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

Traffic Safety Facts
2023 Data

DOT HS 813 732 July 2025

Motorcycles

In this fact sheet for 2023 the information is presented as follows.

The following definitions apply to terms in this fact sheet:

- For the purposes of this fact sheet, motorcycles include 2- and 3-wheeled motorcycles, off-road motorcycles, mopeds, motor scooters, minibikes, and pocket bikes.
- The **motorcycle rider** is the person operating the motorcycle; the **passenger** is a person seated on, but not operating, the motorcycle; the **motorcyclist** is a general term referring to either the rider or passenger.
- Drivers or motorcycle riders are alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher.

Key Findings

- In 2023 there were 6,335 motorcyclists killed, 15 percent of all traffic fatalities.
- The number of motorcyclist fatalities in 2023 increased 1 percent from 2022, from 6,251 to 6,335.
- An estimated 82,564 motorcyclists were injured in 2023, a less than 1-percent decrease from 82,690 motorcyclists injured in 2022.
- Per 100 million vehicle miles traveled in 2023, the fatality rate for motorcyclists (31.39) was almost 28 times the passenger car occupant fatality rate (1.13).
- Thirty-four percent of motorcycle riders in fatal crashes in 2023 had no valid motorcycle licenses.
- In 2023 motorcycle riders in fatal crashes had higher percentages of alcohol impairment than drivers of any other motor vehicle type (26% for motorcycles, 24% for passenger cars, 20% for light trucks, and 4% for large trucks).
- Forty-one percent of motorcycle riders who died in single-vehicle crashes in 2023 were alcohol-impaired.
- Motorcycle riders killed in traffic crashes at night were two and a half times more frequently alcohol-impaired than those killed during the day (38% and 15%) in 2023.
- In States without universal helmet laws, based on known helmet use, 51 percent of motorcyclists killed in 2023 were not wearing helmets, as compared to 10 percent in States with universal helmet laws.

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).

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. In 2021, there were 43 traffic fatalities on motorized bicycles reported to FARS, accounting for 0.7 percent of all motorcyclist fatalities.

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 2023:

- There were 6,335 motorcyclists killed in motor vehicle traffic crashes – higher than the 6,251 motorcyclists killed in 2022.
- Motorcyclists accounted for 15 percent of all traffic fatalities and 20 percent of all motor vehicle occupant (driver and passenger) fatalities.
- Of the 6,335 motorcyclists killed in traffic crashes, 95 percent (6,025) were riders and 5 percent (310) were passengers.
- There were about 82,564 motorcyclists injured in traffic crashes, a decrease of less than 1 percent from 82,690 motorcyclists injured in 2022.

Table 1 shows information about motorcyclists killed and injured from 2014 to 2023. From 2022 to 2023 motorcyclist fatalities increased 1 percent. The number of registered motorcycles and motorcycle vehicle miles traveled (VMT) are also shown in Table 1, along with the respective fatality and injury rates.

Table 1. Motorcyclists Killed and Injured in Traffic Crashes, and Fatality and Injury Rates, 2014-2023

Year	Killed	Registered Vehicles	Fatality Rate per 100,000 Registered Vehicles	VMT (millions)	Fatality Rate per 100 Million VMT
2014	4,594	8,417,718	54.58	19,970	23.00
2015	5,029	8,600,936	58.47	19,606	25.65
2016	5,337	8,679,380	61.49	20,445	26.10
2017	5,226	8,664,108	60.32	20,149	25.94
2018	5,038	8,659,741	58.18	20,076	25.09
2019	5,044	8,596,314	58.68	19,688	25.62
2020	5,620	8,347,435	67.33	17,947	31.31
2021	6,144	9,424,769	65.19	19,642	31.28
2022	6,251*	9,186,256	68.05	23,765	26.30
2023	6,335*	9,516,910	66.57	20,181	31.39
Year	**Injured**	**Registered Vehicles**	**Injury Rate per 100,000 Registered Vehicles**	**VMT (millions)**	**Injury Rate per 100 Million VMT**
2014†	91,987	8,417,718	1,093	19,970	461
2015†	88,738	8,600,936	1,032	19,606	453
2016	104,442	8,679,380	1,203	20,445	511
2017	88,592	8,664,108	1,023	20,149	440
2018	81,859	8,659,741	945	20,076	408
2019	83,814	8,596,314	975	19,688	426
2020	80,662	8,347,435	966	17,947	449
2021	84,898	9,424,769	901	19,642	432
2022	82,690*	9,186,256	900	23,765	348
2023	82,564*	9,516,910	868	20,181	409

Sources: FARS 2014-2022 Final File, 2023 Annual Report File (ARF); NASS GES 2014-2015; CRSS 2016-2023; VMT and Registered Vehicles – Federal Highway Administration (FHWA)
*Starting in 2022, motorcyclists exclude people on motorized bicycles.
†NASS GES and CRSS estimates are not comparable due to different sample designs. Refer to the end of the document for more information about CRSS.
Notes: Due to a vehicle classification change, the 2020 and later year data are not comparable to 2019 and earlier years. Refer to the FARS and CRSS boxes at the end of this document for revisions to 2020 data. Due to amendments in the 2021 FARS Final file, the 2021 motorcyclist fatalities changed from 6,143 to 6,144.

