U.S. Department of Transportation
National Highway Traffic Safety Administration
NHTSA

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Bicyclists and Other Cyclists

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

As defined for this fact sheet, prior to 2022, pedalcyclists are riders on bicycles and other cycles (tricycles and unicycles) powered solely by pedals. Starting in 2022, pedalcyclists include riders on bicycles powered by **pedals and/or motors**. This fact sheet only includes pedalcyclist crashes that involve motor vehicles in-transport.

Important Change for Motorized Bicycles: Prior to 2022, motorized bicycles were collected as motor vehicles and classified as motorcycles in the Fatality Analysis Reporting System (FARS) and the Crash Report Sampling System (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. In 2021, there were 43 traffic fatalities on motorized bicycles reported to FARS. Of the 43 traffic fatalities on motorized bicycles, 7 were in crashes involving only motorized bicycles.

Key Findings

- In 2022 there were 1,105 pedalcyclist fatalities, accounting for 2.6 percent of all traffic fatalities.
- In 2022 there was a 13-percent increase in pedalcyclists killed (1,105) from the 976 pedalcyclists killed in 2021.
- In 2022 an estimated 46,195 pedalcyclists were injured, an 11-percent increase from 41,615 pedalcyclists injured in 2021.
- In 2022 there were an estimated 46,195 pedalcyclists injured, accounting for 1.9 percent of all people injured in traffic crashes.
- In 2022 the pedalcyclist fatality rate per 100,000 people was more than 6 times higher for males than females. The injury rate for pedalcyclists per 100,000 people was 5 times higher for males than for females.
- Alcohol involvement (blood alcohol concentration [BAC] of .01 grams per deciliter [g/dL] or higher) – either for the motor vehicle driver involved in a fatal pedalcyclist crash and/or the killed pedalcyclist – was reported in 37 percent of all fatal pedalcyclist crashes in 2022.
- Twenty-four percent of the pedalcyclists who died in 2022 had BACs of .01 g/dL or greater.
- In 2022, most pedalcyclist fatalities (83%) were in urban areas. Twenty-nine percent of pedalcyclist fatalities occurred at intersections.

- Pedalcyclists who died in single-vehicle traffic crashes involving passenger vehicles (passenger cars and light trucks including SUVs, pickups, and vans) were more likely to be hit by the front of these vehicles as compared to crashes involving large trucks and buses.

Note: Starting in 2022, pedalcyclists include people on motorized bicycles.

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 National Automotive Sampling System (NASS) General Estimates System (GES) and Crash Report Sampling System (CRSS). Results from FARS, such as fatal crashes and fatalities, are actual counts, while results from NASS GES and CRSS, such as non-fatal crashes and people injured, are estimates. Refer to the end of this publication for more information on FARS, NASS GES, 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).

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

In 2022 there were 1,105 pedalcyclists killed in traffic crashes in the United States, an increase of 13-percent from 976 in 2021. Pedalcyclist deaths accounted for 2.6 percent of all traffic fatalities (Table 1) in 2022.

Table 1 presents the distribution of pedalcyclist fatalities as percentages of total fatalities as well as pedalcyclists injured as percentages of total people injured in the 10-year period from 2013 to 2022. Pedalcyclist deaths have accounted from a high of 2.6 percent to a low of 2.2 percent in those 10 years.

In 2022 an estimated 46,195 pedalcyclists were injured, an 11-percent increase from 41,615 pedalcyclists injured in 2021. Pedalcyclists injured made up 1.9 percent of the total people injured in 2022.

Table 1. Total Fatalities and Pedalcyclist Fatalities, and Total Injured and Pedalcyclists Injured in Traffic Crashes, 2013–2022

		Pedalcyclist Fatalities				Pedalcyclists Injured	
Year	Total Fatalities	Number	Percentage of Total Fatalities	Year	Total Injured	Number	Percentage of Total Injured
2013	32,893	749	2.3%	2013	2,318,992	48,088	2.1%
2014	32,744	729	2.2%	2014	2,342,621	50,414	2.2%
2015	35,484	829	2.3%	2015	2,454,778	45,066	1.8%
2016	37,806	853	2.3%	2016†	3,061,885	64,218	2.1%
2017	37,473	806	2.2%	2017†	2,745,268	49,698	1.8%
2018	36,835	871	2.4%	2018†	2,710,059	46,536	1.7%
2019	36,355	859	2.4%	2019†	2,740,141	49,057	1.8%
2020	39,007	948	2.4%	2020†	2,282,209	38,886	1.7%
2021	43,230	976	2.3%	2021†	2,497,869	41,615	1.7%
2022	42,514	1,105*	2.6%	2022†	2,382,771	46,195*	1.9%

Sources: FARS 2013–2021 Final File, 2022 Annual Report File (ARF); NASS GES 2013–2015 and CRSS 2016–2022
†CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.
*Starting in 2022, pedalcyclists include people on motorized bicycles.

Age and Sex

Table 2 contains the number of pedalcyclists killed and injured in 2022 by age group and sex. For each sex and the total, fatality, and injury rates per 100,000 population are calculated by age group. In 2022 the majority of pedalcyclists killed (86%) and pedalcyclists injured (82%) were males. The population-based pedalcyclist fatality rate was more than 6 times higher for males than for females. The pedalcyclist injury rate was 5 times higher for males than for females. The overall male pedalcyclist injury rate was 23 (per 100,000 people), compared with 5 for females.

