Tennessee Motorcycle Crash Statistics, CY 2016 – 2021

TITAN Business Unit

October 2022

LIST OF TABLES

Table 1: Class M Licenses by County, CY 2016 – 2021

County Name	2016	2017	2018	2019	2020	2021	Annual Average	Percent Change	Average Annual Change
Anderson	5,708	5,917	5,934	5,879	5,928	6,112	5,913	6.6%	1.3%
Bedford	2,789	2,991	3,051	3,115	3,173	3,295	3,069	15.4%	3.1%
Benton	1,212	1,277	1,301	1,291	1,301	1,354	1,289	10.5%	2.1%
Bledsoe	812	855	895	884	915	963	887	15.7%	3.1%
Blount	10,538	11,166	11,396	11,655	11,925	12,491	11,529	15.6%	3.1%
Bradley	6,827	7,204	7,303	7,388	7,402	7,631	7,293	10.5%	2.1%
Campbell	2,331	2,459	2,471	2,480	2,516	2,666	2,487	12.6%	2.5%
Cannon	843	913	926	945	929	996	925	15.4%	3.1%
Carroll	1,828	1,930	1,940	1,954	1,937	1,980	1,928	7.7%	1.5%
Carter	4,217	4,466	4,461	4,511	4,542	4,729	4,488	10.8%	2.2%
Cheatham	3,359	3,533	3,557	3,631	3,682	3,822	3,597	12.1%	2.4%
Chester	922	979	996	1,023	1,037	1,056	1,002	12.7%	2.5%
Claiborne	1,944	2,056	2,092	2,126	2,147	2,228	2,099	12.7%	2.5%
Clay	506	514	516	520	527	553	523	8.5%	1.7%
Cocke	2,434	2,607	2,642	2,705	2,745	2,869	2,667	15.2%	3.0%
Coffee	3,720	3,942	4,000	4,012	4,035	4,251	3,993	12.5%	2.5%
Crockett	625	663	639	627	624	641	637	2.5%	0.5%
Cumberland	4,544	4,878	5,031	5,210	5,431	5,781	5,146	21.4%	4.3%
Davidson	23,525	24,985	25,145	25,087	25,142	25,882	24,961	9.1%	1.8%
Decatur	736	778	791	814	824	874	803	15.8%	3.2%
DeKalb	1,201	1,281	1,313	1,333	1,382	1,431	1,324	16.1%	3.2%
Dickson	3,548	3,757	3,822	3,907	3,972	4,117	3,854	13.8%	2.8%
Dyer	1,740	1,834	1,786	1,802	1,768	1,768	1,783	1.6%	0.3%
Fayette	2,424	2,589	2,668	2,698	2,760	2,832	2,662	14.4%	2.9%
Fentress	1,120	1,202	1,248	1,284	1,340	1,438	1,272	22.1%	4.4%
Franklin	2,896	3,123	3,166	3,230	3,253	3,414	3,180	15.2%	3.0%
Gibson	2,813	2,961	2,962	2,993	2,975	3,049	2,959	7.7%	1.5%
Giles	2,099	2,197	2,222	2,228	2,260	2,354	2,227	10.8%	2.2%
Grainger	1,703	1,813	1,842	1,881	1,915	1,980	1,856	14.0%	2.8%
Greene	5,558	5,883	5,955	6,025	6,135	6,424	5,997	13.5%	2.7%
Grundy	681	742	745	763	776	824	755	17.4%	3.5%
Hamblen	3,725	3,947	3,936	3,961	3,968	4,101	3,940	9.2%	1.8%
Hamilton	17,983	19,125	19,398	19,552	19,691	20,513	19,377	12.3%	2.5%
Hancock	330	342	337	327	335	352	337	6.3%	1.3%
Hardeman	877	905	901	880	882	895	890	2.0%	0.4%

County Name	2016	2017	2018	2019	2020	2021	Annual Average	Percent Change	Average Annual Change
Hardin	1,561	1,662	1,638	1,626	1,631	1,724	1,640	9.5%	1.9%
Hawkins	4,788	5,090	5,121	5,206	5,273	5,501	5,163	13.0%	2.6%
Haywood	511	530	526	532	532	539	528	5.2%	1.0%
Henderson	1,506	1,560	1,576	1,573	1,575	1,617	1,568	6.9%	1.4%
Henry	2,426	2,581	2,602	2,640	2,691	2,839	2,630	14.5%	2.9%
Hickman	1,540	1,647	1,647	1,668	1,726	1,816	1,674	15.2%	3.0%
Houston	509	535	525	527	532	549	530	7.3%	1.5%
Humphreys	1,278	1,364	1,378	1,368	1,377	1,412	1,363	9.5%	1.9%
Jackson	845	913	937	950	971	1,030	941	18.0%	3.6%
Jefferson	3,865	4,144	4,281	4,397	4,532	4,732	4,325	18.3%	3.7%
Johnson	1,423	1,512	1,520	1,544	1,561	1,651	1,535	13.8%	2.8%
Knox	23,584	24,992	25,334	25,802	26,189	27,288	25,532	13.6%	2.7%
Lake	203	207	199	198	200	204	202	0.5%	0.1%
Lauderdale	819	860	844	828	807	813	829	-0.7%	-0.1%
Lawrence	2,706	2,827	2,839	2,827	2,835	2,959	2,832	8.6%	1.7%
Lewis	868	907	890	909	925	965	911	10.1%	2.0%
Lincoln	1,998	2,131	2,188	2,217	2,287	2,442	2,211	18.2%	3.6%
Loudon	4,040	4,322	4,476	4,611	4,783	5,041	4,546	19.9%	4.0%
McMinn	3,727	3,917	3,976	4,047	4,102	4,310	4,013	13.5%	2.7%
McNairy	1,292	1,370	1,403	1,415	1,424	1,498	1,400	13.8%	2.8%
Macon	1,308	1,389	1,421	1,437	1,482	1,572	1,435	16.8%	3.4%
Madison	4,092	4,320	4,277	4,339	4,324	4,400	4,292	7.0%	1.4%
Marion	2,005	2,117	2,175	2,197	2,246	2,373	2,186	15.5%	3.1%
Marshall	2,179	2,328	2,378	2,446	2,481	2,567	2,397	15.1%	3.0%
Maury	6,487	6,850	6,992	7,087	7,314	7,635	7,061	15.0%	3.0%
Meigs	901	948	961	978	1,005	1,062	976	15.2%	3.0%
Monroe	3,219	3,415	3,485	3,640	3,735	3,955	3,575	18.6%	3.7%
Montgomery	14,793	16,708	16,849	17,058	17,426	18,522	16,893	20.1%	4.0%
Moore	484	515	523	528	527	545	520	11.2%	2.2%
Morgan	1,297	1,375	1,394	1,416	1,432	1,509	1,404	14.0%	2.8%
Obion	1,960	2,057	2,048	2,004	1,963	2,002	2,006	2.1%	0.4%
Overton	1,485	1,578	1,613	1,648	1,681	1,758	1,627	15.5%	3.1%
Perry	568	594	584	578	579	607	585	6.4%	1.3%
Pickett	411	428	447	447	456	470	443	12.6%	2.5%
Polk	1,289	1,323	1,290	1,312	1,339	1,389	1,324	7.2%	1.4%
Putnam	5,038	5,299	5,347	5,470	5,555	5,812	5,420	13.3%	2.7%
Rhea	2,156	2,283	2,298	2,332	2,364	2,469	2,317	12.7%	2.5%
Roane	3,957	4,164	4,213	4,353	4,464	4,651	4,300	14.9%	3.0%
Robertson	4,805	5,112	5,152	5,209	5,270	5,466	5,169	12.1%	2.4%

County Name	2016	2017	2018	2019	2020	2021	Annual Average	Percent Change	Average Annual Change
Rutherford	16,312	17,402	17,698	18,019	18,372	18,935	17,790	13.9%	2.8%
Scott	896	982	986	1,018	1,033	1,109	1,004	19.2%	3.8%
Sequatchie	1,171	1,216	1,239	1,226	1,271	1,338	1,244	12.5%	2.5%
Sevier	7,631	8,188	8,206	8,290	8,396	8,663	8,229	11.9%	2.4%
Shelby	21,440	22,774	22,878	22,925	22,706	23,125	22,641	7.3%	1.5%
Smith	1,257	1,340	1,374	1,393	1,431	1,489	1,381	15.6%	3.1%
Stewart	1,108	1,215	1,256	1,296	1,328	1,389	1,265	20.2%	4.0%
Sullivan	12,693	13,379	13,432	13,569	13,629	14,035	13,456	9.6%	1.9%
Sumner	11,197	11,996	12,108	12,355	12,621	13,139	12,236	14.8%	3.0%
Tipton	3,261	3,438	3,422	3,398	3,392	3,461	3,395	5.8%	1.2%
Trousdale	486	534	546	560	580	608	552	20.1%	4.0%
Unicoi	1,399	1,466	1,456	1,468	1,482	1,533	1,467	8.7%	1.7%
Union	1,254	1,352	1,418	1,472	1,505	1,561	1,427	19.7%	3.9%
Van Buren	425	464	462	477	494	523	474	18.7%	3.7%
Warren	2,389	2,473	2,524	2,548	2,578	2,676	2,531	10.7%	2.1%
Washington	8,388	8,851	8,948	9,046	9,141	9,583	8,993	12.5%	2.5%
Wayne	940	994	1,001	1,005	1,002	1,032	996	8.9%	1.8%
Weakley	1,921	1,990	1,974	1,959	1,978	2,043	1,978	6.0%	1.2%
White	1,858	1,995	2,035	2,081	2,131	2,227	2,055	16.6%	3.3%
Williamson	11,459	12,118	12,503	12,810	13,094	13,658	12,607	16.1%	3.2%
Wilson	9,504	10,136	10,329	10,529	10,776	11,258	10,422	15.6%	3.1%
Unknown	-	-	261	235	168	152	204	N/A	N/A
TOTAL	363,030	385,991	390,791	395,764	400,878	416,897	392,225	12.9%	2.6%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (A-List).

