangerment

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.

In 2002, 22 percent of the children under 15 years old who were killed in motor vehicle crashes were killed in alcohol-related crashes.

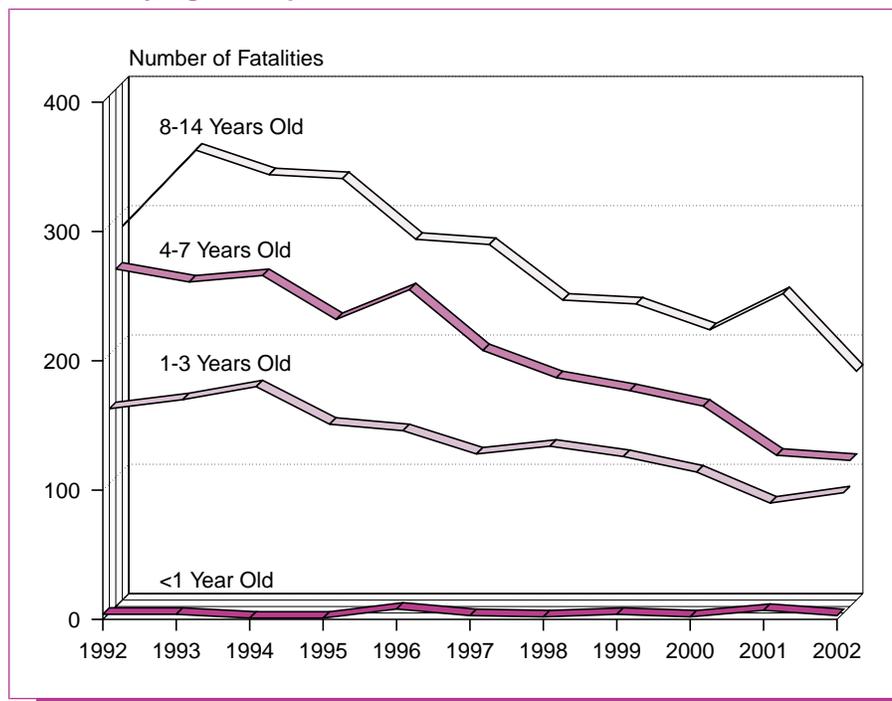
Of the children 0-14 years old who were killed in alcohol-related crashes during 2002, more than half (239) were passengers in vehicles with drivers who had been drinking, with blood alcohol concentration (BAC) levels of 0.01 gram per deciliter (g/dl) or higher. An additional 111 children were killed as passengers in vehicles with drivers who had not been drinking.

Another 60 children under 15 years old who were killed in traffic crashes in 2002 were pedestrians or pedalcyclists who were struck by drinking drivers (BAC  $\geq$  0.01 g/dl).

### Pedestrians

In 1992, there were 712 pedestrian fatalities in the 0-14 year age group. From 1992 to 2002, the number of pedestrian fatalities in this age group decreased by 46 percent, with the 4-7 year age group showing the largest decrease.

**Figure 2. Total Pedestrian Fatalities Among Children 0-14 Years Old by Age Group, 1992-2002**



**“In 2002, 22 percent of the children under 15 years old killed in crashes were killed in alcohol-related crashes.”**

There were 4,808 pedestrian fatalities in 2002. The 0-14 age group accounted for 386 (8 percent) of those fatalities, and 62 percent of the pedestrian fatalities in this age group were males.

In addition to the pedestrians under 15 years old who died, 17,000 were injured in motor vehicle crashes. These young pedestrians accounted for 24 percent of the total pedestrians injured in motor vehicle crashes in 2002.

Almost one-fifth (18 percent) of the traffic fatalities in the 0-14 year age group were pedestrians.

During 2002, 40 percent of the young pedestrian fatalities occurred between the hours of 4 pm and 8 pm, and 79 percent occurred at non-intersection locations.