Motorcycles made up 3.1 percent of all registered vehicles in the United States in 2023 and accounted for only 0.6 percent of all VMT. Per 100,000 registered vehicles in 2023, the fatality rate for motorcyclists (66.57) was almost 6 times the fatality rate for passenger car occupants (11.61) and nearly 10 times the fatality rate for light-truck occupants (6.81), as shown in Table 2. The injury rate for motorcyclists (868) was lower than the injury rate for passenger car occupants (905), but higher than the injury rate of light-truck occupants (575).

Per 100 million VMT in 2023, the fatality rate for motorcyclists (31.39) was almost 28 times the passenger car occupant fatality rate (1.13) and nearly 48 times the fatality rate for light-truck occupants (0.66). The motorcyclist injury rate (409) was almost 5 times the injury rate of passenger car occupants (88) and 7 times the injury rate of light-truck occupants (56).

Table 2. Occupant* Fatality and Injury Rates in Traffic Crashes, by Vehicle Type, 2022 and 2023

Rate		Vehicle Type					
		Motorcycles		Passenger Cars		Light Trucks	
		Fatality Rate	Injury Rate	Fatality Rate	Injury Rate	Fatality Rate	Injury Rate
2022	Per 100,000 Registered Vehicles	68.05	900	12.17	927	7.33	535
	Per 100 Million VMT	26.30	348	1.20	91	0.72	53
2023	Per 100,000 Registered Vehicles	66.57	868	11.61	905	6.81	575
	Per 100 Million VMT	31.39	409	1.13	88	0.66	56

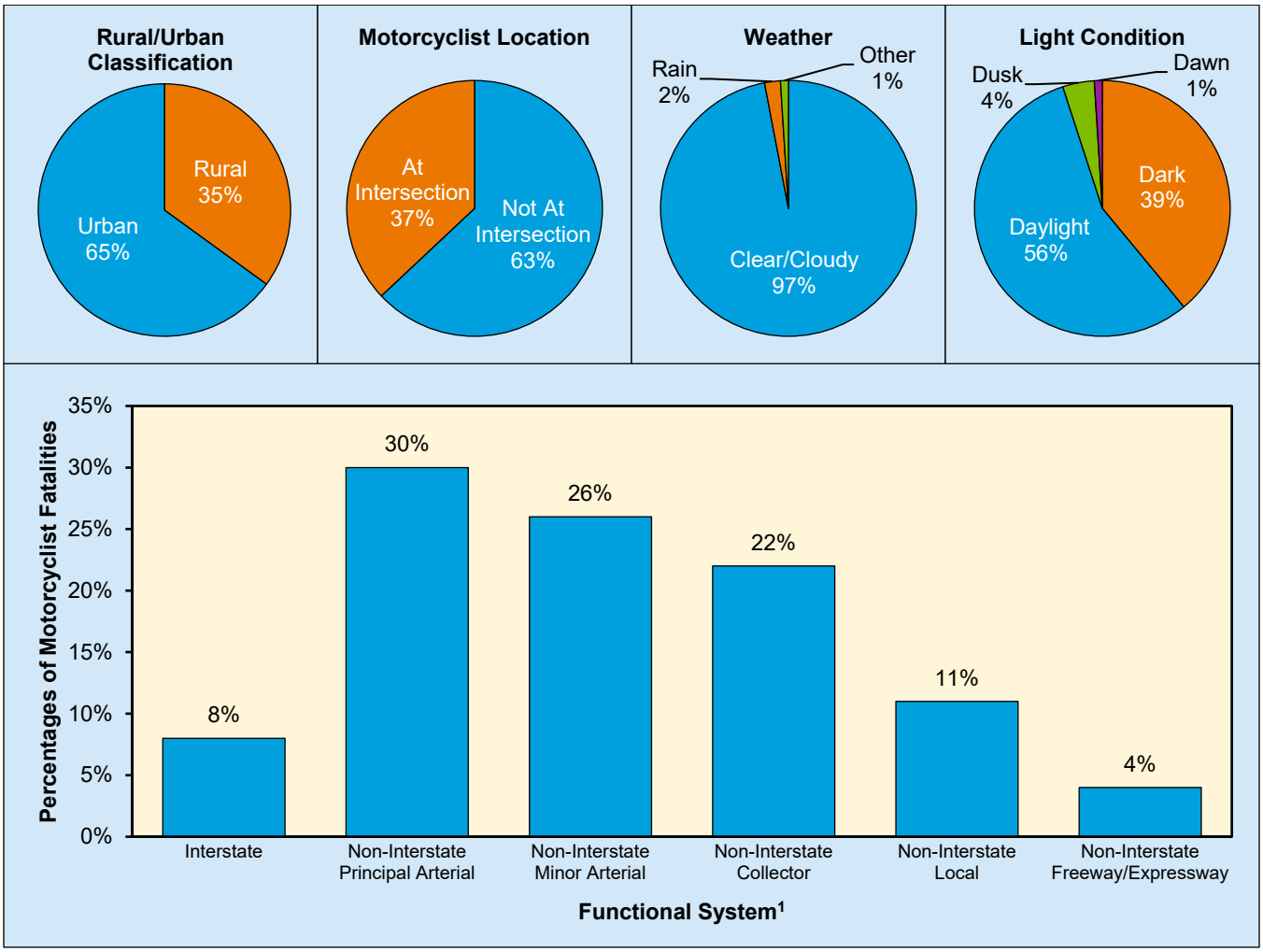
Sources: FARS 2022 Final File, 2023 ARF; CRSS 2022-2023; Registered Motorcycles and Motorcycle VMT– FHWA; Registered Passenger Cars and Light Trucks – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.; Passenger Car and Light-Truck VMT – FHWA, revised by NHTSA
*Includes both riders/drivers and passengers.
Note: Starting in 2022, motorcyclists exclude people on motorized bicycles.