Table 2: Crashes Involving Motorcycle Units by Year, CY 2016 – 2021

Year	Crashes	Percent Change
2016	3,119	8.3%
2017	2,989	-4.2%
2018	2,702	-9.6%
2019	2,773	2.6%
2020	2,669	-3.8%
2021	2,875	7.7%
TOTAL	17,127	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Count of Crashes Involving a Motorcycle and Percent Change by Year, CY 2016 - 2021
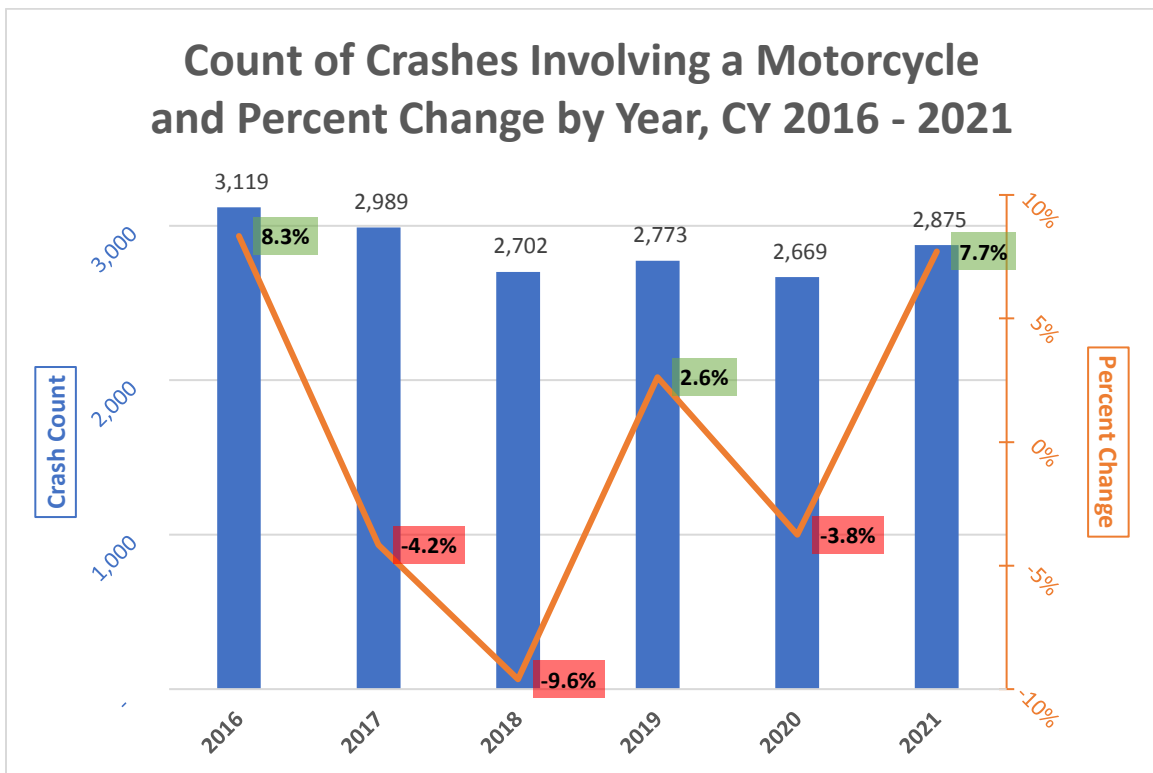
Motorcycle crash counts have decreased since 2016. This decrease could be the result of the increased education for and awareness of motorcycles on the road. Additionally, COVID-19 may have played a role in changes in behavior that has resulted in a decrease in crashes.

Table 3: Fatalities by Victim Vehicle Type in Crashes Involving Motorcycles, CY 2016 – 2021

Classification	Year	2016	2017	2018	2019	2020	2021	TOTAL
Motorcycle	ATV	-	-	-	1	1	-	2
Motorcycle	Motorcycle	141	130	168	148	143	160	890
Motorcycle	Moped	3	2	-	2	4	2	13
Motorcycle	Other Motorcycle Type	1	-	-	3	3	2	9
Motorcyclist Fatalities Total		145	132	168	154	151	164	914
Other	Not Applicable/Pedestrian	2	1	-	3	3	1	10
Other	Passenger Car	-	1	-	1	-	3	5
Other	SUV	1	-	1	-	-	1	3
Other	Van	-	-	-	-	-	1	1
Other Vehicle Fatalities Total		3	2	1	4	3	6	19
All Fatalities Total		148	134	169	158	154	170	933

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (FTS).

PLEASE NOTE: Motorcyclist Fatalities Total refers to fatalities where the victim's vehicle is associated with a vehicle classified as a motorcycle.

**Table 4: Crashes Involving a Motorcycle Unit by Crash Type, CY 2016 – 2021**

Year	2016	2017	2018	2019	2020	2021	TOTAL
Fatal Crash	143	133	167	152	151	161	**907**
Suspected Serious Injury Crash	688	643	604	636	666	686	**3,923**
Suspected Minor Injury Crash	981	926	877	893	864	904	**5,445**
Possible Injury Crash	623	580	457	458	437	464	**3,019**
PD > Threshold* Crash	684	707	597	634	551	660	**3,833**
TOTAL	**3,119**	**2,989**	**2,702**	**2,773**	**2,669**	**2,875**	**17,127**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

PLEASE NOTE:

1) The above table count reflects crashes where a motorcycle unit was involved. The type of crash reflects the most severe injury at the crash, not the injury level of the motorcyclist.

2) * denotes that threshold changed from $400 to $1,500 during this five-year period. This definition, PD>Threshold, will be used for the remainder of this document and reflects this change in threshold during the five-year period of CY 2016 - 2021.
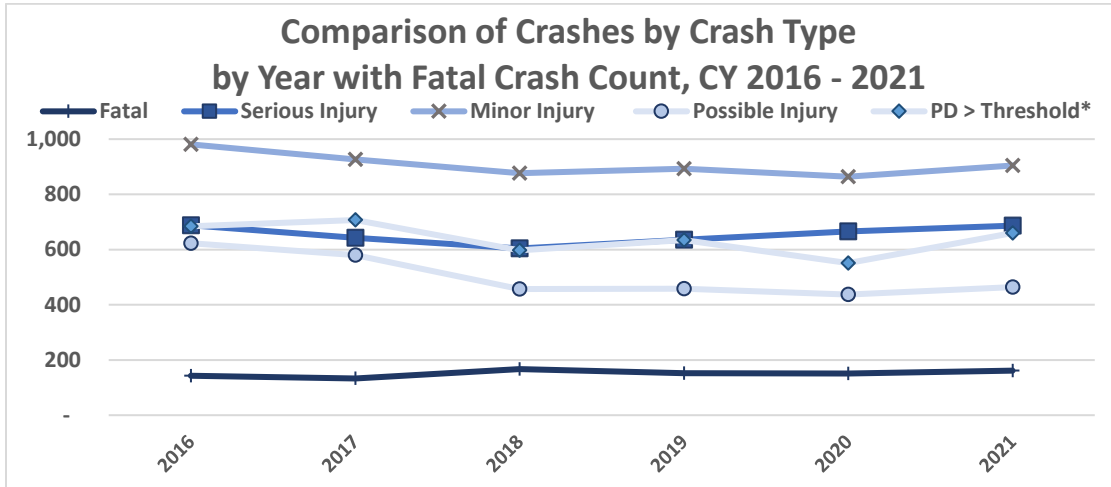
The graph above shows the frequency of the crash types in motorcycle-involved crashes. The leading crash type is minor injury. Serious injury and property damage over the threshold are second and third, depending on the year.
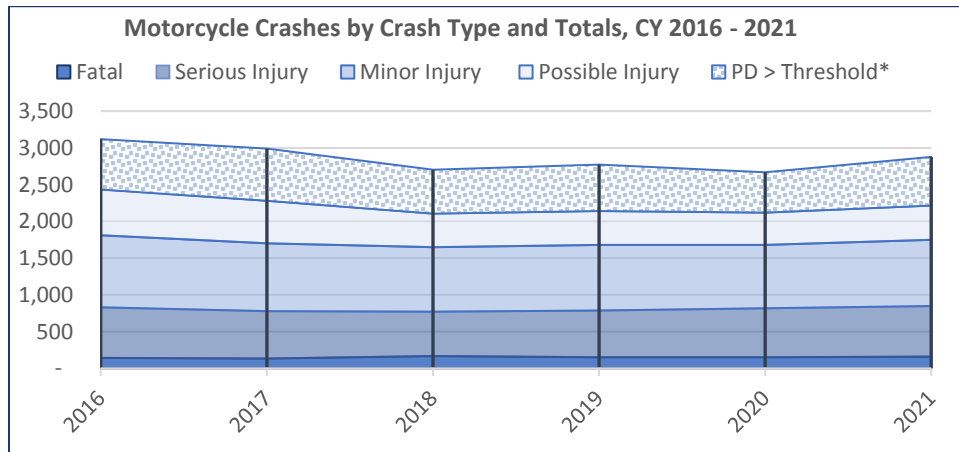
Table 5: Motorcyclist Count by Injury Type, CY 2016 – 2021

Year	2016	2017	2018	2019	2020	2021	TOTAL
Died Prior To Accident	-	-	-	-	-	1	**1**
Fatal Injury	145	132	168	154	151	164	**914**
Suspected Serious Injury	743	703	647	688	715	731	**4,227**
Suspected Minor Injury	1,081	1,027	987	983	959	998	**6,035**
Possible Injury	701	635	511	511	497	512	**3,367**
No Injury	750	741	628	660	562	664	**4,005**
Unknown	515	550	489	498	515	507	**3,074**
TOTAL	**3,935**	**3,788**	**3,430**	**3,494**	**3,399**	**3,577**	**21,623**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

PLEASE NOTE: Regarding the table above (as per standard crash criteria) the accident where the motorcyclist was deceased prior to the crash will be excluded from fatalities in all further analysis. This means that the total motorcyclists over CY 2016 – 2021 will total 21,622.

Percent of Motorcyclist by Injury Type, CY 2016 – 2021
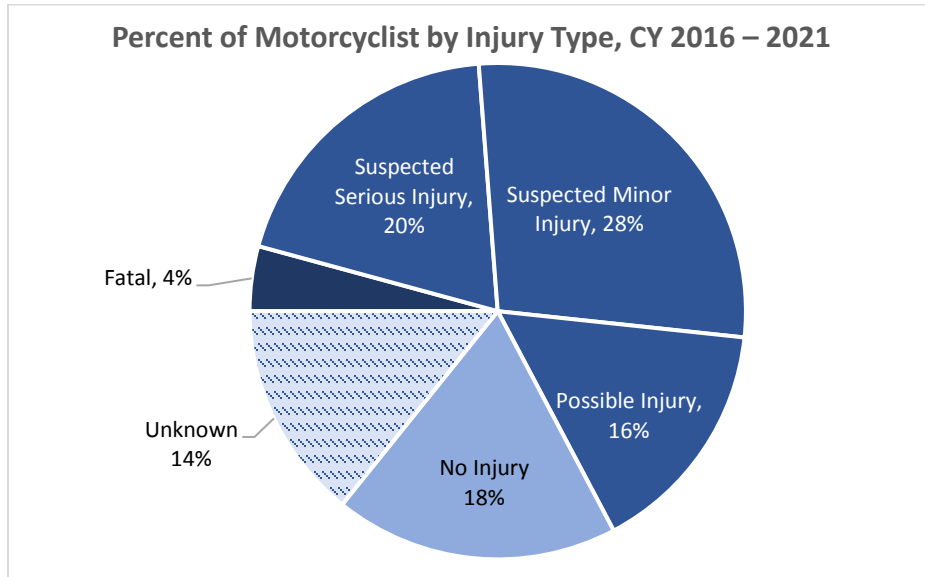
Table 6: Motorcycle Fatalities by Helmet Use, CY 2016 – 2021

Year	2016	2017	2018	2019	2020	2021	PERCENT
DOT Compliant Motorcycle Helmet	124	108	137	121	125	133	**82%**
Non-Compliant Motorcycle Helmet	11	12	15	8	8	12	**7%**
Improper Use of Compliant Motorcycle Helmet	2	2	4	4	2	3	**2%**
No Helmet Use	7	8	9	14	13	10	**7%**
Unknown Helmet Use	1	2	3	7	3	6	**2%**
TOTAL	145	132	168	154	151	164	**N/A**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (FTS).

