Traffic Safety Facts

2017 Data

August 2019

DOT HS 812 785

Motorcycles

Key Findings

- In 2017, there were 5,172 motorcyclists killed—a decrease of 3 percent from the 5,337 motorcyclists killed in 2016.
- Per vehicle miles traveled in 2017, motorcyclist fatalities occurred nearly 27 times more frequently than passenger car occupant fatalities in traffic crashes.
- Twenty-nine percent of motorcycle riders involved in fatal crashes in 2017 were riding without valid motorcycle licenses.
- In 2017, motorcycle riders involved in fatal crashes were found to have the highest percentage of alcohol-impaired drivers than any other vehicle types (27% for motorcycles, 21% for passenger cars, 20% for light trucks, and 3% for large trucks).
- Forty-three percent of motorcycle riders who died in single-vehicle crashes in 2017 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 2017.
- NHTSA estimates that helmets saved 1,872 motorcyclists' lives in 2017, and that 749 more lives could have been saved if all motorcyclists had worn helmets.
- In States without universal helmet laws, 57 percent of motorcyclists killed in 2017 were not wearing helmets, as compared to 8 percent in States with universal helmet laws.

U.S. Department of Transportation

National Highway Traffic Safety Administration

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The following definitions apply to terms used throughout this fact sheet:

- For the purposes of this fact sheet, motorcycles include two- or three-wheeled motorcycles, off-road motorcycles, mopeds, 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.

In this fact sheet for 2017, the information on motorcycles is presented as follows.

This fact sheet contains information on fatal motor vehicle crashes and fatalities based on data from the Fatality Analysis Reporting System (FARS). Refer to the end of this publication for more information on FARS. Injury estimates are based on data obtained from a nationally representative sample of police-reported crashes. For more information, read **Crash Report Sampling System (CRSS) Replaces the National Automotive Sampling System (NASS) General Estimates System (GES)** at the end of this publication.

Overview

In 2017:

- There were 5,172 motorcyclists killed in motor vehicle traffic crashes – a decrease of 3 percent from the 5,337 motorcyclists killed in 2016.
- Two-wheeled motorcycles accounted for 91 percent of all motorcycles in fatal crashes.
- Motorcyclists accounted for 14 percent of all traffic fatalities and 17 percent of all occupant (driver and passenger) fatalities.
- Of the 5,172 motorcyclists killed in traffic crashes, 94 percent (4,885) were riders and 6 percent (287) were passengers.

Table 1 presents information about motorcyclists killed and injured from 2008 to 2017. From 2008 to 2017, motorcyclist fatalities decreased by 3 percent and peaked around 2008 and again in 2016. Motorcyclist fatalities increased from 4,594 in 2014 to 5,029 in 2015 to 5,337 in 2016 and then decreased to 5,172 in 2017. 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, 2008–2017

Year	Killed	Registered Vehicles	Fatality Rate*	Vehicle Miles Traveled (millions)	Fatality Rate**
2008	5,312	7,752,926	68.52	20,811	25.52
2009	4,469	7,929,724	56.36	20,822	21.46
2010	4,518	8,009,503	56.41	18,513	24.40
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	5,172	8,715,204	59.34	20,149	25.67
Year	**Injured**	**Registered Vehicles**	**Injury Rate***	**Vehicle Miles Traveled (millions)**	**Injury Rate****
2008	96,000	7,752,926	1,238	20,811	461
2009	90,000	7,929,724	1,130	20,822	430
2010	82,000	8,009,503	1,024	18,513	443
2011	81,000	8,437,502	965	18,542	439
2012	93,000	8,454,939	1,099	21,385	434
2013	88,000	8,404,687	1,052	20,366	434
2014	92,000	8,417,718	1,088	19,970	459
2015	88,000	8,600,936	1,028	19,606	451
2016†	104,000	8,679,380	1,203	20,445	511
2017†	89,000	8,715,204	1,018	20,149	440

Sources: Fatalities – FARS 2008–2016 Final File, 2017 Annual Report File (ARF); Vehicles miles traveled and registered vehicles – Federal Highway Administration (FHWA); Injured – NASS GES 2008–2015, CRSS 2016–2017.

*Rate per 100,000 registered vehicles. **Rate per 100 million vehicle miles traveled.

†CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

Registration

Motorcycles made up 3 percent of all registered vehicles in the United States in 2017 and accounted for only 0.6 percent of all vehicle miles traveled. Per registered vehicle, the fatality rate for motorcyclists in 2017 was 6 times the fatality rate for passenger car occupants, as shown in Table 2. Per VMT in 2017, motorcyclist fatalities occurred nearly 27 times more frequently than passenger car occupant fatalities in motor vehicle traffic crashes.