Crash Characteristics

Figure 1 shows information about the environment surrounding the motorcyclist fatalities in 2023 including rural/urban classification, motorcyclist location, light condition, weather, and functional system. In 2023 (based on known values):

- 65 percent of the motorcyclist fatalities occurred in urban areas compared to 35 percent in rural areas;
- 63 percent occurred at locations that were not intersections compared to 37 percent at intersections;
- 97 percent occurred in clear/cloudy weather compared to 2 percent in rain and 1 percent in snow/sleet, fog, or other conditions;
- 56 percent occurred during daylight compared to 39 percent in the dark, 4 percent during dusk, and 1 percent during dawn; and
- 92 percent occurred on non-interstate roads compared to 8 percent on interstates.

Figure 1. Motorcyclist Fatalities in Traffic Crashes in Relation to Rural/Urban Classification, Motorcyclist Location, Weather, Light Condition, and Functional System,[1] 2023



Source: FARS 2023 ARF
Notes: Unknowns were removed before calculating percentages. Percentages may not add up to 100 percent due to independent rounding.

Crash Involvement

The most harmful events in 2023 for 3,843 (60%) of the 6,432 motorcycles in fatal crashes were collisions with motor vehicles in transport.

In two-vehicle crashes, 79 percent of the motorcycles in fatal crashes were impacted on the front. Only 6 percent were impacted on the rear.

Motorcycles were more frequently involved in fatal collisions with fixed objects than other vehicle types. Twenty-four percent of motorcycles in fatal traffic crashes in 2023 collided with fixed objects, compared to 16 percent for passenger cars, 12 percent for light trucks, and 4 percent for large trucks.

In 2023 there were 3,419 fatal two-vehicle crashes each involving a motorcycle and another type of vehicle. In 46 percent (1,588) of these crashes, the other vehicles were turning left while the motorcycles were going straight, passing, or overtaking other vehicles. Both vehicles were going straight in 709 crashes (21%).

[1] Definitions for the different functional systems can be found at www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf

Motorcyclists

Age

From 2022 to 2023 motorcyclist fatalities among the 15-to-20 age group increased 44 percent, from 350 to 505. The motorcyclist fatalities 15 to 20 years old increased from 2022 to 2023 by 33 percent (from 218 to 291) during weekdays and increased 62 percent (from 132 to 214) during weekends. Motorcyclist fatalities in the 21-to-24 age group increased 7 percent from 572 in 2022 to 611 in 2023. The average age of motorcycle riders killed in traffic crashes was 41 in 2023.

Weekday is defined as Monday 6 a.m. to Friday 5:59 p.m. and weekend is defined as Friday 6 p.m. to Monday 5:59 a.m. Table 3 shows that 46 percent of motorcyclists were killed in traffic crashes during the weekend in 2022 versus 47 percent in 2023. Additionally, motorcyclist fatalities on weekdays have increased from 3,364 in 2022 to 3,371 in 2023.

Table 3. Motorcyclist Fatalities in Traffic Crashes, by Age Group and Day of Week, 2022 and 2023

	2022			2023		
Age Group	Weekday	Weekend	Total*	Weekday	Weekend	Total*
<15	6	12	18	7	7	14
15-20	218	132	350	291	214	505
21-24	336	234	572	350	261	611
25-29	404	325	729	404	361	765
30-34	414	338	752	363	323	687
35-39	306	299	606	284	291	575
40-44	284	267	551	320	246	567
45-49	255	254	509	239	252	492
50-54	272	290	562	260	256	517
55-59	249	238	487	241	266	507
60-64	243	225	469	247	218	466
65+	375	262	639	363	261	625
Total*	**3,364**	**2,881**	**6,251**	**3,371**	**2,958**	**6,335**

Source: FARS 2022 Final File, 2023 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)
*Includes unknown age and unknown day of week.
Note: Starting in 2022, motorcyclists exclude people on motorized bicycles.

Motorcycle Engine Size

Table 4 shows motorcyclist fatalities by the engine size (displacement) of the motorcycles from 2020 to 2023. Of the motorcyclists killed in traffic crashes in 2023, there were 36 percent riding on motorcycles with engine sizes of 501 to 1,000 cubic centimeters (cc), followed by 25 percent on motorcycles with engine sizes of 1,501 cc or higher, 21 percent on motorcycles with engine sizes of 1,001 to 1,500 cc, and 11 percent on motorcycles with engine sizes up to 500 cc.

The number of motorcyclist fatalities on motorcycles with engine sizes up to 500 cc decreased slightly (from 698 to 693) between 2022 and 2023, while the motorcyclist fatalities on motorcycles with engine sizes from 501 to 1,000 cc increased 4 percent (from 2,207 to 2,300). Motorcyclist fatalities on motorcycles with engine sizes from 1,001 to 1,500 cc decreased 2 percent (from 1,366 to 1,343), while the number of motorcyclists killed on motorcycles with engine sizes 1,501 cc or higher decreased from 1,610 to 1,609.

