Traffic Safety Facts

2013 Data

May 2015

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NHTSA
www.nhtsa.gov

Key Findings

- Of the 32,719 traffic fatalities in 2013 in the United States, 1,149 (4%) were children 14 and younger.
- In 2013, the 1,149 child traffic fatalities were a 2-percent decrease from 1,173 in 2012.
- In 2013, the estimated 172,000 injured children in traffic crashes were a 2-percent increase from 169,000 in 2012.
- In 2013, motor vehicle traffic crashes were the leading cause of death for children age 4 and the second leading cause of death for children age 3 and every age 5 to 14.[1]
- On average, 3 children were killed and 470 children were injured every day in traffic crashes in 2013.
- In passenger cars, child safety seats reduce the risk of fatal injury by 71 percent for infants and by 54 percent for toddlers. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively.
- Of the 21,132 passenger vehicle occupants killed in fatal crashes in 2013, 776 (4%) were children. Of these 776 child occupant fatalities, restraint use was known for 719, of whom 307 (43%) were unrestrained.
- Of the 4,735 pedestrian traffic fatalities in 2013, 236 (5%) were children.
- Of the 743 pedalcyclists traffic fatalities in 2013, 52 (7%) were children.
- Of the 1,149 children killed in traffic crashes, 200 children (17%) were killed in alcohol-impaired-driving crashes in 2013. Of these 200 deaths, 121 children (61%) were passengers of vehicles with drivers who had blood alcohol concentrations (BACs) of .08 grams per deciliter or higher.

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Children

For the purpose of this fact sheet, children are defined as people 14 and younger. Motor vehicle traffic crashes were the leading cause of death for children age 4 and the second leading cause of death for children age 3 and every age 5 through 14 in 2013.[1]

In this fact sheet, the 2013 children information is presented in the following order:

- Overview
- Restraint Use and Effectiveness
- Pedestrians
- Pedalcyclists
- Children in Alcohol-Impaired Driving Crashes
- Children Traffic Fatalities by State
- Important Safety Reminders

Overview

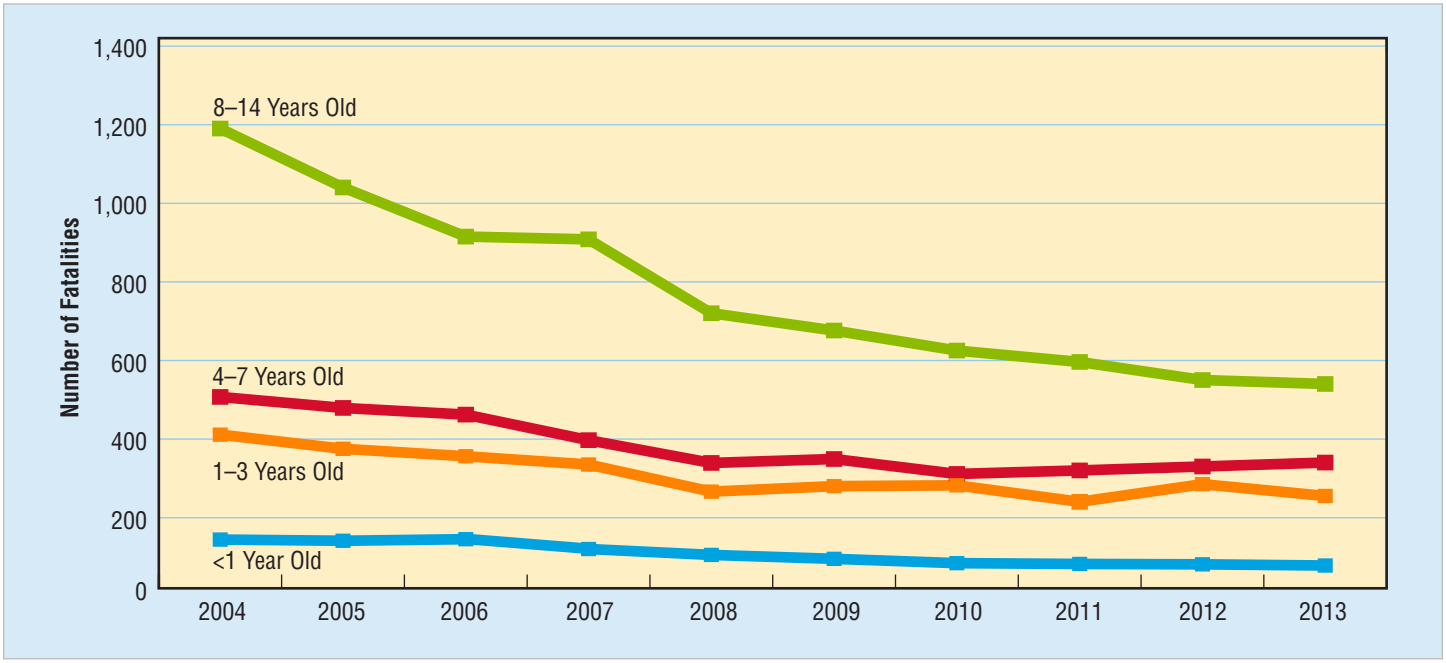
In 2013:

- There were 61 million children in the United States, 19 percent of the total U.S. population.
- Of the 32,719 traffic fatalities in the United States, 1,149 (4%) were children.
- The 1,149 child traffic fatalities were a 2-percent decrease from 1,173 in 2012.
- The estimated 172,000 children injured in traffic crashes were a 2-percent increase from 169,000 in 2012.
- On average, 3 children were killed and an estimated 470 children were injured every day in the United States in traffic crashes.
- Boys accounted for 55 percent of child traffic fatalities and an estimated 48 percent of children injured in traffic crashes.

From 2004 to 2013, the number of child fatalities in traffic crashes decreased by 47 percent, with the 8-to-14 age group showing the largest decrease (54%). Figure 1 shows the child fatality trends of four age groups (under 1, 1 to 3, 4 to 7, and 8 to 14 years old) in traffic crashes from 2004 to 2013.

[1] Centers for Disease Control and Prevention. (2015). Leading Causes of Death. (Web-based Injury Statistics Query and Reporting System database). Atlanta: Author. Available at www.cdc.gov/injury/wisqars/leading_causes_death.html

Figure 1
Child Traffic Crash Fatalities, by Age Group, 2004–2013



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

Restraint Use and Effectiveness

Analysis on the effectiveness of child safety seats has shown them to reduce fatal injury by 71 percent for infants (under 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.[2]

Analysis has also 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 65 percent.[1]

Table 1 provides the number and percentage of passenger vehicle (defined as passenger cars and light trucks) occupants involved in fatal crashes, by survival status (killed or survived), age group, and restraint use (seat belts or child restraints).

In 2013:

- Of the 21,132 passenger vehicle occupants *killed* in fatal crashes, 776 (4%) were children.
- Of these 776 child passenger vehicle occupants *killed* in fatal crashes, restraint use was known for 719, of whom 307 (43%) were unrestrained.
- Of the 34,051 passenger vehicle occupants who *survived* fatal crashes, 4,046 (12%) were children.
- Of these 4,046 child passenger vehicle occupants who *survived* fatal crashes, restraint use was known for 3,794, of whom 574 (15%) were unrestrained.
- Of the 55,183 passenger vehicle occupants *involved* in fatal crashes, 4,822 (9%) were children.
- Of these 4,822 child passenger vehicle occupants *involved* in fatal crashes, restraint use was known for 4,513, of whom 881 (20%) were unrestrained.