Table 2
Occupant* Fatality Rates, by Vehicle Type, 2016 and 2017

Fatality Rate		Vehicle Type		
		Motorcycles	Passenger Cars	Light Trucks
2016	Per 100,000 Registered Vehicles	61.49	10.02	7.85
	Per 100 Million Vehicle Miles Traveled	26.10	0.94	0.74
2017	Per 100,000 Registered Vehicles	59.34	10.05	7.52
	Per 100 Million Vehicle Miles Traveled	25.67	0.94	0.70

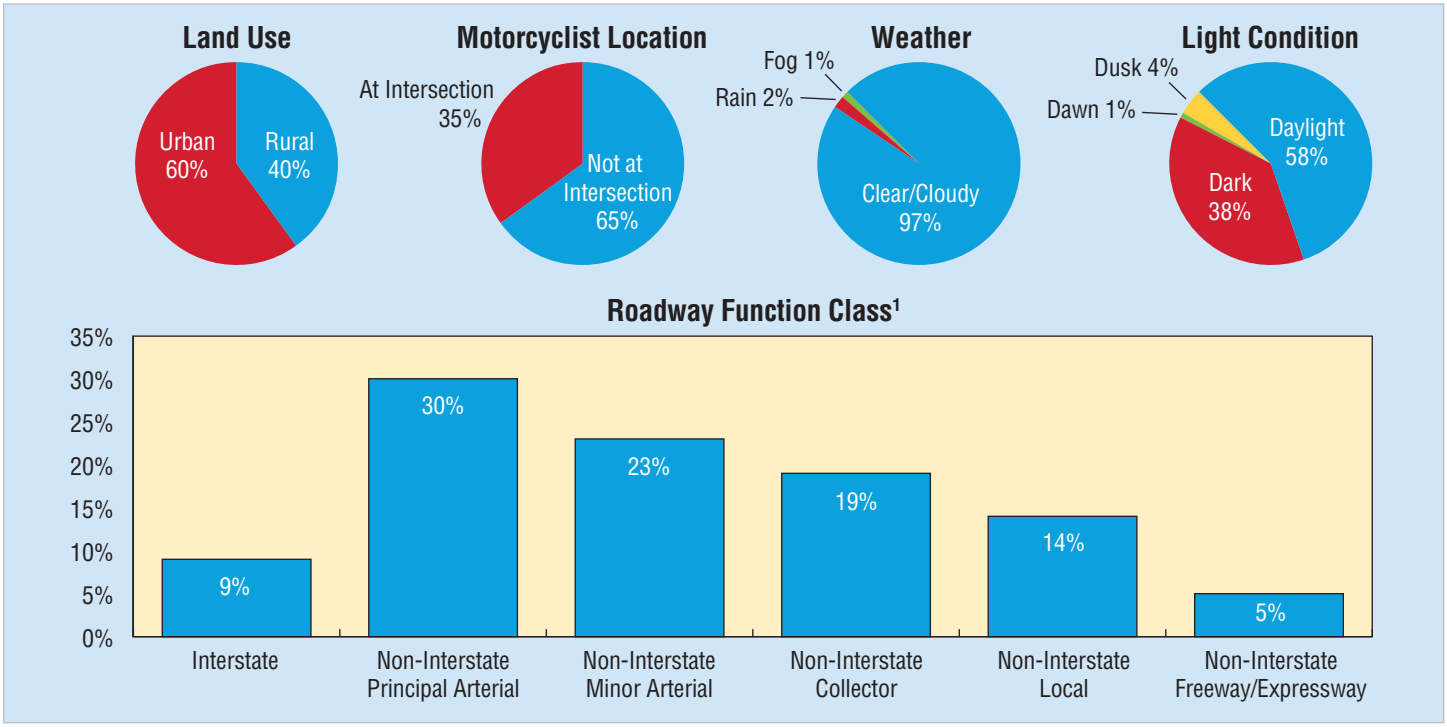
Sources: Fatalities – FARS 2016 Final File, 2017 ARF; Vehicle miles traveled and registered vehicles – FHWA
*Occupants include both riders/drivers and passengers.

