

## Motorcycle Crashes

Motorcycles are by their nature far less crashworthy than closed vehicles. They are also less visible to other drivers and pedestrians and less stable than four-wheel vehicles. Operating a motorcycle requires a different combination of physical and mental skills than those used in driving four-wheel vehicles. Motorcyclists and their passengers are more vulnerable to the hazards of weather and road conditions than drivers in closed vehicles.

In 2015, 4,976 people died in motorcycle crashes, up 8.3 percent from 4,594 in 2014, according to the [National Highway Traffic Safety Administration](#) [1] (NHTSA). An additional 88,000 motorcyclists were injured, down 4.3 percent from 92,000 in 2014. In 2015, motorcyclists were 29 times more likely than passenger car occupants to die in a crash per vehicle mile traveled, and almost five times more likely to be injured.

Note: statistics on fatal motorcycle crashes are also available from the [Insurance Institute for Highway Safety](#) [2].

## Motorcycle Helmet Use, 1998-2016 (1)

<b>Year</b>	<b>Percent</b>	<b>Year</b>	<b>Percent</b>
1998	67%	2010	54%
2000	71	2011	66
2005	48	2012	60
2006	51	2013	60
2007	58	2014	64
2008	63	2015	61
2009	67	2016	65

(1) Based on surveys of motorcyclists using helmets meeting Department of Transportation standards. Surveys conducted in October for 1996-2000 and in June thereafter.

Source: U.S. Department of Transportation, National Occupant Protection Use Survey, National Highway Traffic Safety Administration's National Center for Statistics and Analysis.

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## Motorcyclist Fatalities And Fatality Rates, 2006-2015

Year	Fatalities	Registered motorcycles	Fatality rate per 100,000 registered motorcycles	Vehicle
2006	4,837	6,678,958		72.42
2007	5,174	7,138,476		72.48
2008	5,312	7,752,926		68.52
2009	4,469	7,929,724		56.36
2010	4,518	8,009,503		56.41
2011	4,630	8,437,502		54.87
2012	4,986	8,454,939		58.97
2013	4,692	8,404,687		55.83
2014	4,594	8,417,718		54.58
2015	4,976	NA		NA

NA=Data not available.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration; Federal Highway Administration.

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## Motorcyclist Injuries And Injury Rates, 2006-2015

<b>Year</b>	<b>Injuries</b>	<b>Registered motorcycles</b>	<b>Injury rate per 100,000 registered motorcycles</b>
2006	88,000	6,678,958	
2007	103,000	7,138,476	
2008	96,000	7,752,926	
2009	90,000	7,929,724	
2010	82,000	8,009,503	
2011	81,000	8,437,502	
2012	93,000	8,454,939	
2013	88,000	8,404,687	
2014	92,000	8,417,718	
2015	88,000	NA	

NA=Data not available.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration; Federal Highway Administration.

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## Occupant Fatality Rates By Vehicle Type, 2006 And 2015

<b>Fatality rate</b>	<b>Motorcycles</b>	<b>Light trucks</b>	<b>Passenger cars</b>
<b>2006</b>			
Per 100,000 registered vehicles	72.42	13.01	13.08
Per 100 million vehicle miles traveled	40.14	1.10	1.11
<b>2015</b>			
Per 100,000 registered vehicles	57.85	7.70	9.48
Per 100 million vehicle miles traveled	25.38	0.72	0.89
<b>Percent change, 2006-2015</b>			
Per 100,000 registered vehicles	-20.1%	-40.8%	-27.5%
Per 100 million vehicle miles traveled	-36.8	-34.5	-19.8

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration.

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## Motorcyclists Killed or Injured, by Time of Day and Day of Week, 2015

	Day of Week		Weekend		Total	
	Weekday					
	Number	Percent	Number	Percent	Number	Percent
<b>Motorcyclists killed</b>						
Midnight to 3 am	148	5.8%	267	11.1%	415	8.3%
3 am to 6 am	92	3.6	101	4.2	193	3.9
6 am to 9 am	229	9.0	65	2.7	294	5.9
9 am to Noon	234	9.2	207	8.6	441	8.9
Noon to 3 pm	411	16.1	339	14	750	15.1
3 pm to 6 pm	606	23.7	417	17.3	1,023	20.6
6 pm to 9 pm	480	18.8	595	24.6	1,075	21.6
9 pm to Midnight	345	13.5	411	17	756	15.2
Unknown	11	0.4	13	0.5	29	0.6
<b>Total</b>	<b>2,556</b>	<b>100.0%</b>	<b>2,415</b>	<b>100.0%</b>	<b>4,976 (1)</b>	<b>100.0%</b>
<b>Motorcyclists injured</b>						
Midnight to 3 am	1,000	2.5%	2,000	6.0%	4,000	4.1%
3 am to 6 am	1,000	1.8	1,000	2.6	2,000	2.2
6 am to 9 am	6,000	12.1	2,000	5	8,000	9.1
9 am to Noon	7,000	13.8	4,000	11.3	11,000	12.7
Noon to 3 pm	8,000	16.3	7,000	19.5	16,000	17.7
3 pm to 6 pm	14,000	27.5	6,000	17.1	20,000	23.1
6 pm to 9 pm	9,000	17.0	11,000	28.3	19,000	21.7
9 pm to Midnight	5,000	9.0	4,000	10	8,000	9.4
<b>Total</b>	<b>51,000</b>	<b>100.0%</b>	<b>37,000</b>	<b>100.0%</b>	<b>88,000</b>	<b>100.0%</b>