[2] Kahane, C. J. (2015, January). *Lives saved by vehicle safety technologies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012—Passenger cars and LTVs—With reviews of 26 FMVSS and the effectiveness of their associated safety technologies in reducing fatalities, injuries, and crashes.* (Report No. DOT HS 812 069). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/812069.pdf

Table 1

Passenger Vehicle Occupants Involved in Fatal Crashes, by Survival Status, Age Group, and Restraint Use, 2013

Survival Status/ Age Group		Restraint Use: Restrained Number	Restrained Percent	Unrestrained Number	Unrestrained Percent	Unknown Number	Unknown Percent	Total Number	Total Percent	Percent "Known" Restrained Percent	Percent "Known" Unrestrained Percent
People Killed	<1	37	71%	11	21%	4	8%	52	100%	77%	23%
	1-3	110	68%	42	26%	10	6%	162	100%	72%	28%
	4-7	107	54%	77	39%	15	8%	199	100%	58%	42%
	8-14	158	44%	177	49%	28	8%	363	100%	47%	53%
	<15	*412*	*53%*	*307*	*40%*	*57*	*7%*	*776*	*100%*	*57%*	*43%*
	15-20	983	40%	1,223	50%	226	9%	2,432	100%	45%	55%
	All Other	8,382	47%	8,050	45%	1,492	8%	17,924	100%	51%	49%
	Total	**9,777**	**46%**	**9,580**	**45%**	**1,775**	**8%**	**21,132**	**100%**	**51%**	**49%**
People Who Survived	<1	176	92%	12	6%	3	2%	191	100%	94%	6%
	1-3	747	86%	88	10%	38	4%	873	100%	89%	11%
	4-7	878	78%	168	15%	76	7%	1,122	100%	84%	16%
	8-14	1,419	76%	306	16%	135	7%	1,860	100%	82%	18%
	<15	*3,220*	*80%*	*574*	*14%*	*252*	*6%*	*4,046*	*100%*	*85%*	*15%*
	15-20	3,564	69%	1,120	22%	468	9%	5,152	100%	76%	24%
	All Other	19,426	78%	3,170	13%	2,257	9%	24,853	100%	86%	14%
	Total	**26,210**	**77%**	**4,864**	**14%**	**2,977**	**9%**	**34,051**	**100%**	**84%**	**16%**
Total Involved	<1	213	88%	23	9%	7	3%	243	100%	90%	10%
	1-3	857	83%	130	13%	48	5%	1,035	100%	87%	13%
	4-7	985	75%	245	19%	91	7%	1,321	100%	80%	20%
	8-14	1,577	71%	483	22%	163	7%	2,223	100%	77%	23%
	<15	*3,632*	*75%*	*881*	*18%*	*309*	*6%*	*4,822*	*100%*	*80%*	*20%*
	15-20	4,547	60%	2,343	31%	694	9%	7,584	100%	66%	34%
	All Other	27,808	65%	11,220	26%	3,749	9%	42,777	100%	71%	29%
	Total	**35,987**	**65%**	**14,444**	**26%**	**4,752**	**9%**	**55,183**	**100%**	**71%**	**29%**

Source: FARS 2013 ARF.

Table 2 contains the number of infants (under 1 year old) and toddlers (1 to 4 years old) killed in passenger vehicles by type of restraint.

In 2013:

- The number of infant and toddler passenger vehicle occupant fatalities was 278.
- Of these 278 infant and toddler passenger vehicle occupant fatalities, restraint use was known for 260, of whom 80 (31%) were unrestrained.

Table 2

Infants and Toddlers Killed in Passenger Vehicles, by Type of Restraint and Age Group, 2013

Type of Restraint	Age: <1 (Infants) Number	<1 (Infants) Percent	1–4 (Toddlers) Number	1–4 (Toddlers) Percent	Total Number	Total Percent
None Used	11	21%	69	31%	80	29%
Adult Seat Belt	2	4%	17	8%	19	7%
Child Seat	35	67%	122	54%	157	56%
Restraint Used—Unknown	0	0%	4	2%	4	1%
Unknown	4	8%	14	6%	18	6%
Total	52	100%	226	100%	278	100%

Source: FARS 2013 ARF.