In 2022 the average age of pedalcyclists killed in traffic crashes was 48. The largest numbers of pedalcyclist fatalities were in the 60-to-64 and 55-to-59 age groups. Pedalcyclists in these age groups also had the highest fatality rates (0.61 and 0.60 deaths per 100,000 population, respectively). The highest pedalcyclist injury rates by age group were in the 15-to-20 age group followed by those in the 10-to-14 age group (29 and 26 people injured per 100,000 population, respectively).

In 2022 children 14 and younger accounted for 5 percent of all pedalcyclists killed and 15 percent of all pedalcyclists injured.

Table 2. Pedalcyclists Killed and Injured in Traffic Crashes, and Fatality and Injury Rates per 100,000 Population, by Age Group and Sex, 2022

	Male			Female			Total[1]		
Age Group	Killed	Population	Fatality Rate	Killed	Population	Fatality Rate	Killed	Population	Fatality Rate
<5	2	9,475,095	0.02	3	9,063,258	0.03	5	18,538,353	0.03
5-9	12	10,231,946	0.12	2	9,777,249	0.02	14	20,009,195	0.07
10-14	31	10,701,853	0.29	6	10,187,986	0.06	37	20,889,839	0.18
Children (≤14)	*45*	*30,408,894*	*0.15*	*11*	*29,028,493*	*0.04*	*56*	*59,437,387*	*0.09*
15-20	41	13,340,726	0.31	4	12,733,072	0.03	46	26,073,798	0.18
21-24	29	9,343,305	0.31	4	8,924,468	0.04	33	18,267,773	0.18
25-29	58	11,352,742	0.51	14	10,840,422	0.13	72	22,193,164	0.32
30-34	56	11,836,820	0.47	11	11,471,316	0.10	67	23,308,136	0.29
35-39	62	11,302,300	0.55	17	10,965,649	0.16	79	22,267,949	0.35
40-44	78	10,817,889	0.72	16	10,609,527	0.15	95	21,427,416	0.44
45-49	69	9,844,989	0.70	13	9,779,109	0.13	82	19,624,098	0.42
50-54	81	10,434,641	0.78	14	10,372,906	0.13	95	20,807,547	0.46
55-59	115	10,373,923	1.11	9	10,593,091	0.08	125	20,967,014	0.60
60-64	114	10,297,980	1.11	14	10,820,443	0.13	128	21,118,423	0.61
65-69	73	8,873,901	0.82	13	9,757,521	0.13	86	18,631,422	0.46
70-74	59	7,036,771	0.84	2	8,120,246	0.02	61	15,157,017	0.40
75-79	30	4,909,686	0.61	1	5,951,314	0.02	32	10,861,000	0.29
80+	22	5,108,986	0.43	3	8,036,427	0.04	27	13,145,413	0.21
Ages 65+	*184*	*25,929,344*	*0.71*	*19*	*31,865,508*	*0.06*	*206*	*57,794,852*	*0.36*
Total[2]	**946**	**165,283,553**	**0.57**	**146**	**168,004,004**	**0.09**	**1,105**	**333,287,557**	**0.33**

	Male			Female			Total[3]		
Age Group	Injured	Population	Injury Rate	Injured	Population	Injury Rate	Injured	Population	Injury Rate
<5	131	9,475,095	1	22	9,063,258	0	154	18,538,353	1
5-9	976	10,231,946	10	344	9,777,249	4	1,319	20,009,195	7
10-14	4,649	10,701,853	43	696	10,187,986	7	5,385	20,889,839	26
Children (≤14)	*5,756*	*30,408,894*	*19*	*1,062*	*29,028,493*	*4*	*6,858*	*59,437,387*	*12*
15-20	6,143	13,340,726	46	1,547	12,733,072	12	7,690	26,073,798	29
21-24	2,136	9,343,305	23	794	8,924,468	9	2,930	18,267,773	16
25-29	3,071	11,352,742	27	951	10,840,422	9	4,022	22,193,164	18
30-34	3,156	11,836,820	27	693	11,471,316	6	3,849	23,308,136	17
35-39	2,978	11,302,300	26	450	10,965,649	4	3,429	22,267,949	15
40-44	2,276	10,817,889	21	641	10,609,527	6	2,917	21,427,416	14
45-49	1,990	9,844,989	20	166	9,779,109	2	2,155	19,624,098	11
50-54	2,458	10,434,641	24	665	10,372,906	6	3,123	20,807,547	15

Age Group	Male			Female			Total[3]		
	Injured	Population	Injury Rate	Injured	Population	Injury Rate	Injured	Population	Injury Rate
55-59	2,078	10,373,923	20	568	10,593,091	5	2,646	20,967,014	13
60-64	2,000	10,297,980	19	379	10,820,443	3	2,379	21,118,423	11
65-69	1,302	8,873,901	15	205	9,757,521	2	1,507	18,631,422	8
70-74	1,379	7,036,771	20	204	8,120,246	3	1,583	15,157,017	10
75-79	608	4,909,686	12	0	5,951,314	0	608	10,861,000	6
80+	457	5,108,986	9	43	8,036,427	1	500	13,145,413	4
Ages 65+	*3,745*	*25,929,344*	*14*	*452*	*31,865,508*	*1*	*4,198*	*57,794,852*	*7*
Total[4]	**37,787**	**165,283,553**	**23**	**8,369**	**168,004,004**	**5**	**46,195**	**333,287,557**	**14**

Sources: FARS 2022 ARF; CRSS 2022; Population – Census Bureau
[1]Includes unknown sex for pedalcyclists killed.
[2]Includes unknown age for pedalcyclists killed.
[3]Includes unknown sex for pedalcyclists injured in fatal crashes.
[4]Includes unknown age for pedalcyclists injured in fatal crashes.
Note: Totals may not equal sum of components due to independent rounding.