Environmental Characteristics

Figure 1 displays information about the setting surrounding the motorcyclist fatalities in 2017 including land use, motorcyclist location, weather, light condition, and roadway function class. In 2017 (based on known values):

- 60 percent of the motorcycle fatalities occurred in urban areas, compared to 40 percent in rural areas.
- 65 percent occurred at locations that were not intersections, compared to 35 percent at intersections.
- 58 percent occurred during daylight, compared to 38 percent in the dark, 4 percent during dusk, and 1 percent during dawn.
- 97 percent occurred in cloudy/clear conditions, compared to 2 percent in the rain, and 1 percent in fog conditions.
- 91 percent occurred on non-interstate roads, compared to 9 percent on interstates.[1]

Figure 1
Motorcycle Traffic Fatalities, by Land Use, Motorcyclist Location, Weather, Light Condition, and Roadway Function Class[1], 2017



Source: 2017 FARS ARF
Note: Unknowns were removed before calculating percentages.

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

Crash Involvement

Data shows in 2017 that the most harmful event for 3,019 (57%) of the 5,326 motorcycles involved in fatal crashes were collisions with motor vehicles in transport.

In two-vehicle crashes, 76 percent of the motorcycles involved in motor vehicle traffic crashes were impacted in the front. Only 7 percent were impacted in the rear.

Motorcycles were more frequently involved in fatal collisions with fixed objects than other vehicle types. Twenty-three percent of motorcycles involved in fatal crashes in 2017 collided with fixed objects, compared to 16 percent for passenger cars, 13 percent for light trucks, and 4 percent for large trucks.

In 2017, there were 2,598 two-vehicle fatal crashes involving a motorcycle and another type of vehicle. In 42 percent (1,098) 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 555 crashes (21%).

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-two percent of all motorcycle riders involved in fatal crashes in 2017 were speeding, compared to 18 percent for passenger car drivers, 14 percent for light-truck drivers, and 7 percent for large-truck drivers.

Age

From 2008 to 2017, motorcyclist fatalities decreased by 3 percent. The 40-and-older age group made up 51 percent of motorcyclists killed in 2008 as compared to 53 percent of the motorcyclists killed in 2017. Over the 10-year period from 2008 to 2017, fatalities among the 40-and-older age group increased by 2 percent (from 2,698 to 2,757). In 2008, the average age of motorcycle riders killed in motor vehicle traffic crashes was 40, whereas in 2017, the average age was 42.

Weekday is defined as 6 a.m. Monday to 5:59 p.m. Friday, and weekend is defined as 6 p.m. Friday to 5:59 a.m. Monday. Table 3 shows that in 2008 and 2017 roughly half the motorcyclists were killed in traffic crashes during the weekend versus weekday.

Based on the difference in the number of hours between weekday and weekend, there were more than 1.7 times as many motorcyclist fatalities in traffic crashes in 2017 during the weekend (19.2) versus weekday (11.4), which is similar to 2008 (20.3 versus 11.4). Among the different age groups, the 50-and-older motorcyclists were found to have the highest rate of motorcyclists killed in traffic crashes during the weekend (6.0) and the 30-and-younger motorcyclists had the highest weekday rate (3.8) in 2008. In 2017 the 50-and-older age group had the highest rate during the weekend (7.1) versus weekday (4.0).

Table 3
Motorcyclist Fatalities, by Age Group, Year, and Day of Week, 2008 and 2017

Age Group	Weekday (6 a.m. Monday to 5:59 p.m. Friday)	Weekend (6 p.m. Friday to 5:59 a.m. Monday)	Total*
2008			
<30	895	722	1,621
30–39	473	518	991
40–49	528	651	1,179
50+	771	744	1,519
Total*	2,667	2,637	5,312
2017			
<30	811	650	1,462
30–39	466	483	950
40–49	449	440	889
50+	946	917	1,868
Total*	2,673	2,492	5,172

Source: FARS 2008 Final File, 2017 ARF
*Total includes unknown age and unknown time of day.

Motorcycle Engine Size

Table 4 presents motorcyclist fatalities by the engine sizes of the motorcycles. Twenty-six percent of motorcyclists killed in motor vehicle traffic crashes in 2017 were riding motorcycles with engine sizes from 1,001 to 1,500 cubic centimeters (cc), down from 33 percent in 2008. In 2017, there were 22 percent of motorcyclists killed while riding motorcycles with engine sizes of 1,501 cc or higher, up from just 11 percent in 2008.

The number of motorcyclist fatalities on motorcycles with engine sizes of 1,000 cc or less showed a decrease of 9 percent during this time period. Motorcyclist fatalities on motorcycles with engine sizes from 1,001 to 1,500 cc decreased by 23 percent (from 1,765 to 1,367), while the number of motorcyclists killed on motorcycles 1,501 cc or higher increased by nearly 104 percent (from 566 to 1,155).

