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of Transportation National Highway Traffic Safety Administration

NHTSA



DOT HS 813 575

Children

In this fact sheet for 2022 the information is presented as follows.

- <u>Overview</u>
- <u>Restraint Use and</u> <u>Effectiveness</u>
- <u>Children in Alcohol-</u> <u>Impaired-Driving</u> <u>Traffic Crashes</u>
- <u>Pedestrians</u>
- <u>Pedalcyclists</u>
- <u>State</u>
- <u>Important Safety</u> <u>Reminders</u>

For the purpose of this fact sheet, children are defined as 14 years old and younger.

Key Findings

- Of the 42,514 traffic fatalities in 2022 in the United States, 1,129 (3%) were children 14 and younger.
- Child traffic fatalities decreased by 6 percent from 2021 (1,200) to 2022 (1,129).
- An estimated 156,502 children were injured in traffic crashes in 2022, a 4-percent decrease from 162,314 in 2021.
- An average of 3 children were killed and an estimated 429 children were injured every day in traffic crashes in 2022.
- Of the 25,420 passenger vehicle occupants killed in 2022 in traffic crashes, 756 (3%) were children. Of these 756 child passenger vehicle occupants killed in traffic crashes, restraint use was known for 675, of whom 266 (39%) were unrestrained.
- In 2022, based on known restraint use, 68 percent of the children who died while riding with unrestrained passenger vehicle drivers were also unrestrained.
- Of the 1,129 children killed in traffic crashes, an estimated 283 (25%) were killed in alcohol-impaired-driving crashes in 2022.
- Of the 7,522 pedestrian traffic fatalities, 188 (2%) were children in 2022.
- Of the 1,105 pedalcyclist traffic fatalities, 56 (5%) were children in 2022.

This fact sheet contains information on fatal motor vehicle traffic crashes based on data from the Fatality Analysis Reporting System (FARS) and non-fatal motor vehicle traffic crashes from the Crash Report Sampling System (CRSS). Results from FARS, such as fatal crashes and fatalities, are actual counts, while results from CRSS, such as non-fatal crashes and people injured, are estimates. Refer to the end of this publication for more information on FARS and CRSS.

Due to a vehicle classification change, the 2020 and later-year vehicle type classifications are not comparable to 2019 and earlier-year vehicle type classifications. This change affects any analysis with a vehicle component to it. Refer to the end of this publication for more information on Product Information Catalog and Vehicle Listing (vPIC).

June 2024

A motor vehicle traffic crash is defined as an incident that involved one or more motor vehicles in-transport that originated on or had a harmful event (injury or damage) on a public trafficway, such as a road or highway. Crashes that occurred on private property not regularly used by the public for transport, including some parts of parking lots and driveways, are excluded. The terms "motor vehicle traffic crash" and "traffic crash" are used interchangeably in this document.

Overview

Motor vehicle traffic crashes are a leading cause of death of children.¹

In 2022:

- There were 59.4 million children in the United States, 18 percent of the total U.S. population.
- Of the 42,514 traffic fatalities in the United States, 1,129 (3%) were children.
- Child traffic fatalities decreased by 6 percent from 1,200 in 2021, and by 2 percent from 1,152 in 2013.
- An estimated 156,502 children were injured in traffic crashes, a 4-percent decrease from 162,314 in 2021.
- An average of 3 children were killed and an estimated 429 children were injured every day in traffic crashes in the United States.
- Males accounted for 55 percent of child fatalities in traffic crashes, while females accounted for an estimated 51 percent of children injured in traffic crashes.

Figure 1 displays the distribution of the 1,129 child traffic fatalities in 2022—76 percent (856) were occupants and 24 percent (273) were nonoccupants (pedestrians, pedalcyclists, or other nonoccupants).

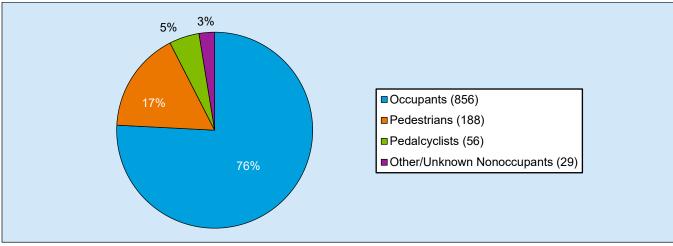


Figure 1. Child Traffic Fatalities, 2022

Source: FARS 2022 Annual Report File (ARF)

Note: Percentages may not add up to 100 percent due to independent rounding.

As shown in Figure 2, the number of child traffic fatalities decreased by 2 percent from 1,152 in 2013 to 1,129 in 2022, and the child fatality rate per 100,000 child population increased by 0.5 percent from 1.89 in 2013 to 1.90 in 2022.

¹ Centers for Disease Control and Prevention (2021), Mortality Multiple Cause-of-Death, FARS

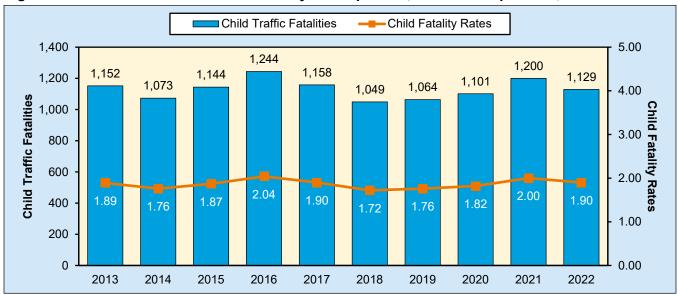


Figure 2. Child Traffic Fatalities and Fatality Rates per 100,000 Child Population, 2013–2022

Sources: FARS 2013-2021 Final File, 2022 ARF; Population - Census Bureau

Figure 3 displays the child traffic fatality trends of five age groups from 2013 to 2022.

