



[Home \(/\)](#) / [Topics \(/topics\)](#) / [Fatality statistics \(/topics/fatality-statistics\)](#)

/ [Motorcycles and ATVs \(/topics/fatality-statistics/detail/motorcycles-and-atvs\)](#)

Fatality Facts 2019

Motorcycles and ATVs

Overview

Motorcycles are less stable and less visible than cars and often have high performance capabilities. When motorcycles crash, their riders lack the protection of an enclosed vehicle, so they're more likely to be injured or killed. The federal government estimates that per mile traveled in 2019, the number of deaths on motorcycles was nearly 29 times the number in cars.^{1 (#fn1)}

Because serious head injury is common among fatally injured motorcyclists, helmet use is important. Helmets are about 37 percent effective in preventing motorcycle deaths^{2 (#fn2)} and about 67 percent effective in preventing brain injuries.^{3 (#fn3)} Yet only 18 states and the District of Columbia mandate helmet use by all riders.

All-terrain vehicles (ATVs) are not designed for on-highway use, but in recent years hundreds of riders died in crashes on public roads annually.

The following facts are based on analysis of data from the [U.S. Department of Transportation's \(https://www.fars.nhtsa.dot.gov\)](https://www.fars.nhtsa.dot.gov) Fatality Analysis Reporting System (FARS).

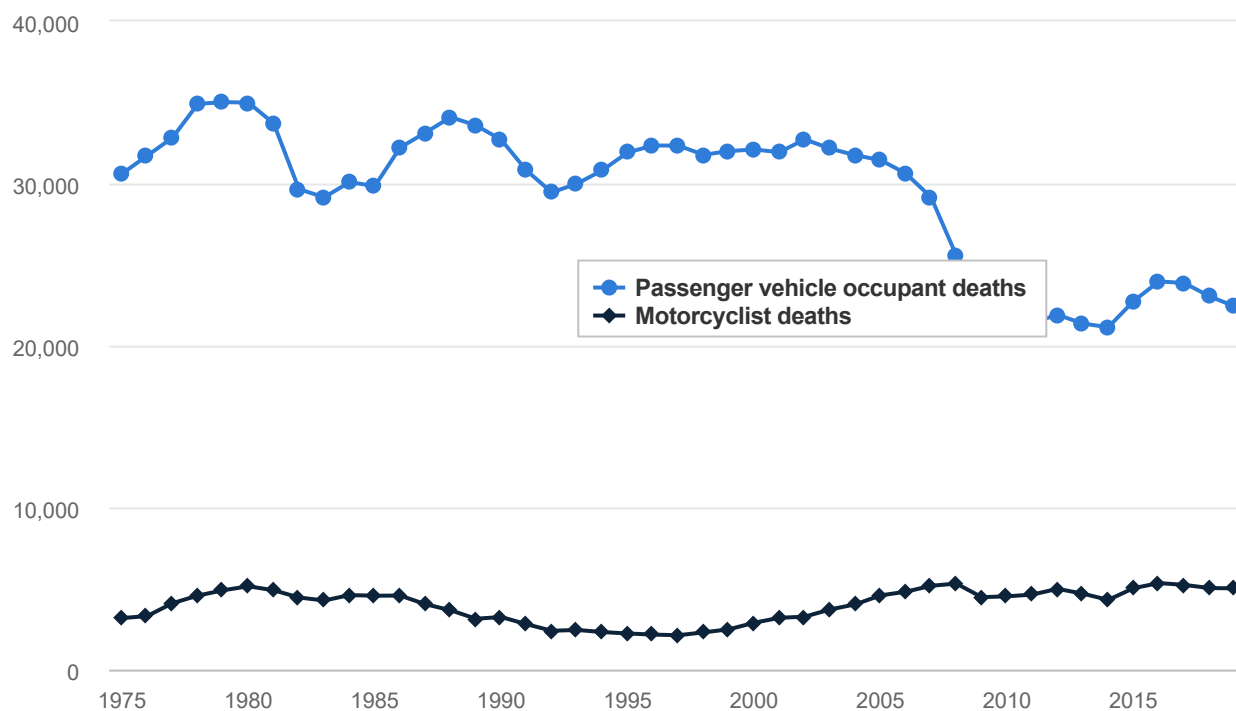
Posted March 2021.

Trends

A total of 5,014 motorcyclists died in crashes in 2019. Motorcyclist deaths had been declining since the early 1980s but began to increase in 1998 and continued to increase through 2008. Motorcycle deaths accounted for 14 percent of all motor vehicle crash deaths in 2019 and

were more than double the number of motorcyclist deaths in 1997.

