
**Tennessee ATV Crash
Statistics
CY 2013-2022**

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Since 2013, total crashes involving All-Terrain Vehicles/Cycles (ATVs/ATCs) in Tennessee have fluctuated, but one thing is true of the trend: they are becoming more frequent over the years. As popularity of ATV festivals increases among enthusiasts, alongside several Tennessee counties legalizing ATVs to use certain roadways, ATV use in general has increased. While the Tennessee Code Annotated restricts ATV use on regular roadways to 'short crossings at a 90-degree angle' so as 'not to disturb traffic' (TCA 55-8-185), the same Title allows for several exceptions, outlining several highways and state routes in Anderson and Scott counties, among others.

An important factor to consider, too, is the typical age of an ATV rider; data show that between the years observed here, riders under sixteen (16) account for 18% of crashes by age groups, far above any other age grouping (16-17, 18-20 and so on). Presumably, this is due to convenience before teens and pre-teens obtain their graduated driver licenses, especially in rural regions of Tennessee.

Further compounding the threat of ATV ridership crashes is the heightened effect of weather conditions, be they favorable *or* adverse. For instance, it is easy to imagine that a relatively experienced ATV rider might be tempted to drive more recklessly under clear conditions (as shown in the following, by far the largest percentage of crashes concerning weather conditions). Conversely, inclement weather has an obviously more dire effect on the operation of ATVs as opposed to their sedan or truck counterparts, which are more equipped for adverse conditions.

Divided into four sections, the following tables describe the various factors surrounding ATV ridership in Tennessee the architects of this brief study found most pertinent, including trends in various crash types (property damage only, fatal, etc.), safety equipment usage, day of week and more.

It is important to understand the habits of ATV/ATC riders in order to further improve ATV safety in Tennessee, one of *many* states featuring geographies conducive to operating such vehicles both off- and on-road.

Section 1:

Temporal Data

Observed by the following, a general upward trend in ATV crashes is evident over the years in question. Even when accounting for negative percent changes in some years, the negative effect is dampened in light of the increasing number of crashes.

Table 1: Crashes Involving ATV Units by Year, CY 2013-2022

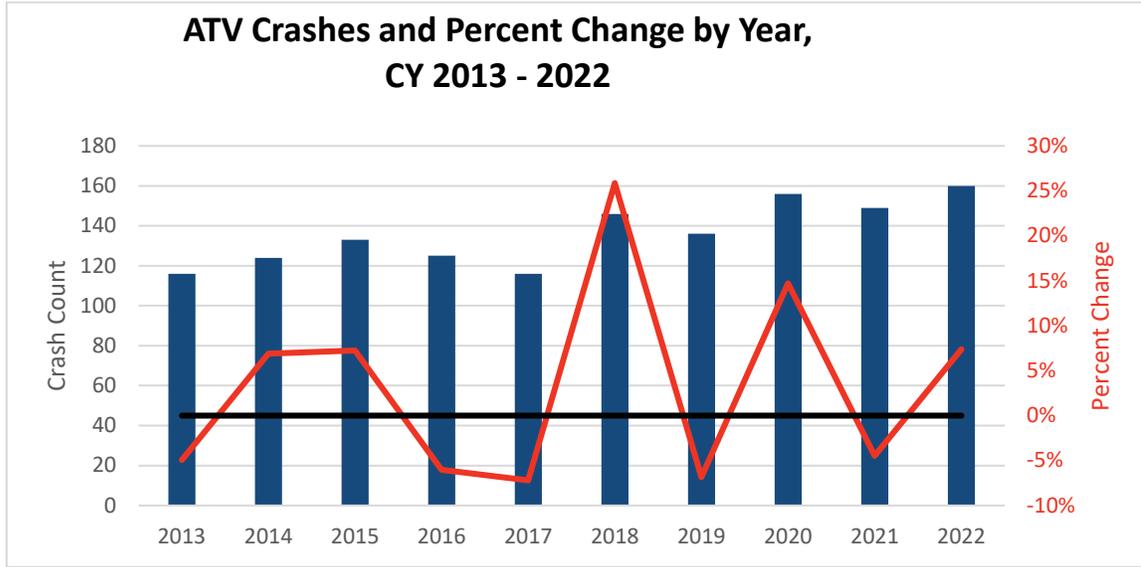
Year	Crashes	Percent Change
2013	116	-4.9%
2014	124	6.9%
2015	133	7.3%
2016	125	-6.0%
2017	116	-7.2%
2018	146	25.9%
2019	136	-6.8%
2020	156	14.7%
2021	149	-4.5%
2022	160	7.4%
TOTAL	1,361	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023

ATV Crash counts have increased since 2017. COVID-19 may have played a role in changes in behavior that has resulted in an increase in crashes.

The months accounting for more ATV crashes are the warmer *spring-to-fall* times of the year in Tennessee. In conjunction with the average age of ATV riders in crashes (as outlined in later Tables), summer recess for schools could reasonably play a factor as well.