Table 4

Motorcyclist Fatalities, by Engine Size (cc), 2008 and 2017

	Engine Displacement (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
2008	261	5%	2,208	42%	1,765	33%	566	11%	512	10%	5,312	100%
2017	376	7%	1,873	36%	1,367	26%	1,155	22%	401	8%	5,172	100%

Source: FARS 2008 Final File, 2017 ARF

Note: Other motorcycle characteristics besides engine displacement influence power and speed capability. NHTSA has not determined that there is a causal relationship between displacement and fatality risk. FHWA motorcycle registration data not available by engine size.

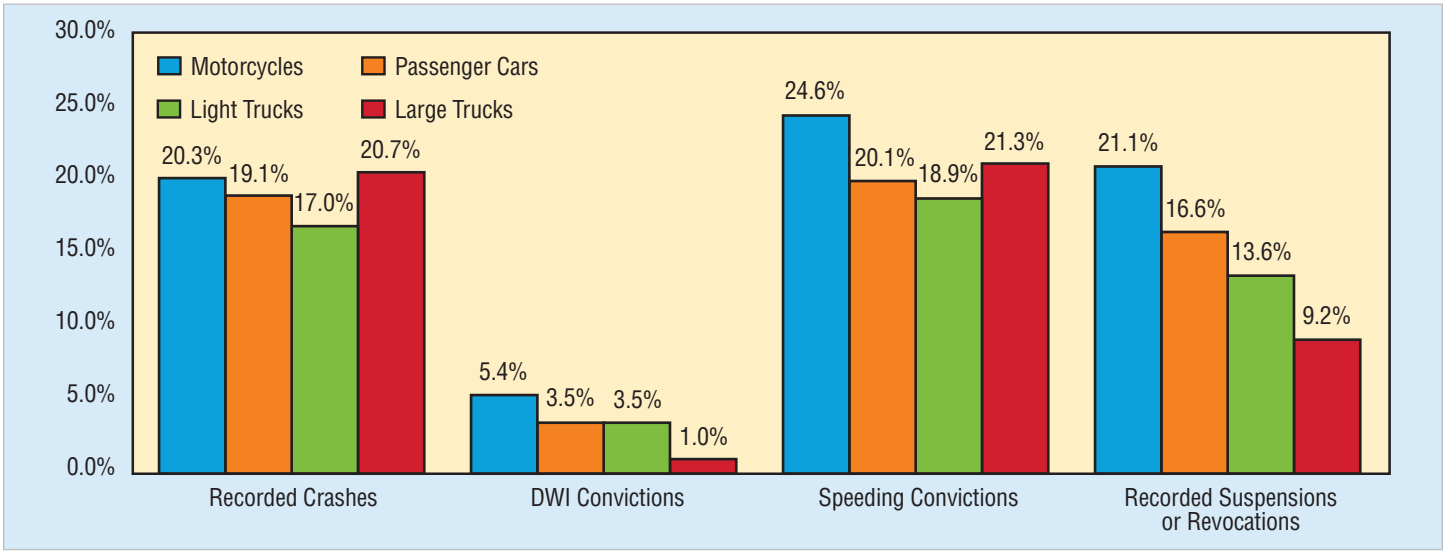
Licensing and Previous Driving Records

Twenty-nine percent of motorcycle riders involved in fatal crashes in 2017 were riding without valid motorcycle licenses at the time of the collisions, while only 13 percent of passenger vehicle drivers in fatal crashes did not have valid licenses. (Passenger vehicles include passenger cars and light trucks.) A valid motorcycle license includes a rider having a valid driver license (non-CDL license status) with a motorcycle endorsement or motorcycle-only license.

As shown in Figure 2, motorcycle riders involved in fatal crashes had the highest percentages of drivers with previous driving convictions (recorded crashes, driving while impaired [DWI], speeding, and revocation) 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 (21.1% and 16.6%, respectively). Note that FARS records drivers' previous driving records that occurred up to 5 years prior to the date of the crash starting in 2015.

Figure 2

Previous Driving Records of Drivers Involved in Fatal Traffic Crashes, by Vehicle Type, 2017



Source: 2017 FARS ARF

Note: Excludes all drivers with a previous record that were unknown.

Alcohol

In 2017, there were 4,885 motorcycle riders killed in motor vehicle traffic crashes. Of those, 1,357 (28%) were alcohol-impaired (BAC of .08 g/dL or higher). In addition, there were 351 (7%) motorcycle riders killed who had lower alcohol levels (BACs of .01 to .07 g/dL).