Passenger vehicle occupant deaths and motorcyclist deaths, 1975-2019



Passenger vehicle occupant and motorcyclist deaths as a percentage of all motor vehicle crash deaths, 1975-2019

Year	Passenger vehicle occupant deaths		Motorcyclist deaths		All motor vehicle deaths	
	Number	%	Number	%	Number	%
1975	30,601	69	3,180	7	44,525	100
1976	31,724	70	3,306	7	45,523	100
1977	32,823	69	4,099	9	47,878	100
1978	34,923	69	4,574	9	50,331	100
1979	35,026	69	4,892	10	51,093	100
1980	34,996	68	5,138	10	51,091	100
1981	33,711	68	4,896	10	49,301	100
1982	29,656	67	4,449	10	43,945	100

Passenger vehicle occupant and motorcyclist deaths as a percentage of all motor vehicle crash deaths, 1975-2019

Year	Passenger vehicle occupant deaths		Motorcyclist deaths		All motor vehicle deaths	
	Number	%	Number	%	Number	%
1983	29,154	68	4,260	10	42,589	100
1984	30,094	68	4,602	10	44,257	100
1985	29,848	68	4,562	10	43,825	100
1986	32,224	70	4,566	10	46,087	100
1987	33,145	71	4,034	9	46,390	100
1988	34,105	72	3,661	8	47,087	100
1989	33,599	74	3,135	7	45,582	100
1990	32,711	73	3,243	7	44,599	100
1991	30,810	74	2,805	7	41,508	100
1992	29,457	75	2,395	6	39,250	100
1993	29,994	75	2,445	6	40,150	100
1994	30,820	76	2,317	6	40,716	100
1995	31,914	76	2,226	5	41,817	100
1996	32,354	77	2,161	5	42,065	100
1997	32,343	77	2,116	5	42,013	100
1998	31,781	77	2,294	6	41,501	100
1999	32,008	77	2,483	6	41,717	100
2000	32,109	77	2,895	7	41,945	100
2001	31,938	76	3,195	8	42,196	100
2002	32,724	76	3,267	8	43,005	100
2003	32,166	75	3,710	9	42,884	100
2004	31,750	74	4,026	9	42,836	100
2005	31,455	72	4,575	11	43,510	100
2006	30,628	72	4,810	11	42,708	100
2007	29,155	71	5,174	13	41,259	100
2008	25,547	68	5,307	14	37,423	100
2009	23,507	69	4,467	13	33,883	100

Passenger vehicle occupant and motorcyclist deaths as a percentage of all motor vehicle crash deaths, 1975-2019

Year	Passenger vehicle occupant deaths		Motorcyclist deaths		All motor vehicle deaths	
	Number	%	Number	%	Number	%
2010	22,351	68	4,517	14	32,999	100
2011	21,413	66	4,630	14	32,479	100
2012	21,906	65	4,986	15	33,782	100
2013	21,361	65	4,691	14	32,894	100
2014	21,131	65	4,302	13	32,744	100
2015	22,741	64	5,026	14	35,485	100
2016	23,957	63	5,337	14	37,806	100
2017	23,866	64	5,229	14	37,473	100
2018	23,046	63	5,038	14	36,835	100
2019	22,416	62	5,014	14	36,096	100

The rate of unlicensed fatally injured motorcycle drivers during 2019 was higher than the rate of unlicensed fatally injured passenger vehicle drivers (31 percent vs. 16 percent).

Passenger vehicle and motorcycle driver deaths by driver's license status, 2008-2019

Year	Passenger vehicle drivers						Motorcycle drivers					
	No valid license		Valid license		Total*		No valid license		Valid license		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
2008	2,702	15	15,399	84	18,266	100	1,280	26	3,656	74	4,970	100
2009	2,407	14	14,294	85	16,834	100	975	23	3,163	76	4,163	100
2010	2,273	14	13,672	85	16,029	100	978	23	3,205	76	4,207	100
2011	2,254	14	13,225	85	15,561	100	1,021	24	3,300	76	4,341	100
2012	2,366	15	13,464	85	15,915	100	1,216	26	3,399	73	4,652	100
2013	2,319	15	13,174	85	15,577	100	1,227	28	3,165	72	4,422	100
2014	2,512	16	12,879	83	15,495	100	1,116	28	2,900	72	4,041	100
2015	2,583	16	13,942	84	16,629	100	1,375	29	3,326	70	4,732	100

*Total includes other and/or unknowns

Passenger vehicle and motorcycle driver deaths by driver's license status, 2008-2019

Year	Passenger vehicle drivers						Motorcycle drivers					
	No valid license		Valid license		Total*		No valid license		Valid license		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
2016	2,866	16	14,660	83	17,641	100	1,445	29	3,516	70	4,998	100
2017	2,928	16	14,703	83	17,751	100	1,514	31	3,390	69	4,941	100
2018	2,781	16	14,359	83	17,263	100	1,404	30	3,270	69	4,724	100
2019	2,718	16	13,946	83	16,783	100	1,487	31	3,201	68	4,733	100

*Total includes other and/or unknowns

Thirty-nine percent of motorcyclist deaths in 2019 occurred in single-vehicle crashes, and 61 percent occurred in multiple-vehicle crashes.