From 2013 to 2022:

- Under-1 age group 23-percent increase from 57 to 70
- 1-to-3 age group 14-percent decrease from 245 to 211
- 4-to-7 age group 16-percent decrease from 301 to 252
- 8-to-12 age group 3-percent decrease from 337 to 326
- 13-and-14 age group 27-percent increase from 212 to 270

From 2021 to 2022:

- Under-1 age group 24-percent decrease from 92 to 70
- 1-to-3 age group 13-percent increase from 187 to 211
- 4-to-7 age group 22-percent decrease from 322 to 252
- 8-to-12 age group 2-percent decrease from 332 to 326
- 13-and-14 age group 1-percent increase from 267 to 270

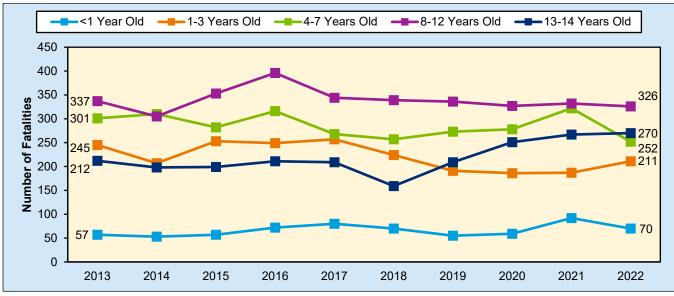


Figure 3. Child Traffic Fatalities, by Age Group, 2013–2022

Source: FARS 2013–2021 Final File, 2022 ARF

Restraint Use and Effectiveness

Child safety seats have been shown 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 correctly, reduce the risk of fatal injury to frontseat occupants 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 moderateto-critical injury by 65 percent.³

Table 1 provides the number and percentage of passenger vehicle (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 2022:

- Of the 68,448 passenger vehicle occupants *involved* in fatal crashes, 5,153 (8%) were children.
 - Of these 5,153 child passenger vehicle occupants *involved* in fatal crashes, restraint use was known for 4,778, of whom 810 (17%) were unrestrained. This percentage (17%) was lower compared to all ages (28%).
- Of the 25,420 passenger vehicle occupants killed in traffic crashes, 756 (3%) were children.
 - Of these 756 child passenger vehicle occupants *killed* in traffic crashes, restraint use was known for 675, of whom 266 (39%) were unrestrained. This percentage (39%) was lower compared to all ages (50%).

² Hertz, E. (1996, December). *Revised estimates of child restraint effectiveness* (Report No. DOT HS 96 855). National Highway Traffic Safety Administration. <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/96855</u>

³ Kahane, C. J. (2000, December). Fatality reduction by safety belts for front-seat occupants of cars and light trucks (Report No. DOT HS 809 199). National Highway Traffic Safety Administration. <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/809199</u>

- Of the 43,028 passenger vehicle occupants who *survived* in fatal crashes, 4,397 (10%) were children.
 - Of these 4,397 child passenger vehicle occupants who *survived* in fatal crashes, restraint use was known for 4,103, of whom 544 (13%) were unrestrained. This percentage (13%) was lower compared to all ages (14%).

Based on known restraint use, children 13 to 14 years old had the highest percentages out of the child age groups of unrestrained passenger vehicle occupants for those *involved* (27%), *killed* (58%), and *survived* (21%).

Survi	val			Restra	int Use					Percent	Based on
Status		Restr	ained	Unrest	rained	Unkr	nown	Total		Known Restraint Use	
Group		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
	<1	45	69%	17	26%	3	5%	65	100%	73%	27%
	1–3	93	68%	33	24%	11	8%	137	100%	74%	26%
	4–7	98	57%	51	30%	22	13%	171	100%	66%	34%
	8–12	118	52%	88	39%	20	9%	226	100%	57%	43%
Killed	13–14	55	35%	77	49%	25	16%	157	100%	42%	58%
	<15	409	54%	266	35%	81	11%	756	100%	61%	39%
	15–20	974	37%	1,347	51%	303	12%	2,624	100%	42%	58%
	21+	10,001	46%	9,675	44%	2,301	10%	21,977	100%	51%	49%
	Total*	11,410	45%	11,302	44%	2,708	11%	25,420	100%	50%	50%
	<1	200	89%	15	7%	9	4%	224	100%	93%	7%
	1–3	770	87%	77	9%	41	5%	888	100%	91%	9%
	4–7	964	81%	140	12%	83	7%	1,187	100%	87%	13%
	8–12	1,115	81%	180	13%	87	6%	1,382	100%	86%	14%
Survived	13–14	510	71%	132	18%	74	10%	716	100%	79%	21%
	<15	3,559	81%	544	12%	294	7%	4,397	100%	87%	13%
	15–20	3,990	69%	1,166	20%	633	11%	5,789	100%	77%	23%
	21+	25,078	79%	3,734	12%	2,871	9%	31,683	100%	87%	13%
	Total*	32,832	76%	5,549	13%	4,647	11%	43,028	100%	86%	14%
	<1	245	85%	32	11%	12	4%	289	100%	88%	12%
	1–3	863	84%	110	11%	52	5%	1,025	100%	89%	11%
	4–7	1,062	78%	191	14%	105	8%	1,358	100%	85%	15%
Tatal	8–12	1,233	77%	268	17%	107	7%	1,608	100%	82%	18%
Total Involved	13–14	565	65%	209	24%	99	11%	873	100%	73%	27%
monou	<15	3,968	77%	810	16%	375	7%	5,153	100%	83%	17%
	15–20	4,964	59%	2,513	30%	936	11%	8,413	100%	66%	34%
	21+	35,079	65%	13,409	25%	5,172	10%	53,660	100%	72%	28%
	Total*	44,242	65%	16,851	25%	7,355	11%	68,448	100%	72%	28%

Table 1. Passenger Vehicle Occupants Involved in Fatal Traffic Crashes, by Survival Status, Age
Group, and Restraint Use, 2022

Source: FARS 2022 ARF

*Includes occupants of unknown age.

Table 2 presents the restraint use of child passengers killed in passenger vehicles and their respective drivers (killed or survived) in 2022.