Alcohol

Alcohol involvement (blood alcohol concentration [BAC] of .01+ grams per deciliter [g/dL]) — either for a motor vehicle driver involved in a fatal pedalcyclist crash and/or the killed pedalcyclist — was reported in 37 percent of the traffic crashes that resulted in pedalcyclist fatalities in 2022. Alcohol involvement is defined as whether alcohol was consumed by the driver or the pedalcyclist or both prior to the crash; the presence of alcohol may or may not be a contributing factor in the crash. “No alcohol” refers to a BAC of .00 g/dL.

A total of 1,097 traffic crashes each had one or more pedalcyclist fatalities. Table 3 charts the estimated alcohol involvement for the pedalcyclist killed, by the alcohol involvement of all drivers involved in those 1,097 crashes, whether the drivers were killed or not. If more than one pedalcyclist was killed in a crash, the pedalcyclist with the highest BAC was used. If more than one driver was involved in a crash, the driver with the highest BAC was used.

In 2022:

- An estimated 20 percent of fatal pedalcyclist traffic crashes had a pedalcyclist involved with a BAC of .08 g/dL or higher.
- An estimated 16 percent of fatal pedalcyclist traffic crashes had a driver involved with a BAC of .08 g/dL or higher. (Note: It is illegal in every State to drive with a BAC of .08 g/dL or higher. However, Utah set a lower threshold of .05 g/dL that went into effect on December 30, 2018.)
- An estimated 4 percent of fatal pedalcyclist traffic crashes had both a pedalcyclist and a driver involved with BACs of .08 g/dL or higher.

Table 3. Traffic Crashes Resulting in Pedalcyclist Fatalities, by Alcohol Involvement of Drivers and Pedalcyclists, 2022

	Driver, No Alcohol, BAC=.00 g/dL		Driver, BAC=.01–.07 g/dL		Alcohol-Impaired Driver, BAC=.08+ g/dL		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pedalcyclist, No Alcohol	696	63%	29	3%	124	11%	849	77%
Pedalcyclist, BAC=.01-.07 g/dL	27	2%	1	0%	6	1%	33	3%
Pedalcyclist, BAC=.08+ g/dL	160	15%	10	1%	46	4%	215	20%
Total Crashes	**882**	**80%**	**39**	**4%**	**176**	**16%**	**1,097**	**100%**

Source: FARS 2022 ARF
Notes: The alcohol levels in this table were determined using the alcohol levels of the pedalcyclists killed and the involved drivers (killed or survived). NHTSA estimates BACs when alcohol test results are unknown.

As shown in Table 4, an estimated 24 percent of pedalcyclists killed had BACs of .01 g/dL or higher in 2022. In 2022, pedalcyclists killed in the age group 55-to-64 had the highest alcohol involvement (30%) at .01+ g/dL and the highest alcohol impairment (27%) at .08+ g/dL.

Table 4. Pedalcyclists Killed in Traffic Crashes, by Age Group and Their BACs, 2013 and 2022

Age Group	2013					2022				
	Number of Fatalities	Percentage With No Alcohol (BAC= .00 g/dL)	Percentage With BAC= .01+ g/dL	Percentage With BAC= .01–.07 g/dL	Percentage With BAC= .08+ g/dL	Number of Fatalities	Percentage With No Alcohol (BAC= .00 g/dL)	Percentage With BAC= .01+ g/dL	Percentage With BAC= .01–.07 g/dL	Percentage With BAC= .08+ g/dL
15-20	71	90%	10%	3%	7%	46	88%	12%	3%	10%
21-24	41	73%	27%	8%	19%	33	79%	21%	7%	14%
25-34	72	76%	24%	2%	22%	139	73%	27%	3%	24%
35-44	73	60%	40%	8%	32%	174	76%	24%	3%	21%
45-54	170	65%	35%	3%	32%	177	72%	28%	4%	23%
55-64	163	75%	25%	6%	19%	253	70%	30%	3%	27%
65-74	70	87%	13%	5%	8%	147	86%	14%	1%	13%
75-84	22	99%	1%	0%	1%	48	91%	9%	2%	7%
85+	10	89%	11%	0%	11%	11	91%	9%	0%	9%
Total Killed*	**692**	**75%**	**25%**	**5%**	**21%**	**1,028**	**76%**	**24%**	**3%**	**21%**