Motorcyclist deaths by crash type, 1975-2019

Year	Single-vehicle		Multiple-vehicle		All crashes*	
	Deaths	%	Deaths	%	Deaths	%
1975	1,149	36	2,025	64	3,180	100
1976	1,247	38	2,042	62	3,306	100
1977	1,579	39	2,503	61	4,099	100
1978	1,720	38	2,831	62	4,574	100
1979	1,919	39	2,957	60	4,892	100
1980	2,067	40	3,046	59	5,138	100
1981	1,952	40	2,920	60	4,896	100
1982	1,844	41	2,605	59	4,449	100
1983	1,835	43	2,425	57	4,260	100
1984	1,925	42	2,677	58	4,602	100
1985	1,928	42	2,634	58	4,562	100
1986	1,929	42	2,637	58	4,566	100
1987	1,661	41	2,373	59	4,034	100
1988	1,518	41	2,143	59	3,661	100

*Total includes other and/or unknowns

Motorcyclist deaths by crash type, 1975-2019

Year	Single-vehicle		Multiple-vehicle		All crashes*	
	Deaths	%	Deaths	%	Deaths	%
1989	1,382	44	1,753	56	3,135	100
1990	1,406	43	1,837	57	3,243	100
1991	1,238	44	1,567	56	2,805	100
1992	1,074	45	1,321	55	2,395	100
1993	1,021	42	1,424	58	2,445	100
1994	981	42	1,336	58	2,317	100
1995	927	42	1,299	58	2,226	100
1996	906	42	1,255	58	2,161	100
1997	898	42	1,218	58	2,116	100
1998	1,013	44	1,281	56	2,294	100
1999	1,098	44	1,385	56	2,483	100
2000	1,270	44	1,625	56	2,895	100
2001	1,422	45	1,773	55	3,195	100
2002	1,495	46	1,772	54	3,267	100
2003	1,569	42	2,141	58	3,710	100
2004	1,754	44	2,272	56	4,026	100
2005	1,971	43	2,599	57	4,575	100
2006	2,082	43	2,722	57	4,810	100
2007	2,262	44	2,910	56	5,174	100
2008	2,394	45	2,909	55	5,307	100
2009	1,987	44	2,478	55	4,467	100
2010	2,023	45	2,494	55	4,517	100
2011	2,088	45	2,542	55	4,630	100
2012	2,133	43	2,853	57	4,986	100
2013	1,938	41	2,753	59	4,691	100
2014	1,799	42	2,503	58	4,302	100
2015	1,994	40	3,032	60	5,026	100

*Total includes other and/or unknowns

Motorcyclist deaths by crash type, 1975-2019

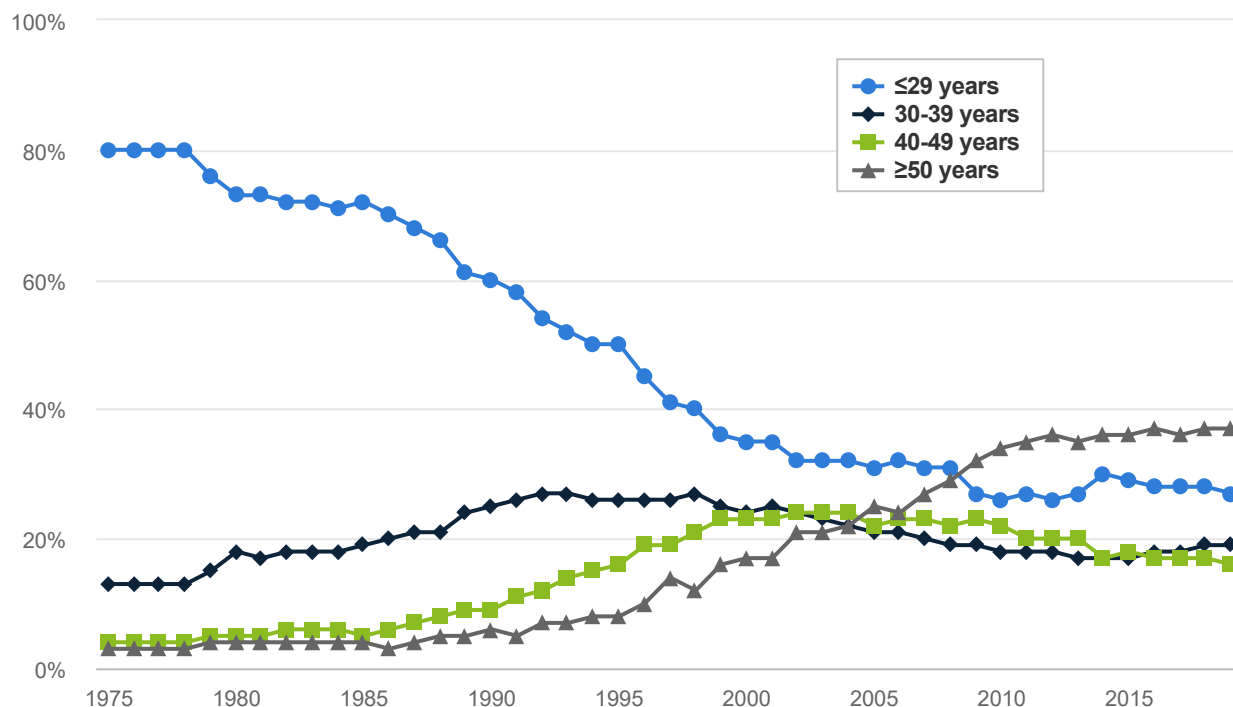
Year	Single-vehicle		Multiple-vehicle		All crashes*	
	Deaths	%	Deaths	%	Deaths	%
2016	2,081	39	3,256	61	5,337	100
2017	1,971	38	3,258	62	5,229	100
2018	1,879	37	3,159	63	5,038	100
2019	1,951	39	3,063	61	5,014	100

*Total includes other and/or unknowns

Age and sex

In the late 1970s the proportion of fatally injured motorcyclists who were 50 and older started to increase, rising from 3 percent of all rider deaths in 1975 to 14 percent in 1997 and 37 percent in 2019. In contrast, 27 percent of the fatally injured motorcyclists in 2019 were younger than 30, compared with 80 percent in 1975.