Table 2: ATV Crashes by Month, CY 2013-2022

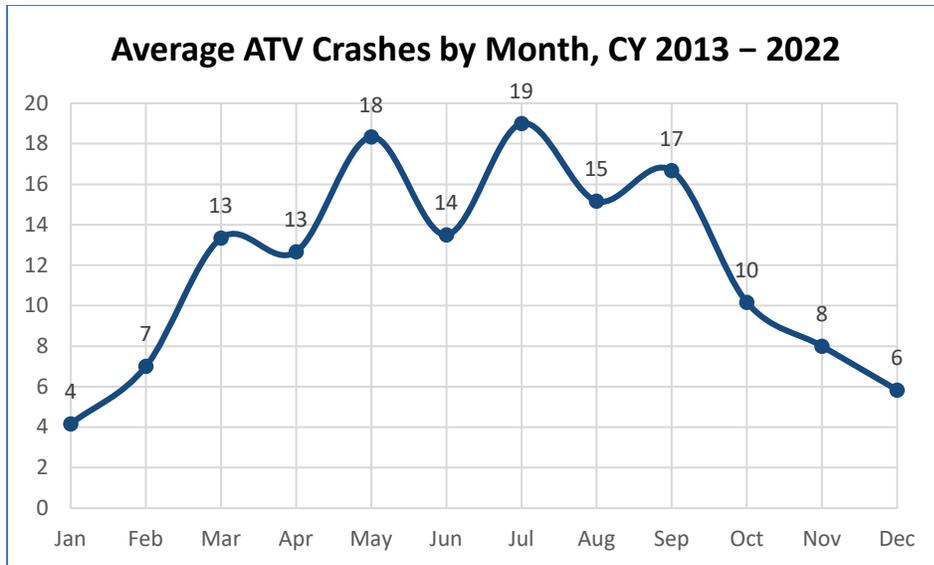


Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023 (Crash).

Table 3: ATV Crashes by Month, CY 2013-2022

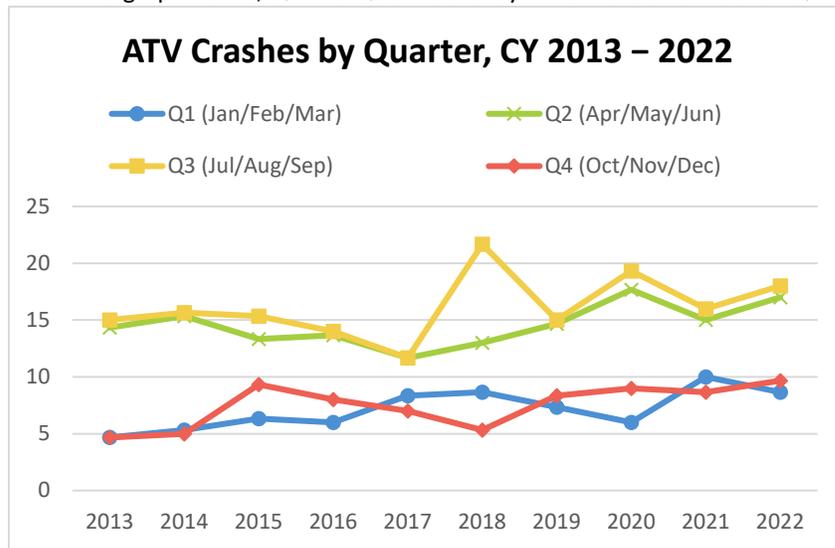
Month	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	Average
January	4	3	3	3	4	8	5	2	3	3	25	4
February	4	6	8	10	10	7	2	3	13	7	42	7
March	6	7	8	5	11	11	15	13	14	16	80	13
April	10	17	10	15	7	8	9	13	20	19	76	13
May	20	15	21	19	13	18	22	28	11	18	110	18
June	13	14	9	7	15	13	13	12	14	14	81	14
July	20	17	9	11	13	23	12	31	19	16	114	19
August	15	13	17	16	9	21	16	14	11	20	91	15
September	10	17	20	15	13	21	17	13	18	18	100	17
October	5	10	12	10	7	8	13	8	12	13	61	10
November	7	2	9	7	8	3	6	16	6	9	48	8
December	2	3	7	7	6	5	6	3	8	7	35	6
TOTAL	116	124	133	125	116	146	136	156	149	160	863	144