Based on known restraint use:

- When the drivers were restrained, 73 percent of the children were restrained.
- When the drivers were unrestrained, 68 percent of the children were also unrestrained.

Table 2. Child Passengers Killed in Passenger Vehicles in Traffic Crashes, by Their RestraintUse and Their Driver's Restraint Use, 2022

Driver		(Child Res	traint Use)			Percent Base	ed on Known	
Restraint	Restr	ained	Unrestrained		Unknown		Total		Child Restraint Use	
Use	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
Restrained	318	69%	116	25%	25	5%	459	100%	73%	27%
Unrestrained	59	30%	128	65%	11	6%	198	100%	32%	68%
Unknown	29	33%	18	20%	41	47%	88	100%	62%	38%
Total	406	54%	262	35%	77	10%	745	100%	61%	39%

Source: FARS 2022 ARF

Note: Excludes child passengers with no driver present in the vehicle.

Table 3 contains the number of children killed in passenger vehicles by type of restraint and age group.

In 2022:

- Of the 756 child passenger vehicle occupants killed, restraint use was known for 675, of whom 266 (39%) were unrestrained.
 - Of the 65 infants under 1 year old killed, restraint use was known for 62, of whom 17 (27%) were unrestrained.
 - Of the 137 children 1 to 3 years old killed, restraint use was known for 126, of whom 33 (26%) were unrestrained.
 - Of the 171 children 4 to 7 years old killed, restraint use was known for 149, of whom 51 (34%) were unrestrained.
 - Of the 226 children 8 to 12 years old killed, restraint use was known for 206, of whom 88 (43%) were unrestrained.
 - Of the 157 children 13 to 14 years old killed, restraint use was known for 132, of whom 77 (58%) were unrestrained.

Table 3. Children Killed in Passenger Vehicles in Traffic Crashes, by Type of Restraint and AgeGroup, 2022

	Age Group											
Type of	<1		1–3		4–7		8–12		13–14		Total	
Restraint	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	17	26%	33	24%	51	30%	88	39%	77	49%	266	35%
Child Restraint	45	69%	84	61%	60	35%	5	2%	0	0%	194	26%
Forward Facing	7	11%	40	29%	19	11%	1	0%	0	0%	67	9%
Rear Facing	22	34%	14	10%	0	0%	0	0%	0	0%	36	5%
Booster Seat	1	2%	5	4%	20	12%	2	1%	0	0%	28	4%
Unknown Child Restraint	15	23%	25	18%	21	12%	2	1%	0	0%	63	8%
Seat Belt	0	0%	7	5%	36	21%	113	50%	55	35%	211	28%
Shoulder Belt Only	0	0%	1	1%	1	1%	3	1%	2	1%	7	1%
Lap Belt Only	0	0%	2	1%	5	3%	3	1%	2	1%	12	2%
Shoulder and Lap Belt	0	0%	4	3%	30	18%	107	47%	51	32%	192	25%
Restraint Used - Type Unknown	0	0%	2	1%	2	1%	0	0%	0	0%	4	1%
Unknown	3	5%	11	8%	22	13%	20	9%	25	16%	81	11%
Total	65	100%	137	100%	171	100%	226	100%	157	100%	756	100%

Source: FARS 2022 ARF

NHTSA conducted the National Survey of the Use of Booster Seats (NSUBS) from July to August 2021 and produced a technical report, *The 2021 National Survey of the Use of Booster Seats.*⁴

Table 4 provides data on the use of child restraints by age group and race/ethnicity for those 12 and younger in 2021. Child restraints include child safety seats, seat belts, and booster seats.

Table 4. Observed Child (Age 12 and Younger) Restraint Use, by Race/Ethnicity and Age Group,
2021*

		Age Group									
Race/Ethnicity	<1	1–3	4–7	8–12							
Hispanic	100%	93.0%	85.3%	83.0%							
Black Non-Hispanic	98.9%	83.6%	78.9%	73.6%							
White Non-Hispanic	100%	97.7%	93.4%	91.9%							
Asian Non-Hispanic	N/A	94.1%	95.9%	90.7%							
Other Non-Hispanic	N/A	91.9%	86.7%	82.9%							

Source: Boyle, L. (2023, March). *The 2021 National Survey of the Use of Booster Seats* (Report No. DOT HS 813 396). National Highway Traffic Safety Administration. <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813396</u>

N/A: Data not sufficient to produce a reliable estimate.

*Most recent year for which the data is available.

Children in Alcohol-Impaired-Driving Traffic Crashes

Drivers are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher. Thus, any fatal traffic crash involving at least one driver with a BAC of .08 g/dL or higher is considered to be an alcohol-impaired-driving crash.

In 2022, of the 1,129 children killed in traffic crashes, an estimated 283 children (25%) were killed in alcoholimpaired-driving crashes. Of these 283 deaths:

- 150 (53%) were passengers of vehicles with alcohol-impaired drivers;
- 89 (31%) were occupants of other vehicles;
- 41 (14%) were nonoccupants; and
- 3 (1%) were child drivers.

Table 5 presents the restraint use of child passengers killed in passenger vehicles and their respective driver's BAC in 2022.

Based on known restraint use:

- When the drivers had no alcohol, 36 percent of the children were unrestrained.
- When the drivers were alcohol-impaired, 50 percent of the children were unrestrained.

⁴ Boyle, L. (2023, March). *The 2021 National Survey of the Use of Booster Seats* (Report No. DOT HS 813 396). National Highway Traffic Safety Administration. <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813396</u>.

		(Child Res	traint Us	e		-		Percent Based on Known Child Restraint		
	Restrained		Unrestrained		Unknown		Total		Use		
Driver's BAC	Number Percent		Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained	
BAC=.00 g/dL	330	58%	183	32%	58	10%	571	100%	64%	36%	
BAC=.0107 g/dL	13	41%	16	51%	3	8%	32	100%	45%	55%	
BAC=.08+ g/dL	63	45%	62	44%	16	11%	142	100%	50%	50%	
BAC=.01+ g/dL	77	44%	79	45%	19	11%	174	100%	49%	51%	
Total	406	54%	262	35%	77	10%	745	100%	61%	39%	

Table 5. Child Passengers Killed in Passenger Vehicles in Traffic Crashes, by Their Restraint Use and Their Driver's BAC, 2022

Source: FARS 2022 ARF

Notes: Percentages are computed based on unrounded estimates. NHTSA estimates BACs when alcohol test results are unknown.