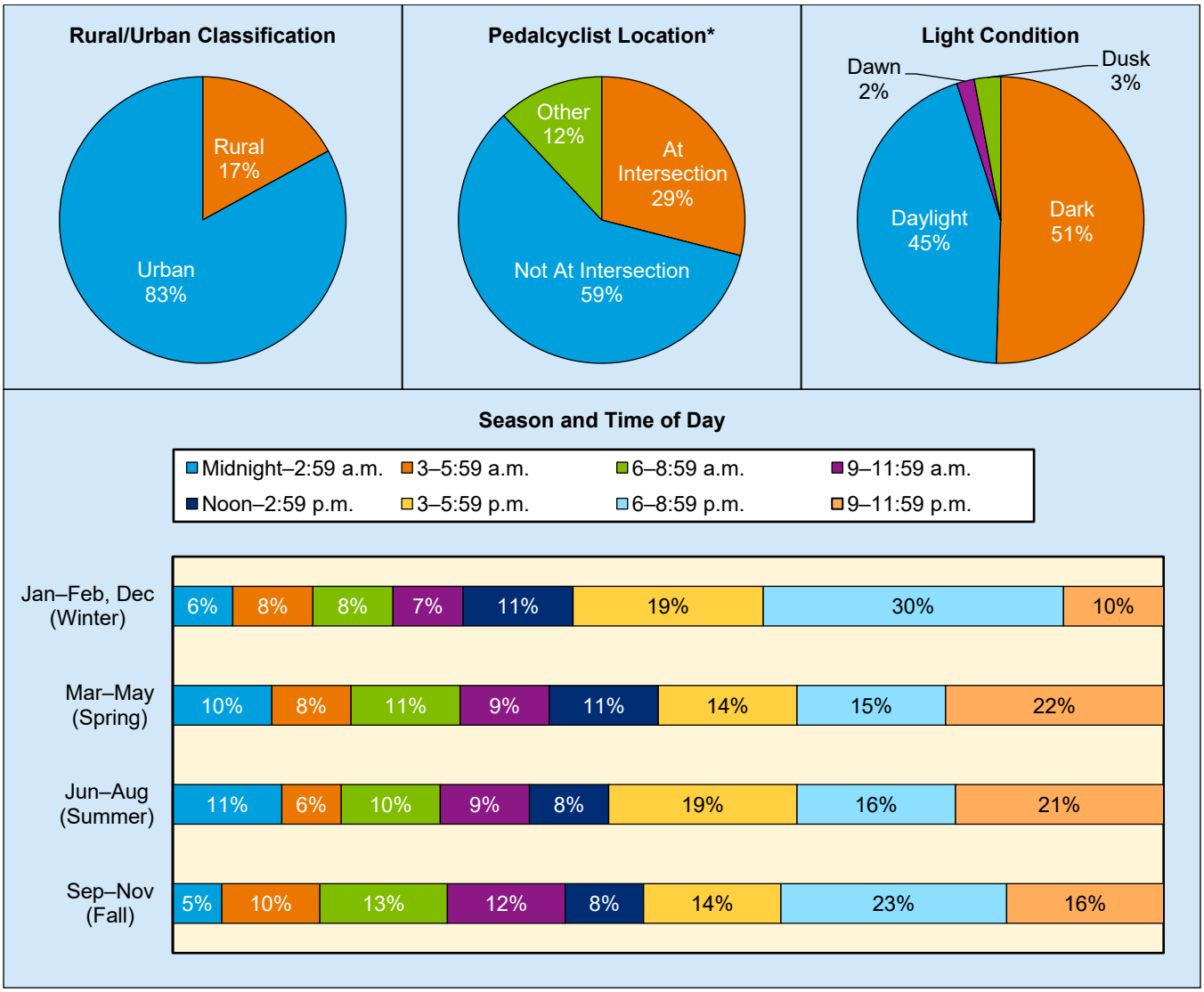
Source: FARS 2013 Final File, 2022 ARF
Note: NHTSA estimates BACs when alcohol test results are unknown.
*Excludes pedalcyclists younger than 15 and pedalcyclists of unknown age.

Crash Characteristics

Figure 1 shows information about the crash characteristics describing pedalcyclist fatalities in traffic crashes in 2022: rural/urban classification, pedalcyclist location, light condition, and season and time of day.

- About 5 in 6 pedalcyclist fatalities (83%) occurred in urban areas as opposed to rural areas (17%).
- Fifty-nine percent of pedalcyclist fatalities occurred at locations that were not intersections, 29 percent occurred at intersections, and the remaining 12 percent occurred at other locations including shoulders/roadsides, bicycle lanes, sidewalks, shared-use paths, driveway accesses, and other sites.
- More pedalcyclist fatalities occurred in the dark (51%) than in daylight (45%), dusk (3%), or dawn (2%).
- Pedalcyclist fatalities by season (defined by months) and the time of day (divided into eight 3-hour intervals starting at midnight), are presented below.
    - Thirty percent of pedalcyclist fatalities occurred during the summer months (June to August), 27 percent occurred during the fall months (September to November), 23 percent occurred during the spring months (March to May), and 20 percent occurred during the winter months (January, February, and the following December).
    - During the winter months, the largest group (30%) of pedalcyclist fatalities occurred from 6 to 8:59 p.m., followed by 19 percent from 3 to 5:59 p.m., and 11 percent from 12 to 2:59 p.m.
    - During the spring months, the 9 to 11:59 p.m. time period had the highest percentage (22%) of pedalcyclist fatalities, followed by 15 percent from 6 to 8:59 p.m., and 14 percent from 3 to 5:59 p.m.
    - During the summer months, more pedalcyclist fatalities occurred from 9 to 11:59 p.m. (21%) than any other time, followed by 19 percent from 3 to 5:59 p.m.
    - During the fall months, more pedalcyclist fatalities occurred from occurred from 6 to 8:59 p.m. (23%) than any other time, followed by 16 percent from 9 to 11:59 p.m.