Percent of Fatalities by Helmet Use, CY 2016 - 2021

Motorcyclist Fatalities by Helmet Use, Excluding DOT-Compliant Proper Use, CY 2016 - 2021

Table 7: Crashes and Crash Rates (per 1000 Class M Endorsements) by County, CY 2016 – 2021

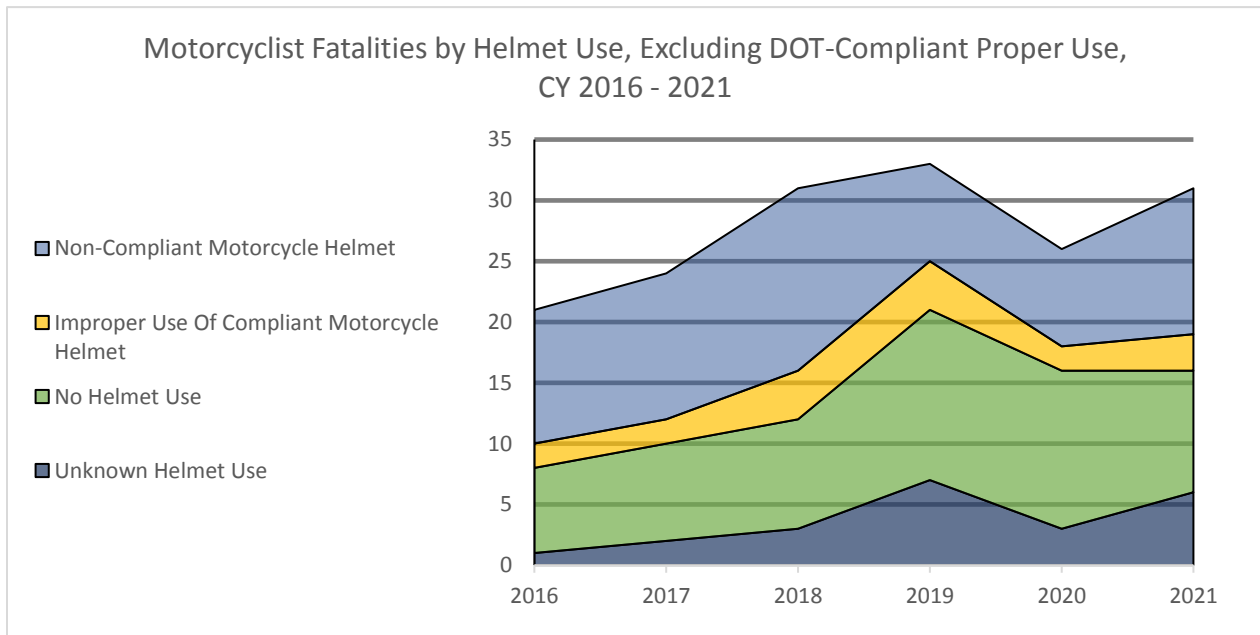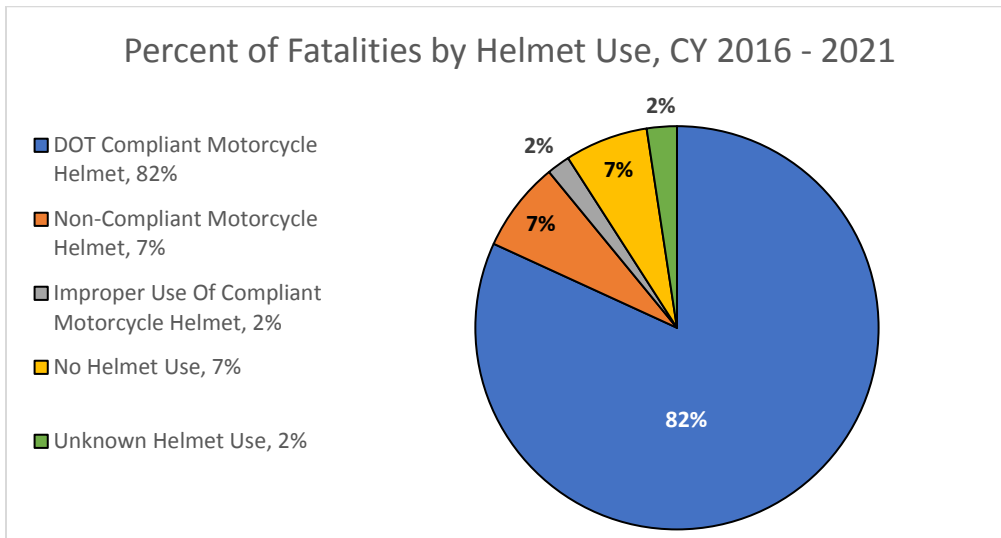| County Name	2016		2017		2018		2019		2020		2021		TOTAL		
	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Rank
Anderson	53	9.3	36	6.1	34	5.7	35	6.0	34	5.7	42	6.9	234	6.6	31
Bedford	18	6.5	17	5.7	24	7.9	21	6.7	17	5.4	19	5.8	116	6.3	38
Benton	10	8.3	10	7.8	11	8.5	7	5.4	10	7.7	6	4.4	54	7.0	26
Bledsoe	4	4.9	4	4.7	7	7.8	2	2.3	2	2.2	1	1.0	20	3.8	84
Blount	203	19.3	152	13.6	143	12.5	136	11.7	141	11.8	155	12.4	930	13.4	1
Bradley	47	6.9	54	7.5	49	6.7	43	5.8	55	7.4	45	5.9	293	6.7	30
Campbell	17	7.3	14	5.7	10	4.0	13	5.2	13	5.2	10	3.8	77	5.2	58
Cannon	3	3.6	9	9.9	4	4.3	4	4.2	9	9.7	6	6.0	35	6.3	37
Carroll	6	3.3	8	4.1	7	3.6	11	5.6	10	5.2	11	5.6	53	4.6	73
Carter	22	5.2	21	4.7	24	5.4	21	4.7	23	5.1	30	6.3	141	5.2	54
Cheatham	20	6.0	19	5.4	17	4.8	17	4.7	19	5.2	16	4.2	108	5.0	62
Chester	1	1.1	7	7.2	3	3.0	4	3.9	9	8.7	8	7.6	32	5.3	50
Claiborne	6	3.1	5	2.4	6	2.9	11	5.2	9	4.2	8	3.6	45	3.6	87
Clay	3	5.9	1	1.9	5	9.7	1	1.9	2	3.8	0	0.0	12	3.8	83
Cocke	44	18.1	20	7.7	20	7.6	19	7.0	33	12.0	27	9.4	163	10.2	8
Coffee	24	6.5	24	6.1	16	4.0	25	6.2	15	3.7	21	4.9	125	5.2	56
Crockett	3	4.8	3	4.5	2	3.1	1	1.6		0.0	3	4.7	12	3.1	92
Cumberland	27	5.9	14	2.9	21	4.2	27	5.2	21	3.9	24	4.2	134	4.3	76
Davidson	369	15.7	357	14.3	309	12.3	327	13.0	265	10.5	299	11.6	1926	12.9	3
Decatur	3	4.1	6	7.7	9	11.4	4	4.9	2	2.4	4	4.6	28	5.8	42
DeKalb	20	16.7	13	10.1	11	8.4	12	9.0	13	9.4	13	9.1	82	10.3	7
Dickson	14	3.9	27	7.2	17	4.4	23	5.9	24	6.0	18	4.4	123	5.3	51
Dyer	14	8.0	15	8.2	12	6.7	9	5.0	14	7.9	22	12.4	86	8.0	20
Fayette	9	3.7	14	5.4	7	2.6	6	2.2	9	3.3	11	3.9	56	3.5	88
Fentress	5	4.5	2	1.7	4	3.2	4	3.1	1	0.7	6	4.2	22	2.9	94
Franklin	8	2.8	20	6.4	10	3.2	10	3.1	11	3.4	18	5.3	77	4.0	79
Gibson	12	4.3	11	3.7	7	2.4	8	2.7	9	3.0	15	4.9	62	3.5	89
Giles	8	3.8	10	4.6	14	6.3	16	7.2	11	4.9	12	5.1	71	5.3	52
Grainger	5	2.9	11	6.1	8	4.3	8	4.3	13	6.8	13	6.6	58	5.2	57
Greene	35	6.3	32	5.4	31	5.2	34	5.6	34	5.5	26	4.0	192	5.3	48
Grundy	15	22.0	3	4.0	4	5.4	11	14.4	6	7.7	3	3.6	42	9.3	12
Hamblen	25	6.7	28	7.1	22	5.6	30	7.6	32	8.1	24	5.9	161	6.8	27
Hamilton	222	12.3	198	10.4	176	9.1	194	9.9	183	9.3	199	9.7	1172	10.1	9
Hancock	0	0.0	0	0.0	3	8.9	4	12.2	1	3.0	3	8.5	11	5.4	44
Hardeman	2	2.3	5	5.5	5	5.5	3	3.4	5	5.7	1	1.1	21	3.9	81
Hardin	9	5.8	6	3.6	8	4.9	15	9.2	13	8.0	15	8.7	66	6.7	29
Hawkins	21	4.4	24	4.7	18	3.5	23	4.4	20	3.8	22	4.0	128	4.1	77

