Traffic Safety Facts

2020 Data

May 2022

DOT HS 813 306

NHTSA

In this fact sheet for 2020 the information is presented as follows.

Motorcycles

The following definitions apply to terms in this fact sheet:

- For the purposes of this fact sheet, motorcycles include two- and three-wheeled motorcycles, off-road motorcycles, mopeds, motor scooters, mini-bikes, 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 considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher.

Key Findings

- In 2020 there were 5,579 motorcyclists killed, 14 percent of all traffic fatalities. This is the highest number of motorcyclists killed since FARS started in 1975.
- The number of motorcyclist fatalities in 2020 increased by 11 percent from 2019, from 5,044 to 5,579.
- An estimated 82,528 motorcyclists were injured in 2020, a 2-percent decrease from 83,814 motorcyclists injured in 2019.
- Per vehicle miles traveled in 2020, motorcyclist fatalities occurred nearly 28 times more frequently than passenger car occupant fatalities in traffic crashes.
- Thirty-six percent of motorcycle riders involved in fatal crashes in 2020 were riding without valid motorcycle licenses.
- In 2020 motorcycle riders involved in fatal crashes had higher percentages of alcohol impairment than drivers of any other motor vehicle type (27% for motorcycles, 23% for passenger cars, 19% for light trucks, and 3% for large trucks).
- Forty-one percent of motorcycle riders who died in single-vehicle crashes in 2020 were alcohol-impaired.
- Motorcycle riders killed in traffic crashes at night were three times more frequently alcohol-impaired than those killed during the day in 2020.
- In States without universal helmet laws, 57 percent of motorcyclists killed in 2020 were not wearing helmets, as compared to 11 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). A change instituted with the release of 2020 data is rounding estimates to the nearest whole number instead of the nearest thousand for all police-reported crashes, including injury estimates. Refer to the end of this publication for more information on FARS, NASS GES, and CRSS.

U.S. Department of Transportation

National Highway Traffic Safety Administration

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A motor vehicle traffic crash is defined as an incident that involved one or more motor vehicles in transport that originated on a public trafficway, such as a road or highway. Crashes that occurred on private property, including parking lots and driveways, are excluded. The terms "motor vehicle traffic crash" and "traffic crash" are used interchangeably.

Overview

In 2020:

- There were 5,579 motorcyclists killed in motor vehicle traffic crashes – higher than the 5,044 motorcyclists killed in 2019.
  - This is the highest number of motorcyclists killed since FARS started in 1975.
- Two-wheeled motorcycles accounted for 90 percent of all motorcycles involved in fatal crashes.
- Motorcyclists accounted for 14 percent of all traffic fatalities and 18 percent of all occupant (driver and passenger) fatalities.
- Of the 5,579 motorcyclists killed in traffic crashes, 94 percent (5,268) were riders and 6 percent (311) were passengers.
- There were an estimated 82,528 motorcyclists injured, a 2-percent decrease from 83,814 motorcyclists injured in 2019.

Table 1 presents information about motorcyclists killed and injured from 2011 to 2020. From 2011 to 2020 motorcyclist fatalities increased by 20 percent, with the highest number of fatalities in 2020. The number of registered motorcycles and motorcycle vehicle miles traveled (VMT) are also presented in Table 1, along with the respective fatality and injury rates.

Table 1
Motorcyclists Killed and Injured, and Fatality and Injury Rates, 2011–2020

Year	Killed	Registered Vehicles	Fatality Rate per 100,000 Registered Vehicles	VMT (millions)	Fatality Rate per 100 Million VMT
2011	4,630	8,437,502	54.87	18,542	24.97
2012	4,986	8,454,939	58.97	21,385	23.32
2013	4,692	8,404,687	55.83	20,366	23.04
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	5,579	8,317,363	67.08	17,632	31.64
Year	**Injured**	**Registered Vehicles**	**Injury Rate per 100,000 Registered Vehicles**	**VMT (millions)**	**Injury Rate per 100 Million VMT**
2011	81,706	8,437,502	968	18,542	441
2012	93,251	8,454,939	1,103	21,385	436
2013	88,760	8,404,687	1,056	20,366	436
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†	82,528	8,317,363	992	17,632	468

Sources: FARS 2011-2019 Final File, 2020 Annual Report File (ARF); NASS GES 2011-2015; CRSS 2016-2020; VMT and Registered Vehicles – Federal Highway Administration (FHWA)
†CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

Motorcycles made up 3 percent of all registered vehicles in the United States in 2020 and accounted for only 0.6 percent of all VMT. Per registered vehicle in 2020, the fatality rate for motorcyclists (67.08) was 6 times the fatality rate for passenger car occupants (10.79) and 10 times the fatality rate for light-truck occupants (6.90), as shown in Table 2. The injury rate for motorcyclists (992) was higher than the injury rate for passenger car occupants (978) and the injury rate of light-truck occupants (543).