Figure 1. Percentages of Pedalcyclist Fatalities in Traffic Crashes by Rural/Urban Classification, Pedalcyclist Location, Light Condition, and Season and Time of Day, 2022



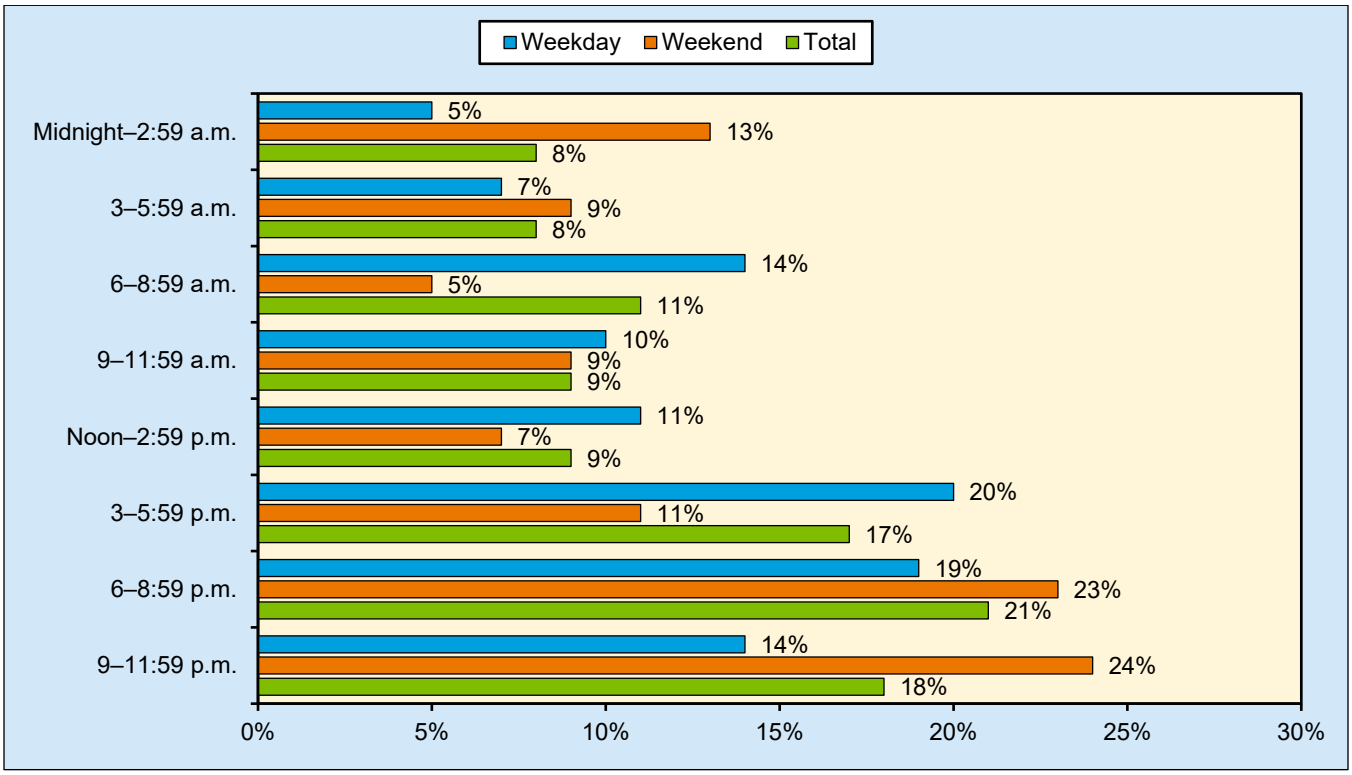
Source: FARS 2022 ARF
*Based on location of pedalcyclist struck at the time of the crash. "Other" includes sidewalk, bicycle lane, median/crossing island, parking lane/zone, shoulder/roadside, driveway access, shared-use path, and non-traffic area, which may or may not have been at intersection, but 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 or not at intersection.
Notes: Percentages may not add up to 100 percent due to independent rounding. Unknowns were removed before calculating percentages.

Time of Day and Day of Week

In 2022 there were 694 (63%) pedalcyclist fatalities during weekdays and 408 (37%) pedalcyclist fatalities during weekends. In Figure 2 the time of day is divided into eight 3-hour time intervals starting at midnight, and day of week is defined as weekday (Monday 6 a.m. to Friday 5:59 p.m.) and weekend (Friday 6 p.m. to Monday 5:59 a.m.). The following summarizes information about 2022 pedalcyclist fatalities in traffic crashes.

- The period 3 p.m. to 5:59 p.m. had the highest percentage of pedalcyclist fatalities during weekdays (20%). The next highest percentage of pedalcyclist fatalities during weekdays occurred from 6 to 8:59 p.m. (19%), followed by both 6 to 8:59 a.m. and 9 to 11:59 p.m. (14%).
- The period 9 p.m. to 11:59 p.m. had the highest percentage of pedalcyclist fatalities during weekends (24%). The next highest percentage of pedalcyclist fatalities during weekends occurred from 6 to 8:59 p.m. (23%), followed by midnight to 2:59 a.m. (13%).

Figure 2. Percentages of 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)
Notes: Percentages were calculated within each day of week category (weekday/weekend/total). Unknowns were removed before calculating percentages.

Vehicle Type and Impact Point

Ninety-five percent (1,049) of the pedalcyclists killed were in single-vehicle traffic crashes in 2022; 5 percent (56) were killed in multi-vehicle crashes. Of the 1,049 pedalcyclists killed in single-vehicle traffic crashes, 98.7 percent (1,035) were killed in crashes where the first harmful event was collision with a pedalcyclist. Table 5 presents the 1,035 pedalcyclists killed in these crashes by vehicle type and location of the initial point of impact on the striking vehicle.