Percentage of motorcyclist deaths by age, 1975-2019



Motorcyclist deaths by age, 1975-2019

Year	≤29 years		30-39 years		40-49 years		≥50 years		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%
1975	2,538	80	428	13	129	4	81	3	3,180	100
1976	2,631	80	429	13	143	4	101	3	3,306	100
1977	3,279	80	537	13	149	4	129	3	4,099	100
1978	3,639	80	613	13	185	4	130	3	4,574	100
1979	3,732	76	747	15	233	5	173	4	4,892	100
1980	3,756	73	918	18	278	5	182	4	5,138	100
1981	3,594	73	850	17	262	5	181	4	4,896	100
1982	3,210	72	808	18	253	6	167	4	4,449	100
1983	3,074	72	776	18	239	6	165	4	4,260	100
1984	3,285	71	833	18	275	6	195	4	4,602	100
1985	3,265	72	861	19	247	5	184	4	4,562	100
1986	3,218	70	913	20	268	6	156	3	4,566	100

*Total includes other and/or unknowns

Motorcyclist deaths by age, 1975-2019

Year	≤29 years		30-39 years		40-49 years		≥50 years		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%
1987	2,727	68	853	21	286	7	168	4	4,034	100
1988	2,426	66	774	21	290	8	170	5	3,661	100
1989	1,927	61	760	24	288	9	157	5	3,135	100
1990	1,961	60	816	25	277	9	188	6	3,243	100
1991	1,629	58	728	26	296	11	151	5	2,805	100
1992	1,299	54	652	27	280	12	164	7	2,395	100
1993	1,267	52	665	27	335	14	176	7	2,445	100
1994	1,168	50	607	26	346	15	195	8	2,317	100
1995	1,103	50	576	26	359	16	188	8	2,226	100
1996	965	45	555	26	420	19	221	10	2,161	100
1997	860	41	556	26	405	19	294	14	2,116	100
1998	921	40	612	27	475	21	285	12	2,294	100
1999	898	36	612	25	570	23	403	16	2,483	100
2000	1,006	35	706	24	677	23	501	17	2,895	100
2001	1,134	35	798	25	729	23	532	17	3,195	100
2002	1,042	32	780	24	769	24	674	21	3,267	100
2003	1,179	32	837	23	903	24	789	21	3,710	100
2004	1,297	32	875	22	971	24	883	22	4,026	100
2005	1,441	31	975	21	1,027	22	1,131	25	4,575	100
2006	1,524	32	1,000	21	1,107	23	1,178	24	4,810	100
2007	1,581	31	1,043	20	1,173	23	1,372	27	5,174	100
2008	1,620	31	989	19	1,178	22	1,518	29	5,307	100
2009	1,186	27	851	19	1,016	23	1,411	32	4,467	100
2010	1,171	26	814	18	996	22	1,535	34	4,517	100
2011	1,228	27	827	18	944	20	1,630	35	4,630	100
2012	1,290	26	913	18	990	20	1,792	36	4,986	100
2013	1,281	27	817	17	953	20	1,640	35	4,691	100

*Total includes other and/or unknowns

Motorcyclist deaths by age, 1975-2019

Year	≤29 years		30-39 years		40-49 years		≥50 years		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%
2014	1,276	30	725	17	747	17	1,553	36	4,302	100
2015	1,477	29	855	17	884	18	1,808	36	5,026	100
2016	1,508	28	963	18	905	17	1,955	37	5,337	100
2017	1,481	28	964	18	892	17	1,889	36	5,229	100
2018	1,396	28	934	19	864	17	1,844	37	5,038	100
2019	1,377	27	952	19	811	16	1,872	37	5,014	100

*Total includes other and/or unknowns

Ninety-one percent of motorcyclists killed in 2019 were males.

Motorcyclist deaths by age and sex, 2019

Age	Male		Female		Total*	
	Number	%	Number	%	Number	%
<16	21	75	7	25	28	100
16-19	130	94	9	6	139	100
20-24	499	93	37	7	536	100
25-29	629	93	45	7	674	100
30-34	472	94	29	6	502	100
35-39	411	91	39	9	450	100
40-44	346	92	30	8	376	100
45-49	385	89	50	11	435	100
50-54	416	88	57	12	473	100
55-59	446	88	62	12	508	100
60-69	587	92	52	8	640	100
≥70	241	96	10	4	251	100
Total*	4,583	91	429	9	5,014	100

*Total includes other and/or unknowns

Sixty percent of the female motorcyclists who died in crashes in 2019 were passengers, and their deaths represented 91 percent of the passenger deaths. The vast majority of male motorcyclists who died were drivers.

Motorcyclist deaths by person type and sex, 2019				
Person type	Male		Female	
	Number	%	Number	%
Driver	4,559	99	172	40
Passenger	24	1	257	60
Total*	4,583	100	429	100

*Total includes other and/or unknowns

Helmet use

In 2019, 61 percent of fatally injured motorcycle drivers were helmeted. Helmet use was lower, at 47 percent, for people killed as passengers on motorcycles.