Per VMT in 2020, the fatality rate for motorcyclists (31.64) was almost 28 times the passenger car occupant fatality rate (1.15) and nearly 43 times the fatality rate for light-truck occupants (0.74). The motorcyclist injury rate (468) was 4 times the injury rate of passenger car occupants (105) and 8 times the injury rate of light-truck occupants (58).

Table 2
Occupant* Fatality Rates, by Vehicle Type, 2019 and 2020

Fatality Rate		Vehicle Type					
		Motorcycles		Passenger Cars		Light Trucks	
		Fatality Rate	Injury Rate	Fatality Rate	Injury Rate	Fatality Rate	Injury Rate
2019	Per 100,000 Registered Vehicles	58.68	975	9.52	1,154	6.83	647
	Per 100 Million VMT	25.62	426	0.90	109	0.65	61
2020	Per 100,000 Registered Vehicles	67.08	992	10.79	978	6.90	543
	Per 100 Million VMT	31.64	468	1.15	105	0.74	58

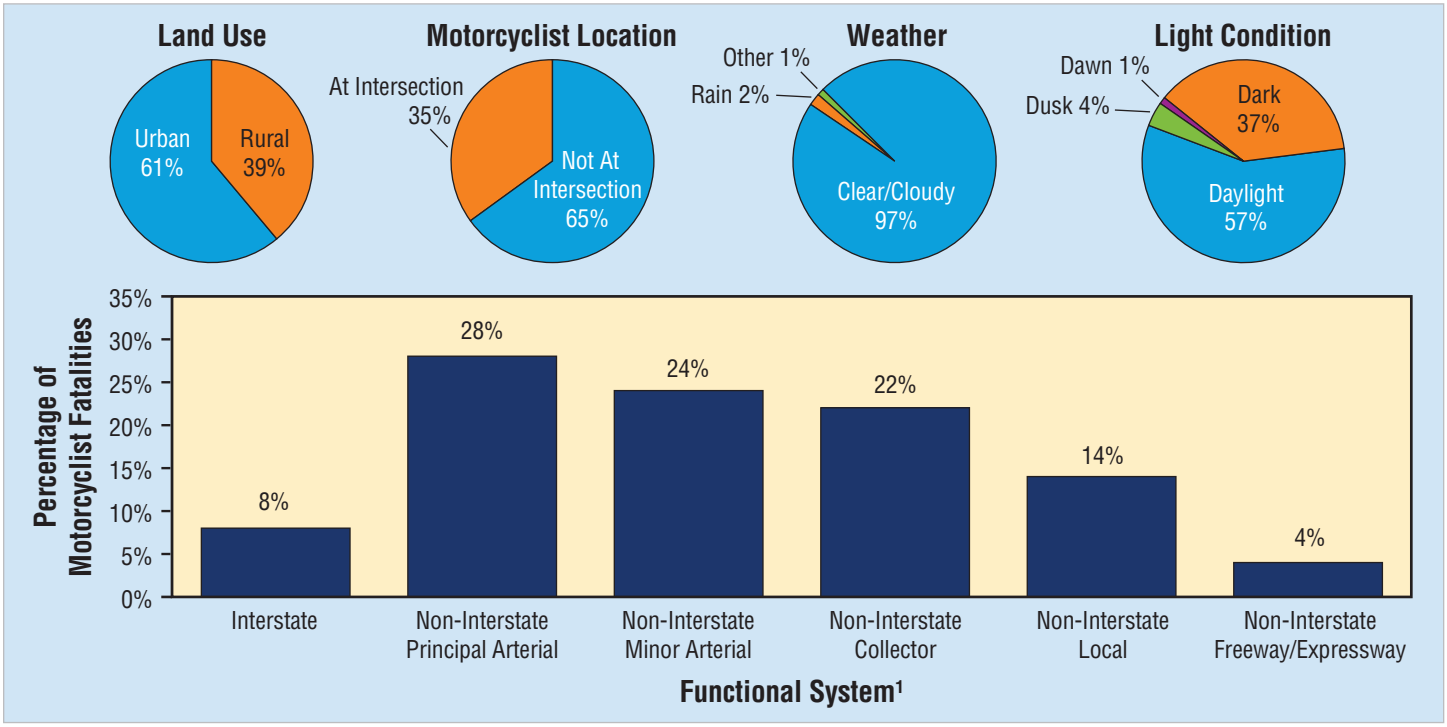
Sources: FARS 2019 Final File, 2020 ARF; CRSS 2019–2020; Registered Motorcycles and Motorcycle VMT– FHWA; Registered Passenger Cars and Light Trucks – R. L. Polk & Co., a foundation of IHS Markit automotive solutions; Passenger Car and Light-Truck VMT – FHWA, revised by NHTSA
*Includes both riders/drivers and passengers.