Table 4. Motorcyclist Fatalities in Traffic Crashes, by Engine Size* (cc), 2020-2023

Year	Engine Size (cc)										Total	
	Up to 500		501–1,000		1,001–1,500		1,501 & Higher		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2020	502	9%	1,947	35%	1,263	22%	1,427	25%	481	9%	5,620	100%
2021	612	10%	2,112	34%	1,367	22%	1,619	26%	434	7%	6,144	100%
2022	698	11%	2,207	35%	1,366	22%	1,610	26%	370	6%	6,251	100%
2023	693	11%	2,300	36%	1,343	21%	1,609	25%	390	6%	6,335	100%

Source: FARS 2020-2022 Final File, 2023 ARF
*Based on data from NHTSA's vPIC.
Notes: Starting in 2022, motorcyclists exclude people on motorized bicycles. Other motorcycle characteristics besides engine size (displacement) influence power and speed capability. NHTSA has not determined if there is a causal relationship between displacement and fatality risk.

Speeding

NHTSA considers a traffic crash to be speeding-related if the driver was charged with a speeding-related offense or if an investigating police officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash.

The number of speeding motorcycle riders in fatal crashes increased 3 percent from 2022 to 2023. Thirty-six percent of all motorcycle riders in fatal crashes in 2023 were speeding, compared to 22 percent for passenger car drivers, 15 percent for light-truck drivers, and 7 percent for large-truck drivers. As shown in Table 5, motorcycle riders 21 to 24 years old in fatal crashes had the highest speeding involvement at 54 percent in 2023 and 51 percent in 2022.

Table 5. Motorcycle Riders in Fatal Traffic Crashes, by Age Group and Speeding Involvement, 2022 and 2023

Age Group	2022						2023					
	Speeding Involvement				Total		Speeding Involvement				Total	
	Speeding		Not Speeding				Speeding		Not Speeding			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<15	4	27%	11	73%	15	100%	0	0%	8	100%	8	100%
15-20	167	47%	191	53%	358	100%	258	51%	251	49%	509	100%
21-24	295	51%	288	49%	583	100%	341	54%	285	46%	626	100%
25-29	344	46%	406	54%	750	100%	370	47%	409	53%	779	100%
30-34	322	42%	441	58%	763	100%	269	39%	428	61%	697	100%
35-39	262	42%	355	58%	617	100%	228	39%	357	61%	585	100%
40-44	200	36%	355	64%	555	100%	214	38%	343	62%	557	100%
45-49	183	35%	344	65%	527	100%	166	34%	329	66%	495	100%
50-54	154	27%	423	73%	577	100%	135	25%	399	75%	534	100%
55-59	123	25%	376	75%	499	100%	113	22%	412	78%	525	100%
60-64	87	18%	387	82%	474	100%	94	20%	382	80%	476	100%
65+	94	14%	561	86%	655	100%	114	18%	511	82%	625	100%
Total*	**2,236**	**35%**	**4,146**	**65%**	**6,382**	**100%**	**2,305**	**36%**	**4,124**	**64%**	**6,429**	**100%**

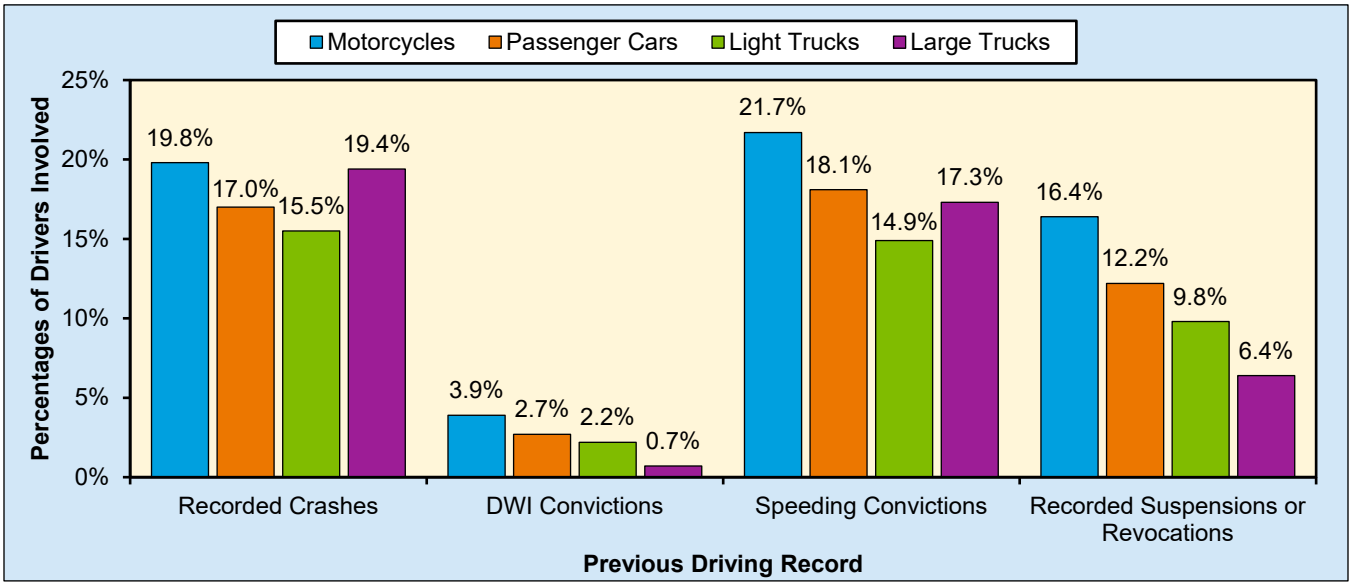
Source: FARS 2022 Final File, 2023 ARF
*Includes unknown age.