County Name	2016		2017		2018		2019		2020		2021		TOTAL		
	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Rank
Haywood	5	9.8	2	3.8	4	7.6	2	3.8	5	9.4	8	14.8	26	8.2	19
Henderson	16	10.6	12	7.7	16	10.2	9	5.7	16	10.2	10	6.2	79	8.4	16
Henry	13	5.4	13	5.0	9	3.5	18	6.8	6	2.2	14	4.9	73	4.6	71
Hickman	8	5.2	7	4.3	9	5.5	8	4.8	11	6.4	4	2.2	47	4.7	69
Houston	9	17.7	4	7.5	4	7.6	2	3.8	5	9.4	4	7.3	28	8.8	14
Humphreys	7	5.5	5	3.7	4	2.9	6	4.4	11	8.0	5	3.5	38	4.6	70
Jackson	4	4.7	7	7.7	4	4.3	3	3.2	11	11.3	4	3.9	33	5.8	41
Jefferson	27	7.0	18	4.3	19	4.4	21	4.8	26	5.7	25	5.3	136	5.2	53
Johnson	23	16.2	25	16.5	17	11.2	18	11.7	15	9.6	24	14.5	122	13.2	2
Knox	152	6.4	173	6.9	157	6.2	176	6.8	154	5.9	164	6.0	976	6.4	36
Lake	2	9.9	3	14.5	2	10.1	2	10.1	2	10.0	0	0.0	11	9.1	13
Lauderdale	8	9.8	7	8.1	2	2.4	3	3.6	4	5.0	3	3.7	27	5.4	46
Lawrence	16	5.9	18	6.4	12	4.2	9	3.2	15	5.3	16	5.4	86	5.1	60
Lewis	2	2.3	2	2.2	4	4.5	6	6.6	1	1.1	4	4.1	19	3.5	90
Lincoln	13	6.5	8	3.8	9	4.1	15	6.8	20	8.7	10	4.1	75	5.7	43
Loudon	20	5.0	28	6.5	20	4.5	16	3.5	26	5.4	25	5.0	135	4.9	63
McMinn	17	4.6	20	5.1	30	7.5	28	6.9	32	7.8	35	8.1	162	6.7	91
McNairy	14	10.8	3	2.2	9	6.4	10	7.1	10	7.0	8	5.3	54	6.4	17
Macon	6	4.6	3	2.2	6	4.2	7	4.9	5	3.4	1	0.6	28	3.3	33
Madison	42	10.3	44	10.2	30	7.0	33	7.6	35	8.1	32	7.3	216	8.4	47
Marion	20	10.0	11	5.2	13	6.0	16	7.3	14	6.2	11	4.6	85	6.5	24
Marshall	7	3.2	19	8.2	15	6.3	17	7.0	11	4.4	8	3.1	77	5.4	28
Maury	61	9.4	67	9.8	44	6.3	51	7.2	37	5.1	47	6.2	307	7.2	34
Meigs	2	2.2	10	10.5	5	5.2	2	2.0	1	1.0	7	6.6	27	4.6	72
Monroe	44	13.7	44	12.9	35	10.0	33	9.1	34	9.1	39	9.9	229	10.7	6
Montgomery	164	11.1	165	9.9	123	7.3	136	8.0	134	7.7	139	7.5	861	8.5	15
Moore	2	4.1	3	5.8	2	3.8	2	3.8	6	11.4	5	9.2	20	6.4	35
Morgan	7	5.4	6	4.4	5	3.6	11	7.8	2	1.4	10	6.6	41	4.9	67
Obion	15	7.7	11	5.3	8	3.9	10	5.0	10	5.1	8	4.0	62	5.2	59
Overton	7	4.7	7	4.4	12	7.4	7	4.2	7	4.2	8	4.6	48	4.9	64
Perry	0	0.0	3	5.1	2	3.4	6	10.4	6	10.4	6	9.9	23	6.6	32
Pickett	0	0.0	1	2.3	2	4.5	4	8.9	1	2.2	0	0.0	8	3.0	93
Polk	17	13.2	19	14.4	12	9.3	17	13.0	14	10.5	22	15.8	101	12.7	4
Putnam	45	8.9	43	8.1	44	8.2	31	5.7	31	5.6	51	8.8	245	7.5	22
Rhea	7	3.2	9	3.9	11	4.8	8	3.4	10	4.2	10	4.1	55	4.0	80
Roane	28	7.1	18	4.3	23	5.5	24	5.5	21	4.7	21	4.5	135	5.2	55
Robertson	19	4.0	25	4.9	29	5.6	23	4.4	26	4.9	30	5.5	152	4.9	65
Rutherford	151	9.3	147	8.4	138	7.8	122	6.8	116	6.3	124	6.5	798	7.5	23
Scott	3	3.3	1	1.0	0	0.0	5	4.9	1	1.0	1	0.9	11	1.8	95

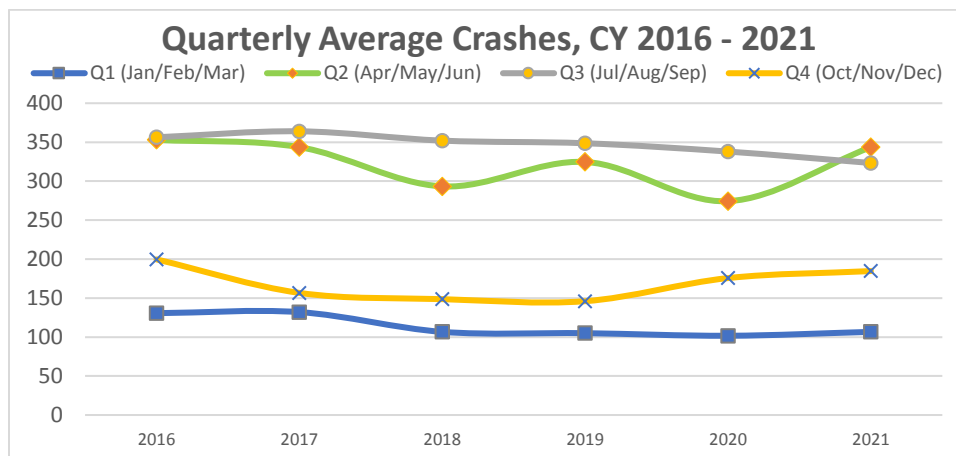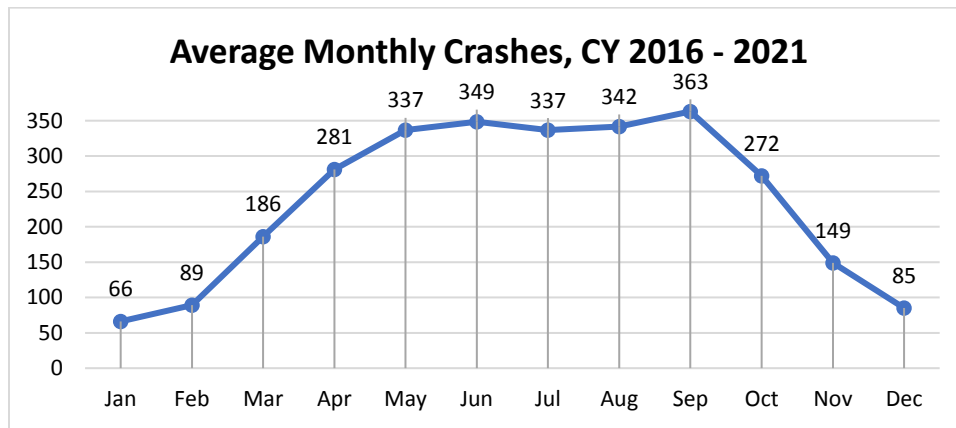| County Name	2016		2017		2018		2019		2020		2021		TOTAL		
	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Crash	Rate	Rank
Sequatchie	5	4.3	5	4.1	7	5.6	4	3.3	4	3.1	8	6.0	33	4.4	74
Sevier	91	11.9	78	9.5	58	7.1	55	6.6	53	6.3	70	8.1	405	8.2	18
Shelby	286	13.3	280	12.3	297	13.0	291	12.7	252	11.1	258	11.2	1,664	12.2	5
Smith	12	9.5	8	6.0	12	8.7	5	3.6	8	5.6	21	14.1	66	8.0	21
Stewart	17	15.3	10	8.2	10	8.0	8	6.2	19	14.3	8	5.8	72	9.5	11
Sullivan	89	7.0	90	6.7	61	4.5	71	5.2	78	5.7	97	6.9	486	6.0	40
Sumner	74	6.6	63	5.3	47	3.9	62	5.0	49	3.9	59	4.5	354	4.8	68
Tipton	15	4.6	18	5.2	19	5.6	9	2.6	13	3.8	15	4.3	89	4.4	75
Trousdale	4	8.2	1	1.9	6	11.0	4	7.1	2	3.4	3	4.9	20	6.0	39
Unicoi	5	3.6	5	3.4	6	4.1	13	8.9	6	4.0	8	5.2	43	4.9	66
Union	10	8.0	3	2.2	6	4.2	5	3.4	2	1.3	5	3.2	31	3.6	86
Van Buren	4	9.4	9	19.4	3	6.5	2	4.2	4	8.1	6	11.5	28	9.8	10
Warren	14	5.9	13	5.3	18	7.1	12	4.7	12	4.7	12	4.5	81	5.3	49
Washington	51	6.1	63	7.1	69	7.7	50	5.5	70	7.7	77	8.0	380	7.0	25
Wayne	4	4.3	7	7.0	4	4.0	9	9.0	3	3.0	3	2.9	30	5.0	61
Weakley	8	4.2	8	4.0	6	3.0	10	5.1	6	3.0	11	5.4	49	4.1	78
White	8	4.3	8	4.0	7	3.4	7	3.4	10	4.7	8	3.6	48	3.9	82
Williamson	59	5.1	53	4.4	43	3.4	36	2.8	48	3.7	45	3.3	284	3.8	85
Wilson	53	5.6	56	5.5	55	5.3	64	6.1	50	4.6	62	5.5	340	5.4	45
TOTAL	3,119	8.6	2,989	7.7	2702	6.9	2773	7.0	2,669	6.7	2,875	6.9	17,709	16.6	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (A-List).

Table 8: Motorcycle Crashes by Month, CY 2016 – 2021

Month	2016	2017	2018	2019	2020	2021	TOTAL	AVERAGE
January	65	75	63	52	69	73	397	66
February	102	127	92	84	75	54	534	89
March	225	194	165	179	161	193	1,117	186
April	323	345	241	281	202	294	1,686	281
May	348	327	319	356	297	374	2,021	337
June	388	359	320	337	324	363	2,091	349
July	337	359	367	292	321	343	2,019	337
August	340	338	376	345	347	304	2,050	342
September	392	395	313	409	346	323	2,178	363
October	349	228	268	241	252	293	1,631	272
November	174	169	100	99	199	152	893	149
December	76	73	78	98	76	109	510	85
TOTAL	3,119	2,989	2,702	2,773	2,669	2,875	17,127	2,855

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Average Monthly Crashes, CY 2016 - 2021

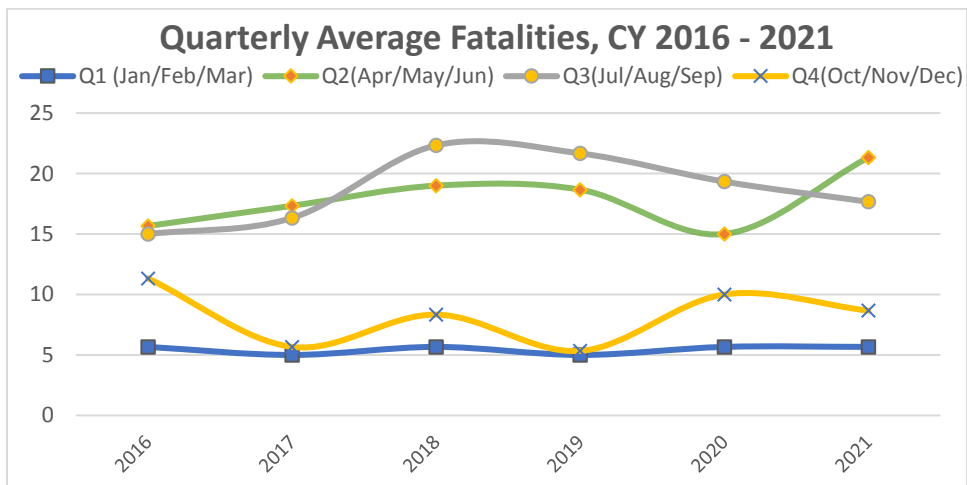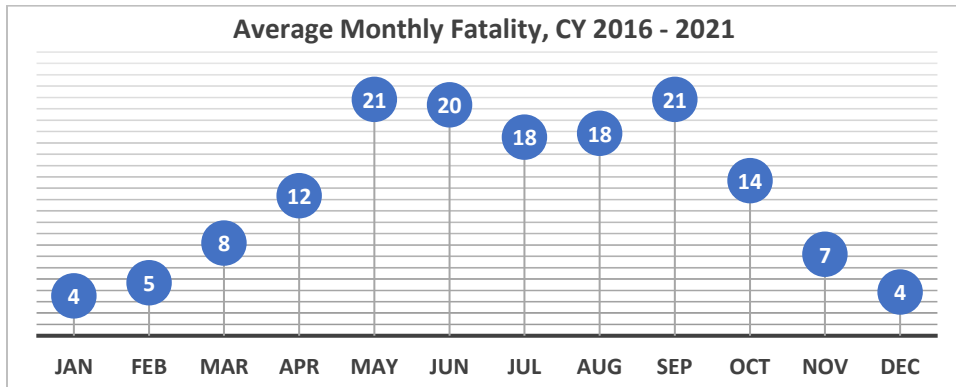**Quarterly Average Crashes, CY 2016 - 2021**

As shown in the graph above, Q2 and Q3 consistently have higher fatalities than Q1 and Q4.