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

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

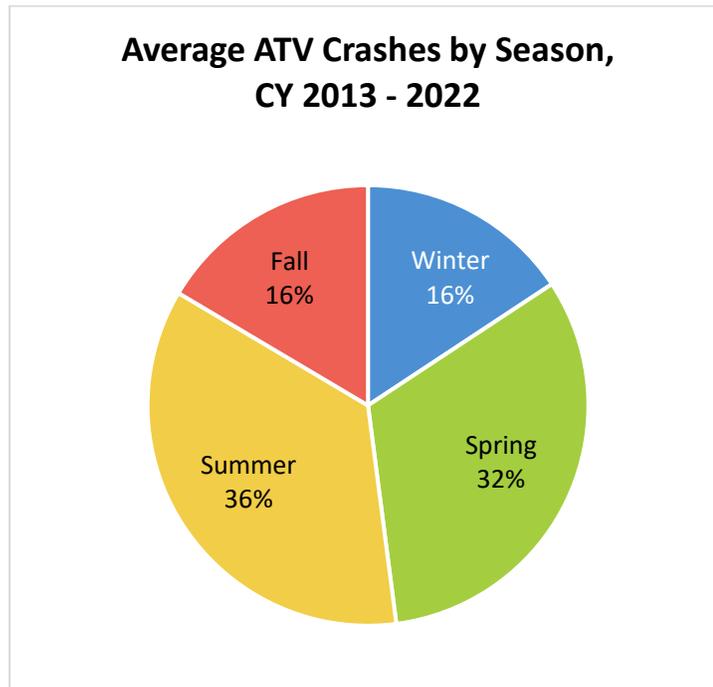


Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

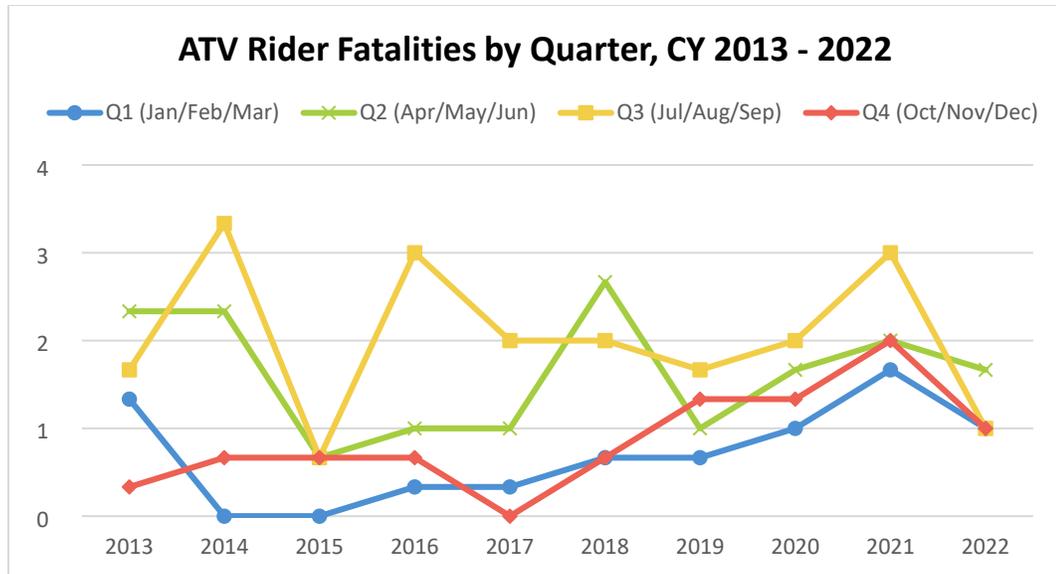
Table 4: Percentage of ATV Crashes by Month, CY 2013-2022

Month	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	By Season
January	3%	2%	2%	2%	3%	5%	4%	1%	2%	2%	Winter
February	3%	5%	6%	8%	9%	5%	1%	2%	9%	4%	16%
March	5%	6%	6%	4%	9%	8%	11%	8%	9%	10%	
April	9%	14%	8%	12%	6%	5%	7%	8%	13%	12%	Spring
May	17%	12%	16%	15%	11%	12%	16%	18%	7%	11%	32%
June	11%	11%	7%	6%	13%	9%	10%	8%	9%	9%	
July	17%	14%	7%	9%	11%	16%	9%	20%	13%	10%	Summer
August	13%	10%	13%	13%	8%	14%	12%	9%	7%	13%	36%
September	9%	14%	15%	12%	11%	14%	13%	8%	12%	11%	
October	4%	8%	9%	8%	6%	5%	10%	5%	8%	8%	Fall
November	6%	2%	7%	6%	7%	2%	4%	10%	4%	6%	16%
December	2%	2%	5%	6%	5%	3%	4%	2%	5%	4%	

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

As shown in the graph above, Q2 and Q3 consistently have higher fatalities than Q1 and Q4, with the exception of 2019.