Helmet use of fatally injured motorcycle drivers and passengers, 2019								
	Helmet		No helmet		Unknown		Total	
	Number	%	Number	%	Number	%	Number	%
Driver	2,881	61	1,685	36	167	3	4,733	100
Passenger	132	47	136	48	13	4	281	100
Total*	3,013	60	1,821	36	180	3	5,014	100

*Total includes other and/or unknowns

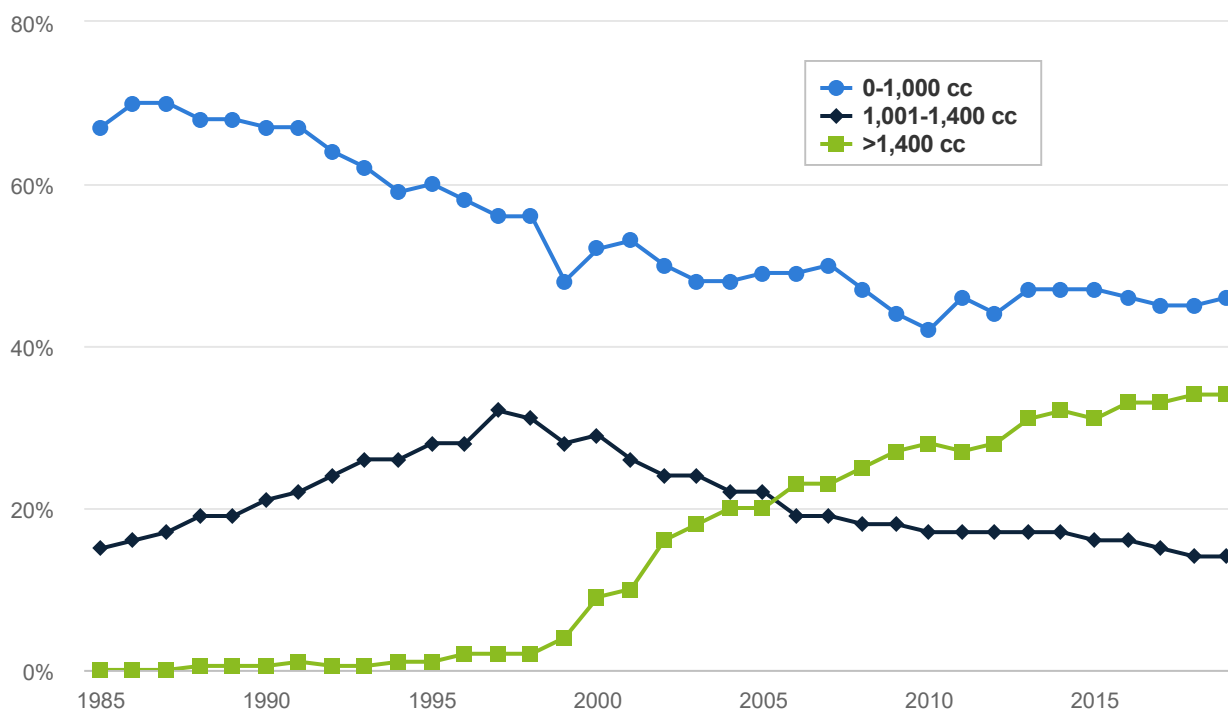
In 2019, 88 percent of fatally injured motorcyclists were helmeted in states with helmet laws that cover all riders, in contrast to only 28 percent in states with no helmet law. In states with helmet laws that cover only some riders, 41 percent of fatally injured motorcyclists were helmeted.

Helmet use of fatally injured motorcyclists by helmet law status, 2019								
	Helmet		No helmet		Unknown		Total	
	Number	%	Number	%	Number	%	Number	%
No law	61	28	149	70	2	0	212	100
Partial law	1,135	41	1,511	55	94	3	2,740	100
Universal law	1,817	88	161	8	84	4	2,062	100
Total	3,013	60	1,821	36	180	3	5,014	100

Motorcycle type and engine size

Engine sizes of motorcycles whose drivers were killed in crashes have gone up dramatically. Among motorcycle drivers killed in 2019, 34 percent drove motorcycles with engine sizes larger than 1,400 cc, compared with 9 percent in 2000 and less than 1 percent in 1990.

Percentage of motorcycle driver deaths by motorcycle engine size, 1985-2019



Motorcycle driver deaths by motorcycle engine size, 1985-2019							
Year	0-1,000 cc		1,001-1,400 cc		>1,400 cc		Total*
	Number	%	Number	%	Number	%	Number
1985	2,682	67	614	15	0	0	4,021
1986	2,822	70	625	16	0	0	4,019
1987	2,515	70	602	17	0	0	3,590
1988	2,219	68	617	19	6	<1	3,281
1989	1,879	68	539	19	3	<1	2,780
1990	1,937	67	620	21	5	<1	2,895
1991	1,672	67	556	22	13	1	2,496
1992	1,389	64	522	24	8	<1	2,172
1993	1,371	62	586	26	11	<1	2,212
1994	1,244	59	540	26	15	1	2,092
1995	1,215	60	568	28	22	1	2,020
1996	1,135	58	552	28	38	2	1,962
1997	1,079	56	618	32	33	2	1,937
1998	1,169	56	650	31	46	2	2,089
1999	1,099	48	644	28	99	4	2,286
2000	1,371	52	779	29	234	9	2,651
2001	1,553	53	781	26	309	10	2,953
2002	1,506	50	737	24	482	16	3,031
2003	1,641	48	830	24	614	18	3,423
2004	1,797	48	813	22	724	20	3,711
2005	2,092	49	932	22	865	20	4,253
2006	2,200	49	862	19	1,018	23	4,492
2007	2,425	50	917	19	1,120	23	4,853
2008	2,360	47	877	18	1,245	25	4,970
2009	1,847	44	736	18	1,144	27	4,163
2010	1,772	42	731	17	1,182	28	4,207