Motorcycle riders involved (killed or survived) in fatal crashes in 2017 had higher percentages of alcohol impairment than any other type of motor vehicle driver (27% for motorcycle riders, 21% for passenger car drivers, 20% for light-truck drivers, and 3% for drivers of large trucks).

The highest percentages of alcohol-impaired motorcycle riders killed were in the 40-to-44 age group (38%) and the 45-to-49 age group (38%), followed by the 35-to-39 age group (32%), when compared to other age groups.

As shown in Table 5, some 43 percent of the 1,905 motorcycle riders who died in single-vehicle crashes in 2017 were alcohol-impaired, as compared to 43 percent of the 2,301 motorcycle riders who died in single-vehicle crashes in 2008 were alcohol-impaired. Sixty-one percent of those killed in single-vehicle crashes on weekend nights were alcohol-impaired.

Table 5

Motorcycle Riders Killed With BACs of .08 g/dL or Higher, by Crash Type and Day of Week, 2008 and 2017

Crash Type and Day of the Week		2008			2017		
		Total Motorcycle Riders Killed	Alcohol-Impaired (BAC=.08+ g/dL)		Total Motorcycle Riders Killed	Alcohol-Impaired (BAC=.08+ g/dL)	
			Number	Percent		Number	Percent
Total	Total*	4,975	1,490	30%	4,885	1,357	28%
	Weekday	2,529	597	24%	2,567	566	22%
	Weekend	2,438	889	36%	2,311	788	34%
Single-Vehicle	Total*	2,301	993	43%	1,905	811	43%
	Weekday	1,029	384	37%	912	334	37%
	Weekend	1,266	606	48%	988	474	48%
Multiple-Vehicle	Total*	2,674	497	19%	2,980	546	18%
	Weekday	1,500	213	14%	1,655	232	14%
	Weekend	1,172	283	24%	1,323	313	24%

Source: FARS 2008 Final File, 2017 ARF
*Includes riders involved in fatal crashes when time of day was unknown.

Motorcycle riders killed in traffic crashes at night were three times more frequently found to be alcohol-impaired than those killed during the day (42% and 14%, respectively).

The reported helmet use rate for alcohol-impaired motorcycle riders killed in traffic crashes was 53 percent, as compared to 67 percent for those with no alcohol (BAC=.00 g/dL).

Table 6 presents the percentage of motorcycle riders killed who were alcohol-impaired, by States where the crashes occurred. The percentages ranged from a low of 11 percent (Delaware) to a high of 80 percent (Rhode Island), compared to the national average of 28 percent.

Additional State/county-level data is available at NHTSA's State Traffic Safety Information website: https://cdan.nhtsa.gov/stsi.htm.

Helmet Use and Effectiveness

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.[2]

Helmets are estimated to be 37-percent effective in preventing fatal injuries 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] National Center for Statistics and Analysis. (2019, March). Lives saved in 2017 by restraint use and minimum-drinking-age laws (Traffic Safety Facts Crash•Stats. Report No. DOT HS 812 683. Washington, DC: National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812683.