Pedestrians

Pedestrians are any people on foot, walking, running, jogging, hiking, sitting, or lying down, who are involved in traffic crashes. These exclude people on personal conveyances like roller skates, in-line skates, skateboards, skates, baby strollers, scooters, toy wagons, motorized skateboards, motorized toy cars, motorized kick scooters, Segway-style devices, motorized and non-motorized wheelchairs, and scooters for those with disabilities.

In 2022:

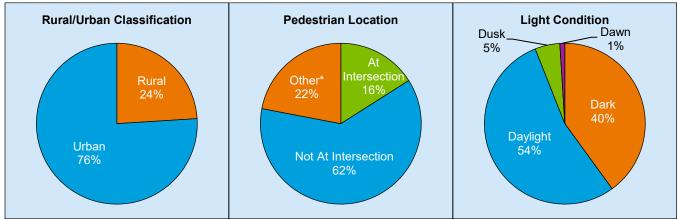
- There were 188 child pedestrians killed in traffic crashes.
 - Seventeen percent (188) of the 1,129 children killed in traffic crashes were pedestrians.
 - Two percent (188) of the 7,522 pedestrians killed in traffic crashes were children.
- Of the 188 child pedestrian fatalities in traffic crashes, 57 percent (107) were males.
- Of the 188 child pedestrians killed, 90 percent (170) were killed in single-vehicle crashes and 10 percent (18) were killed in multi-vehicle crashes.
- Of the 170 child pedestrians killed in single-vehicle crashes, 95 percent (162) were killed in crashes where the first harmful event was collision with a pedestrian. Of these 162 fatalities:
 - Eighty-two percent (133) were struck by the front of the vehicles;
 - Two percent (3) were struck by the right side of the vehicles;
 - Three percent (5) were struck by the left side of the vehicles;
 - Four percent (7) were struck by the rear of the vehicles; and
 - Nine percent (14) had impact points on the vehicles that were unknown.
- Of the 188 child pedestrians killed, 20 percent (37) were struck by hit-and-run drivers.
- Of the estimated 67,336 pedestrians injured in traffic crashes, 10 percent (6,946) were children.
- Of the estimated 6,946 child pedestrians injured in traffic crashes, 59 percent (4,088) were males.

Figure 4 contains information on three crash characteristics (rural/urban classification, pedestrian location, and light condition) where/when child pedestrian fatalities in traffic crashes occurred in 2022:

- Seventy-six percent (141) of the child pedestrian fatalities occurred in urban areas and 24 percent (44) in rural areas.
- Sixty-two percent (116) of the child pedestrian fatalities occurred at non-intersection locations as compared to 16 percent (29) at intersections and 22 percent (41) at other locations (14 on sidewalk, 11 on shoulder/roadside, 6 on driveway access, 6 on non-trafficway area, 2 other, 1 on bicycle lane, and 1 on median/crossing island).

• Fifty-four percent (101) of the child pedestrian fatalities occurred during daylight compared to 40 percent (75) in the dark, 5 percent (9) during dusk, and 1 percent (2) during dawn. When compared to adult pedestrians, more child pedestrians were killed during daylight hours.

Figure 4. Percentages of Child Pedestrian Fatalities in Traffic Crashes in Relation to Rural/Urban Classification, Pedestrian Location, and Light Condition, 2022



Source: FARS 2022 ARF

*Based on location of pedestrian struck at the time of the crash. "Other" includes sidewalk, bicycle lane, median/crossing island, parking lane/zone, shoulder/roadside, driveway access, shared-use path, and non-traffic area, which may or may not have been at intersection, but were not distinguished by collected data. Thus, "At Intersection" and "Not At Intersection" do not include those in the "Other" category that were at intersection or not at intersection.

Notes: Percentages may not add up to 100 percent due to independent rounding. Unknowns were removed before calculating percentages.

Sixty percent (112) of the child pedestrians in traffic crashes were killed during weekday crashes (6 a.m. Monday to 5:59 p.m. Friday) and 40 percent (76) were killed during weekend crashes (6 p.m. Friday to 5:59 a.m. Monday) in 2022. In Figure 5, time of day is divided into eight 3-hour intervals starting at midnight, and day of week is defined as weekday or weekend. To summarize the 2022 child pedestrian fatalities in traffic crashes:

- The highest total percentage (28%) occurred from 6 to 8:59 p.m., followed by 26 percent from 3 to 5:59 p.m. and 15 percent from 9 to 11:59 p.m.
- The highest weekday percentage (32%) occurred from 3 to 5:59 p.m., followed by 27 percent from 6 to 8:59 p.m. and 14 percent from 6 to 8:59 a.m.
- The highest weekend percentage (30%) occurred from 6 to 8:59 p.m., followed by 22 percent from 9 to 11:59 p.m. and 17 percent from 3 to 5:59 p.m.

Figure 6 contains the child pedestrian fatality trends of five age groups from 2013 to 2022:

- The number of child pedestrian fatalities in traffic crashes decreased by 21 percent, from 238 fatalities to 188.
 - \circ Under-1 age group 60-percent decrease from 5 to 2.
 - \circ 1-to-3 age group 26-percent decrease from 72 to 53.
 - \circ 4-to-7 age group 42-percent decrease from 74 to 43.
 - \circ 8-to-12 age group 25-percent decrease from 57 to 43.
 - \circ 13-and-14 age group 57-percent increase from 30 to 47.