Analysis has shown that among infants and toddlers, an estimated 263 lives were saved in 2013 by restraint use.[3] Of these 263 lives saved, 246 were associated with the use of child safety seats and 17 with the use of adult seat belts. At 100-percent child safety seat use for infants and toddlers, an estimated 319 lives (that is, an additional 56) could have been saved in 2013.

From 1975 to 2013, an estimated 10,421 lives were saved by child restraints (child safety seats or adult seat belts) for infants and toddlers in passenger vehicles.[4]

NHTSA conducted the National Survey of the Use of Booster Seats (NSUBS) in July 2013 and produced a technical report (DOT HS 812 037), *The 2013 National Survey of the Use of Booster Seats*. Table 3 provides data on the use of child restraints by age and race/ethnicity in 2013. Child restraints include child safety seats, seat belts, and booster seats.

[3] Longthorne, A. (2015, April). *Lives saved in 2013 by restraint use and minimum drinking laws*. (Report No. DOT HS 812 137). Washington, DC: National Highway Traffic Safety Administration. Available at www.nrd.nhtsa.dot.gov/Pubs/812137.pdf.

[4] 2009–2012 estimates differ from previously published estimates due to a computational correction. Previous estimates did not properly account for 2010 through 2013 model year passenger vehicles, thus slightly underestimating lives saved by child restraints, seat belts, and frontal air bags.

Table 3
Child Restraint Use, by Age Group and Race/Ethnicity, 2013

Race/Ethnicity	Age Group (Years)			
	<1	1-3	4-7	8-12
Hispanic	96%	91%	85%	87%
African-American Non-Hispanic	96%	85%	78%	69%
White Non-Hispanic	100%	99%	96%	95%
Asian Non-Hispanic	NA	95%	93%	86%
Other Non-Hispanic	NA	95%	91%	88%

Source: Pickrell, T. M., & Choi, E-H. (2014, June). *The 2013 national survey of the use of booster seats.* (Report No. DOT HS 812 037). Washington, DC: National Highway Traffic Safety Administration.
NA: Data not sufficient to produce a reliable estimate.