Table 6

Motorcycle Rider Fatalities, by State and Rider's BAC, 2017

State	Total Motorcycle Riders Killed	Motorcycle Riders Killed, by Their BAC					
		BAC=.01+ g/dL		Alcohol-Impaired (BAC=.08+ g/dL)		BAC=.15+ g/dL	
		Number	Percent	Number	Percent	Number	Percent
Alabama	76	24	31%	18	23%	14	18%
Alaska	6	1	17%	1	17%	1	17%
Arizona	152	48	32%	38	25%	23	15%
Arkansas	60	23	38%	19	31%	11	19%
California	515	182	35%	142	28%	88	17%
Colorado	96	29	31%	24	25%	13	13%
Connecticut	55	28	51%	22	40%	14	26%
Delaware	9	2	22%	1	11%	1	11%
District of Columbia	4	3	75%	3	75%	3	75%
Florida	550	182	33%	147	27%	86	16%
Georgia	135	37	27%	31	23%	19	14%
Hawaii	25	10	42%	7	28%	6	24%
Idaho	24	10	40%	6	26%	5	22%
Illinois	152	67	44%	46	30%	30	20%
Indiana	136	47	34%	39	29%	22	16%
Iowa	47	15	32%	13	27%	6	14%
Kansas	54	11	21%	10	19%	5	10%
Kentucky	85	28	33%	26	30%	16	19%
Louisiana	95	36	38%	26	27%	19	20%
Maine	24	7	30%	6	25%	5	20%
Maryland	82	30	36%	26	32%	16	20%
Massachusetts	51	26	51%	21	41%	13	25%
Michigan	137	45	33%	35	26%	21	16%
Minnesota	51	17	34%	12	24%	7	13%
Mississippi	39	9	22%	8	19%	6	15%
Missouri	112	34	30%	28	25%	17	15%
Montana	23	9	38%	7	32%	4	16%
Nebraska	23	4	16%	4	16%	2	7%
Nevada	53	12	22%	10	19%	3	5%
New Hampshire	15	4	27%	3	20%	2	13%
New Jersey	79	26	33%	15	19%	8	10%
New Mexico	52	21	40%	17	32%	10	19%
New York	136	48	35%	35	26%	22	16%
North Carolina	167	59	35%	47	28%	32	19%
North Dakota	12	6	48%	6	47%	5	39%
Ohio	139	54	39%	46	33%	31	22%
Oklahoma	82	29	35%	24	29%	19	24%
Oregon	53	18	34%	16	31%	11	21%
Pennsylvania	173	58	34%	47	27%	27	16%
Rhode Island	10	8	80%	8	80%	4	40%
South Carolina	138	53	39%	41	29%	27	19%
South Dakota	16	6	38%	4	24%	2	9%
Tennessee	130	44	34%	31	24%	20	15%
Texas	460	197	43%	156	34%	90	20%
Utah	35	7	19%	7	19%	2	5%
Vermont	13	3	25%	2	18%	1	9%
Virginia	112	33	30%	28	25%	13	11%
Washington	79	22	28%	20	25%	15	19%
West Virginia	26	6	21%	6	21%	4	16%
Wisconsin	71	25	35%	18	26%	13	18%
Wyoming	16	7	42%	7	41%	4	28%
U.S. Total	4,885	1,708	35%	1,357	28%	835	17%
Puerto Rico	24	11	46%	7	29%	5	21%

Source: FARS 2017 ARF

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 65.2 percent in 2017. Helmet use continued to be significantly higher in States that required all motorcyclists to be helmeted than in other States (see Figure 3 in *Motorcycle Helmet Use in 2017 – Overall Results,* Report No. DOT HS 812 512, available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812512).

Reported helmet use rates for motorcyclists killed in 2017 were 62 percent for riders and 41 percent for passengers, compared with 61 percent and 44 percent, respectively, in 2016. Figure 3 presents the percentage of motorcyclists killed who were not helmeted by each state in 2017, based on known helmet use. Table 7 shows that 39 percent of the 5,172 motorcyclists killed in motor vehicle traffic crashes were not helmeted, based on known helmet use. The State-level percentages ranged from a high of 76 percent (Wyoming) to a low of 0 percent (District of Columbia, Nebraska, Vermont, and Washington).