*Total includes other and/or unknowns

Motorcycle driver deaths by motorcycle engine size, 1985-2019

Year	0-1,000 cc		1,001-1,400 cc		>1,400 cc		Total*
	Number	%	Number	%	Number	%	Number
2011	1,980	46	755	17	1,183	27	4,341
2012	2,027	44	791	17	1,316	28	4,652
2013	1,951	47	692	17	1,276	31	4,126
2014	1,888	47	679	17	1,290	32	4,035
2015	2,065	47	727	16	1,384	31	4,415
2016	2,131	46	765	16	1,548	33	4,653
2017	2,178	45	730	15	1,595	33	4,885
2018	2,081	45	669	14	1,582	34	4,675
2019	2,164	46	672	14	1,615	34	4,733

*Total includes other and/or unknowns

Among the motorcycles whose drivers were killed in 2019, 92 percent of touring bikes had engines larger than 1,400 cc, while virtually all supersport bikes had engine sizes of 1,000 cc or smaller.

Fatally injured motorcycle drivers by motorcycle type and engine size, 2019

	0-1,000 cc		1,001-1,400 cc		>1,400 cc		Total *	
	Number	%	Number	%	Number	%	Number	%
Cruiser/standard	406	27	397	27	680	46	1,483	100
Touring	4	<1	81	8	915	92	1,000	100
Sport-touring	17	44	22	56	0	0	39	100
Sport/unclad sport	418	76	129	23	6	1	553	100
Supersport	985	99	12	1	0	0	997	100
Off-road	61	100	0	0	0	0	61	100
Other/unknown	279	46	31	5	14	2	600	100
Total	2,170	46	672	14	1,615	34	4,733	100

*Total includes other and/or unknowns

Among fatally injured motorcycle drivers in 2019, 82 percent of cruiser or standard

motorcycle drivers were 30 or older, as were 93 percent of touring bike drivers. In contrast, 52 percent of fatally injured supersport drivers in 2019 were younger than 30.

Fatally injured motorcycle drivers by age and motorcycle type, 2019

	<30 years		30-39 years		40-49 years		50+ years		Total *	
	Number	%	Number	%	Number	%	Number	%	Number	%
Cruiser/standard	260	18	254	17	264	18	705	48	1,483	100
Touring	70	7	101	10	170	17	659	66	1,000	100
Sport-touring	1	3	2	5	2	5	34	87	39	100
Sport/unclad sport	257	46	160	29	80	14	56	10	553	100
Supersport	519	52	296	30	138	14	44	4	997	100
Off-road	43	70	8	13	4	7	6	10	61	100
Other/unknown	157	26	91	15	98	16	254	42	600	100
Total	1,307	28	912	19	756	16	1,758	37	4,733	100

*Total includes other and/or unknowns

At 81 percent, helmet use was highest among fatally injured drivers of supersport motorcycles in 2019, followed closely by sport/unclad sport at 76 percent and sport-touring at 71 percent. About half of fatally injured drivers of touring motorcycles and of cruisers or standard motorcycles were helmeted.

Helmet use of fatally injured motorcycle drivers by motorcycle type, 2019

	Helmet		No helmet		Unknown		Total	
	Number	%	Number	%	Number	%	Number	%
Cruiser/standard	816	55	628	42	39	3	1,483	100
Touring	496	50	474	47	30	3	1,000	100
Sport-touring	28	71	10	26	1	3	39	100
Sport/unclad sport	417	76	120	22	16	3	553	100
Supersport	801	81	157	16	39	4	997	100
Off-road	18	30	40	66	3	5	61	100
Other	168	55	131	43	8	3	307	100

Helmet use of fatally injured motorcycle drivers by motorcycle type, 2019

	Helmet		No helmet		Unknown		Total	
	Number	%	Number	%	Number	%	Number	%
Unknown	137	46	125	43	31	11	293	100
Total	2,881	61	1,685	36	167	3	4,733	100

When and where they died

Sixty-three percent of motorcyclist deaths in 2019 occurred during May-September. Fatalities peaked in August and were lowest in January.

Motorcyclist deaths by month, 2019

Month	Deaths	%
January	142	3
February	176	4
March	328	7
April	418	8
May	581	12
June	630	13
July	647	13
August	673	13
September	616	12
October	386	8
November	245	5
December	172	3
Total	5,014	100

Forty-eight percent of motorcyclist deaths in 2019 occurred on weekends, and those deaths were more likely to occur after 6 p.m. compared with weekdays.