Licensing and Previous Driving Records

Thirty-four percent of motorcycle riders in fatal traffic crashes in 2023 were riding without valid motorcycle licenses at the time of the crashes, while only 15 percent of passenger vehicle (passenger cars and light trucks) drivers in fatal crashes did not have valid licenses. A valid motorcycle license includes a rider having a valid driver license (non-CDL license status) with a motorcycle endorsement or a motorcycle-only license.

As shown in Figure 2, motorcycle riders in fatal traffic crashes had the highest percentages of drivers with previous driving records as compared to other vehicle drivers. Motorcycle riders in fatal traffic crashes were 1.3 times more likely than passenger car drivers to have previous license suspensions or revocations (16.4% and 12.2%). Note that FARS records drivers' previous driving records that occurred within 5 years from the crash date.

Figure 2. Percentages of Previous 5-Year Driving Records of Drivers in Fatal Traffic Crashes, by Vehicle Type, 2023



Source: FARS 2023 ARF
Note: Excludes all drivers with previous records that were unknown.

Alcohol

In 2023 there were 6,025 motorcycle riders killed in traffic crashes compared to 5,965 in 2022. Of the 6,025 in 2023, there were 1,584 (26%) who were alcohol-impaired (BAC of .08 g/dL or higher). In 2022 there were 1,670 (28%) motorcycle riders who were alcohol-impaired. There were 401 (7%) motorcycle riders killed in 2023 who had lower alcohol levels (BACs of .01 to .07 g/dL).

Motorcycle riders (killed or survived) in fatal crashes in 2023 had higher percentages of alcohol impairment than any other type of motor vehicle driver (26% for motorcycle riders, 24% for passenger car drivers, 20% for light-truck drivers, and 4% for large-truck drivers).

In 2023 the highest percentages of alcohol-impaired motorcycle rider fatalities were in the 35-to-39 and 45-to-49 age groups (34%) followed by the 50-to-54 age group (31%), when compared to other age groups.

Forty-one percent of the 2,171 motorcycle riders who died in single-vehicle crashes in 2023 were alcohol-impaired as compared to 18 percent of the 3,854 motorcycle riders who died in multi-vehicle crashes, as shown in Table 6. Forty-four percent of those killed in single-vehicle crashes on weekends in 2023 were alcohol-impaired.

Table 6. Alcohol-Impaired Motorcycle Riders Killed in Traffic Crashes, by Crash Type and Day of Week, 2022 and 2023

Crash Type and Day of Week		2022			2023		
		Total Motorcycle Riders Killed	Alcohol-Impaired		Total Motorcycle Riders Killed	Alcohol-Impaired	
			Number	Percent		Number	Percent
Single-Vehicle	Weekday	1,075	400	37%	1,030	375	36%
	Weekend	1,187	537	45%	1,135	500	44%
	Total*	**2,267**	**939**	**41%**	**2,171**	**879**	**41%**
Multi-Vehicle	Weekday	2,169	325	15%	2,207	332	15%
	Weekend	1,528	406	27%	1,647	373	23%
	Total*	**3,698**	**731**	**20%**	**3,854**	**705**	**18%**
Total	Weekday	3,244	725	22%	3,237	708	22%
	Weekend	2,715	944	35%	2,782	872	31%
	Total*	**5,965**	**1,670**	**28%**	**6,025**	**1,584**	**26%**

Source: FARS 2022 Final File, 2023 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)
*Includes riders in fatal crashes when day of week was unknown.
Notes: Starting in 2022, motorcyclists exclude people on motorized bicycles. Percentages are computed based on unrounded estimates. NHTSA estimates BACs when alcohol test results are unknown.

Motorcycle riders killed in traffic crashes at night were two and a half times more frequently alcohol-impaired than those killed during the day (38% and 15%).

The reported helmet use rate for alcohol-impaired motorcycle riders killed in traffic crashes in 2023 was 55 percent as compared to 70 percent for those with no alcohol (BAC=.00 g/dL).