Crash Characteristics

Figure 1 displays information about the environment surrounding the motorcyclist fatalities in 2020 including land use, motorcyclist location, light condition, weather, and functional system.[1] In 2020 (based on known values):

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

Figure 1
Motorcyclist Fatalities in Relation to Land Use, Motorcyclist Location, Weather, Light Condition, and Functional System, 2020



Source: FARS 2020 ARF
Notes: Unknowns were removed before calculating percentages. Percentages may not add up to 100 percent due to independent rounding.

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

Crash Involvement

The most harmful event in 2020 for 3,138 (55%) of the 5,715 motorcycles involved in fatal crashes was collisions with motor vehicles in transport.

In two-vehicle crashes, 76 percent of the motorcycles involved in fatal crashes were struck in the front. Only 7 percent were struck in the rear.

Motorcycles were more frequently involved in fatal collisions with fixed objects than other vehicle types. Twenty-five percent of motorcycles involved in fatal crashes in 2020 collided with fixed objects, compared to 18 percent for passenger cars, 14 percent for light trucks, and 5 percent for large trucks.

In 2020 there were 2,741 fatal two-vehicle crashes each involving a motorcycle and another type of vehicle. In 42 percent (1,158) 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 575 crashes (21%).

Motorcyclists

Age

The 55-and-older age group accounted for 23 percent of motorcyclists killed in 2011 and increased to 27 percent in 2020. Over the 10-year period from 2011 to 2020, motorcyclist fatalities among the 55-and-older age group increased by 37 percent, from 1,087 to 1,486. In 2011, the average age of motorcycle riders killed in traffic crashes was 42, whereas in 2020 the average age was 43.

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 in 2011 and 2020 roughly half the motorcyclists were killed in traffic crashes during the weekend versus weekday. Additionally, motorcyclist fatalities on weekdays have increased by 15 percent from 2,402 in 2011 to 2,765 in 2020.

Based on the weekday and weekend definitions above, there are 108 weekday hours (4.5 days) and 60 weekend hours (2.5 days). There are 234 weekdays in a year (52 weeks x 4.5 days) and 130 weekend days (52 weeks x 2.5 days). There were 1.8 times as many motorcyclist fatalities in traffic crashes on weekends (21.6) versus weekdays (11.8) in 2020, which increased from 1.7 times in 2011 (17.1 versus 10.3). Among the different age groups, the 50-to-54 motorcyclists have the highest rate of motorcyclists killed in traffic crashes on weekends (2.1) and the 25-to-29 motorcyclists on weekdays (1.2) in 2011. In 2020 the 25-to-29 motorcyclists had the highest rate of fatalities during the weekend (2.8) and weekday (1.5).

Table 3
Motorcyclist Fatalities, by Age Group and Day of Week, 2011 and 2020

Age Group	2011			2020		
	Weekday	Weekend	Total*	Weekday	Weekend	Total*
<15	10	4	14	15	8	23
15-20	121	109	231	125	115	240
21-24	255	195	452	278	228	506
25-29	270	260	531	344	361	706
30-34	209	199	408	335	355	690
35-39	200	218	419	233	257	491
40-44	245	215	461	221	215	437
45-49	234	246	483	224	264	489
50-54	265	277	543	219	284	506
55-59	229	213	442	268	260	529
60-64	186	157	343	202	225	427
65+	178	124	302	299	231	530
Total*	**2,402**	**2,218**	**4,630**	**2,765**	**2,806**	**5,579**

Source: FARS 2011 Final File, 2020 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.

Motorcycle Engine Size

Table 4 presents motorcyclist fatalities by the engine size (displacement) of the motorcycles from 2016 to 2020. Of the motorcyclists killed in traffic crashes in 2020, there were 34 percent 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, 22 percent on motorcycles with engine sizes of 1,001 to 1,500 cc, and 9 percent on motorcycles with engine sizes up to 500 cc.

The number of motorcyclist fatalities on motorcycles with engine sizes up to 500 cc increased by 27 percent (from 388 to 491) during this time, while the motorcyclist fatalities on motorcycles with engine sizes between 501 and 1,000 cc decreased by 2 percent (from 1,927 to 1,883). Motorcyclist fatalities on motorcycles with engine sizes between 1,001 and 1,500 cc decreased by 9 percent (from 1,368 to 1,247), while the number of motorcyclists killed on motorcycles with engine sizes 1,501 cc or higher increased by 22 percent (from 1,162 to 1,416).

Table 4
Motorcyclist Fatalities, by Engine Size* (cc), 2016–2020

	Engine Size (cc)										Total	
	Up to 500		501–1,000		1,001–1,500		1,501 & Higher		Unknown			
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2016	388	7%	1,927	36%	1,368	26%	1,162	22%	492	9%	5,337	100%
2017	419	8%	1,826	35%	1,322	25%	1,177	23%	482	9%	5,226	100%
2018	425	8%	1,722	34%	1,232	24%	1,210	24%	449	9%	5,038	100%
2019	421	8%	1,700	34%	1,149	23%	1,306	26%	468	9%	5,044	100%
2020	491	9%	1,883	34%	1,247	22%	1,416	25%	542	10%	5,579	100%

Source: FARS 2016–2019 Final File, 2020 ARF
*Based on data from NHTSA's Product Information Catalog and Vehicle Listing (vPIC).
Notes: Other motorcycle characteristics beside engine size (displacement) influence power and speed capability. NHTSA has not determined that there is a causal relationship between displacement and fatality risk.