Table 9: Motorcycle Rider Fatalities by Month, CY 2016 – 2021

Month	2016	2017	2018	2019	2020	2021	Total
January	3	4	3	2	4	6	22
February	2	6	8	5	7	3	31
March	14	4	6	10	6	9	49
April	11	20	11	6	13	13	74
May	18	19	24	24	17	23	125
June	18	13	22	26	15	28	122
July	14	16	23	17	18	17	105
August	17	13	23	22	18	14	107
September	14	20	21	26	22	22	125
October	21	10	15	9	14	13	82
November	11	5	7	4	10	8	45
December	2	2	5	3	7	8	27
Total	145	132	168	154	151	164	914

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (FTS).

Average Monthly Fatality, CY 2016 - 2021

Quarterly Average Fatalities, CY 2016 - 2021

As shown in the graph above, Q2 and Q3 consistently have higher fatalities than Q1 and Q4.

Table 10: Percentage of Motorcycle Crashes by Month of Incidence, CY 2016 – 2021

Month	2016	2017	2018	2019	2020	2021	AVERAGE	By Season
January	2%	3%	2%	1%	3%	4%	2%	**Winter**
February	1%	5%	5%	3%	5%	2%	3%	**11%**
March	10%	3%	4%	6%	4%	5%	5%	
April	8%	15%	7%	4%	9%	8%	8%	**Spring**
May	12%	14%	14%	16%	11%	14%	14%	**35%**
June	12%	10%	13%	17%	10%	17%	13%	
July	10%	12%	14%	11%	12%	10%	11%	**Summer**
August	12%	10%	14%	14%	12%	9%	12%	**37%**
September	10%	15%	13%	17%	15%	13%	14%	
October	14%	8%	9%	6%	9%	8%	9%	**Fall**
November	8%	4%	4%	3%	7%	5%	5%	**17%**
December	1%	2%	3%	2%	5%	5%	3%	

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Average Crashes by Season, CY 2016 - 2021

Winter, 11%
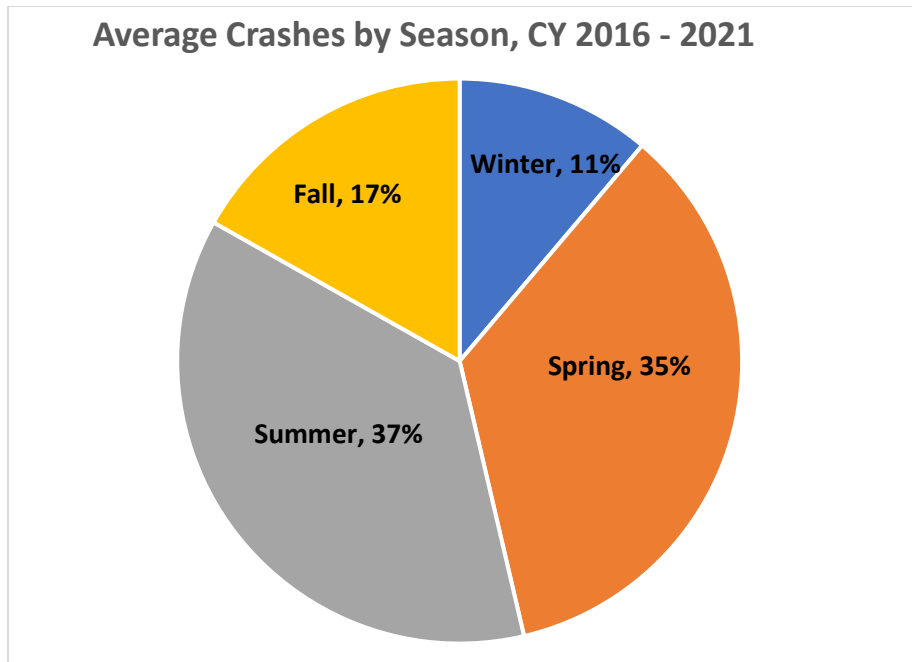Spring, 35%
Summer, 37%
Fall, 17%

Table 11: Motorcycle Crashes by Day of Week, CY 2016 – 2021

Day of the Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
2016	542	364	357	383	384	479	610	**3,119**
2017	535	313	332	360	359	466	624	**2,989**
2018	426	257	350	331	333	472	533	**2,702**
2019	462	308	376	402	307	406	512	**2,773**
2020	465	307	285	296	347	388	581	**2,669**
2021	483	299	326	393	351	452	571	**2,875**
AVERAGE	**486**	**308**	**338**	**361**	**347**	**444**	**572**	**N/A**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Days of the Week are grouped into three color coded groups:

- Saturday is RED.
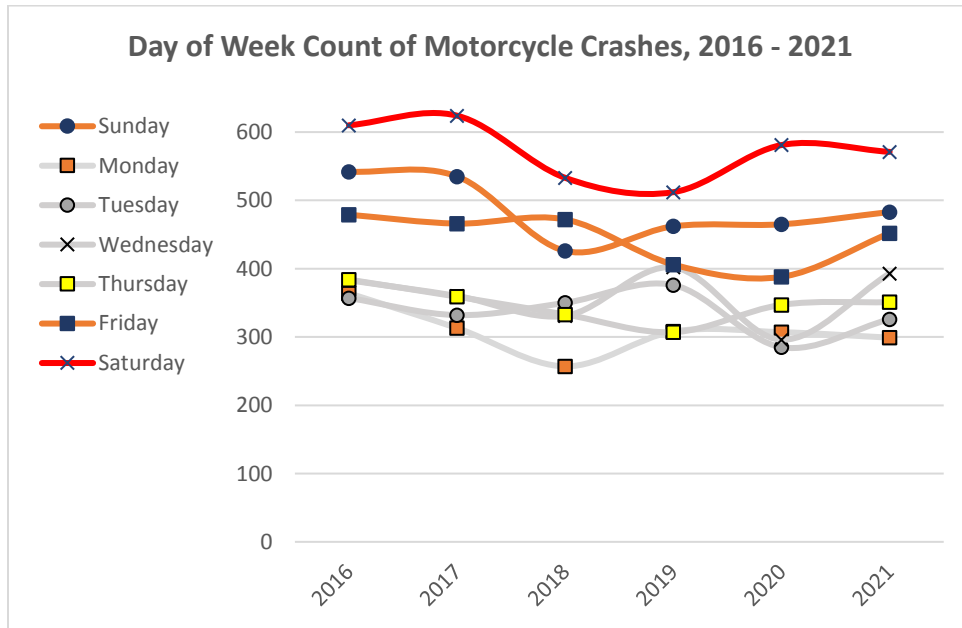- Sunday and Friday are ORANGE
- Weekdays (Monday – Thursday) are GREY.

Day of Week Count of Motorcycle Crashes, 2016 - 2021

Table 12: Percentage of Motorcycle Crashes by Day of Week, CY 2016 – 2021

Day of the Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2016	17%	12%	11%	12%	12%	15%	20%
2017	18%	10%	11%	12%	12%	16%	21%
2018	16%	10%	13%	12%	12%	17%	20%
2019	17%	11%	14%	14%	11%	15%	18%
2020	17%	12%	11%	11%	13%	15%	22%
2021	17%	10%	11%	14%	12%	16%	20%
AVERAGE	**17%**	**11%**	**12%**	**13%**	**12%**	**16%**	**20%**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Days of the Week are grouped into three color coded groups:

- Saturday is RED.
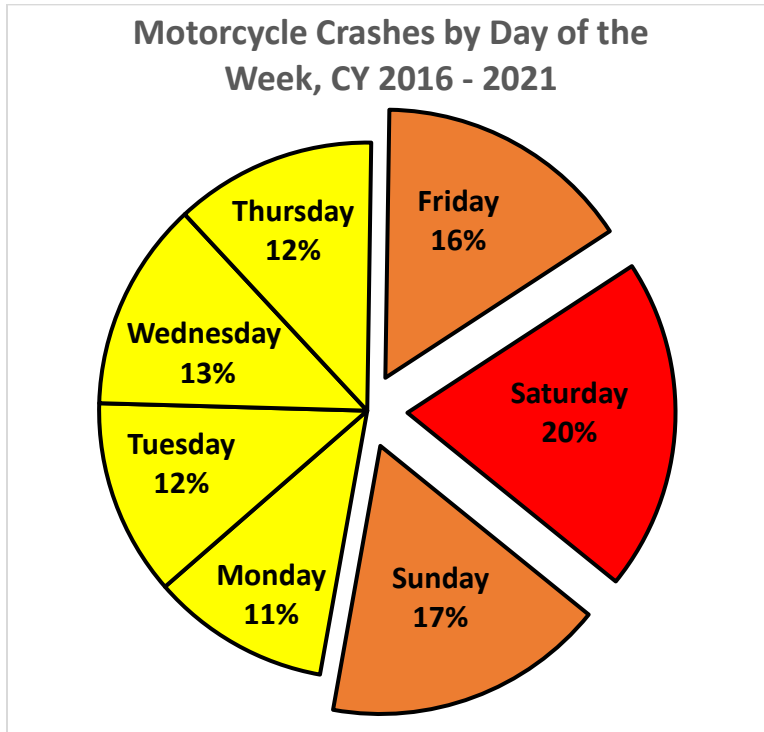- Sunday and Friday are ORANGE
- Weekdays (Monday – Thursday) are YELLOW.