Pedestrians

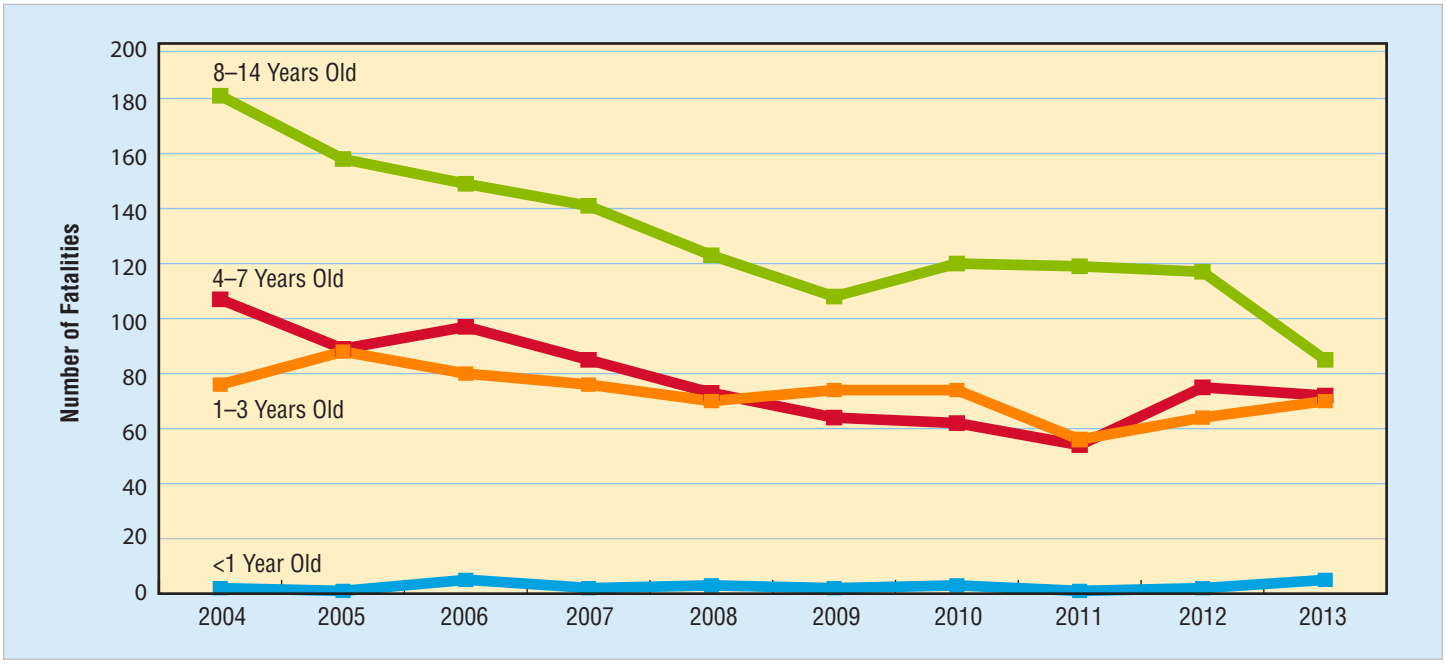
Pedestrians are anyone on foot, walking, running, jogging, hiking, sitting, or lying down, who are involved in motor vehicle traffic crashes. In 2013:

- Of the 4,735 pedestrian traffic fatalities, 236 (5%) were children.
- One-fifth (21%) of the child traffic fatalities were pedestrians.
- Of the 236 child pedestrian traffic fatalities, 139 (59%) were boys.
- Of the estimated 66,000 injured pedestrians in traffic crashes, 10,000 (15%) were children.
- Of the estimated 10,000 injured child pedestrians in traffic crashes, 6,000 (62%) were boys.
- The highest percentage of child pedestrian traffic fatalities occurred between 6 p.m. and 8:59 p.m. (35%). The second highest percentage occurred between 3 p.m. and 5:59 p.m. (26%).
- Eighty-one percent of child pedestrian traffic fatalities occurred at non-intersection locations, an increase from 77 percent in 2012.

Figure 2 contains the child pedestrian traffic fatality trends of four age groups (under 1, 1 to 3, 4 to 7, and 8 to 14 years old) from 2004 to 2013:

- The number of child pedestrian traffic fatalities decreased by 36 percent, from 366 fatalities in 2004 to 236 in 2013.
- The 8-to-14 age group had the largest percentage decrease of 52 percent, from 181 pedestrian traffic fatalities in 2004 to 86 in 2013.

Figure 2
Child Pedestrian Traffic Fatalities, by Age Group, 2004–2013



Source: FARS 2004-2012 Final File, 2013 ARF.