(1) Includes 5 motorcyclists killed on unknown day of week.

Source: U.S. Department of Transportation, National Highway Safety Administration.

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## Vehicles Involved In Crashes By Vehicle Type And Crash Severity, 2006 And 2015

	Fatal crashes		Injury crashes		Property damage only crashes
	2006	2015	2006	2015	2006
<b>Passenger cars</b>					
Involved in crashes	24,260	19,534	1,794,000	1,785,000	4,000,000
Rate per 100 million vehicle miles traveled	1.50	1.37	111	126	126
Rate per 100,000 registered vehicles	17.70	14.66	1,309	1,340	1,340
<b>Light trucks (1)</b>					
Involved in crashes	22,411	18,675	1,202,000	1,198,000	2,000,000
Rate per 100 million vehicle miles traveled	1.94	1.37	104	88	88
Rate per 100,000 registered vehicles	22.85	14.66	1,225	941	941
<b>Motorcycles</b>					
Involved in crashes	4,963	5,076	84,000	84,000	84,000
Rate per 100 million vehicle miles traveled	41.19	25.89	694	430	430
Rate per 100,000 registered vehicles	74.31	59.02	1,251	980	980

(1) Trucks with 10,000 pounds or less gross vehicle weight. Includes pickups, vans, truck-based station wagons and utility vehicles.

Source: U.S. Department of Transportation (USDOT), National Highway Traffic Safety Administration (NHTSA). Vehicle miles traveled - USDOT, Federal Highway Administration, revised by NHTSA; Registered passenger cars and light trucks - R.L. Polk & Co; Registered motorcycles - USDOT, Federal Highway Administration.

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## Persons Killed In Total And Alcohol-Impaired Crashes By Person Type, 2015

### Alcohol-impaired driving fatalities (1)

Person type	Total killed	Number	Percent of total killed
<b>Vehicle occupants</b>			
Driver	17,466	5,909	34%
Passenger	6,158	1,812	29
Unknown occupant	71	3	4
<b>Total</b>	<b>23,695</b>	<b>7,724</b>	<b>33%</b>
<b>Motorcyclists</b>	<b>4,976</b>	<b>1,609</b>	<b>32%</b>
<b>Nonoccupants</b>			
Pedestrian	5,376	796	15
Pedalcyclist	818	101	12
Other/unknown	227	36	16
<b>Total</b>	<b>6,421</b>	<b>933</b>	<b>15%</b>
<b>Total</b>	<b>35,092</b>	<b>10,265</b>	<b>29%</b>

(1) Alcohol-impaired driving crashes are crashes that involve at least one driver or a motorcycle operator with a blood alcohol concentration of 0.08 percent or above, the legal definition of drunk driving.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration.

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## Drivers In Fatal Crashes By Blood Alcohol Concentration (Bac) And Vehicle Type, 2006-2015 (1)

Year	Passenger car		Light truck		Large truck		
	Total	Percent BAC = 0.01+	Percent BAC = 0.08+	Total	Percent BAC = 0.01+	Percent BAC = 0.08+	Total
2006	24,162	27%	23%	22,307	28%	24%	4
2007	22,765	27	23	21,719	27	23	4
2008	20,379	27	23	19,095	26	23	4
2009	18,344	27	23	17,878	27	23	3
2010	17,710	27	24	17,385	25	22	3
2011	17,401	27	24	16,706	25	21	3
2012	17,992	26	23	17,131	25	22	3
2013	17,731	27	23	16,738	25	21	3
2014	17,757	26	22	17,017	25	22	3
2015	19,413	25	21	18,570	23	20	3

(1) NHTSA estimates alcohol involvement when alcohol test results are unknown.

Source: U.S. Department of Transportation, National Highway Safety Administration.

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### Links:

[1] <http://www-nrd.nhtsa.dot.gov/Pubs/812148.pdf>

[2] <http://www.iihs.org/>

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