Motorcycle Crashes by Day of the Week, CY 2016 - 2021

Table 13: Motorcycle Crashes Occurring by Hour, CY 2016 - 2021

Hour of the Day	2016	2017	2018	2019	2020	2021	Average
12 AM	39	47	40	57	42	37	44
1 AM	23	33	25	30	28	42	30
2 AM	26	26	23	30	13	27	24
3 AM	21	24	15	23	16	19	20
4 AM	11	15	10	14	11	16	13
5 AM	23	27	32	21	19	24	24
6 AM	66	38	45	35	26	36	41
7 AM	81	52	66	62	48	42	59
8 AM	56	43	53	64	33	51	50
9 AM	89	76	70	55	48	58	66
10 AM	115	103	92	95	94	102	100
11 AM	160	134	123	141	131	137	138
12 AM	184	174	166	132	168	169	166
1 PM	244	218	180	194	178	162	196
2 PM	238	218	197	200	211	229	216
3 PM	284	282	238	213	235	239	249
4 PM	265	264	225	233	257	279	254
5 PM	290	268	271	275	252	266	270
6 PM	230	234	175	210	221	231	217
7 PM	175	181	149	171	164	161	167
8 PM	135	154	140	133	144	155	144
9 PM	125	104	128	126	100	124	118
10 PM	72	89	72	96	89	78	83
11 PM	58	59	56	55	46	66	57
Unknown	109	126	111	108	95	125	112
TOTAL	3,119	2,989	2,702	2,773	2,669	2,875	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

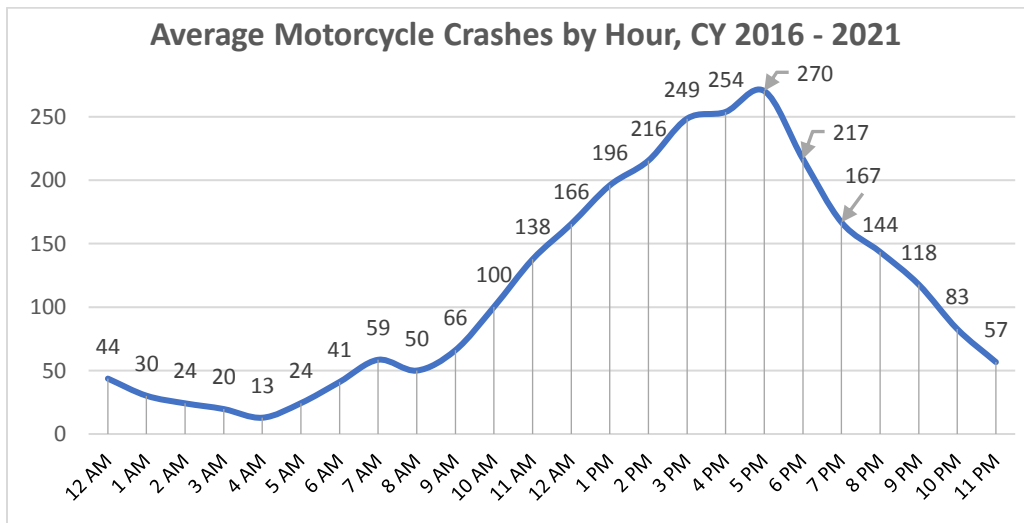Average Motorcycle Crashes by Hour, CY 2016 - 2021

Table 14: Motorcycle Crashes by Light Condition, CY 2016 – 2021

Light Condition	Daylight	Dark-Not Lighted	Dark-Lighted	Dawn	Dusk	Unknown	TOTAL
2016	2,327	314	359	23	75	21	**3,119**
2017	2,155	319	377	36	66	36	**2,989**
2018	1,953	282	330	28	78	31	**2,702**
2019	1,924	345	372	31	64	37	**2,773**
2020	1,923	282	336	30	74	24	**2,669**
2021	2,041	323	387	27	69	28	**2,875**
PERCENT	**72%**	**11%**	**13%**	**1%**	**2%**	**1%**	**N/A**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).
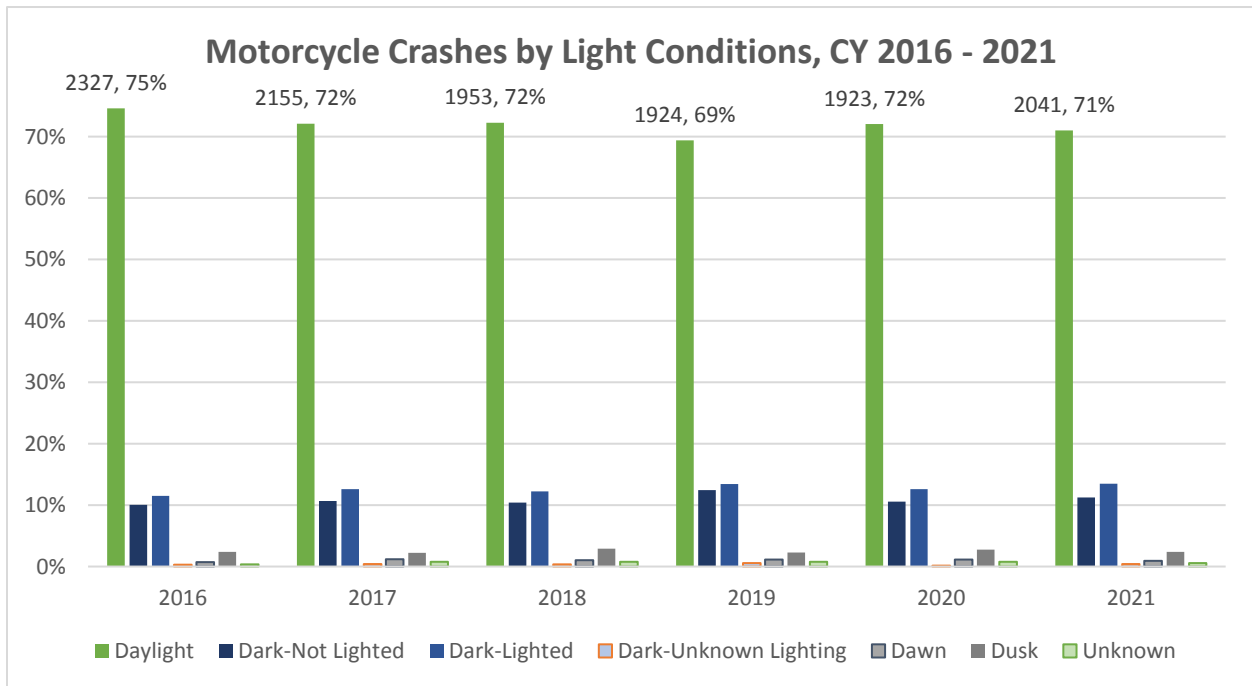
Table 15: Motorcycle Drivers in Crashes by Age, CY 2016 – 2021

Age Group	2016	2017	2018	2019	2020	2021	TOTAL
Under 15	10	6	15	8	12	7	58
15 to 19	151	152	151	128	115	132	829
20 to 24	390	412	329	347	328	380	2,186
25 to 29	383	385	355	344	361	375	2,203
30 to 34	256	284	287	282	305	357	1,771
35 to 39	285	242	208	245	240	259	1,479
40 to 44	268	254	210	227	234	253	1,446
45 to 49	291	295	295	278	227	245	1,631
50 to 54	324	278	239	228	237	237	1,543
55 to 59	306	269	205	229	224	209	1,442
60 to 64	236	181	178	198	158	175	1,126
65 to 69	131	118	117	128	123	99	716
70 to 74	55	56	66	69	44	72	362
75 and Over	23	27	24	32	22	30	158
Unknown	89	106	82	81	98	107	563
TOTAL	3,198	3,065	2,761	2,824	2,728	2,937	17,513

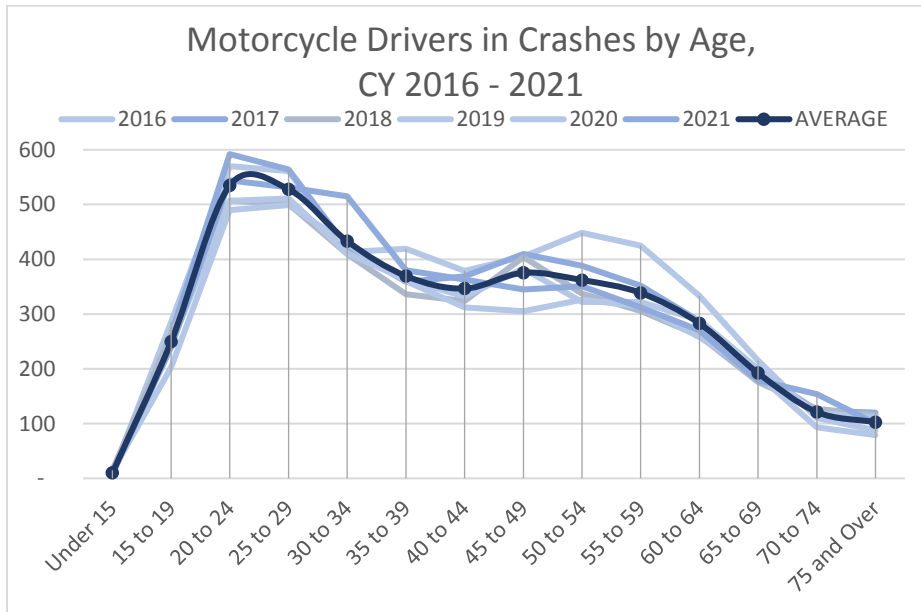Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Motorcycle Drivers in Crashes by Age, CY 2016 - 2021

Table 16: Percentage of Motorcycle Drivers in Crashes by Age, CY 2016 – 2021

Age Group	2016	2017	2018	2019	2020	2021	AVERAGE
Under 15	0.3%	0.2%	0.5%	0.3%	0.4%	0.2%	**0.3%**
15 to 19	4.7%	5.0%	5.5%	4.5%	4.2%	4.5%	**4.7%**
20 to 24	12.2%	13.4%	11.9%	12.3%	12.0%	12.9%	**12.5%**
25 to 29	12.0%	12.6%	12.9%	12.2%	13.2%	12.8%	**12.6%**
30 to 34	8.0%	9.3%	10.4%	10.0%	11.2%	12.2%	**10.2%**
35 to 39	8.9%	7.9%	7.5%	8.7%	8.8%	8.8%	**8.4%**
40 to 44	8.4%	8.3%	7.6%	8.0%	8.6%	8.6%	**8.3%**
45 to 49	9.1%	9.6%	10.7%	9.8%	8.3%	8.3%	**9.3%**
50 to 54	10.1%	9.1%	8.7%	8.1%	8.7%	8.1%	**8.8%**
55 to 59	9.6%	8.8%	7.4%	8.1%	8.2%	7.1%	**8.2%**
60 to 64	7.4%	5.9%	6.4%	7.0%	5.8%	6.0%	**6.4%**
65 to 69	4.1%	3.8%	4.2%	4.5%	4.5%	3.4%	**4.1%**
70 to 74	1.7%	1.8%	2.4%	2.4%	1.6%	2.5%	**2.1%**
75 and Over	0.7%	0.9%	0.9%	1.1%	0.8%	1.0%	**0.9%**
Unknown	2.8%	3.5%	3.0%	2.9%	3.6%	3.6%	**3.2%**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