Pedalcyclists

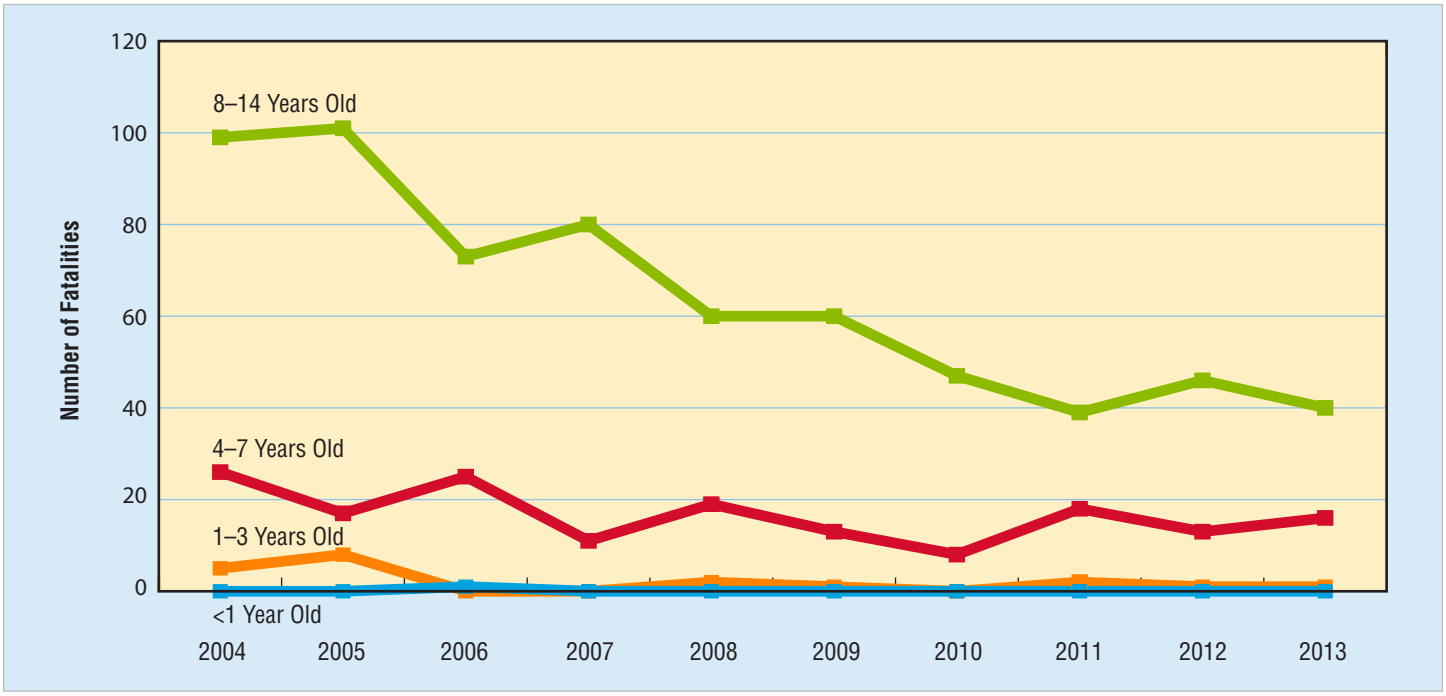
Pedalcyclists are riders of bicycles (two-wheel, nonmotorized cycles) and other cycles (tricycles and unicycles) powered solely by pedals. In 2013:

- Of the 743 pedalcyclists killed in traffic crashes, 52 (7%) were children.
- Of the 52 child pedalcyclists killed in traffic crashes, 48 (92%) were boys.
- Of the estimated 48,000 pedalcyclists injured in traffic crashes, 5,000 (11%) were children.

Figure 3 contains the child pedalcyclist traffic fatality trends of four age groups (under 1, 1 to 3, 4 to 7, and 8 to 14 years old) from 2004 to 2013:

- The number of child pedalcyclist traffic fatalities decreased by 60 percent, from 130 fatalities in 2004 to 52 in 2013.
- The 8-to-14 age group had the largest percentage decrease of 62 percent, from 99 pedalcyclist traffic fatalities in 2004 to 38 in 2013.

Figure 3
Child Pedalcyclist Traffic Fatalities, by Age Group, 2004–2013



Source: FARS 2004-2012 Final File, 2013 ARF.

Children in Alcohol-Impaired-Driving Crashes

In 2013, of the 1,149 children killed in traffic crashes, 200 children (17%) were killed in alcohol-impaired-driving crashes. Of these 200 deaths, 121 children (61%) were passengers of vehicles with drivers who had BACs of .08 grams per deciliter (g/dL) or higher.