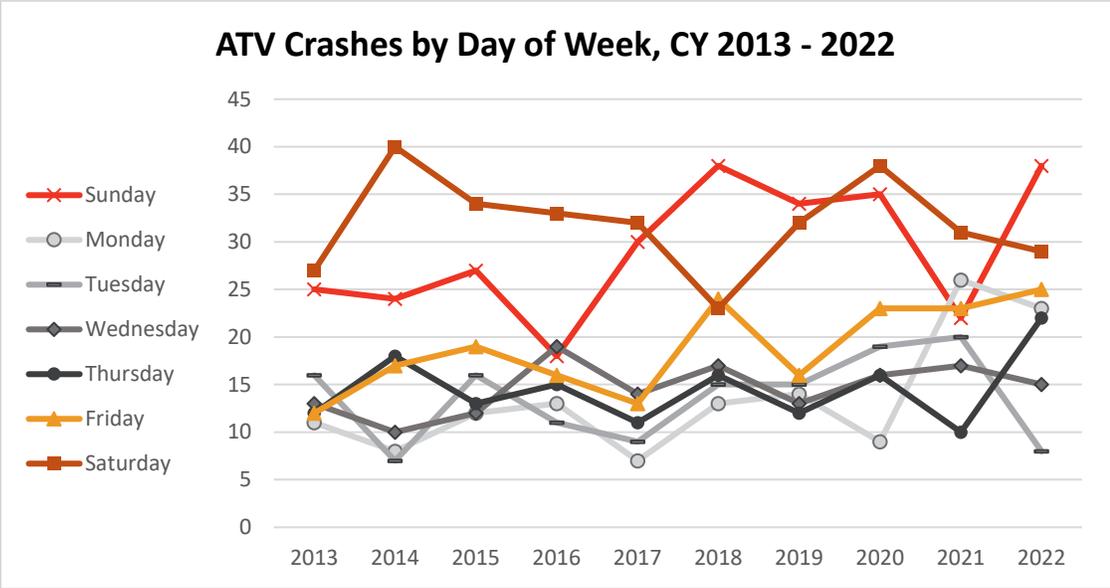
Furthermore, ATV crashes occur more frequently on weekends in general, irrespective of time of year, as the following tables illustrate:

Table 5: ATV Crashes by Day of Week, CY 2013-2022

Day of the Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
2013	25	11	16	13	12	12	27	116
2014	24	8	7	10	18	17	40	124
2015	27	12	16	12	13	19	34	133
2016	18	13	11	19	15	16	33	125
2017	30	7	9	14	11	13	32	116
2018	38	13	15	17	16	24	23	146
2019	34	14	15	13	12	16	32	136
2020	35	9	19	16	16	23	38	156
2021	22	26	20	17	10	23	31	149
2022	38	23	8	15	22	25	29	160
Average	29	14	14	15	15	19	32	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

- Days of the Week are grouped into three color coded groups:
- Saturday and Sunday are **RED**.
 - Friday is **ORANGE**.
 - Weekdays (Monday – Thursday) are **GREY**.

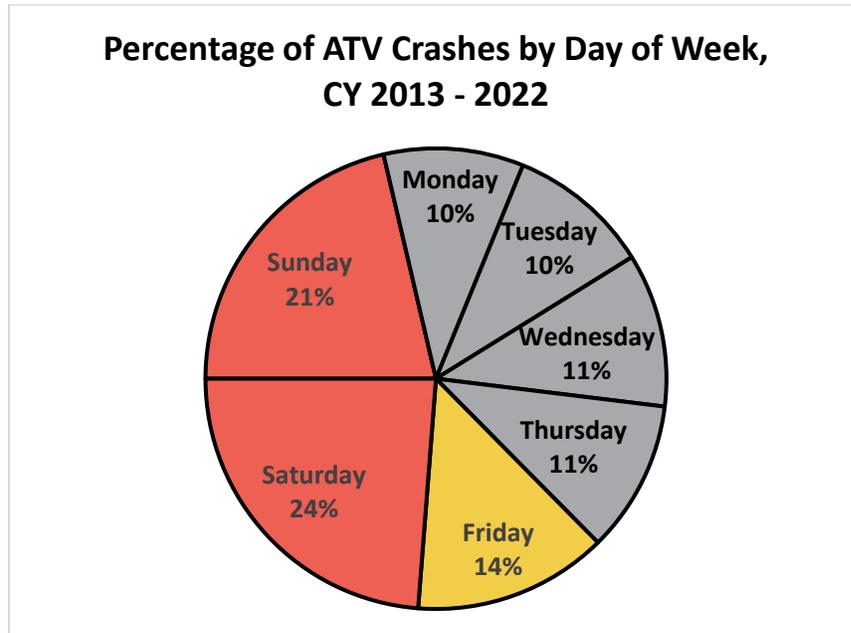


Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Table 6: Percentage of ATV Crashes by Day of Week, CY 2013-2022

Day of the Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2013	22%	9%	14%	11%	10%	10%	23%
2014	19%	6%	6%	8%	15%	14%	32%
2015	20%	9%	12%	9%	10%	14%	26%
2016	14%	10%	9%	15%	12%	13%	26%
2017	26%	6%	8%	12%	9%	11%	28%
2018	26%	9%	10%	12%	11%	16%	16%
2019	25%	10%	11%	10%	9%	12%	24%
2020	22%	6%	12%	10%	10%	15%	24%
2021	15%	17%	13%	11%	7%	15%	21%
2022	24%	14%	5%	9%	14%	16%	18%
Percent of Total	21%	10%	10%	11%	11%	14%	23%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit



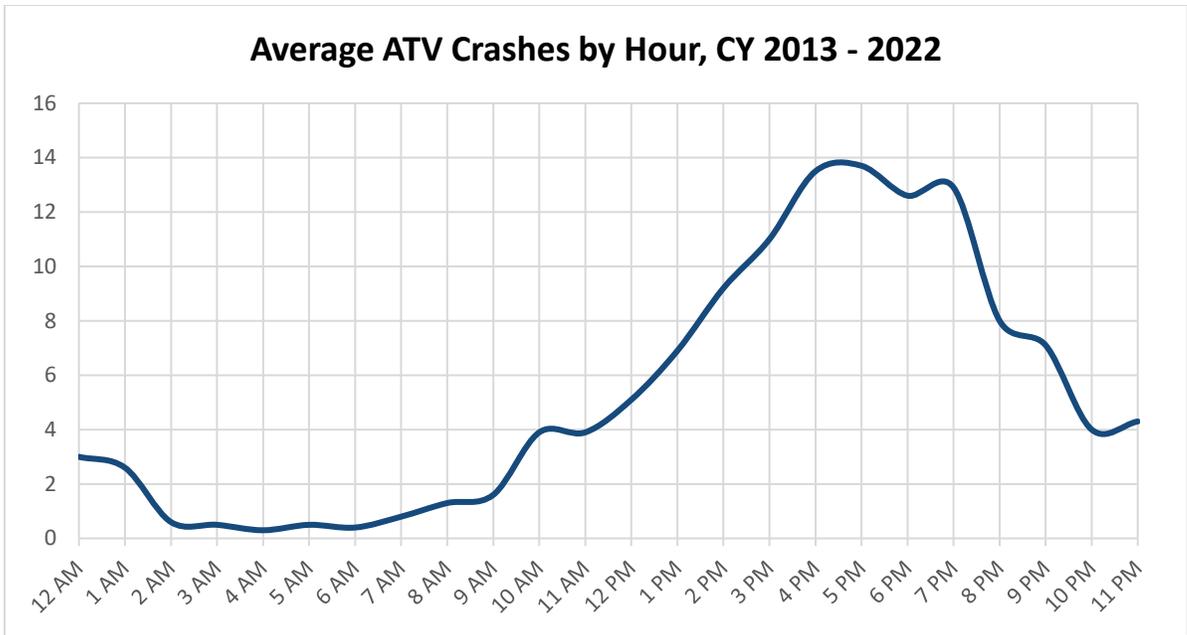
Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

As seen below, the majority of ATV crashes typically occur in the *afternoon-into-evening* hours of the day, with the greatest frequency from 3pm to 7pm, incidentally the same timeframe for the highest levels of regular traffic (National Transportation Research Group, 2017).

Table 7: ATV Crashes Occurring by Hour, CY 2013-2022

Hour of the Day	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
12 AM	2	3	3	3	3	4	3	5	3	1	3.0
1 AM	1	2	3	1	3	3	4	5	2	2	2.6
2 AM	0	1	1	1	0	0	0	1	1	1	0.6
3 AM	2	1	2	0	0	0	0	0	0	0	0.5
4 AM	0	1	0	1	0	0	0	0	1	0	0.3
5 AM	0	0	0	0	1	0	1	1	0	2	0.5
6 AM	0	1	0	0	1	0	1	0	0	1	0.4
7 AM	4	2	1	0	0	0	1	0	0	0	0.8
8 AM	0	0	0	1	1	3	3	2	0	3	1.3
9 AM	1	0	5	2	0	2	3	1	0	2	1.6
10 AM	5	4	3	1	3	4	6	3	3	7	3.9
11 AM	2	5	4	4	3	8	1	5	5	2	3.9
12 PM	5	5	9	1	3	7	3	6	10	2	5.1
1 PM	5	3	3	6	5	7	6	7	14	13	6.9
2 PM	7	6	5	7	9	13	14	11	11	9	9.2
3 PM	9	10	13	8	8	9	15	9	11	18	11.0
4 PM	10	9	12	16	20	10	19	10	13	16	13.5
5 PM	13	8	12	10	11	22	6	15	22	18	13.7
6 PM	11	17	13	12	14	8	6	18	15	12	12.6
7 PM	14	12	13	20	8	11	12	22	7	10	12.9
8 PM	7	9	11	7	7	7	8	9	7	8	8.0
9 PM	8	5	6	8	7	3	10	7	9	8	7.1
10 PM	1	5	3	1	0	6	5	6	4	9	4.0
11 PM	2	7	5	6	3	4	4	1	2	9	4.3
Unknown	7	8	6	9	6	15	5	12	9	7	8.4
TOTAL	116	124	133	125	116	146	136	156	149	160	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 28 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 28 Nov 2023.

Section 2: ATV Rider Demographics

As mentioned above, the “Under 16” age group consistently accounts for the largest share of ATV crashes, a startling finding. Again, this is presumably due to operator inexperience, as well as convenience as a transportation method before earning a GDL, on- or off- road.