In 2022:

- Pedalcyclists who died in single-vehicle traffic crashes were most likely to be struck by the front of the vehicles.
- Pedalcyclists who died in single-vehicle traffic crashes involving passenger vehicles (passenger cars and light trucks including SUVs, pickups, and vans) were more likely to be hit by the front of these vehicles as compared to crashes involving large trucks and buses.
- Light trucks were the most frequently involved vehicle in single-vehicle traffic crashes in which a pedalcyclist was killed (499 of the 1,035). In 88 percent (439) of these crashes, the pedalcyclist was struck by the front of the light truck.
- Buses and large trucks had the highest percentages of right-side impacts, accounting for 40.0 and 15.0 percent of pedalcyclist fatalities respectively, whereas for passenger vehicles this percentage was 5.0 percent.
- Large trucks had the highest percentage of rear-impact pedalcyclist fatalities (8.4%).

Table 5. Pedalcyclists Killed in Single-Vehicle Traffic Crashes Where the First Harmful Event Was Collision With a Pedalcyclist, by Vehicle Type and Initial Point of Impact on Vehicle, 2022

Vehicle Type	Initial Point of Impact on Vehicle										Total	
	Front		Right Side		Left Side		Rear		Other/Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Car	284	88.8%	16	5.0%	6	1.9%	2	0.6%	12	3.8%	320	100%
Light Truck	439	88.0%	25	5.0%	14	2.8%	3	0.6%	18	3.6%	499	100%
— *SUV*	221	89.1%	14	5.6%	7	2.8%	0	0.0%	6	2.4%	248	100%
— *Pickup*	186	86.9%	9	4.2%	6	2.8%	2	0.9%	11	5.1%	214	100%
— *Van*	32	86.5%	2	5.4%	1	2.7%	1	2.7%	1	2.7%	37	100%
Large Truck	58	54.2%	16	15.0%	8	7.5%	9	8.4%	16	15.0%	107	100%
Bus	2	40.0%	2	40.0%	0	0.0%	0	0.0%	1	20.0%	5	100%
Other/Unknown Vehicle	70	67.3%	5	4.8%	0	0.0%	0	0.0%	29	27.9%	104	100%
Total	**853**	**82.4%**	**64**	**6.2%**	**28**	**2.7%**	**14**	**1.4%**	**76**	**7.3%**	**1,035**	**100%**