Helmet Use and Effectiveness

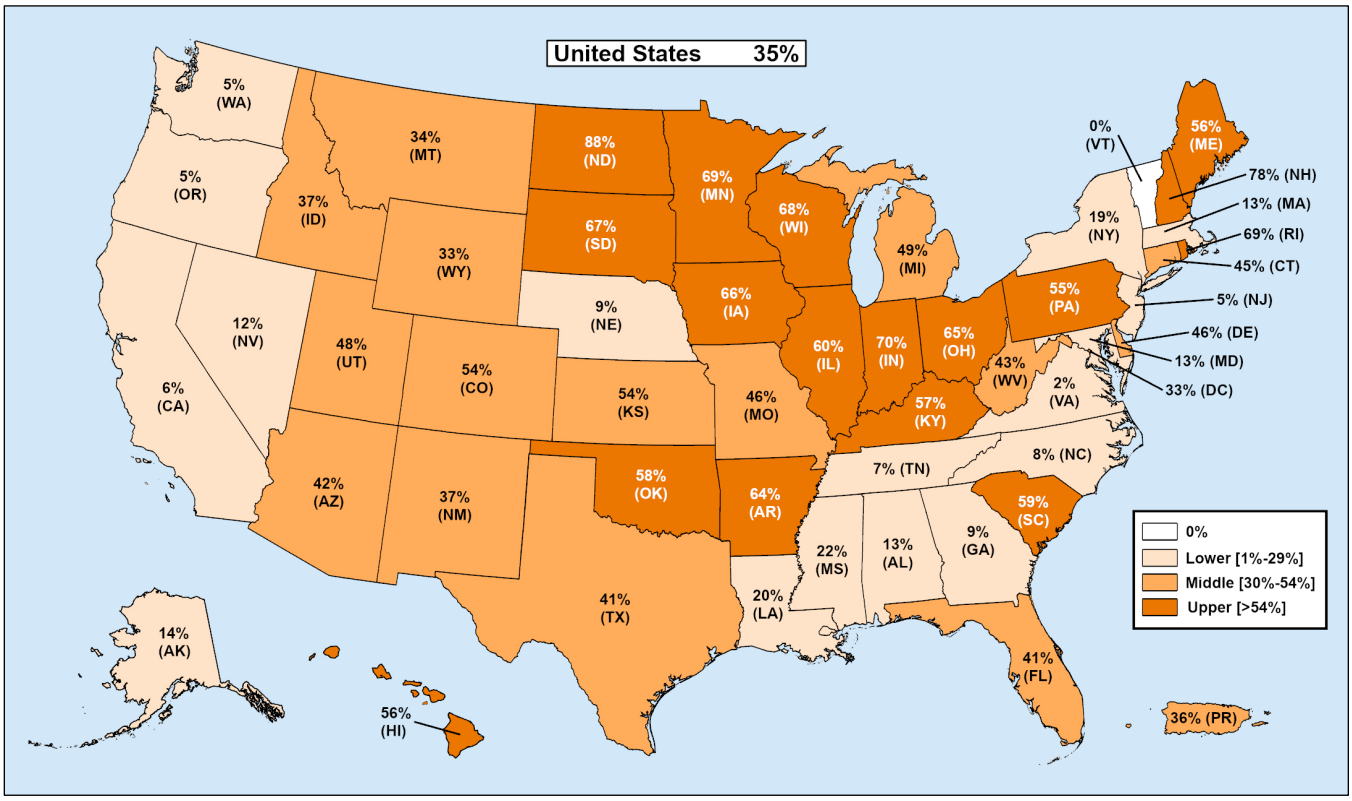
All motorcycle helmets sold in the United States must meet Federal Motor Vehicle Safety Standard 218, the performance standard that establishes the minimum level of protection for helmets designed for use by motorcyclists. According to results from the National Occupant Protection Use Survey, the overall rate of DOT-compliant motorcycle helmet use in the United States was 73.8 percent in 2023. Helmet use continued to be significantly higher in States that required all motorcyclists to be helmeted than in other States.[2]

[2] National Center for Statistics and Analysis. (2024, September). *Motorcycle helmet use in 2023 – Overall results* (Traffic Safety Fact Research Note. Report No. DOT HS 813 634). National Highway Traffic Safety Administration. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813634

State

Reported helmet use rates for motorcyclists killed in 2023 were 65 percent for riders and 51 percent for passengers, compared with 63 percent and 44 percent, respectively, in 2022. Figure 3 presents the percentage of motorcyclists killed who were not helmeted by each State in 2023, based on known helmet use.

Figure 3. Percentages of Known Unhelmeted* Motorcyclists Killed in Traffic Crashes, 2023



Source: FARS 2023 ARF
*Based on known helmet use.

In 2023 only 18 States, the District of Columbia, and Puerto Rico required helmet use for all motorcyclists. Excluding the District of Columbia and Puerto Rico, the known helmet use percentages in fatal traffic crashes ranged from 57 percent (West Virginia) to 100 percent (Vermont) for these 18 States.

In 29 States helmet use was required for only a subset of motorcyclists (typically motorcyclists under age 18), and 3 States (Illinois, Iowa, and New Hampshire) did not require helmet use for motorcyclists of any age. The known helmet use percentages in fatal traffic crashes ranged from 13 percent (North Dakota) to 86 percent (Alaska) for these 32 States.

The most current information on helmet use laws is available on the Governors Highway Safety Association website at www.ghsa.org/state-laws/issues/motorcyclists. Based on known helmet use, 51 percent of motorcyclists killed in 2023 were not wearing helmets in States without universal helmet laws, as compared to 10 percent in States with universal helmet laws. According to NOPUS, in 2023 DOT-compliant motorcycle helmet use in States requiring all to use helmets was 82.7 percent compared to 65.9 percent in other States.

Table 7 shows that 35 percent of the 6,335 motorcyclists killed nationwide in traffic crashes in 2023 were not helmeted, based on known helmet use. The State-level unhelmeted percentages ranged from a high of 88 percent (North Dakota) to a low of 0 percent (Vermont), based on known use.