Table 8: ATV Riders in Crashes by Age, CY 2013-2022

Age Group	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Under 16	16	20	26	22	18	28	28	28	34	26	246
16 to 17	11	20	12	7	9	13	6	15	11	9	113
18 to 20	12	6	16	15	17	19	9	15	15	12	136
21 to 24	12	15	14	12	14	12	9	16	16	12	132
25 to 29	11	13	12	9	12	11	9	15	9	8	109
30 to 34	14	11	7	12	5	9	10	10	10	13	101
35 to 39	6	14	5	12	7	7	15	5	8	11	90
40 to 44	9	7	5	3	1	10	13	11	10	9	78
45 to 49	9	4	7	5	5	5	7	8	5	13	68
50 to 54	4	10	11	4	8	7	8	10	6	10	78
55 to 59	1	4	2	3	3	4	7	5	9	8	46
60 to 64	4	2	6	3	3	6	3	4	4	5	40
65 to 69	2	2	4	3	5	5	6	2	1	4	34
70 to 74	2	1	1	2	0	3	2	2	2	4	19
75 to 79	1	0	0	1	0	1	1	2	2	3	11
80 and Over	1	1	0	3	3	2	0	2	0	1	13
Unknown	3	2	4	6	7	5	7	8	7	10	59
TOTAL	118	132	132	122	117	147	140	158	149	158	1,373

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Table 9: Percentage of ATV Riders in Crashes by Age, CY 2013-2022

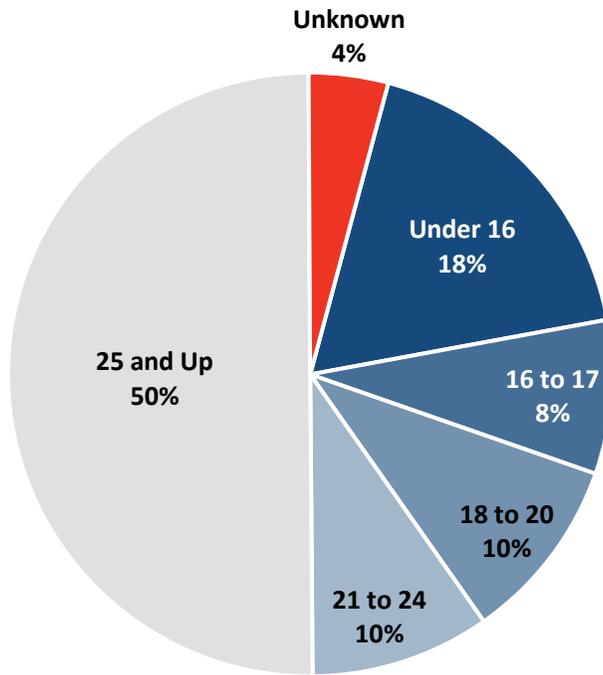
Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit

Age Group	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average	Cumulative Percentage
Under 16	14%	15%	20%	18%	15%	19%	20%	18%	23%	16%	18%	18%
16 to 17	9%	15%	9%	6%	8%	9%	4%	9%	7%	6%	8%	26%
18 to 20	10%	5%	12%	12%	15%	13%	6%	9%	10%	8%	10%	36%
21 to 24	10%	11%	11%	10%	12%	8%	6%	10%	11%	8%	10%	46%
25 to 29	9%	10%	9%	7%	10%	7%	6%	9%	6%	5%	8%	54%
30 to 34	12%	8%	5%	10%	4%	6%	7%	6%	7%	8%	7%	61%
35 to 39	5%	11%	4%	10%	6%	5%	11%	3%	5%	7%	7%	68%
40 to 44	8%	5%	4%	2%	1%	7%	9%	7%	7%	6%	6%	73%
45 to 49	8%	3%	5%	4%	4%	3%	5%	5%	3%	8%	5%	78%
50 to 54	3%	8%	8%	3%	7%	5%	6%	6%	4%	6%	6%	84%
55 to 59	1%	3%	2%	2%	3%	3%	5%	3%	6%	5%	3%	87%
60 to 64	3%	2%	5%	2%	3%	4%	2%	3%	3%	3%	3%	90%
65 to 69	2%	2%	3%	2%	4%	3%	4%	1%	1%	3%	3%	93%
70 to 74	2%	1%	1%	2%	0%	2%	1%	1%	1%	3%	1%	94%
75 to 79	1%	0%	0%	1%	0%	1%	1%	1%	1%	2%	1%	95%
80 +	1%	1%	0%	2%	3%	1%	0%	1%	0%	1%	1%	96%
Unknown	3%	2%	3%	5%	6%	3%	5%	5%	5%	6%	4%	100%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

As can be seen in the above table, over half of ATV drivers in crashes were under age 30.