Source: FARS 2022 ARF

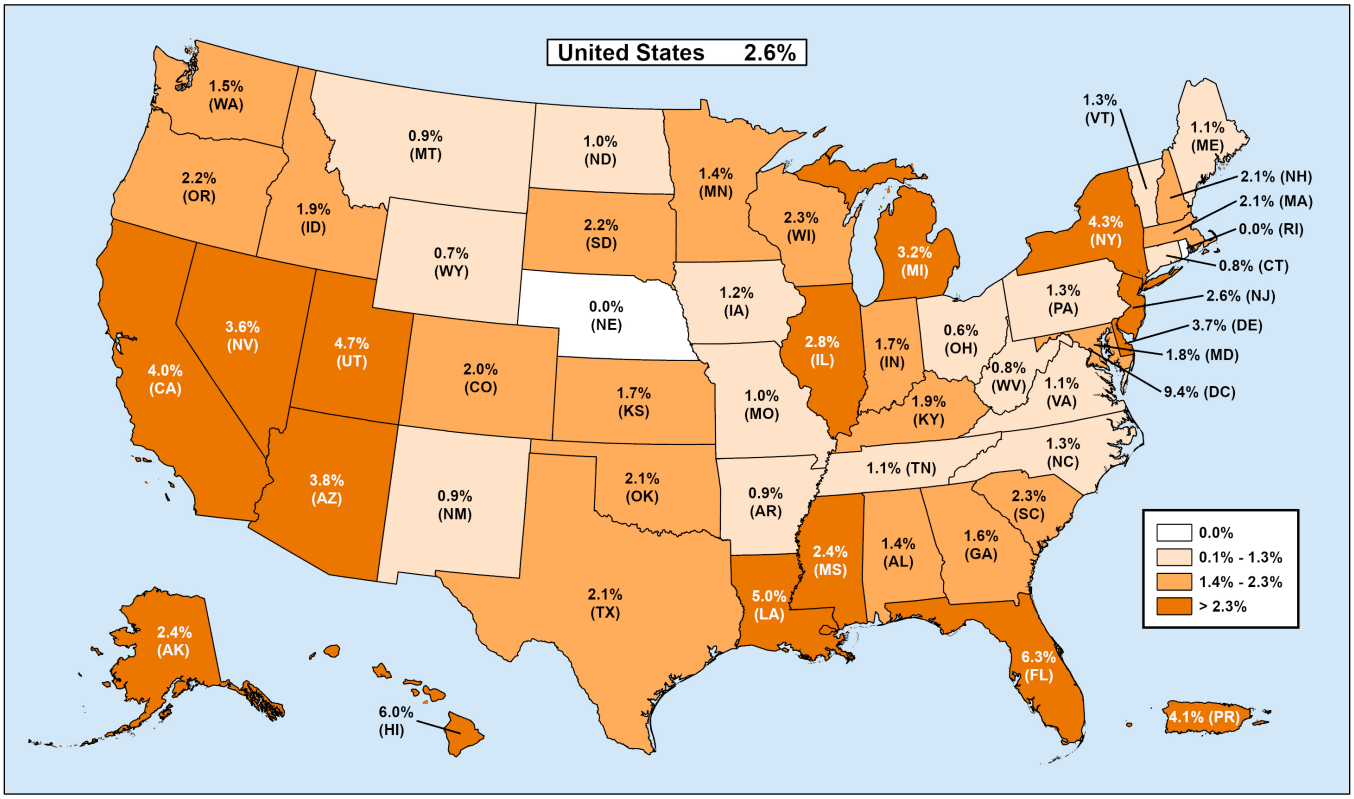
State

Figure 3 contains a map of the percentages of total traffic fatalities who were pedalcyclists by State in 2022. Table 6 shows the population, the number of total and pedalcyclist fatalities, the percentages of total fatalities who were pedalcyclists, and the population-based pedalcyclist fatality rates by State for 2022. Note that in this section, as well as the following section on fatalities by city, the populations of States and cities can vary from the recorded population. States with substantial seasonal tourism, such as Florida, and cities with a large influx of daily commuters, such as Washington, DC, have at times a substantially larger population than is reflected in their numbers of residents. More importantly, the population may not reflect the number of pedalcyclists. Some States may have higher proportions of the population biking than others. Also included in Table 6 is Puerto Rico, which is not included in the overall U.S. total.

In 2022:

- Pedalcyclist fatalities were highest in Florida (222), followed by California (177) and Texas (91).
- There were no pedalcyclist fatalities in Nebraska or Rhode Island.
- The percentages of pedalcyclist fatalities among total fatalities in States ranged from a high of 9.4 percent (Washington, DC) to a low of 0.6 percent (Ohio) for those States with pedalcyclist fatalities, compared to the national percentage of 2.6 percent.
- The highest fatality rate per 100,000 population was in Florida (1.00 fatalities per 100,000 people) followed by Louisiana (0.98 fatalities per 100,000 people), compared to the national rate of 0.33. Of those States with pedalcyclist fatalities, Ohio had the lowest fatality rate per 100,000 population (0.07) followed by Connecticut (0.08).

Figure 3. Percentages of Total Traffic Fatalities Who Were Pedalcyclists, by State, 2022



Source: FARS 2022 ARF

Table 6. Total and Pedalcyclist Fatalities in Traffic Crashes, and Pedalcyclist Fatality Rates per 100,000 Population, by State, 2022

State	Total Fatalities	Pedalcyclist Fatalities		Population	Pedalcyclist Fatality Rate per 100,000 Population
		Number	Percentage of Total Fatalities		
Alabama	988	14	1.4%	5,074,296	0.28
Alaska	82	2	2.4%	733,583	0.27
Arizona	1,302	50	3.8%	7,359,197	0.68
Arkansas	643	6	0.9%	3,045,637	0.20
California	4,428	177	4.0%	39,029,342	0.45
Colorado	764	15	2.0%	5,839,926	0.26
Connecticut	359	3	0.8%	3,626,205	0.08
Delaware	162	6	3.7%	1,018,396	0.59
District of Columbia	32	3	9.4%	671,803	0.45
Florida	3,530	222	6.3%	22,244,823	1.00
Georgia	1,797	29	1.6%	10,912,876	0.27
Hawaii	116	7	6.0%	1,440,196	0.49
Idaho	215	4	1.9%	1,939,033	0.21
Illinois	1,268	35	2.8%	12,582,032	0.28
Indiana	949	16	1.7%	6,833,037	0.23
Iowa	338	4	1.2%	3,200,517	0.12
Kansas	410	7	1.7%	2,937,150	0.24
Kentucky	744	14	1.9%	4,512,310	0.31
Louisiana	906	45	5.0%	4,590,241	0.98
Maine	182	2	1.1%	1,385,340	0.14
Maryland	564	10	1.8%	6,164,660	0.16
Massachusetts	434	9	2.1%	6,981,974	0.13
Michigan	1,124	36	3.2%	10,034,113	0.36
Minnesota	444	6	1.4%	5,717,184	0.10
Mississippi	703	17	2.4%	2,940,057	0.58
Missouri	1,057	11	1.0%	6,177,957	0.18
Montana	213	2	0.9%	1,122,867	0.18
Nebraska	244	0	0.0%	1,967,923	0.00
Nevada	416	15	3.6%	3,177,772	0.47
New Hampshire	146	3	2.1%	1,395,231	0.22
New Jersey	685	18	2.6%	9,261,699	0.19
New Mexico	466	4	0.9%	2,113,344	0.19
New York	1,175	50	4.3%	19,677,151	0.25
North Carolina	1,630	22	1.3%	10,698,973	0.21
North Dakota	98	1	1.0%	779,261	0.13
Ohio	1,275	8	0.6%	11,756,058	0.07
Oklahoma	710	15	2.1%	4,019,800	0.37
Oregon	601	13	2.2%	4,240,137	0.31
Pennsylvania	1,179	15	1.3%	12,972,008	0.12
Rhode Island	52	0	0.0%	1,093,734	0.00
South Carolina	1,094	25	2.3%	5,282,634	0.47
South Dakota	137	3	2.2%	909,824	0.33
Tennessee	1,314	15	1.1%	7,051,339	0.21
Texas	4,408	91	2.1%	30,029,572	0.30
Utah	319	15	4.7%	3,380,800	0.44
Vermont	76	1	1.3%	647,064	0.15
Virginia	1,008	11	1.1%	8,683,619	0.13
Washington	733	11	1.5%	7,785,786	0.14
West Virginia	264	2	0.8%	1,775,156	0.11
Wisconsin	596	14	2.3%	5,892,539	0.24
Wyoming	134	1	0.7%	581,381	0.17
U.S. Total	**42,514**	**1,105**	**2.6%**	**333,287,557**	**0.33**
Puerto Rico	271	11	4.1%	3,221,789	0.34

Sources: FARS 2022 ARF; Population – Census Bureau

City

For each U.S. city with a population of over 500,000, Table 7 shows the population, number of total fatalities and pedalcyclist fatalities, the percentages of total fatalities who were pedalcyclists, and the population-based fatality rates for all traffic fatalities and pedalcyclist fatalities in 2022. Of the 37 cities listed, 14 had lower pedalcyclist fatality rates than the national average of 0.33 per 100,000 population.