Speeding

NHTSA considers a 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. Thirty-four percent of all motorcycle riders involved in fatal crashes in 2020 were speeding, compared to 22 percent for passenger car drivers, 16 percent for light-truck drivers, and 7 percent for large-truck drivers. As shown in Table 5, motorcycle riders 25 to 29 years old involved in fatal crashes had the highest speeding involvement at 45 percent.

Table 5
Motorcycle Riders Involved in Fatal Crashes, by Age Group and Speeding Involvement, 2020

	Speeding Involvement				Total	
	Speeding		Not Speeding			
Age Group	Number	Percent	Number	Percent	Number	Percent
<15	1	8%	11	92%	12	100%
15-20	99	41%	143	59%	242	100%
21-24	222	43%	295	57%	517	100%
25-29	326	45%	399	55%	725	100%
30-34	284	40%	423	60%	707	100%
35-39	220	43%	294	57%	514	100%
40-44	162	36%	283	64%	445	100%
45-49	154	32%	327	68%	481	100%
50-54	140	26%	393	74%	533	100%
55-59	136	25%	407	75%	543	100%
60-64	80	19%	348	81%	428	100%
65+	93	17%	454	83%	547	100%
Total*	**1,921**	**34%**	**3,790**	**66%**	**5,711**	**100%**

Source: FARS 2020 ARF
*Includes unknown age.

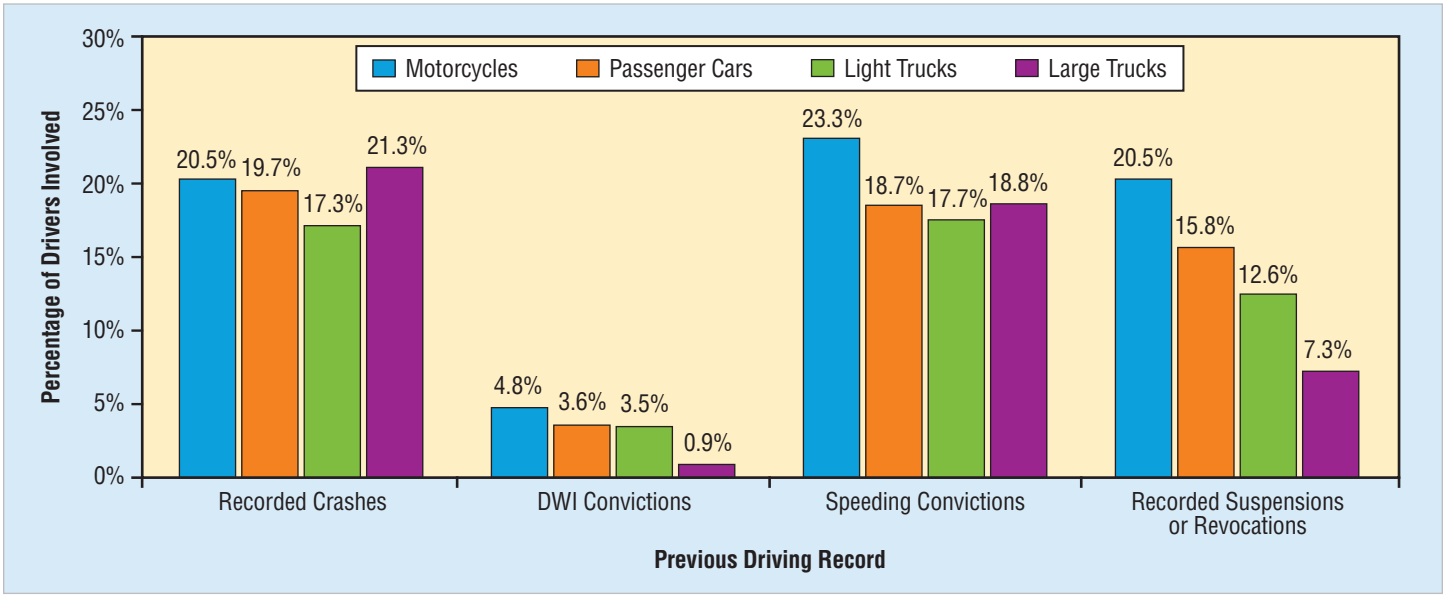
Licensing and Previous Driving Records

Thirty-six percent of motorcycle riders involved in fatal crashes in 2020 were riding without valid motorcycle licenses at the time of the crashes, while only 17 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 involved in fatal crashes had the highest percentages of drivers with previous driving records as compared to other vehicle drivers. Motorcycle riders involved in fatal crashes were 1.3 times more likely than passenger car drivers to have previous license suspensions or revocations (20.5% and 15.8%, respectively). Note that FARS records drivers' previous driving records that occurred within 5 years from the crash date.