Percent of ATV Drivers in Crashes by Highest Age Groups, CY 2013 - 2022



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Section 3: ATV Crash Factors

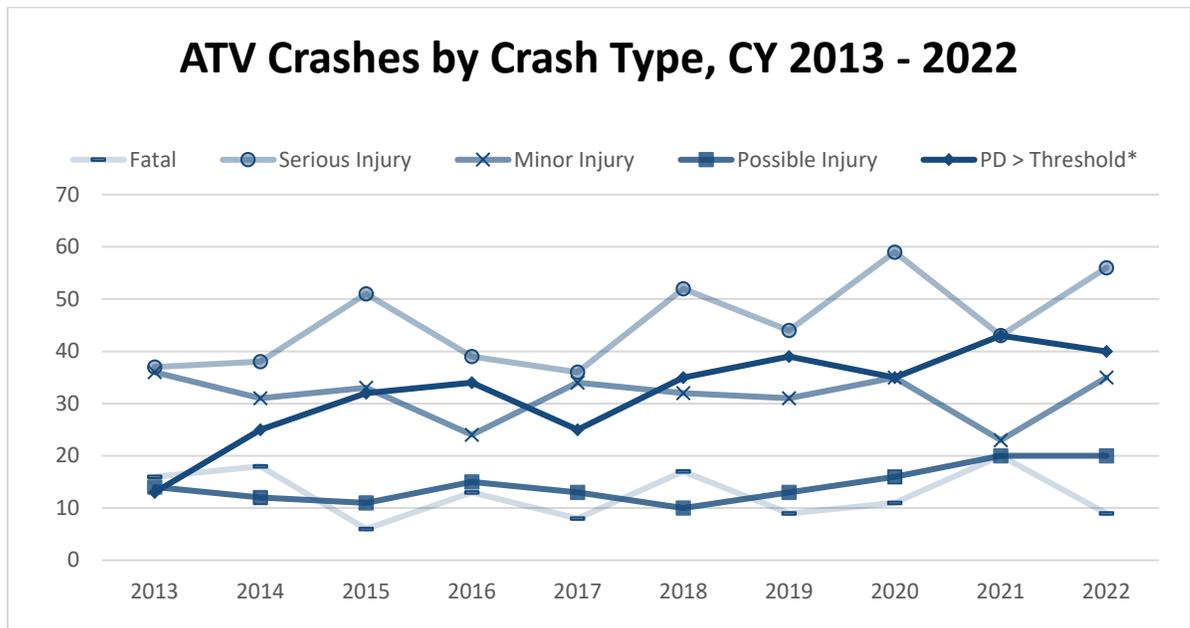
Table 10: ATV Crashes by Crash Type, CY 2013-2022

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Fatal Crash	16	18	6	13	8	17	9	11	20	9	127
Suspected Serious Injury Crash	37	38	51	39	36	52	44	59	43	56	455
Suspected Minor Injury Crash	36	31	33	24	34	32	31	35	23	35	314
Possible Injury Crash	14	12	11	15	13	10	13	16	20	20	144
PD > Threshold* Crash	13	25	32	34	25	35	39	35	43	40	321
TOTAL	116	124	133	125	116	146	136	156	149	160	1,361

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

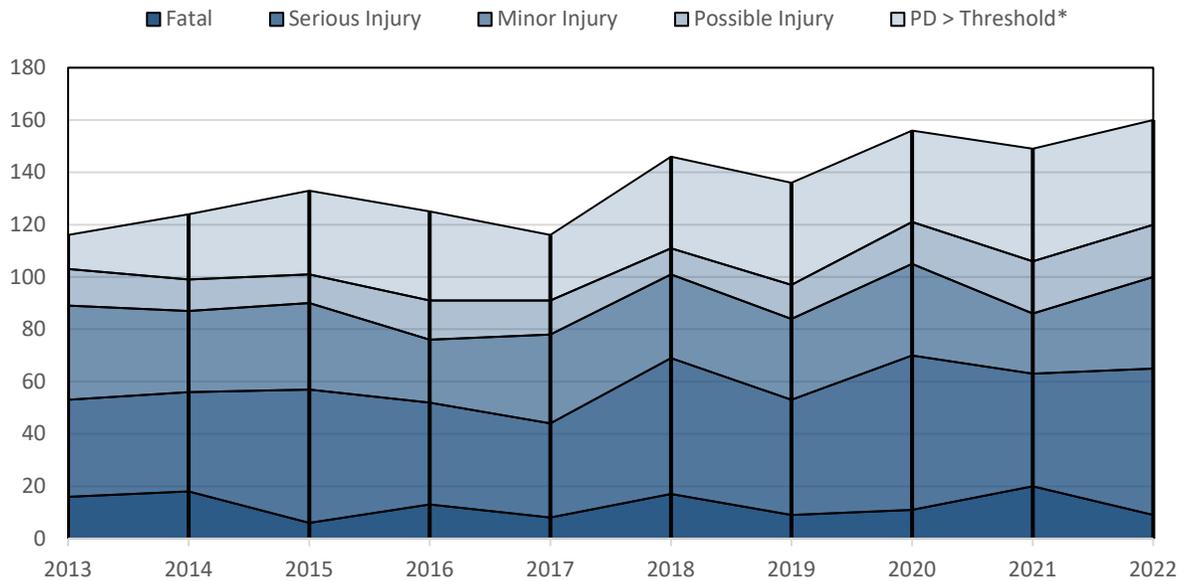
PLEASE NOTE:

- 1)The above table count reflects crashes where an ATV unit was involved. The type of crash reflects the most severe injury at the crash, not the injury level of the ATV rider or occupant.
- 2)* denotes that threshold changed from \$400 to \$1,500 during this ten-year period. This definition, PD>Threshold, will be used for the remainder of this document and reflects this change in threshold during the ten-year period of CY 2013-2022.