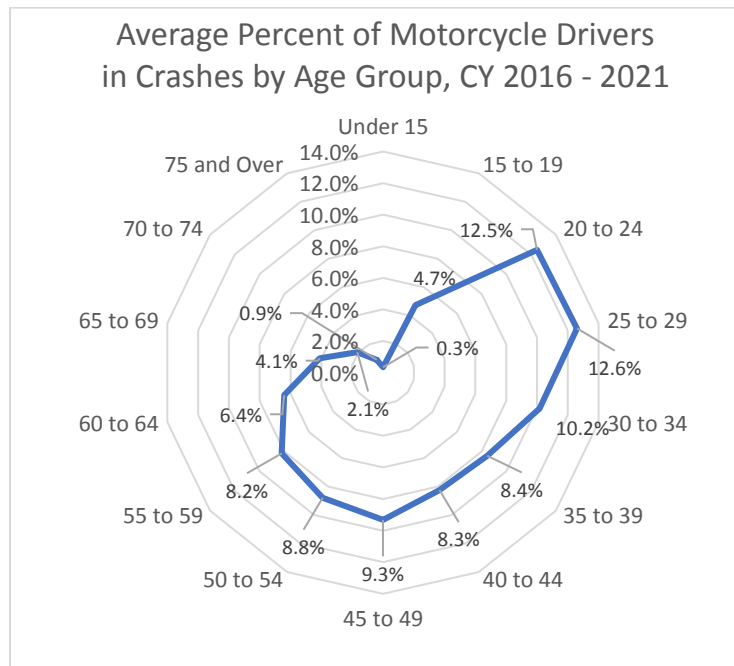Average Percent of Motorcycle Drivers in Crashes by Age Group, CY 2016 - 2021

Table 17: Percent Change Annually of Motorcycle Drivers in Crash by Age, CY 2016 – 2021

Age Group	2016	2017	2018	2019	2020	2021
Under 15	100%	-40%	150%	-47%	50%	-42%
15 to 19	17%	1%	-1%	-15%	-10%	15%
20 to 24	13%	6%	-20%	5%	-5%	16%
25 to 29	17%	1%	-8%	-3%	5%	4%
30 to 34	3%	11%	1%	-2%	8%	17%
35 to 39	42%	-15%	-14%	18%	-2%	8%
40 to 44	2%	-5%	-17%	8%	3%	8%
45 to 49	-4%	1%	0%	-6%	-18%	8%
50 to 54	-11%	-14%	-14%	-5%	4%	0%
55 to 59	8%	-12%	-24%	12%	-2%	-7%
60 to 64	20%	-23%	-2%	11%	-20%	11%
65 to 69	7%	-10%	-1%	9%	-4%	-20%
70 to 74	0%	2%	18%	5%	-36%	64%
75 and Over	-4%	17%	-11%	33%	-31%	36%
Unknown	27%	19%	-23%	-1%	21%	9%

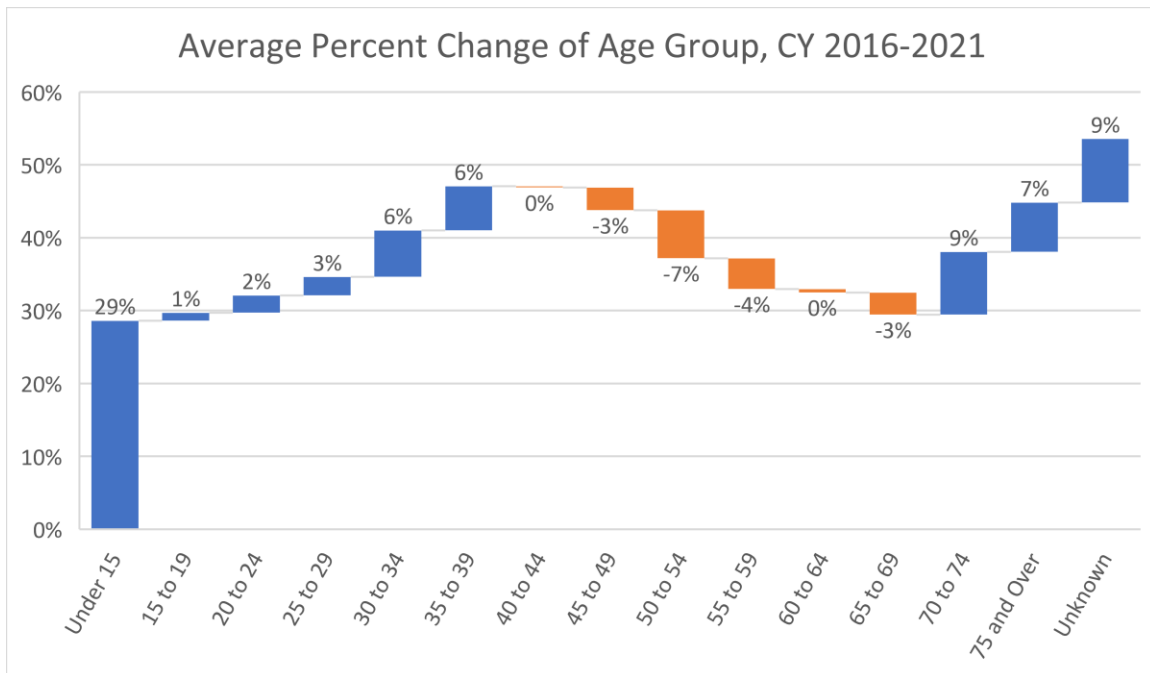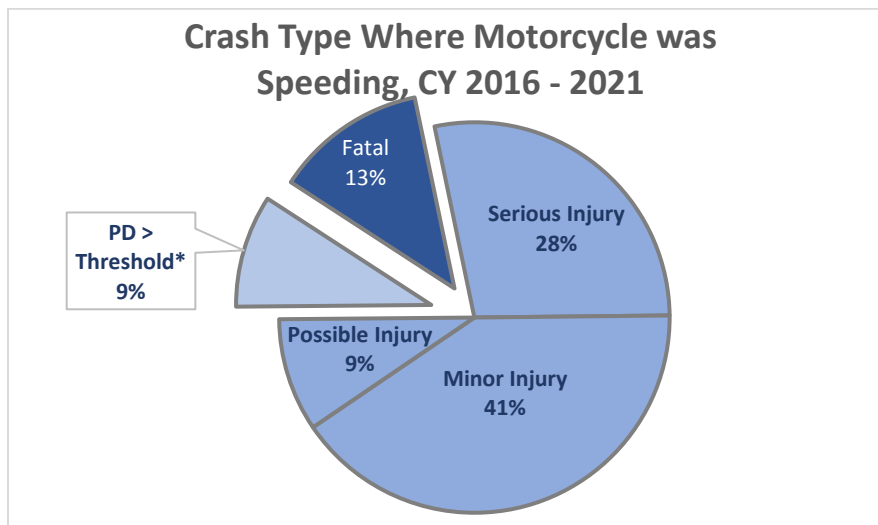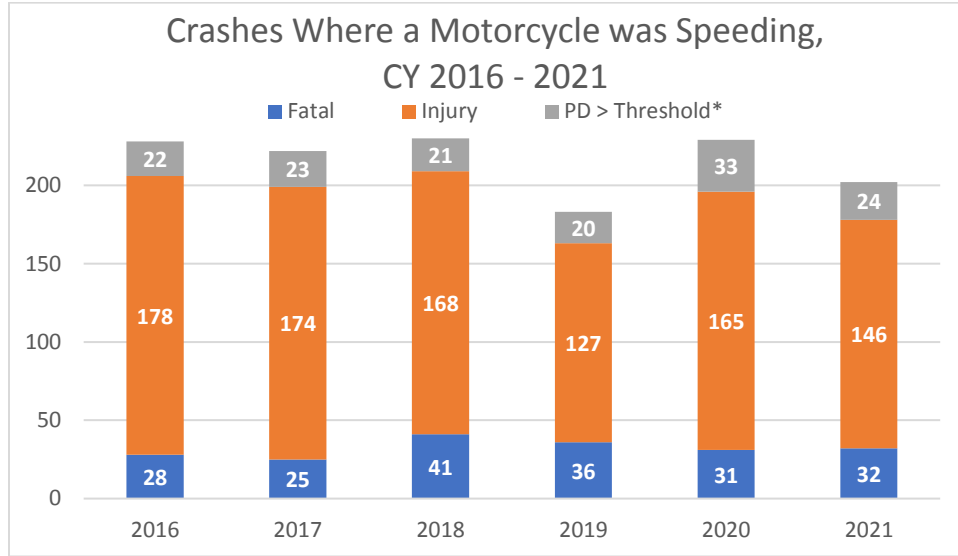Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Average Percent Change of Age Group, CY 2016-2021

Table 18: Crashes Where Motorcycle was Speeding, CY 2016 – 2021

Crash Type	2016	2017	2018	2019	2020	2021	TOTAL
Fatal	28	25	41	36	31	32	193
Injury	178	174	168	127	165	146	958
PD > Threshold*	22	23	21	20	33	24	143
TOTAL	228	222	230	183	229	202	1,294

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Crashes Where a Motorcycle was Speeding, CY 2016 - 2021

■ Fatal　■ Injury　■ PD > Threshold*

Year	Fatal	Injury	PD > Threshold*
2016	28	178	22
2017	25	174	23
2018	41	168	21
2019	36	127	20
2020	31	165	33
2021	32	146	24

Crash Type Where Motorcycle was Speeding, CY 2016 - 2021

- Fatal 13%
- Serious Injury 28%
- Minor Injury 41%
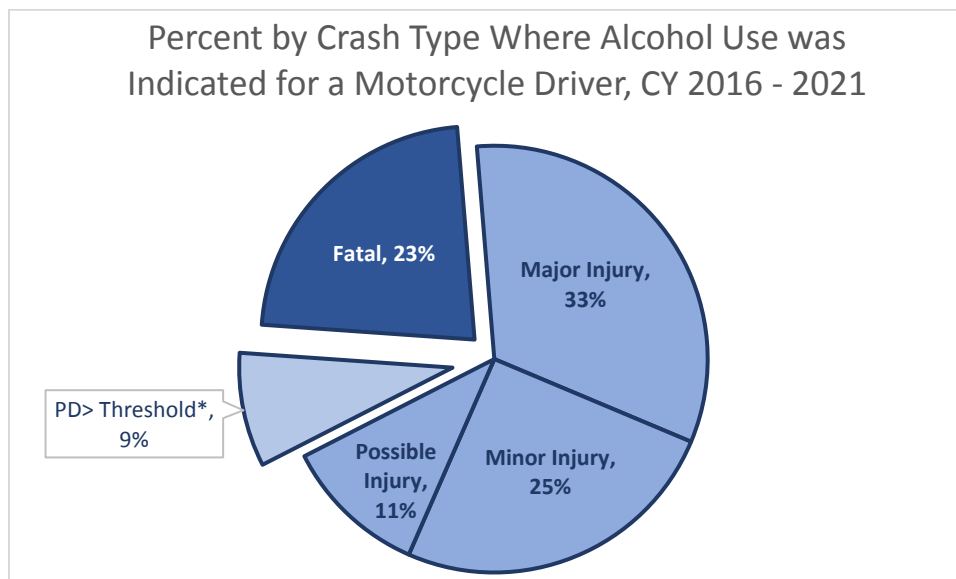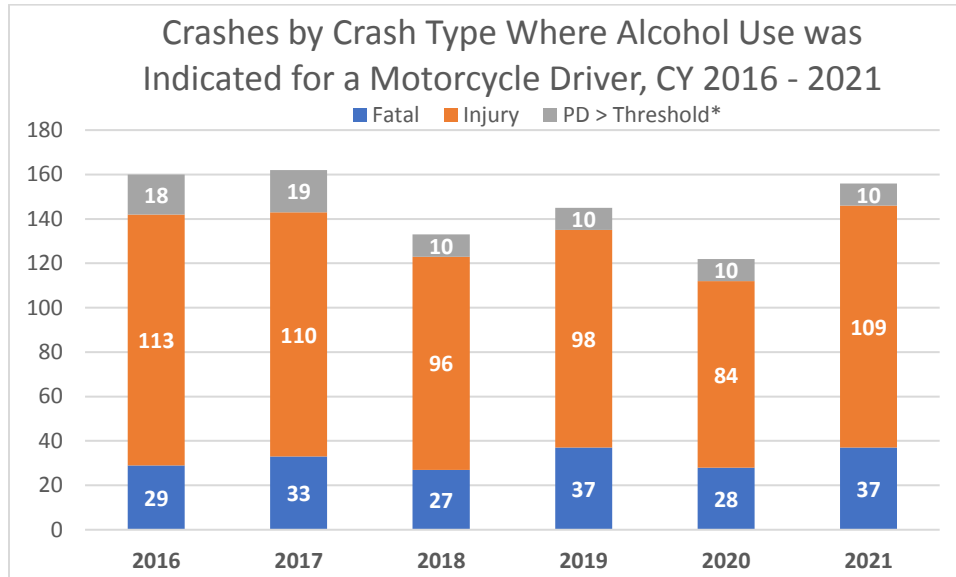- Possible Injury 9%
- PD > Threshold* 9%

Approximately one out of every four crashes where a motorcycle was speeding had the crash type Serious Injury.