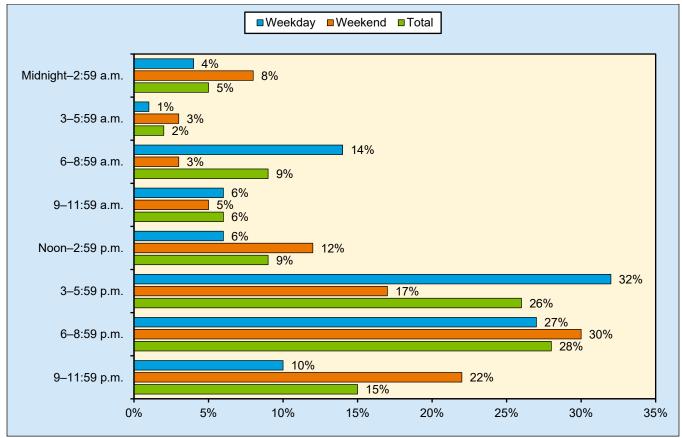


Figure 5. Percentages of Child Pedestrian Fatalities in Traffic Crashes, by Time of Day and Day of Week, 2022

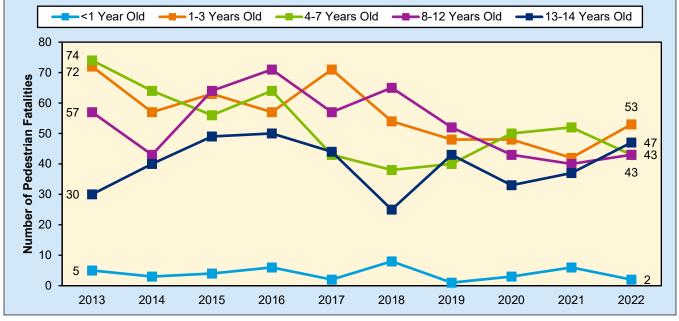
Source: FARS 2022 ARF

Weekday - Monday 6 a.m. to Friday 5:59 p.m. (4.5 days)

Weekend – Friday 6 p.m. to Monday 5:59 a.m. (2.5 days)

Note: Unknowns were removed before calculating percentages.





Source: FARS 2013-2021 Final File, 2022 ARF

Pedalcyclists

As defined for this fact sheet, pedalcyclists are riders on bicycles and other cycles (tricycles and unicycles) powered solely by pedals. Starting in 2022, pedalcyclists also include riders on bicycles powered by **pedals and/or motors**. Refer to the end of this publication for more information on an important change for motorized bicycles. This fact sheet does not include pedalcyclist crashes that do not involve motor vehicles.

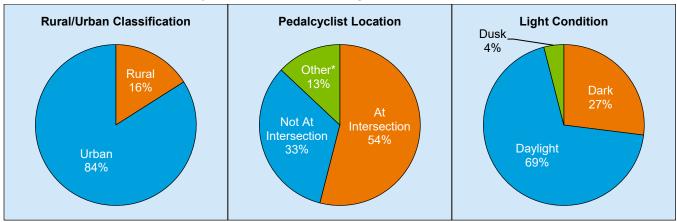
In 2022:

- There were 56 child pedalcyclists killed in traffic crashes.
 - Five percent (56) of the 1,129 children killed in traffic crashes were pedalcyclists.
 - Five percent (56) of the 1,105 pedalcyclists killed in traffic crashes were children.
- Of the 56 child pedalcyclists killed in traffic crashes, 80 percent (45) were males.
- Of the 56 child pedalcyclists killed in traffic crashes, 64 percent (36) were helmeted, 18 percent (10) were unhelmeted, and 18 percent (10) were unknown.
- Of the 56 child pedalcyclists killed, 95 percent (53) were killed in single-vehicle crashes and 5 percent (3) killed in multi-vehicle crashes.
- Of the 53 child pedalcyclists killed in single-vehicle crashes, 96 percent (51) were killed in crashes where the first harmful event was collision with a pedalcyclist. Of these 51 fatalities:
 - Seventy-six percent (39) were struck by the front of the vehicles;
 - Six percent (3) were struck by the right side of the vehicles;
 - Four percent (2) were struck by the rear of the vehicles; and
 - Fourteen percent (7) had impact points on the vehicles that were unknown.
- Of the 56 child pedalcyclists killed, 14 percent (8) were struck by hit-and-run drivers.
- Of the estimated 46,195 pedalcyclists injured in traffic crashes, 15 percent (6,858) were children.
- Of the estimated 6,858 child pedalcyclists injured in traffic crashes, 84 percent (5,756) were males.

Figure 7 contains information on three crash characteristics (rural/urban classification, pedalcyclist location, and light condition) where/when child pedalcyclist fatalities in traffic crashes occurred in 2022:

- Eighty-four percent (47) of the child pedalcyclist fatalities occurred in urban areas and 16 percent (9) in rural areas.
- Fifty-four percent (29) of the child pedalcyclist fatalities occurred at intersections as compared to 33 percent (18) at non-intersection locations and 13 percent (7) at other locations (4 on shoulder/roadside, 1 on bicycle lane, 1 on sidewalk, and 1 on driveway access).
- Sixty-nine percent (38) of the child pedalcyclist fatalities occurred during daylight compared to 27 percent (15) in the dark, and 4 percent (2) during dusk. When compared to adult pedalcyclists, more child pedalcyclists were killed during daylight hours.

Figure 7. Percentages of Child Pedalcyclist Fatalities in Traffic Crashes in Relation to Rural/ Urban Classification, Pedalcyclist Location, and Light Condition, 2022



Source: FARS 2022 ARF

*Based on location of pedalcyclist struck at the time of the crash. "Other" includes sidewalk, bicycle lane, median/crossing island, parking lane/zone, shoulder/roadside, driveway access, shared-use path, and non-traffic area, which may or may not have been at intersection, but were not distinguished by collected data. Thus, "At Intersection" and "Not At Intersection" do not include those in the "Other" category that were at intersection.

Notes: Percentages may not add up to 100 percent due to independent rounding. Unknowns were removed before calculating percentages.