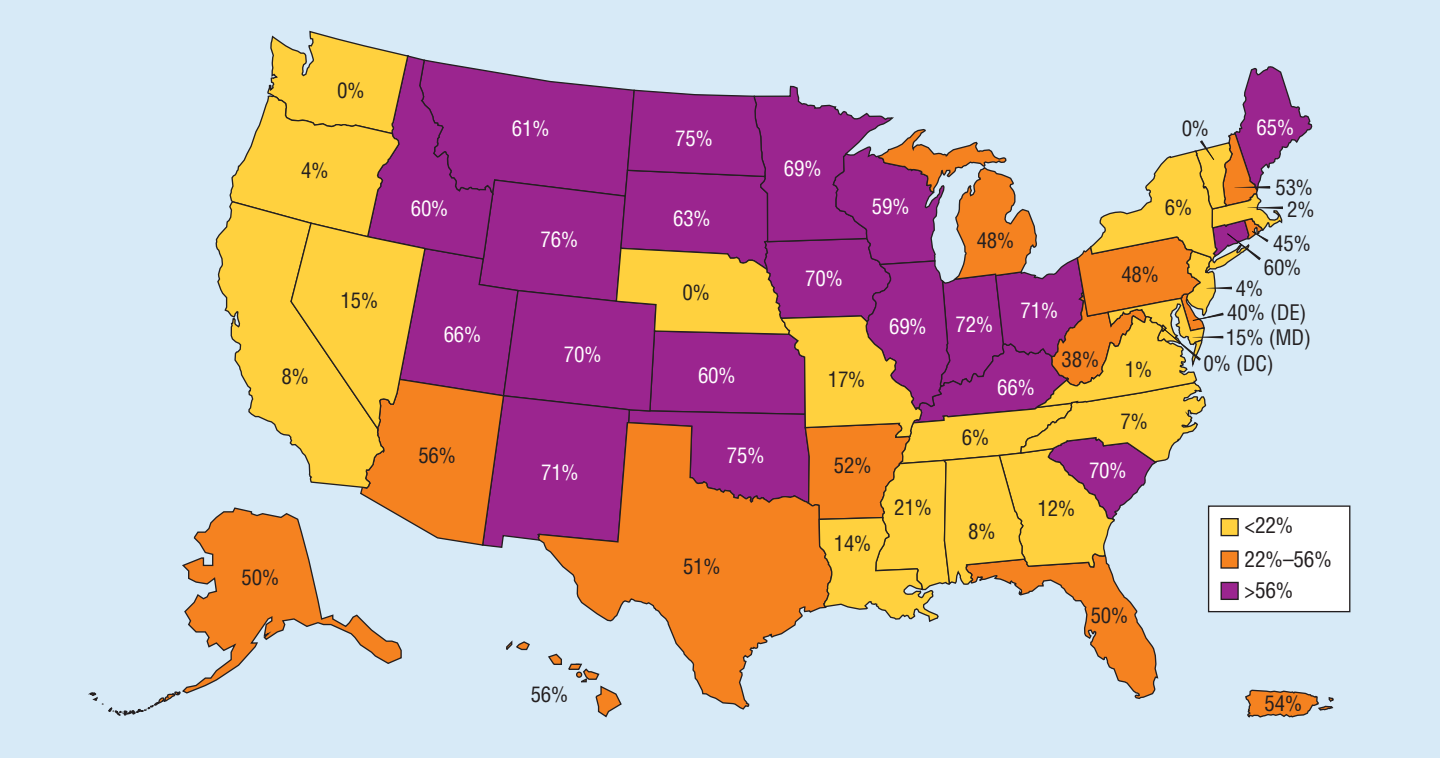
All motorcycle helmets sold in the United States are required to meet Federal Motor Vehicle Safety Standard 218, the performance standard that establishes the minimum level of protection for helmets designed for use by motorcyclists.

In 2017, only 19 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 crashes ranged from 62 percent (West Virginia) to 100 percent (Nebraska, Vermont, and 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 24 percent (Wyoming) to 60 percent (Delaware) for these 31 States.

The most current information on helmet use laws is available on the GHSA website at http://www.ghsa.org/state-laws/issues/motorcyclists. In States without universal helmet laws, 57 percent of motorcyclists killed in 2017 were not wearing helmets, as compared to 8 percent in States with universal helmet laws. According to NOPUS, in 2017, DOT-compliant motorcycle helmet use in States requiring all to use helmets was 87.0 percent compared to 43.7 percent in other States.