### Pedalcyclists

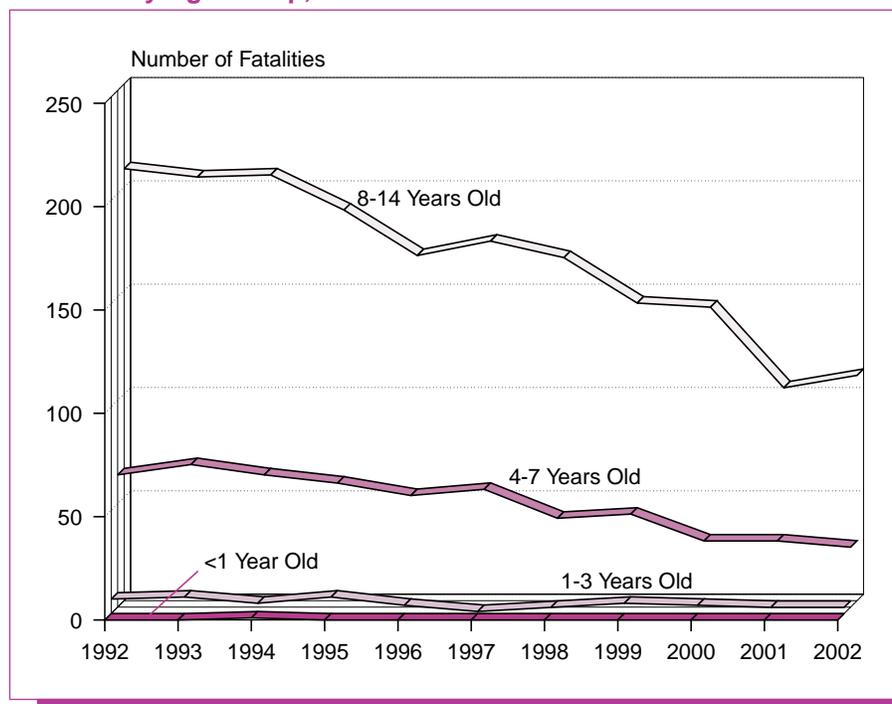
A total of 662 pedalcyclists were killed in motor vehicle crashes in 2002. Children 0-14 years old accounted for 141 (21 percent) of those fatalities.

In 2002, 36 percent of the pedalcyclists injured in motor vehicle crashes were under 15 years old.

The 141 pedalcyclist fatalities in 2002 for the 0-14 year age group represent a decrease of 50 percent from the 280 killed in 1992.

Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries in all types of bicycle incidents, making the use of helmets the **single most effective countermeasure** available to reduce head injuries and fatalities resulting from bicycle crashes. (Source: Robert Thompson, *A Case Control Study of the Effectiveness of Bicycle Safety Helmets*, Centers for Disease Control.)

Figure 3. Total Pedalcyclist Fatalities Among Children 0-14 Years Old by Age Group, 1992-2002



**“In 2002, 36 percent of the pedalcyclists injured in motor vehicle crashes were under 15 years old.”**

**Restraints**

Research has shown that lap/shoulder safety belts, when used, **reduce the risk of fatal injury** to front seat occupants (age 5 years and older) of passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light truck occupants, safety belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 65 percent.

During 2002, 7,739 passenger vehicle occupants under 15 years old were involved in fatal crashes. For those children, where restraint use was known, 32 percent were unrestrained; among those who were fatally injured, 50 percent were unrestrained.

**Table 1. Restraint Use by Passenger Vehicle Occupants Involved in Fatal Crashes by Age Group, 2002**

Percentage Unrestrained	Age Group (Years)						Total
	<1	1-3	4-7	8-14	15-20	All Other	
	16	21	33	38	49	39	40

**“Child safety seats reduce the risk of fatal injury by 71 percent for infants and by 54 percent for toddlers in passenger cars.”**

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

In 2002, there were 459 passenger vehicle occupant fatalities among children under 5 years of age. Of those 459 fatalities, an estimated 185 (40 percent) were totally unrestrained.

**Table 2. Children Under 5 Years Old Fatally Injured in Passenger Vehicle Crashes by Age Group and Type of Restraint, 2002**

Type of Restraint	Infants (Under Age 1)	Toddlers (Age 1-4)	Total
None Used	36	149	185
Child Seat	66	156	222
Adult Seat Belt	3	48	51
<b>Total</b>	<b>105</b>	<b>354</b>	<b>459</b>

Note: In this table, fatalities with unknown restraint use have been distributed proportionally across the known restraint use categories.

From 1975 through 2002, an estimated 6,567 lives were saved by the use of child restraints (child safety seats or adult belts). In 2002, an estimated 376 children under age 5 were saved as a result of child restraint use.

If 100 percent of motor vehicle occupants under 5 years old were protected by child safety seats, an estimated 485 lives (that is, an additional 109) could have been saved in 2002.

In 2002, NHTSA conducted the National Occupant Protection Use Survey (NOPUS). One of the studies in the survey was the Controlled Intersection Study, which provided more detailed information about child restraint use for children under 5 years old.

**Table 3. Restraint Use by Children 0 to 7 Years Old**

Grouping	Restraint Use (Percent)	Grouping	Restraint Use (Percent)
Overall	88	Rush Hour	90
Infants (<1 Year)	99	Non-Rush Hour	87
Toddlers (1 to 3 Years)	94	Weekday	89
Booster Age (4 to 7 Years)	83	Weekend	85
Passenger Cars	88	City	84
Vans and SUVs	91	Suburban	85
Pickups	77	Rural	87
Front Seat	83		
Back Seat	90		

**“Children in rear-facing child seats should not be placed in the front seat of vehicles with passenger air bags. The impact of a deploying air bag on a rear-facing child seat could injure the child.”**

Failure to read the child safety seat instructions, in addition to vehicle owner manual instructions regarding safety belts, could result in serious injury or death as a result of a failure of the child safety seat to be securely 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 under sit in the rear seat away from the force of a deploying air bag.

**For more information:**

Information on youth safety 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, Pedalcyclists, Motorcycles, Large Trucks, 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*.