Seventy-seven percent (43) of the child pedalcyclists in traffic crashes were killed during weekday crashes and 23 percent (13) were killed during weekend crashes in 2022. Figure 8 provides time of day and day of week information for the 2022 child pedalcyclist fatalities in traffic crashes:

- The highest total percentage (38%) occurred from 3 to 5:59 p.m., followed by 27 percent from 6 to 8:59 p.m.
- The highest weekday percentage (42%) occurred from 3 to 5:59 p.m., followed by 23 percent from 6 to 8:59 p.m.
- The highest weekend percentage (38%) occurred from 6 to 8:59 p.m., followed by 31 percent during 9 to 11:59 p.m.

Figure 9 contains the child pedalcyclist fatality trends of five age groups from 2013 to 2022:

- The number of child pedalcyclist traffic fatalities in traffic crashes increased by 8 percent, from 52 fatalities to 56.
 - Under-1 age group remained at 0 for 2013 and 2022.
 - \circ 1-to-3 age group increased from 1 to 4.
 - \circ 4-to-7 age group 38-percent decrease from 13 to 8.
 - \circ 8-to-12 age group 14-percent decrease from 21 to 18.
 - \circ 13-and-14 age group 53-percent increase from 17 to 26.

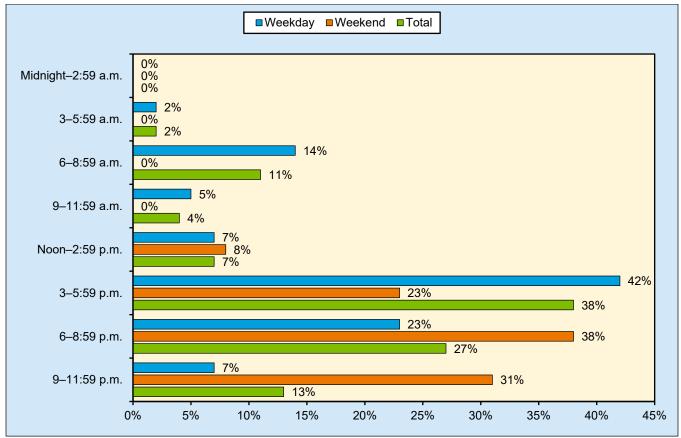


Figure 8. Percentages of Child Pedalcyclist Fatalities in Traffic Crashes, by Time of Day and Day of Week, 2022

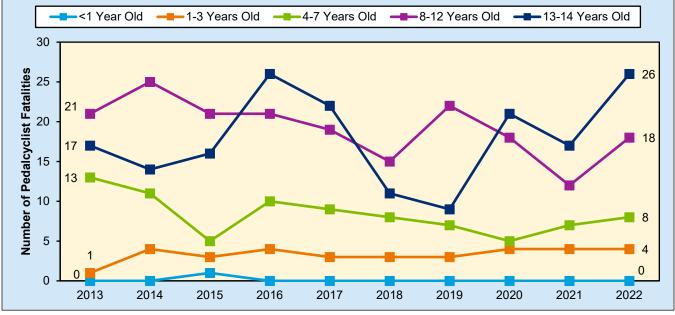
Source: FARS 2022 ARF

Weekday - Monday 6 a.m. to Friday 5:59 p.m. (4.5 days)

Weekend – Friday 6 p.m. to Monday 5:59 a.m. (2.5 days)

Note: Unknowns were removed before calculating percentages.





Source: FARS 2013-2021 Final File, 2022 ARF

State

Figure 10 contains a color-coded map of the percentage of child fatalities by State in 2022. Table 6 contains the child traffic fatalities by State and age group in 2022. For each State in 2022, Table 7 contains the total traffic fatalities, child traffic fatalities, percentage of child traffic fatalities divided by total traffic fatalities, child population, and child fatality rate (child traffic fatalities per 100,000 child population). Included in these tables is Puerto Rico, which is not included in the overall U.S. total.

In 2022:

- Among all States, child traffic fatalities ranged from 0 (Rhode Island) to 156 (Texas).
- Texas had the highest number of child traffic fatalities (156), followed by California (97), Florida (89), Georgia (49), North Carolina (45), and Arizona (44).
- The State with the highest percentage of child traffic fatalities was Utah (6.3%), followed by Kansas (5.1%) and Delaware (4.9%). The national percentage of child traffic fatalities was 2.7 percent.
- The State with the highest child traffic fatality rate was Montana (4.69), followed by Delaware (4.68) and Mississippi (4.34). The national child traffic fatality rate was 1.90.