Twenty-nine children who were killed in traffic crashes in 2013 were pedestrians or pedalcyclists who were struck by drivers with BACs of .08 g/dL or higher.

Child Traffic Fatalities by State

Table 4 presents child traffic fatalities by State and age group in 2013. Included in Table 4 is Puerto Rico, which is not included in the overall U.S. total.

- Among all States, the number of child traffic fatalities ranged from 0 (District of Columbia and Vermont) to 128 (Texas).
- Texas had the highest number of child traffic fatalities (128), followed by California (99), Florida (69), Georgia (53), North Carolina (50), Arizona (48), and Alabama (46).

Table 4

Child Traffic Fatalities, by State and Age Group, 2013

State	Age Group (Years)				Total
	<1	1–3	4–7	8–14	
Alabama	3	13	8	22	46
Alaska	0	1	0	2	3
Arizona	2	12	10	24	48
Arkansas	1	4	7	12	24
California	2	15	33	49	99
Colorado	1	4	8	5	18
Connecticut	1	3	1	3	8
Delaware	0	1	1	0	2
Dist of Columbia	0	0	0	0	0
Florida	2	14	15	38	69
Georgia	4	11	14	24	53
Hawaii	0	2	0	2	4
Idaho	0	2	3	5	10
Illinois	0	11	10	17	38
Indiana	2	8	8	16	34
Iowa	0	1	4	3	8
Kansas	1	4	2	6	13
Kentucky	0	3	3	11	17
Louisiana	0	6	5	13	24
Maine	0	0	1	1	2
Maryland	0	6	8	5	19
Massachusetts	0	2	3	2	7
Michigan	1	6	6	20	33
Minnesota	1	3	6	8	18
Mississippi	1	4	6	8	19
Missouri	1	5	6	22	34
Montana	0	1	3	1	5
Nebraska	0	1	2	6	9
Nevada	0	3	1	5	9
New Hampshire	0	0	0	1	1
New Jersey	4	3	3	10	20
New Mexico	0	6	6	6	18
New York	2	9	14	12	37
North Carolina	2	16	13	19	50
North Dakota	0	2	0	2	4
Ohio	3	4	8	17	32
Oklahoma	1	8	8	17	34
Oregon	0	0	2	7	9
Pennsylvania	5	9	9	9	32
Rhode Island	0	0	1	0	1
South Carolina	0	4	3	6	13
South Dakota	0	0	0	2	2
Tennessee	2	6	5	15	28
Texas	14	21	37	56	128
Utah	1	2	1	4	8
Vermont	0	0	0	0	0
Virginia	0	1	5	8	14
Washington	0	2	3	8	13
West Virginia	1	2	4	6	13
Wisconsin	1	2	4	6	13
Wyoming	1	2	0	3	6
National	60	245	300	544	1,149
Puerto Rico	1	4	3	5	13

Source: FARS 2013 ARF.

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 front seat of vehicles equipped with passenger-side air bags. The impact of a deploying air back 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 deploying air bags.
- Children 12 and younger are safest when properly buckled in the rear seat of a motor vehicle.
- Always read the child restraint manufacturer instructions and the vehicle owner manual instructions.

This fact sheet contains information on motor vehicle fatalities and fatal crashes, based on data from the Fatality Analysis Reporting System (FARS). FARS is a census of fatal crashes within the 50 States, the District of Columbia, and Puerto Rico (although Puerto Rico is not included in U.S. totals). Crash and injury statistics are based on data from the National Automotive Sampling System (NASS) General Estimates System (GES). The NASS GES is a probability-based sample of police-reported crashes, from 60 locations across the country, from which estimates of national totals for injury and property-damage-only crashes are derived.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2015, May). *Children: 2013 data.* (Traffic Safety Facts. Report No. DOT HS 812 154). Washington, DC: National Highway Traffic Safety Administration.

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, Bicyclists and Other Cyclists, 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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