Motorcyclist deaths by time of day, 2019					
	Weekend (6 p.m. Friday - 6 a.m. Monday)		Other times		Total
	Number	%	Number	%	
Midnight - 3 a.m.	269	11	158	6	427
3 a.m. - 6 a.m.	93	4	95	3	188
6 a.m. - 9 a.m.	65	3	227	8	292
9 a.m. - noon	189	8	206	8	395
Noon - 3 p.m.	337	14	473	19	810
3 p.m. - 6 p.m.	405	16	618	24	1,023
6 p.m. - 9 p.m.	601	25	459	17	1,060
9 p.m. - midnight	422	17	362	13	784
Total*	2,390	100	2,624	100	5,014

*Total includes other and/or unknowns

Fifty-four percent of motorcyclist deaths in 2019 occurred on major roads other than interstates and freeways. Deaths were more likely to occur in urban than rural areas (61 percent vs. 38 percent).

Motorcyclist deaths by location of crash, 2019						
Road Type	Urban		Rural		Total*	
	Number	%	Number	%	Number	%
Interstates and freeways	479	10	115	2	594	12
Non-interstate major roads	1,842	37	842	17	2,684	54
Minor roads	735	15	969	19	1,704	34
Total*	3,061	61	1,926	38	5,014	100

*Total includes other and/or unknowns

Alcohol involvement

Twenty-nine percent of fatally injured motorcycle drivers in 2019 had a blood alcohol concentration (BAC) at or above 0.08 percent; in single-vehicle crashes this was 42 percent.

Estimated number and percent of fatally injured motorcycle drivers with high BACs by crash type, 2019					
Crash type	Deaths	Estimated deaths with BACs \geq 0.08		Estimated deaths with BACs \geq 0.15	
	Number	Number	%	Number	%
Single-vehicle	1,840	775	42	523	28
Multiple-vehicle	2,893	608	21	331	11
All crashes	4,733	1,383	29	854	18

Fifty percent of motorcycle drivers killed at night (9 p.m. - 6 a.m.) in 2019 had BACs at or above 0.08 percent.

Estimated number and percent of fatally injured motorcycle drivers with high BACs by time of day, 2019					
Time of day	Deaths	Estimated deaths with BACs \geq 0.08		Estimated deaths with BACs \geq 0.15	
	Number	Number	%	Number	%
Nighttime (9 p.m. - 6 a.m.)	1,322	666	50	433	33
Other times	3,411	717	21	421	12
Total	4,733	1,383	29	854	18

ATVs

Deaths of ATV riders on public roads have increased dramatically since 1982, the first year they were explicitly identified in FARS. The proportion of fatally injured ATV riders who were 40 and older increased from 9 percent in 1982 to 47 percent in 2019. The proportion younger than age 20 decreased from 54 percent in 1982 to 17 percent in 2019. These data focus on straddle-type ATVs, as opposed to side-by-side models that have increased in popularity recently.

Deaths of ATV rider on public roads by age, 1982-2019

Year	<13 years		13-19 years		20-29 years		30-39 years		40-49 years		50+ years		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1982	6	17	13	37	7	20	6	17	0	0	3	9	35	100
1983	2	5	18	43	12	29	5	12	2	5	3	7	42	100
1984	4	9	17	36	14	30	6	13	5	11	1	2	47	100
1985	9	20	20	43	12	26	1	2	1	2	3	7	46	100
1986	11	18	20	33	21	34	6	10	1	2	2	3	61	100
1987	12	16	18	24	23	31	10	14	6	8	5	7	74	100
1988	14	18	26	34	21	27	7	9	5	6	4	5	77	100
1989	13	14	39	41	21	22	10	11	6	6	6	6	95	100
1990	12	10	44	36	37	31	13	11	8	7	7	6	121	100
1991	10	8	34	29	42	36	18	15	6	5	8	7	118	100
1992	8	7	44	37	39	33	12	10	4	3	12	10	119	100
1993	11	11	42	41	23	23	20	20	2	2	4	4	102	100
1994	10	9	42	37	31	27	12	11	8	7	10	9	113	100
1995	9	9	34	33	32	31	12	12	4	4	11	11	102	100
1996	16	11	44	30	43	29	23	16	6	4	16	11	148	100
1997	10	8	47	36	33	25	18	14	5	4	17	13	130	100

*Total includes other and/or unknowns

Deaths of ATV rider on public roads by age, 1982-2019

Year	<13 years		13-19 years		20-29 years		30-39 years		40-49 years		50+ years		Total*	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1998	17	12	55	37	29	20	23	16	12	8	11	7	147	100
1999	13	8	60	35	46	27	26	15	11	6	17	10	173	100
2000	12	6	73	34	63	30	30	14	18	8	17	8	213	100
2001	19	8	69	31	51	23	46	21	19	8	20	9	224	100
2002	21	8	69	28	69	28	39	16	21	8	31	12	250	100
2003	22	7	83	28	73	24	49	16	43	14	31	10	301	100
2004	22	7	99	29	101	30	39	12	33	10	43	13	337	100
2005	29	9	87	26	89	26	46	14	40	12	46	14	337	100
2006	16	4	95	26	102	28	61	17	41	11	47	13	362	100
2007	17	5	79	21	116	32	60	16	60	16	36	10	368	100
2008	24	6	83	22	98	26	65	17	46	12	61	16	377	100
2009	16	5	70	21	81	24	54	16	61	18	53	16	335	100
2010	16	5	51	16	66	21	47	15	56	18	80	25	316	100
2011	10	3	47	15	74	24	54	18	54	18	66	22	305	100
2012	15	5	40	13	79	26	56	18	53	17	61	20	304	100
2013	14	4	48	15	73	23	61	19	48	15	76	24	320	100
2014	18	6	37	11	81	25	64	20	46	14	79	24	325	100
2015	19	6	42	13	73	22	53	16	50	15	97	29	334	100
2016	15	4	51	14	81	23	60	17	49	14	98	28	354	100
2017	14	5	51	17	70	23	44	15	36	12	88	29	303	100
2018	12	5	29	12	45	19	42	17	47	19	68	28	243	100
2019	8	3	36	14	49	19	44	17	33	13	89	34	259	100