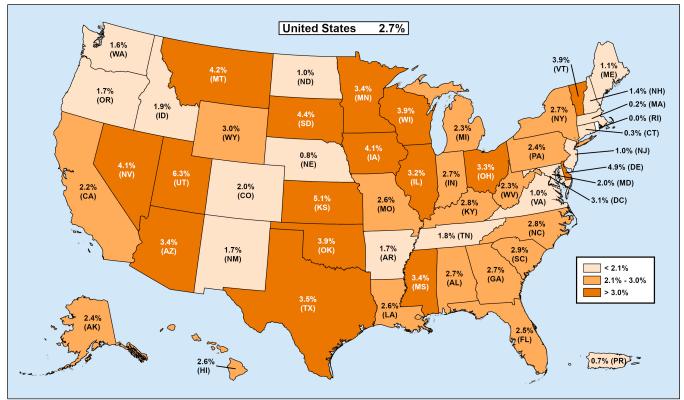


Figure 10. Percentages of Child Fatalities in Traffic Crashes, by State, 2022

Source: FARS 2022 ARF

Table 6. Child Fatalities in Traffic Crashes, by State and Age Group, 2022

State	<1	1–3	4–7	8–12	13–14	Total
Alabama	1	6	7	7	6	27
Alaska	1	1	0	0	0	2
Arizona	3	8	13	12	8	44
Arkansas	2	1	4	2	2	11
California	5	18	18	32	24	97
Colorado	1	3	3	5	3	15
Connecticut	0	0	0	0	1	1
Delaware	0	0	3	1	4	8
District of Columbia	0	0	0	1	0	1
Florida	10	12	22	26	19	89
Georgia	2	9	15	11	12	49
Hawaii	0	0	1	1	1	3
Idaho	0	1	0	1	2	4
Illinois	4	10	7	7	12	40
Indiana	1	5	9	5	6	26
Iowa	0	1	2	5	6	14
Kansas	0	0	4	14	3	21
Kentucky	0	7	5	5	4	21
Louisiana	0	10	2	8	4	24
Maine	0	0	1	1	0	2
Maryland	0	2	2	3	4	11
Massachusetts	0	0	0	0	1	1
Michigan	1	4	5	9	7	26
Minnesota	2	4	3	2	4	15
Mississippi	2	6	6	6	4	24
Missouri	3	5	3	10	6	27
Montana	0	2	2	3	2	9
Nebraska	0	0	0	0	2	2
Nevada	2	5	3	4	3	17
New Hampshire	0	0	0	2	0	2
New Jersey	1	2	0	1	3	7
New Mexico	2	0	4	2	0	8
New York	0	6	9	7	10	32
North Carolina	5	9	10	11	10	45
North Dakota	0	0	1	0	0	1
Ohio	1	12	10	12	7	42
Oklahoma	1	3	8	8	8	28
Oregon	0	1	4	2	3	10
Pennsylvania	3	6	3	10	6	28
Rhode Island	0	0	0	0	0	0
South Carolina	1	5	8	7	11	32
South Dakota	0	0	0	3	3	6
Tennessee	1	4	3	8	7	23
Texas	11	30	32	49	34	156
Utah	0	5	5	6	4	20
Vermont	0	1	0	1	1	3
Virginia	0	2	3	4	1	10
Washington	1	0	3	2	6	12
West Virginia	0	1	1	1	3	6
Wisconsin	3	3	6	8	3	23
Wyoming	0	1	2	1	0	4
U.S. Total	70	211	252	326	270	1,129
Puerto Rico	0	1	1	0	0	2

Source: FARS 2022 ARF

Child Fatalities Child Fatality Rate Total Percentage of Child per 100,000 Child State Fatalities Number **Total Fatalities** Population Population Alabama 988 2.7% 914,019 2.95 27 Alaska 82 2 2.4% 147,596 1.36 Arizona 1.302 44 3.4% 1.296.514 3.39 Arkansas 643 11 1.7% 572,356 1.92 4,428 97 2.2% 6,962,057 1.39 California 15 2.0% Colorado 764 994,133 1.51 Connecticut 359 1 0.3% 591.405 0.17 Delaware 8 4.9% 171,075 162 4.68 District of Columbia 32 1 3.1% 107,969 0.93 Florida 3,530 89 2.5% 3,524,628 2.53 Georgia 1,797 49 2.7% 2,048,305 2.39 Hawaii 116 3 2.6% 249,957 1.20 4 Idaho 215 1.9% 378,018 1.06 Illinois 268 40 3.2% 2,218,061 1.80 949 26 2.7% 2.02 Indiana 1,288,802 338 14 4.1% lowa 594,272 2.36 Kansas 410 21 5.1% 567,493 3.70 Kentucky 744 21 2.8% 826.463 2.54 906 2.6% 876,269 Louisiana 24 2.74 2 182 1.1% Maine 201,217 0.99 564 2.0% 0.99 Maryland 11 1.108.484 Massachusetts 434 0.2% 1,090,796 0.09 1 Michigan 1,124 26 2.3% 1,724,898 1.51 Minnesota 444 15 3.4% 1,063,570 1.41 Mississippi 703 24 3.4% 552,484 4.34 Missouri 1,057 27 2.6% 1,120,822 2.41 Montana 213 9 4.2% 191,728 4.69 Nebraska 244 2 0.8% 393,338 0.51 416 17 4.1% 566,299 3.00 Nevada New Hampshire 146 2 1.4% 204,779 0.98 New Jersey 685 7 1.0% 1,635,152 0.43 New Mexico 466 8 1.7% 373,339 2.14 New York 32 2.7% 3,293,299 1,175 0.97 North Carolina 1,630 45 2.8% 2.39 1,880,589 North Dakota 98 1.0% 0.65 1 153,083 Ohio 1,275 42 3.3% 2,102,932 2.00 Oklahoma 710 28 3.9% 785,904 3.56 Oregon 601 10 1.7% 684,623 1.46 Pennsylvania 1,179 28 2.4% 2,150,200 1.30 Rhode Island 52 0 0.0% 0.00 166,370 South Carolina 1,094 32 2.9% 3.49 916,475 South Dakota 137 6 4.4% 181,781 3.30 Tennessee 1,314 23 1.8% 1,264,773 1.82 Texas 4,408 156 3.5% 6,138,803 2.54 Utah 319 20 6.3% 762,202 2.62 Vermont 3.9% 76 3 92,975 3.23 10 1.0% Virginia 1,008 1,536,433 0.65 Washington 733 12 1.6% 1,361,375 0.88 West Virginia 264 6 2.3% 287,496 2.09 Wisconsin 596 23 3.9% 1,015,827 2.26 3.0% Wyoming 134 105,949 Δ 3.78 42,514 1,129 2.7% 1.90 U.S. Total 59,437,387 Puerto Rico 0.7% 271 2 405,341 0.49

Table 7. Child Fatalities and Fatality Rates in Traffic Crashes, by State, 2022

Sources: FARS 2022 ARF; Population - Census Bureau

Important Safety Reminders

As children grow, so do their restraint types (rear-facing, forward-facing, booster seat, or seat belt). Always use the one that fits your child's current age and size. Use the NHTSA Car Seat Finder located at www.nhtsa.gov/equipment/car-seats-and-booster-seats.