Table 8 shows the percentage of motorcycle riders killed who were alcohol-impaired, by State where the crashes occurred in 2023. The percentages of alcohol-impaired motorcycle riders killed ranged from a low of 13 percent (Alaska) to a high of 44 percent (Connecticut), compared to the national average of 26 percent.

Table 7. Motorcyclist Fatalities in Traffic Crashes, by State and Helmet Use, 2023

State	Helmet Use						Total		Percent Based on Known Helmet Use	
	Helmeted		Unhelmeted		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Helmeted	Unhelmeted
Alabama	79	84%	12	13%	3	3%	94	100%	87%	13%
Alaska	6	75%	1	13%	1	13%	8	100%	86%	14%
Arizona	138	54%	98	38%	21	8%	257	100%	58%	42%
Arkansas	32	34%	58	62%	3	3%	93	100%	36%	64%
California	527	90%	33	6%	23	4%	583	100%	94%	6%
Colorado	62	46%	72	53%	1	1%	135	100%	46%	54%
Connecticut	29	49%	24	41%	6	10%	59	100%	55%	45%
Delaware	7	50%	6	43%	1	7%	14	100%	54%	46%
District of Columbia	4	67%	2	33%	0	0%	6	100%	67%	33%
Florida	390	58%	273	41%	5	1%	668	100%	59%	41%
Georgia	178	91%	17	9%	1	1%	196	100%	91%	9%
Hawaii	12	44%	15	56%	0	0%	27	100%	44%	56%
Idaho	24	62%	14	36%	1	3%	39	100%	63%	37%
Illinois	66	38%	99	58%	7	4%	172	100%	40%	60%
Indiana	42	29%	100	69%	3	2%	145	100%	30%	70%
Iowa	20	32%	38	61%	4	6%	62	100%	34%	66%
Kansas	19	45%	22	52%	1	2%	42	100%	46%	54%
Kentucky	45	42%	60	57%	1	1%	106	100%	43%	57%
Louisiana	76	78%	19	20%	2	2%	97	100%	80%	20%
Maine	7	44%	9	56%	0	0%	16	100%	44%	56%
Maryland	77	87%	12	13%	0	0%	89	100%	87%	13%
Massachusetts	48	80%	7	12%	5	8%	60	100%	87%	13%
Michigan	82	46%	79	44%	19	11%	180	100%	51%	49%
Minnesota	20	29%	45	65%	4	6%	69	100%	31%	69%
Mississippi	43	74%	12	21%	3	5%	58	100%	78%	22%
Missouri	91	52%	77	44%	8	5%	176	100%	54%	46%
Montana	19	66%	10	34%	0	0%	29	100%	66%	34%
Nebraska	20	91%	2	9%	0	0%	22	100%	91%	9%
Nevada	61	88%	8	12%	0	0%	69	100%	88%	12%
New Hampshire	9	22%	32	78%	0	0%	41	100%	22%	78%
New Jersey	82	91%	4	4%	4	4%	90	100%	95%	5%
New Mexico	32	58%	19	35%	4	7%	55	100%	63%	37%
New York	159	79%	37	18%	5	2%	201	100%	81%	19%
North Carolina	203	91%	17	8%	3	1%	223	100%	92%	8%
North Dakota	2	13%	14	88%	0	0%	16	100%	13%	88%
Ohio	80	33%	147	62%	12	5%	239	100%	35%	65%
Oklahoma	41	40%	57	55%	5	5%	103	100%	42%	58%
Oregon	62	89%	3	4%	5	7%	70	100%	95%	5%
Pennsylvania	105	44%	128	53%	7	3%	240	100%	45%	55%
Rhode Island	5	31%	11	69%	0	0%	16	100%	31%	69%
South Carolina	61	40%	86	57%	4	3%	151	100%	41%	59%
South Dakota	9	31%	18	62%	2	7%	29	100%	33%	67%
Tennessee	179	88%	14	7%	10	5%	203	100%	93%	7%
Texas	345	58%	237	40%	16	3%	598	100%	59%	41%
Utah	22	52%	20	48%	0	0%	42	100%	52%	48%
Vermont	17	94%	0	0%	1	6%	18	100%	100%	0%
Virginia	127	98%	3	2%	0	0%	130	100%	98%	2%
Washington	131	92%	7	5%	5	3%	143	100%	95%	5%
West Virginia	21	55%	16	42%	1	3%	38	100%	57%	43%
Wisconsin	31	30%	67	65%	5	5%	103	100%	32%	68%
Wyoming	2	13%	1	7%	12	80%	15	100%	67%	33%
U.S. Total	**3,949**	**62%**	**2,162**	**34%**	**224**	**4%**	**6,335**	**100%**	**65%**	**35%**
Puerto Rico	49	64%	28	36%	0	0%	77	100%	64%	36%

Source: FARS 2023 ARF

Notes: Shading indicates requiring helmet use for all motorcyclists. Percentages may not add up to 100 percent due to independent rounding.