Table 19: Crashes Where Alcohol Use was Indicated for a Motorcycle Driver, CY 2016 – 2021

Crash Type	2016	2017	2018	2019	2020	2021
Fatal	29	33	27	37	28	37
Injury	113	110	96	98	84	109
PD > Threshold*	18	19	10	10	10	10
TOTAL	160	162	133	145	122	156

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).


Approximately one out of every four crashes where alcohol use was indicated for a motorcycle driver had the crash type Fatal. Approximately one out of every three crashes where alcohol use was indicated for a motorcycle rider had the crash type Serious Injury.

Table 20: Motorcycle Crashes by Weather Conditions, CY 2016 – 2021

Weather Conditions	2016	2017	2018	2019	2020	2021	TOTAL	AVERAGE	PERCENT
No Adverse Conditions	2,997	2,868	2,566	2,683	2,504	2,678	16,296	2,716	95.1%
Rain	102	87	118	66	84	112	569	95	3.3%
Unknown	12	22	9	16	75	71	205	34	1.2%
Fog	4	7	7	6	4	10	38	6	0.22%
Other	0	2	0	0	2	1	5	1	0.03%
Snow	2	1	1	0	0	1	5	1	0.03%
Severe Crosswinds	1	0	0	1	0	2	4	1	0.02%
Smog/Smoke	0	2	0	1	0	0	3	1	0.02%
Blowing Sand/Soil/Dirt	1	0	1	0	0	0	2	0	0.01%
TOTAL	3,119	2,989	2,702	2,773	2,669	2,875	17,127	2,855	100%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

PLEASE NOTE: More than one weather condition can be selected when a crash report is made. To count crashes only once, the more extreme weather condition was used.

Motorcycle Crashes by Top 4 Weather Conditions
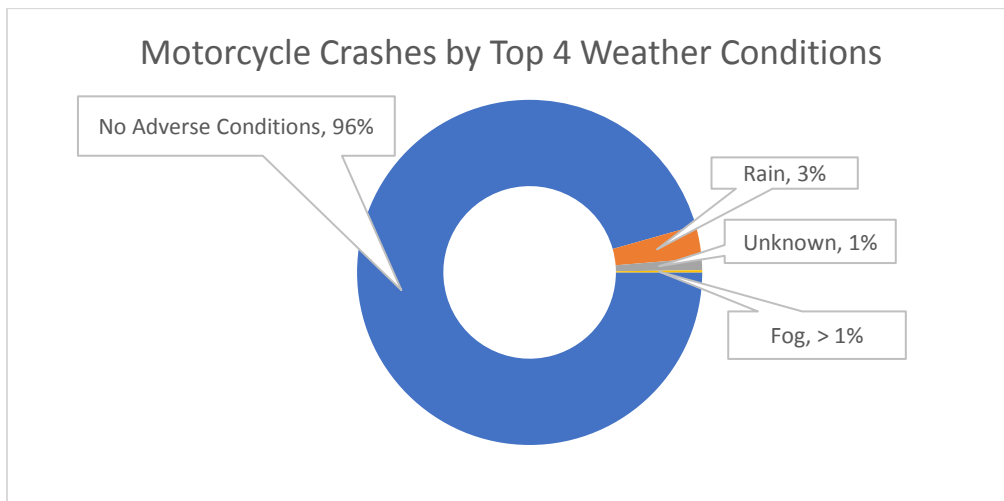
Nineteen (19) out of 20 motorcycle crashes occurred during "Clear" or "Cloudy" weather conditions. These two weather conditions were grouped together into "No Adverse Weather Conditions."
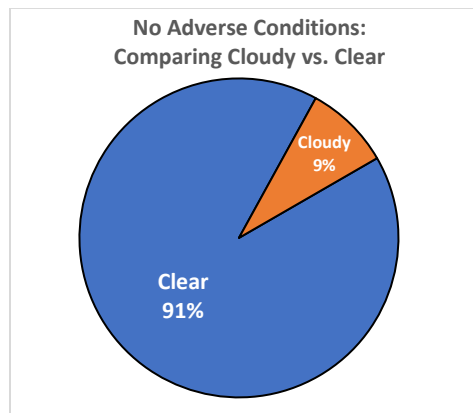

No Adverse Conditions: Comparing Cloudy vs. Clear

Table 21: Multiple Vehicle Crashes Involving Motorcycles, CY 2016 – 2021

Number of Vehicles	Single Vehicle Crashes	Percent S.V.C.	Multiple Vehicle Crashes	Percent M.V.C.
2015	1,362	47%	1,518	53%
2016	1,397	45%	1,722	55%
2017	1,340	45%	1,649	55%
2018	1,188	44%	1,514	56%
2019	1,253	45%	1,520	55%
2020	1,275	48%	1,394	52%
2021	1,260	44%	1,615	56%
TOTAL	9,075	N/A	10,932	N/A

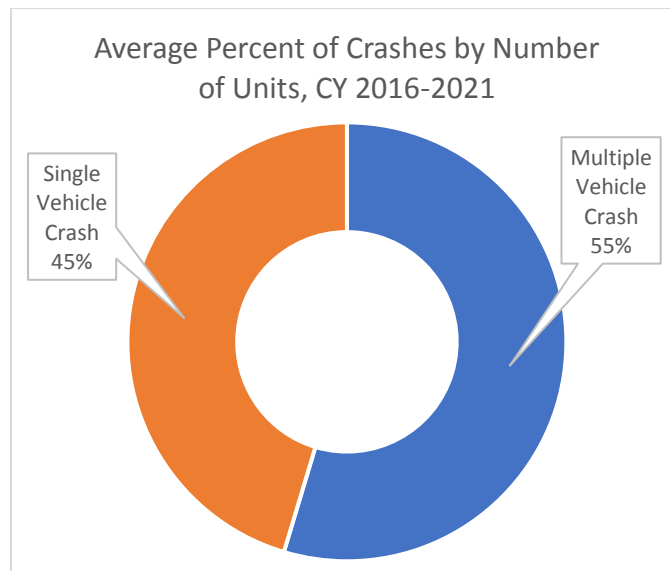Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Average Percent of Crashes by Number of Units, CY 2016-2021

Single Vehicle Crash 45%

Multiple Vehicle Crash 55%

Table 22: Intersection Related Crashes Involving Motorcycles, CY 2016 – 2021

Crash Year	Intersection Crash Count	Percentage
2016	1028	33%
2017	1000	33%
2018	836	31%
2019	858	31%
2020	843	32%
2021	897	31%
TOTAL	**5,462**	**N/A**
AVERAGE	**910**	**32%**

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

Intersection Related Motorcycle Crash Percentage, CY 2016 - 2021
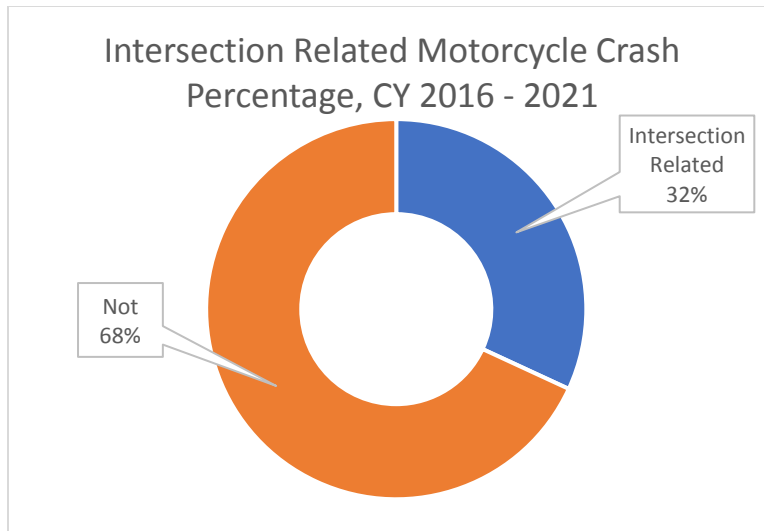
Intersection Related 32%

Not 68%

Table 23: Motorcycle Units Involved in a Crash by Motor Vehicle Type, CY 2016 - 2021

Unit Type	2016	2017	2018	2019	2020	2021	TOTAL	AVERAGE	PERCENT
Motorcycle	3,010	2,888	2,579	2,628	2,540	2,747	16,392	2,732	93.6%
Moped Motorized Bicycle	59	59	48	61	57	51	335	56	1.9%
Three-Wheel Motorcycle or Moped, Not-ATV	41	45	37	42	28	40	233	39	1.3%
Off-Road Motorcycle Two-Wheel	32	32	39	36	51	51	241	40	1.4%
Other Motored Cycle Type	44	35	49	52	39	41	260	43	1.5%
Unknown Motored Cycle Type	12	6	9	5	13	7	52	9	0.3%
TOTAL	3,198	3,065	2,761	2,824	2,728	2,937	17,513	2,919	100%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 01 Jun 2022 (Crash).

PLEASE NOTE:

1. The above table does not match total counts from crash totals because it counts the number of motorcycle-type units involved in crashes. In cases where multiple motorcycle-type units were involved, a crash will have a unit count higher than one.
2. The below graph shows unit type percentage of all units listed as Moped Motorized Bicycle, Three-Wheel Motorcycle or Moped Not-ATV, Off-Road Motorcycle Two-Wheel, Other Motored Cycle Type, or Unknown Motored Cycle Type. The graph excludes all units with Motorcycle body type. Motorcycle body type was the most frequent body type, representing approximately 19 out of 20 of all crashes included in this report.

Percent of Units Involved in Crashes, Excluding Motorcycles, CY 2016 - 2021

Off-Road Motorcycle Two-Wheel 21%

Other Motored Cycle Type 23%

Three-Wheel Motorcycle Or Moped, Not-ATV 21%

Unknown Motored Cycle Type 5%

Moped Motorized Bicycle 30%