Figure 2

Percentage of Previous 5-Year Driving Records of Drivers Involved in Fatal Crashes, by Vehicle Type, 2020



Source: FARS 2020 ARF
Note: Excludes all drivers with previous records that were unknown.

Alcohol

In 2020 there were 5,268 motorcycle riders killed in traffic crashes compared to 4,341 in 2011. Of the 5,268 in 2020, there were 1,436 (27%) who were alcohol-impaired (BAC of .08 g/dL or higher). In 2011 there were 1,301 (30%) who were alcohol-impaired. There were 372 (7%) motorcycle riders killed in 2020 who had lower alcohol levels (BACs of .01 to .07 g/dL).

Motorcycle riders involved (killed or survived) in fatal crashes in 2020 had higher percentages of alcohol impairment than any other type of motor vehicle driver (27% for motorcycle riders, 23% for passenger car drivers, 19% for light-truck drivers, and 3% for large-truck drivers).

In 2020 the highest percentages of alcohol-impaired motorcycle rider fatalities were in the 45-to-49 age group (35%) followed by the 35-to-39 age group (33%), 50-to-54 age group (32%) and 30-to-34 age group (31%), when compared to other age groups.

Forty-one percent of the 2,158 motorcycle riders who died in single-vehicle crashes in 2020 were alcohol-impaired as compared to 18 percent of the 3,110 motorcycle riders who died in multiple-vehicle crashes, as shown in Table 6. Forty-five percent of those killed in single-vehicle crashes on weekends in 2020 were alcohol-impaired compared to 49 percent in 2011.

Table 6

Alcohol-Impaired Motorcycle Riders Killed, by Crash Type and Day of Week, 2011 and 2020

Crash Type and Day of Week		2011			2020		
		Total Motorcycle Riders Killed	Alcohol-Impaired		Total Motorcycle Riders Killed	Alcohol-Impaired	
			Number	Percent		Number	Percent
Single-Vehicle	Weekday	953	327	34%	957	340	35%
	Weekend	1,044	517	49%	1,197	539	45%
	Total*	**2,007**	**849**	**42%**	**2,158**	**880**	**41%**
Multiple-Vehicle	Weekday	1,355	205	15%	1,683	231	14%
	Weekend	979	247	25%	1,425	324	23%
	Total*	**2,334**	**452**	**19%**	**3,110**	**556**	**18%**
Total	Weekday	2,308	531	23%	2,640	571	22%
	Weekend	2,023	764	38%	2,622	863	33%
	Total*	**4,341**	**1,301**	**30%**	**5,268**	**1,436**	**27%**

Source: FARS 2011 Final File, 2020 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 involved in fatal crashes when day of week was unknown.
Note: Percentages are computed based on unrounded estimates.

Motorcycle riders killed in traffic crashes at night were three times more frequently found to be alcohol-impaired than those killed during the day (40% and 14%, respectively).

The reported helmet use rate for alcohol-impaired motorcycle riders killed in traffic crashes was 51 percent as compared to 65 percent for those with no alcohol (BAC=.00 g/dL).

State

NHTSA estimates that helmets saved the lives of 1,872 motorcyclists in 2017. If all motorcyclists had worn helmets, an additional 749 lives could have been saved (latest data available).[2]

Helmets are estimated to be 37-percent effective in preventing fatalities to motorcycle riders and 41 percent for motorcycle passengers. In other words, for every 100 motorcycle riders killed in crashes while not wearing helmets, 37 of them could have been saved had all 100 worn helmets.[2]