Table 8. Motorcycle Rider Fatalities in Traffic Crashes, by State and Their BACs, 2023

State	Total Fatalities	Motorcycle Rider Fatalities, by Their BACs					
				Alcohol-Impaired			
		BAC=.01+ g/dL		BAC=.08+ g/dL		BAC=.15+ g/dL	
		Number	Percent	Number	Percent	Number	Percent
Alabama	88	30	34%	28	32%	16	18%
Alaska	8	3	38%	1	13%	1	13%
Arizona	250	81	32%	65	26%	42	17%
Arkansas	86	26	30%	19	23%	10	12%
California	565	183	32%	145	26%	86	15%
Colorado	131	46	35%	38	29%	23	18%
Connecticut	56	32	56%	25	44%	14	24%
Delaware	12	7	56%	5	38%	2	14%
District of Columbia	6	1	22%	1	18%	1	17%
Florida	632	183	29%	146	23%	92	15%
Georgia	188	48	26%	39	21%	25	13%
Hawaii	27	12	44%	10	39%	4	15%
Idaho	38	10	25%	8	21%	3	8%
Illinois	162	55	34%	42	26%	25	16%
Indiana	136	50	37%	41	30%	21	15%
Iowa	60	22	37%	17	28%	13	22%
Kansas	37	14	39%	12	33%	7	20%
Kentucky	100	21	21%	18	18%	12	12%
Louisiana	93	29	32%	22	23%	11	12%
Maine	16	7	41%	5	33%	4	23%
Maryland	85	30	36%	21	24%	13	15%
Massachusetts	57	22	39%	20	35%	16	28%
Michigan	174	55	32%	43	25%	24	14%
Minnesota	61	24	39%	20	33%	14	22%
Mississippi	55	13	23%	10	19%	6	12%
Missouri	164	45	28%	39	24%	23	14%
Montana	28	10	36%	8	28%	3	11%
Nebraska	22	7	33%	6	27%	2	10%
Nevada	67	21	31%	16	24%	11	16%
New Hampshire	38	10	27%	9	24%	5	14%
New Jersey	88	27	31%	20	23%	13	15%
New Mexico	52	15	28%	12	22%	6	12%
New York	192	62	32%	49	25%	24	13%
North Carolina	209	48	23%	38	18%	24	12%
North Dakota	13	5	38%	4	31%	4	31%
Ohio	223	100	45%	81	36%	57	25%
Oklahoma	95	33	35%	21	22%	15	15%
Oregon	66	25	38%	18	27%	8	12%
Pennsylvania	230	82	36%	69	30%	43	19%
Rhode Island	15	6	39%	5	31%	3	23%
South Carolina	146	54	37%	46	31%	28	19%
South Dakota	25	11	42%	8	32%	5	19%
Tennessee	198	62	32%	49	25%	24	12%
Texas	571	208	36%	168	29%	106	19%
Utah	39	8	19%	5	14%	2	5%
Vermont	17	5	32%	3	20%	2	14%
Virginia	122	43	35%	36	29%	23	19%
Washington	139	48	35%	37	27%	24	17%
West Virginia	33	7	20%	7	20%	3	10%
Wisconsin	97	32	33%	27	28%	18	18%
Wyoming	13	7	53%	4	33%	2	18%
U.S. Total	**6,025**	**1,985**	**33%**	**1,584**	**26%**	**963**	**16%**
Puerto Rico	75	27	36%	21	28%	10	13%

Source: FARS 2023 ARF
Notes: Percentages are computed based on unrounded estimates. NHTSA estimates BACs when alcohol test results are unknown.

Important Safety Reminders

For Motorcyclists:

- Wearing a helmet is the single most effective way to protect yourself from a head injury. Use a motorcycle helmet for every ride, and ensure your passengers also use a helmet.
- Make sure your helmet has a valid U.S. Department of Transportation (DOT) label; the label means the helmet meets the Federal Motor Vehicle Safety Standards – this is also known as the FMVSS 218 standard. Novelty helmets without this label may not meet the same standard and will not provide the best protection needed in a crash.

- Check the fit of your helmet to ensure optimal protection.
- Wear protective gear like a sturdy jacket, pants, boots, and gloves; safety gear provide protection in case of falls or crashes, and improves comfort during the ride.
- Make yourself visible by using high-visibility colors and retro-reflective materials to maximize the ability of drivers to see you.
- Motorcycle riding requires full attention, skill, and coordination. Avoid combining riding with drinking alcohol or using other impairing drugs.

For Drivers:

- Always be on the lookout for motorcyclists.
- A motorcycle's smaller size means it can be hidden in your vehicle's blind spot.
- A motorcycle's size and narrow profile can make it difficult to judge its distance and speed. Take extra care when judging when to turn or merge.
- Keep a safe distance from the motorcycle in front of you; motorcyclists can slow their motorcycles by downshifting instead of using their brakes. This means the brake lights won't come on.
- Remember that motorcyclists sometimes change positions in their lane to avoid debris on the road.

— 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 2023 ARF, the 2022 Final File was released to replace the 2022 ARF. The final fatality count in motor vehicle traffic crashes for 2022 was 42,721, which was updated from 42,514 in the 2022 ARF. The number of motorcycle fatalities from the 2022 Final File was 6,251, which was updated from 6,218 from the 2022 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/.

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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
- Fatality and Injury Reporting System Tool (FIRST)
- State Traffic Safety Information (STSI)
- Traffic Safety Facts Annual Report Tables
- FARS Data Tables (FARS Encyclopedia)
- Motor Vehicle Crash Databook
- Leading Cause of Death Reports
- 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
- Children
- Large Trucks
- 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