*Total includes other and/or unknowns

Five percent of fatally injured ATV riders wore helmets in 2019.

Helmet use among fatally injured ATV riders on public roads, 2019

	No helmet	Helmet	Total
--	-----------	--------	-------

	Number	%	Number	%	Number	%
Driver	224	98	5	2	229	100
Passenger	27	100	0	0	27	100
Unknown	3	100	0	0	3	100
Total	254	98	5	2	259	100

Seventy-three percent of fatally injured ATV riders were killed in crashes involving no other vehicles in 2019, compared with 44 percent of passenger vehicle occupants killed in crashes.

Crash deaths by number of involved vehicles and vehicle type, 2019						
Crash type	ATV riders		Motorcyclists		Passenger vehicle occupants	
	Number	%	Number	%	Number	%
Single-vehicle	188	73	1,951	39	9,973	44
Multiple-vehicle	71	27	3,063	61	12,443	56
All crashes	259	100	5,014	100	22,416	100

Among ATV riders killed in single-vehicle crashes in 2019, 66 percent involved the ATV rolling over during the crash. This was comparable with SUVs and large trucks, but higher than cars (41 percent).

Occupant deaths in single-vehicle crashes by rollover, 2019						
	Rollover		No rollover		Total	
	Number	%	Number	%	Number	%
ATV	124	66	64	34	188	100
Car	1,949	41	2,848	59	4,797	100
SUV	1,547	59	1,097	41	2,644	100
Pickup	1,297	54	1,108	46	2,405	100
Large trucks	238	64	135	36	373	100

ATV rider deaths on public roads in 2019 were highest in May. Fifty-eight percent of the deaths in 2019 occurred during May-September.

ATV rider deaths on public roads by month, 2019		
	Deaths	%
January	14	5
February	7	3
March	15	6
April	24	9
May	34	13
June	26	10
July	30	12
August	31	12
September	30	12
October	21	8
November	16	6
December	11	4
Total	259	100

Seventy-seven percent of ATV riders killed on public roads in 2019 were on rural roads. Of those, 90 percent were on minor roads.

ATV rider deaths by road type and land use, 2019						
Road type	Urban		Rural		Total*	
	Number	%	Number	%	Number	%
Non-interstate major roads	11	4	19	7	30	12
Minor roads	36	14	179	69	215	83
Total*	48	19	200	77	259	100

*Total includes other and/or unknowns

In 2019, 46 percent of fatally injured ATV drivers on public roads had BACs at or above 0.08 percent. Impairment was highest at 72 percent among fatally injured ATV drivers ages 40-49.

Estimated number and percent of fatally injured ATV drivers with high BACs on public roads by age, 2019

Age	Deaths	Estimated deaths with BACs \geq 0.08		Estimated deaths with BACs \geq 0.15	
	Number	Number	%	Number	%
<20	30	4	12	1	4
20-29	43	24	55	13	31
30-39	39	22	56	14	35
40-49	31	22	72	19	62
50+	86	34	40	30	35
Total	229	105	46	78	34

Footnotes

1

National Highway Traffic Safety Administration. 2021. Traffic safety facts, 2019: motorcycles. Report no. DOT HS-813-112. Washington, DC: US Department of Transportation.

[↑ \(#fn1ref1\)](#)

2

Deutermann, W. 2004. Motorcycle helmet effectiveness revisited. Report no. DOT HS-809-715. Washington, DC: National Highway Traffic Safety Administration.

[↑ \(#fn2ref1\)](#)

3

National Highway Traffic Safety Administration. 2008. Traffic safety facts, laws: motorcycle helmet use laws. Report no. DOT HS-810-887W. Washington, DC: U.S. Department of Transportation.

[↑ \(#fn3ref1\)](#)

The **Insurance Institute for Highway Safety (IIHS)** is an independent, nonprofit scientific and educational organization dedicated to reducing deaths, injuries and property damage from motor vehicle crashes through research and evaluation and through education of consumers, policymakers and safety professionals.

The **Highway Loss Data Institute (HLDI)** shares and supports this mission through scientific studies of insurance data representing the human and economic losses resulting from the ownership and operation of different types of vehicles and by publishing insurance loss results by vehicle make and model.

Both organizations are wholly supported by [these auto insurers and insurance associations \(/about-us/member-groups\)](#) .

©1996- 2021, Insurance Institute for Highway Safety, Highway Loss Data Institute, 501(c)(3) organizations | [Copyright information and privacy policy \(/copyright-information-and-privacy-policy\)](#)