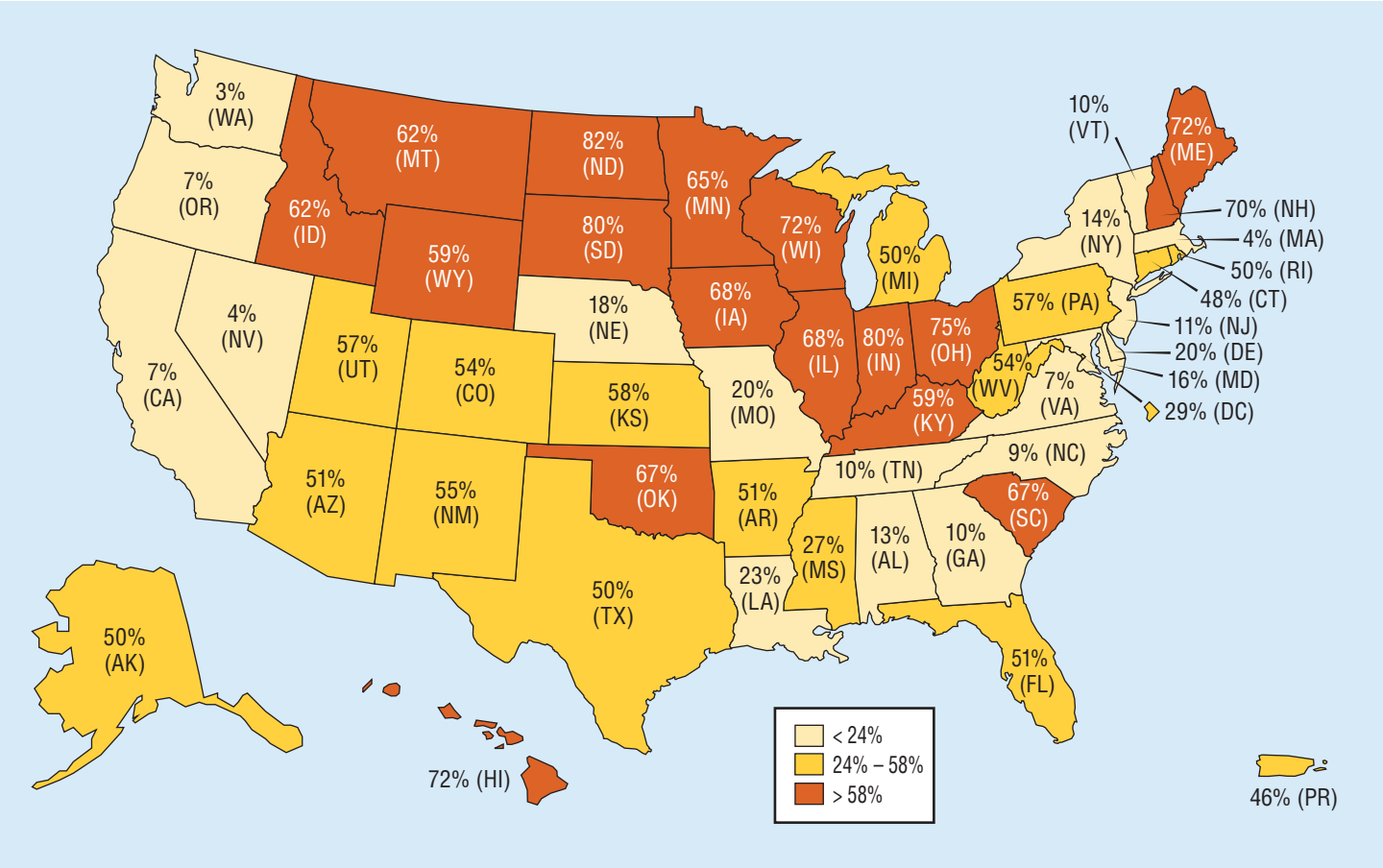
According to results from the National Occupant Protection Use Survey (NOPUS), the overall rate of DOT-compliant motorcycle helmet use in the United States was 69.0 percent in 2020. Helmet use continued to be significantly higher in States that required all motorcyclists to be helmeted than in other States.[3]

Reported helmet use rates for motorcyclists killed in 2020 were 61 percent for riders and 46 percent for passengers, compared with 62 percent and 47 percent, respectively, in 2019. Figure 3 presents the percentage of motorcyclists killed who were not helmeted by each State in 2020, based on known helmet use.

[2] National Center for Statistics and Analysis. (2019, December). *Lives and costs saved by motorcycle helmets, 2017* (Traffic Safety Facts Crash•Stats Report No. DOT HS 812 867). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812867

[3] National Center for Statistics and Analysis. (2021, June). *Motorcycle helmet use in 2020 – Overall results* (Traffic Safety Fact Research Note. Report No. DOT HS 813 143). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813143

Figure 3
Percentage of Known Unhelmeted* Motorcyclists Killed, 2020



Source: FARS 2020 ARF
*Based on known helmet use.

All motorcycle helmets sold in the United States are required to meet Federal Motor Vehicle Safety Standard (FMVSS) 218, the performance standard that establishes the minimum level of protection for helmets designed for use by motorcyclists.

In 2020 only 19 States, the District of Columbia, and Puerto Rico required helmet use for all motorcyclists. Missouri is included in the 19 States even though their helmet law changed in August 2020 to only require helmets for a subset of motorcyclists. Excluding the District of Columbia and Puerto Rico, the known helmet use percentages in fatal crashes ranged from 46 percent (West Virginia) to 97 percent (Washington) for these 19 States.

In 28 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 crashes ranged from 18 percent (North Dakota) to 80 percent (Delaware) for these 31 States.

The most current information on helmet use laws is available on the Governors Highway Safety Association (GHSA) website at www.ghsa.org/state-laws/issues/motorcyclists. In States without universal helmet laws, 57 percent of motorcyclists killed in 2020 were not wearing helmets, as compared to 11 percent in States with universal helmet laws. According to NOPUS, in 2020 DOT-compliant motorcycle helmet use in States requiring all to use helmets was 84.0 percent compared to 54.4 percent in other States.