- Every car and every car seat or booster seat has different installation instructions, so make sure you read both the car seat instructions and the vehicle owner's manual.
- Remember that children in rear-facing seats should never be placed in front of an active passenger air bag.
- Use either the lower anchors and tether, or the seat belt and tether when installing forward-facing seats.
- To get assistance with installation, find a certified child passenger safety technician (CPST) at a location near you using NHTSA's Inspection Station locator: www.nhtsa.gov/equipment/car-seats-and-booster-seats-and-booster-seats#installation-help-inspection
- Remember to register your car seat or booster seat so you can be notified in the event of a safety recall.
- Plan for using car seats or booster seats when traveling and riding in taxis or ride-share vehicle.
- To find out when your child is ready to use an adult seat belt, reference the "Car Seat Recommendations for Children" located at: <u>www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/carseat-recommendations-for-children-by-age-size.pdf</u>. Be sure to read information for Booster Seat and Seat Belt Use.
- Keep children in the back seat until at least age 13. It's the safest place to ride.

— NHTSA's Research and Program Development

Fatality Analysis Reporting System

FARS contains data on every fatal motor vehicle traffic crash within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a traffic crash must involve a motor vehicle traveling on a trafficway customarily open to the public and must result in the death of a vehicle occupant or a nonoccupant within 30 days of the crash. The Annual Report File (ARF) is the FARS data file associated with the most recent available year, which is subject to change when it is finalized the following year to the final version known as the Final File. The additional time between the ARF and the Final File provides the opportunity for submission of important variable data requiring outside sources, which may lead to changes in the final counts. More information on FARS can be found at <u>www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system</u>.

The updated final counts for the previous data year will be reflected with the release of the recent year's ARF. For example, along with the release of the 2022 ARF, the 2021 Final File was released to replace the 2021 ARF. The final fatality count in motor vehicle traffic crashes for 2021 was 43,230, which was updated from 42,939 in the 2021 ARF. The number of children traffic fatalities from the 2021 Final File was 1,200, which was updated from 1,184 from the 2021 ARF.

Crash Report Sampling System

NHTSA's National Center for Statistics and Analysis (NCSA) redesigned the nationally representative sample of police-reported traffic crashes, which estimates the number of police-reported injury and property-damage-only crashes in the United States. CRSS replaced the National Automotive Sampling System (NASS) General Estimates System (GES) in 2016. More information on CRSS can be found at <u>www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss</u>.

Product Information Catalog and Vehicle Listing (vPIC) Vehicle Classification

Historically, vehicle type classifications (e.g., passenger cars, light trucks, large trucks, motorcycles, buses) from FARS, NASS GES, and CRSS used for analysis and data reporting were based on analyst-coded vehicle body type. NHTSA did not have manufacturer authoritative data to assist in vehicle body type coding. NCSA has developed a Product Information Catalog and Vehicle Listing (vPIC) dataset that is being used to decode VINs (Vehicle Identification Numbers) and extract vehicle information. Details of vehicles (make, model, body class, etc.) involved in crashes are obtained from vPIC via VIN-linkage. The VIN-derived information from vPIC uses the manufacturer's classification of body class, which allows for more accurate vehicle type analysis.

The vPIC-based analysis data are available beginning with 2020 FARS and CRSS data files. Vehicle-related analysis for 2020 and later years are based on vPIC vehicle classification. As a result, the 2020 and later-year vehicle type classifications are not comparable to 2019 and earlier-year vehicle type classifications. This change affects any analysis with a vehicle component to it. More information on vPIC can be found at https://vpic.nhtsa.dot.gov/.

Important Change for Motorized Bicycles

Prior to 2022, motorized bicycles were collected as motor vehicles and classified as motorcycles in FARS and CRSS, and their operators and passengers were captured as motorists. Beginning in 2022, FARS and CRSS are no longer collecting motorized bicycles as motor vehicles. Consequently, operators and passengers of motorized bicycles will be captured as pedalcyclists when involved in a motor vehicle traffic crash. Any traffic crash involving only motorized bicycle(s) will no longer be captured in FARS or CRSS.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2024, June). *Children: 2022 data* (Traffic Safety Facts. Report No. DOT HS 813 575). National Highway Traffic Safety Administration.

For More Information:

Motor vehicle traffic crash data are available from the National Center for Statistics and Analysis (NCSA), NSA-230. NCSA can be contacted at <u>NCSARequests@dot.gov</u> or 800-934-8517. NCSA programs can be found at <u>www.nhtsa.gov/data</u>. To report a motor vehicle safety-related problem or to inquire about safety information, contact the Vehicle Safety Hotline at 888-327-4236 or www.nhtsa.gov/report-a-safety-problem.

The following data tools and resources can be found at <u>https://cdan.dot.gov/</u>.

- Fatal Motor Vehicle Traffic Crash Data Visualizations
- Motor Vehicle Traffic Crash Databook
- Fatality and Injury Reporting System Tool (FIRST)
- State Traffic Safety Information (STSI)
- Traffic Safety Facts Annual Report Tables
- FARS Data Tables (FARS Encyclopedia)
- Crash Viewer
- Product Information Catalog and Vehicle Listing (vPIC)
- FARS, NASS GES, CRSS, NASS Crashworthiness Data System (CDS), and Crash Investigation Sampling System (CISS) data can be downloaded for further analysis.

Other fact sheets available from NCSA:

- Alcohol-Impaired Driving
- Bicyclists and Other Cyclists
- Large Trucks
- Motorcycles
- Occupant Protection in Passenger Vehicles
- Older Population
- Passenger Vehicles
- Pedestrians
- Race and Ethnicity
- Rural/Urban Traffic Fatalities
- School-Transportation-Related Traffic Crashes
- Speeding
- State Alcohol-Impaired-Driving Estimates
- State Traffic Data
- Summary of Motor Vehicle Traffic Crashes
- Young Drivers

Detailed data on motor vehicle traffic crashes are published annually in *Traffic Safety Facts: A Compilation of Motor Vehicle Traffic Crash Data*. The fact sheets and Traffic Safety Facts annual report can be found at https://crashstats.nhtsa.dot.gov/.



U.S. Department of Transportation

National Highway Traffic Safety Administration