Figure 3
Map of Percent Known Unhelmeted Motorcyclists Killed, by State, 2017



Source: 2017 FARS ARF

Table 7

Motorcyclist Fatalities, by State and Helmet Use, 2017

State	Helmet Use						Total		Percent "Known" Helmeted	Percent "Known" Unhelmeted
	Helmeted		Unhelmeted		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Percent	Percent
Alabama	72	91%	6	8%	1	1%	79	100%	92%	8%
Alaska	3	50%	3	50%	0	0%	6	100%	50%	50%
Arizona	66	40%	84	52%	13	8%	163	100%	44%	56%
Arkansas	30	46%	33	51%	2	3%	65	100%	48%	52%
California	476	90%	41	8%	12	2%	529	100%	92%	8%
Colorado	31	30%	72	70%	0	0%	103	100%	30%	70%
Connecticut	22	39%	33	58%	2	4%	57	100%	40%	60%
Delaware	6	60%	4	40%	0	0%	10	100%	60%	40%
District of Columbia	3	75%	0	0%	1	25%	4	100%	100%	0%
Florida	291	49%	289	49%	10	2%	590	100%	50%	50%
Georgia	120	86%	17	12%	2	1%	139	100%	88%	12%
Hawaii	11	44%	14	56%	0	0%	25	100%	44%	56%
Idaho	10	40%	15	60%	0	0%	25	100%	40%	60%
Illinois	49	30%	109	67%	4	2%	162	100%	31%	69%
Indiana	41	28%	105	70%	3	2%	149	100%	28%	72%
Iowa	14	29%	33	69%	1	2%	48	100%	30%	70%
Kansas	21	38%	32	57%	3	5%	56	100%	40%	60%
Kentucky	31	34%	59	66%	0	0%	90	100%	34%	66%
Louisiana	78	81%	13	14%	5	5%	96	100%	86%	14%
Maine	9	35%	17	65%	0	0%	26	100%	35%	65%
Maryland	70	81%	12	14%	4	5%	86	100%	85%	15%
Massachusetts	47	92%	1	2%	3	6%	51	100%	98%	2%
Michigan	74	49%	69	46%	7	5%	150	100%	52%	48%
Minnesota	16	29%	36	65%	3	5%	55	100%	31%	69%
Mississippi	27	68%	7	18%	6	15%	40	100%	79%	21%
Missouri	100	83%	20	17%	1	1%	121	100%	83%	17%
Montana	9	39%	14	61%	0	0%	23	100%	39%	61%
Nebraska	20	74%	0	0%	7	26%	27	100%	100%	0%
Nevada	44	81%	8	15%	2	4%	54	100%	85%	15%
New Hampshire	7	47%	8	53%	0	0%	15	100%	47%	53%
New Jersey	75	90%	3	4%	5	6%	83	100%	96%	4%
New Mexico	14	26%	35	66%	4	8%	53	100%	29%	71%
New York	131	90%	9	6%	5	3%	145	100%	94%	6%
North Carolina	163	93%	12	7%	1	1%	176	100%	93%	7%
North Dakota	3	25%	9	75%	0	0%	12	100%	25%	75%
Ohio	45	29%	109	69%	3	2%	157	100%	29%	71%
Oklahoma	23	25%	68	73%	2	2%	93	100%	25%	75%
Oregon	46	81%	2	4%	9	16%	57	100%	96%	4%
Pennsylvania	96	51%	88	47%	3	2%	187	100%	52%	48%
Rhode Island	6	55%	5	45%	0	0%	11	100%	55%	45%
South Carolina	43	30%	100	69%	2	1%	145	100%	30%	70%
South Dakota	6	38%	10	63%	0	0%	16	100%	38%	63%
Tennessee	123	92%	8	6%	3	2%	134	100%	94%	6%
Texas	234	48%	243	50%	13	3%	490	100%	49%	51%
Utah	13	33%	25	64%	1	3%	39	100%	34%	66%
Vermont	13	100%	0	0%	0	0%	13	100%	100%	0%
Virginia	115	98%	1	1%	1	1%	117	100%	99%	1%
Washington	78	98%	0	0%	2	3%	80	100%	100%	0%
West Virginia	16	62%	10	38%	0	0%	26	100%	62%	38%
Wisconsin	30	39%	43	56%	4	5%	77	100%	41%	59%
Wyoming	4	24%	13	76%	0	0%	17	100%	24%	76%
U.S. Total	3,075	59%	1,947	38%	150	3%	5,172	100%	61%	39%
Puerto Rico	13	46%	15	54%	0	0%	28	100%	46%	54%

Source: FARS 2017 ARF Note: Shading indicates States requiring helmet use for all motorcyclists.

Fatality Analysis Reporting System (FARS)

The Fatality Analysis Reporting System (FARS) contains data on every fatal traffic crash in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a public trafficway 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 about a year later. The final version of the file is aptly 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.

The updated final counts for a given previous calendar year will be reflected with the release of the recent year's ARF. For example, along with the release of the 2017 ARF, the 2016 Final File was also released to replace the previous year's 2016 ARF. The final fatality count in motor vehicle crashes for 2016 was 37,806, which was updated from 37,461 from the 2016 ARF. The motorcyclist crash fatality count from the 2016 Final File is 5,337 versus 5,286 from the 2016 ARF.

Crash Report Sampling System (CRSS) Replaces the National Automotive Sampling System (NASS) General Estimates System (GES)

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 NASS GES in 2016. NCSA released the updated 2016 and the new 2017 CRSS files in April 2019. For more information on CRSS, see the Additional Resources section of the CRSS web page at https://www.nhtsa.gov/national-center-statistics-and-analysis-ncsa/crash-report-sampling-system-crss.

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For more information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis, NSA-230, 1200 New Jersey Avenue SE, Washington, DC 20590. NCSA can be contacted at 800-934-8517 or by email at NCSArequests@dot.gov. General information on highway traffic safety can be found at www.nhtsa.gov/research-data/. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Vehicle Safety Hotline at 888-327-4236.

Other fact sheets available from the National Center for Statistics and Analysis are *Alcohol-Impaired Driving, Bicyclists and Other Cyclists, 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,* and *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 annual Traffic Safety Facts report can be found at https://crashstats.nhtsa.dot.gov/.

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