Table 7 shows that 40 percent of the 5,579 motorcyclists killed nationwide in traffic crashes were not helmeted, based on known helmet use. The State-level unhelmeted percentages ranged from a high of 82 percent (North Dakota) to a low of 3 percent (Washington).

Table 8 presents the percentage of motorcycle riders killed who were alcohol-impaired, by State where the crashes occurred. The percentages ranged from a low of 9 percent (Delaware) to a high of 65 percent (Wyoming), compared to the national average of 27 percent.

Table 7

Motorcyclist Fatalities, by State and Helmet Use, 2020

State	Helmet Use						Total		Percent Based on Known Helmet Use	
	Helmeted		Unhelmeted		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Helmeted	Unhelmeted
Alabama	68	87%	10	13%	0	0%	78	100%	87%	13%
Alaska	2	50%	2	50%	0	0%	4	100%	50%	50%
Arizona	75	47%	77	48%	9	6%	161	100%	49%	51%
Arkansas	38	48%	39	49%	3	4%	80	100%	49%	51%
California	491	91%	35	6%	13	2%	539	100%	93%	7%
Colorado	63	45%	74	53%	3	2%	140	100%	46%	54%
Connecticut	27	47%	25	43%	6	10%	58	100%	52%	48%
Delaware	12	80%	3	20%	0	0%	15	100%	80%	20%
District of Columbia	5	71%	2	29%	0	0%	7	100%	71%	29%
Florida	288	48%	300	50%	12	2%	600	100%	49%	51%
Georgia	167	87%	18	9%	7	4%	192	100%	90%	10%
Hawaii	5	28%	13	72%	0	0%	18	100%	28%	72%
Idaho	10	37%	16	59%	1	4%	27	100%	38%	62%
Illinois	49	32%	102	67%	2	1%	153	100%	32%	68%
Indiana	28	19%	115	76%	8	5%	151	100%	20%	80%
Iowa	20	31%	43	67%	1	2%	64	100%	32%	68%
Kansas	27	42%	37	57%	1	2%	65	100%	42%	58%
Kentucky	38	41%	54	59%	0	0%	92	100%	41%	59%
Louisiana	51	65%	15	19%	12	15%	78	100%	77%	23%
Maine	8	28%	21	72%	0	0%	29	100%	28%	72%
Maryland	71	84%	14	16%	0	0%	85	100%	84%	16%
Massachusetts	47	90%	2	4%	3	6%	52	100%	96%	4%
Michigan	77	45%	77	45%	16	9%	170	100%	50%	50%
Minnesota	23	35%	42	64%	1	2%	66	100%	35%	65%
Mississippi	41	66%	15	24%	6	10%	62	100%	73%	27%
Missouri*	99	80%	24	20%	0	0%	123	100%	80%	20%
Montana	11	38%	18	62%	0	0%	29	100%	38%	62%
Nebraska	28	82%	6	18%	0	0%	34	100%	82%	18%
Nevada	48	83%	2	3%	8	14%	58	100%	96%	4%
New Hampshire	7	28%	16	64%	2	8%	25	100%	30%	70%
New Jersey	66	85%	8	10%	4	5%	78	100%	89%	11%
New Mexico	20	43%	24	52%	2	4%	46	100%	45%	55%
New York	167	84%	27	14%	6	3%	200	100%	86%	14%
North Carolina	172	90%	18	9%	2	1%	192	100%	91%	9%
North Dakota	3	18%	14	82%	0	0%	17	100%	18%	82%
Ohio	52	25%	156	74%	3	1%	211	100%	25%	75%
Oklahoma	19	30%	39	62%	5	8%	63	100%	33%	67%
Oregon	55	81%	4	6%	9	13%	68	100%	93%	7%
Pennsylvania	91	42%	121	55%	7	3%	219	100%	43%	57%
Rhode Island	6	46%	6	46%	1	8%	13	100%	50%	50%
South Carolina	45	33%	92	67%	0	0%	137	100%	33%	67%
South Dakota	5	19%	20	74%	2	7%	27	100%	20%	80%
Tennessee	135	89%	15	10%	1	1%	151	100%	90%	10%
Texas	234	48%	233	48%	16	3%	483	100%	50%	50%
Utah	19	43%	25	57%	0	0%	44	100%	43%	57%
Vermont	9	90%	1	10%	0	0%	10	100%	90%	10%
Virginia	94	93%	7	7%	0	0%	101	100%	93%	7%
Washington	87	96%	3	3%	1	1%	91	100%	97%	3%
West Virginia	17	45%	20	53%	1	3%	38	100%	46%	54%
Wisconsin	33	28%	83	72%	0	0%	116	100%	28%	72%
Wyoming	7	37%	10	53%	2	11%	19	100%	41%	59%
U.S. Total	**3,260**	**58%**	**2,143**	**38%**	**176**	**3%**	**5,579**	**100%**	**60%**	**40%**
Puerto Rico	27	54%	23	46%	0	0%	50	100%	54%	46%

Source: FARS 2020 ARF

*Missouri repealed their universal helmet law in August 2020.