- Among large cities, the city with the highest pedalcyclist fatality rate was in Tucson, AZ (1.65 pedalcyclist fatalities per 100,000 people), followed by Sacramento, CA (1.33 pedalcyclist fatalities per 100,000 people).
- Of those major cities that had pedalcyclist fatalities, the lowest fatality rates were in Austin, TX (0.10 pedalcyclist fatalities per 100,000 people) followed by Columbus, OH (0.11 pedalcyclist fatalities per 100,000 people), and San Diego, CA (0.14 pedalcyclist fatalities per 100,000 people).
- Two major cities reported zero pedalcyclist fatalities in traffic crashes in 2022: San Francisco, CA and Charlotte, NC.
- Pedalcyclist fatalities in traffic crashes in these major cities account for about 17 percent of all pedalcyclist fatalities in traffic crashes nationwide.

Table 7. Total and Pedalcyclist Fatalities in Traffic Crashes in Cities With Populations of 500,000 or Greater, and Fatality Rates per 100,000 Population, 2022

City	Total Fatalities	Pedalcyclist Fatalities		Population	Fatality Rate per 100,000 Population	
		Number	Percentage of Total Fatalities		Total	Pedalcyclist
New York, NY	238	20	8.4%	8,335,897	2.86	0.24
Los Angeles, CA	354	20	5.6%	3,822,238	9.26	0.52
Chicago, IL	192	10	5.2%	2,665,039	7.20	0.38
Houston, TX	323	11	3.4%	2,302,878	14.03	0.48
Phoenix, AZ	311	19	6.1%	1,644,409	18.91	1.16
Philadelphia, PA	142	3	2.1%	1,567,258	9.06	0.19
San Antonio, TX	203	8	3.9%	1,472,909	13.78	0.54
San Diego, CA	118	2	1.7%	1,381,162	8.54	0.14
Dallas, TX	228	5	2.2%	1,299,544	17.54	0.38
Austin, TX	119	1	0.8%	974,447	12.21	0.10
Jacksonville, FL	149	5	3.4%	971,319	15.34	0.51
San Jose, CA	63	4	6.3%	971,233	6.49	0.41
Fort Worth, TX	121	5	4.1%	956,709	12.65	0.52
Columbus, OH	93	1	1.1%	907,971	10.24	0.11
Charlotte, NC	102	0	0.0%	897,720	11.36	0.00
Indianapolis, IN	134	3	2.2%	880,621	15.22	0.34
San Francisco, CA	42	0	0.0%	808,437	5.20	0.00
Seattle, WA	39	3	7.7%	749,256	5.21	0.40
Denver, CO	74	4	5.4%	713,252	10.38	0.56
Oklahoma City, OK	88	5	5.7%	694,800	12.67	0.72
Nashville, TN	112	2	1.8%	683,622	16.38	0.29
El Paso, TX	71	2	2.8%	677,456	10.48	0.30
Washington, DC	32	3	9.4%	671,803	4.76	0.45
Las Vegas, NV	51	2	3.9%	656,274	7.77	0.30
Boston, MA	24	1	4.2%	650,706	3.69	0.15
Portland, OR	62	4	6.5%	635,067	9.76	0.63
Louisville, KY	119	6	5.0%	624,444	19.06	0.96
Memphis, TN	228	2	0.9%	621,056	36.71	0.32
Detroit, MI	121	7	5.8%	620,376	19.50	1.13
Baltimore, MD	46	1	2.2%	569,931	8.07	0.18
Milwaukee, WI	85	5	5.9%	563,305	15.09	0.89
Albuquerque, NM	101	1	1.0%	561,008	18.00	0.18
Tucson, AZ	142	9	6.3%	546,574	25.98	1.65
Fresno, CA	65	6	9.2%	545,567	11.91	1.10
Sacramento, CA	77	7	9.1%	528,001	14.58	1.33
Mesa, AZ	66	3	4.5%	512,498	12.88	0.59
Kansas City, MO	86	2	2.3%	509,297	16.89	0.39

Sources: FARS 2022 ARF; Population – Census Bureau
Note: Sorted by highest to lowest 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. www.youtube.com/watch?time_continue=22&v=hLlXswx0VvQ&feature=emb_logo
- 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 3 feet of clearance when passing a bicyclist 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.
- 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.
- Consult State and local laws for safety reminders as they may differ from the ones above.
- For more information on Bicycle Safety visit www.nhtsa.gov/Driving-Safety/Bicycles

— 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 www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system.

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 pedalcyclist fatalities from the 2021 Final File was 976, which was updated from 966 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 www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss.

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/.

The suggested APA format citation for this document is:

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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 NCSARequests@dot.gov or 800-934-8517. NCSA programs can be found at www.nhtsa.gov/data. 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 https://cdan.dot.gov/.

- 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
- Children
- 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