Note: Shading indicates requiring helmet use for all motorcyclists.

Table 8

Motorcycle Rider Fatalities, by State and Their BACs, 2020

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	72	24	33%	20	27%	13	18%
Alaska	4	2	50%	2	50%	0	0%
Arizona	154	40	26%	30	20%	20	13%
Arkansas	76	22	28%	17	22%	6	8%
California	525	157	30%	122	23%	75	14%
Colorado	133	44	33%	38	28%	25	19%
Connecticut	55	23	43%	20	37%	11	20%
Delaware	15	1	9%	1	9%	1	7%
District of Columbia	7	1	14%	1	14%	1	14%
Florida	564	186	33%	146	26%	84	15%
Georgia	182	57	31%	42	23%	28	15%
Hawaii	18	5	28%	3	17%	2	11%
Idaho	26	10	38%	8	29%	4	13%
Illinois	143	55	38%	48	33%	29	20%
Indiana	141	50	35%	38	27%	24	17%
Iowa	57	24	42%	17	30%	10	17%
Kansas	58	13	22%	11	19%	6	10%
Kentucky	86	28	33%	22	25%	13	15%
Louisiana	74	29	39%	23	31%	12	17%
Maine	27	9	34%	8	29%	3	11%
Maryland	81	29	36%	24	30%	16	20%
Massachusetts	49	13	26%	11	22%	4	9%
Michigan	163	48	29%	40	24%	22	14%
Minnesota	60	22	37%	17	29%	15	25%
Mississippi	56	12	22%	10	18%	6	10%
Missouri	116	42	36%	35	31%	22	19%
Montana	26	15	56%	11	42%	4	15%
Nebraska	33	11	33%	8	23%	5	15%
Nevada	56	19	34%	17	30%	12	21%
New Hampshire	21	10	48%	9	43%	5	24%
New Jersey	76	30	39%	23	31%	14	19%
New Mexico	44	17	39%	16	37%	10	24%
New York	188	64	34%	47	25%	28	15%
North Carolina	186	71	38%	55	30%	30	16%
North Dakota	16	7	41%	5	33%	4	25%
Ohio	194	84	43%	68	35%	44	23%
Oklahoma	61	19	31%	17	29%	11	18%
Oregon	65	25	38%	18	28%	11	17%
Pennsylvania	206	72	35%	59	28%	32	16%
Rhode Island	13	7	52%	4	27%	3	25%
South Carolina	126	48	38%	37	29%	23	18%
South Dakota	25	9	37%	6	25%	4	17%
Tennessee	145	41	28%	32	22%	18	12%
Texas	457	173	38%	141	31%	84	18%
Utah	43	10	24%	9	21%	5	13%
Vermont	9	3	34%	3	34%	1	11%
Virginia	97	36	37%	24	25%	19	20%
Washington	85	34	40%	25	29%	15	18%
West Virginia	35	11	32%	7	21%	3	9%
Wisconsin	104	37	36%	32	30%	16	15%
Wyoming	15	11	72%	10	65%	7	43%
U.S. Total	**5,268**	**1,808**	**34%**	**1,436**	**27%**	**859**	**16%**
Puerto Rico	47	13	28%	10	21%	8	17%

Source: FARS 2020 ARF

Note: Percentages are computed based on unrounded estimates.

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 look-out 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 public trafficway that results 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 2020 ARF, the 2019 Final File was released to replace the 2019 ARF. The final fatality count in motor vehicle traffic crashes for 2019 was 36,355, which was updated from 36,096 in the 2019 ARF. The number of motorcycle fatalities from the 2019 Final File was 5,044, which was updated from 5,014 from the 2019 ARF.

The 2017 and 2018 Final Files have been amended, but this amendment did not change the overall number of fatal crashes or fatalities.

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. The new system, called 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.

In calendar year 2020, NCSA changed the methodology of estimating people nonfatally injured in motor vehicle traffic crashes. The new approach combines people nonfatally injured from both FARS and NASS GES/CRSS. This is done by extracting people nonfatally injured in fatal crashes from FARS with people nonfatally injured in police-reported injury crashes from NASS GES/CRSS. The old approach extracted people nonfatally injured from only NASS GES/CRSS, regardless of crash severity. This change in methodology caused some estimates of people injured to change for prior years.

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-odi.nhtsa.dot.gov/VehicleComplaint/.

The following data tools and resources can be found at https://cdan.nhtsa.gov/.

- Fatal Motor Vehicle 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)
- 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
- Rural/Urban Comparison of Traffic Fatalities
- School-Transportation-Related Crashes
- Speeding
- State Alcohol-Impaired-Driving Estimates
- State Traffic Data
- Summary of Motor Vehicle Crashes
- Young Drivers

Detailed data on motor vehicle traffic crashes are published annually in *Traffic Safety Facts: A Compilation of Motor Vehicle 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