The graph above shows the frequency of the crash types in ATV-involved crashes. The leading crash type is serious injury. Minor injury and property damage over the threshold are second and third, depending on the year.

ATV Crashes by Crash Type and Totals, CY 2013 - 2022



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Table 11: ATV Rider Count by Injury Type, CY 2013-2022

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Fatal Crash	16	18	6	13	8	17	9	11	20	9	127
Suspected Serious Injury Crash	37	38	51	39	36	52	44	59	43	56	455
Suspected Minor Injury Crash	36	31	33	24	34	32	31	35	23	35	314
Possible Injury Crash	14	12	11	15	13	10	13	16	20	20	144
PD > Threshold* Crash	13	25	32	34	25	35	39	35	43	40	321
TOTAL	116	124	133	125	116	146	136	156	149	160	1,361

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 16 Nov 2023.

**Percent of ATV Drivers by Injury Type,
CY 2013 – 2022**

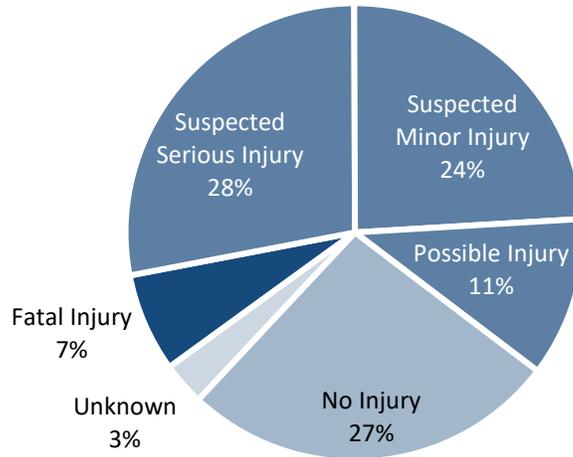
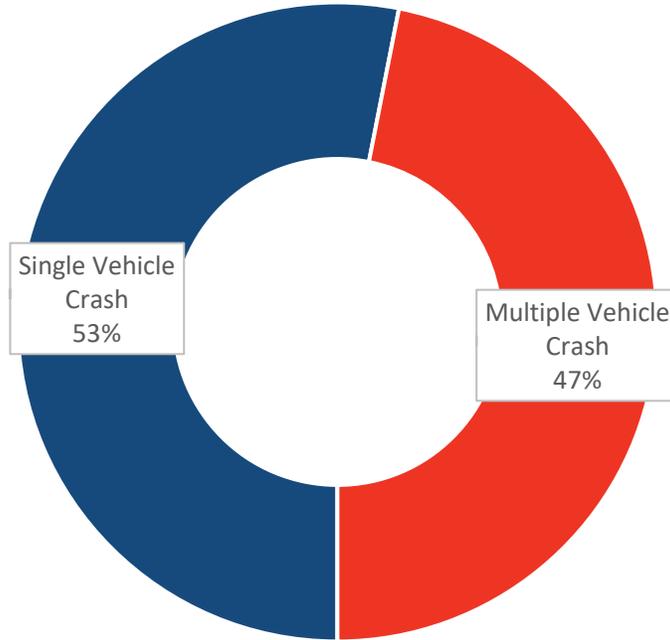


Table 12: ATV Crashes by Number of Units, CY 2013-2022

Year	Single Vehicle Crashes	Percent	Multiple Vehicle Crashes	Percent
2013	58	50%	58	50%
2014	73	59%	51	41%
2015	75	56%	58	44%
2016	64	51%	61	49%
2017	57	49%	59	51%
2018	79	54%	67	46%
2019	64	47%	72	53%
2020	92	59%	64	41%
2021	71	48%	78	52%
2022	92	58%	68	43%
TOTAL	725	53%	636	47%

**Average Percent of ATV Crashes by Number of Units,
CY 2013 - 2022**



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 16 Nov 2023.

Table 13: ATV Fatalities by Victim Vehicle Type, CY 2013-2022

PLEASE NOTE: * denotes that the vehicle weighs under 10,000 lbs.

Victim Vehicle Type	Classification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
ATV	ATV	17	19	6	15	10	18	14	18	26	14	157
Non-ATV	Light Truck, Pickup style or Conventional*	0	0	0	1	0	0	0	0	0	0	1
	Not Applicable / Nonmotorist	0	0	0	0	0	0	0	1	0	0	1
	Other Special Vehicle	0	0	0	0	1	0	0	0	0	0	1
TOTAL		17	19	6	16	11	18	14	19	26	14	160

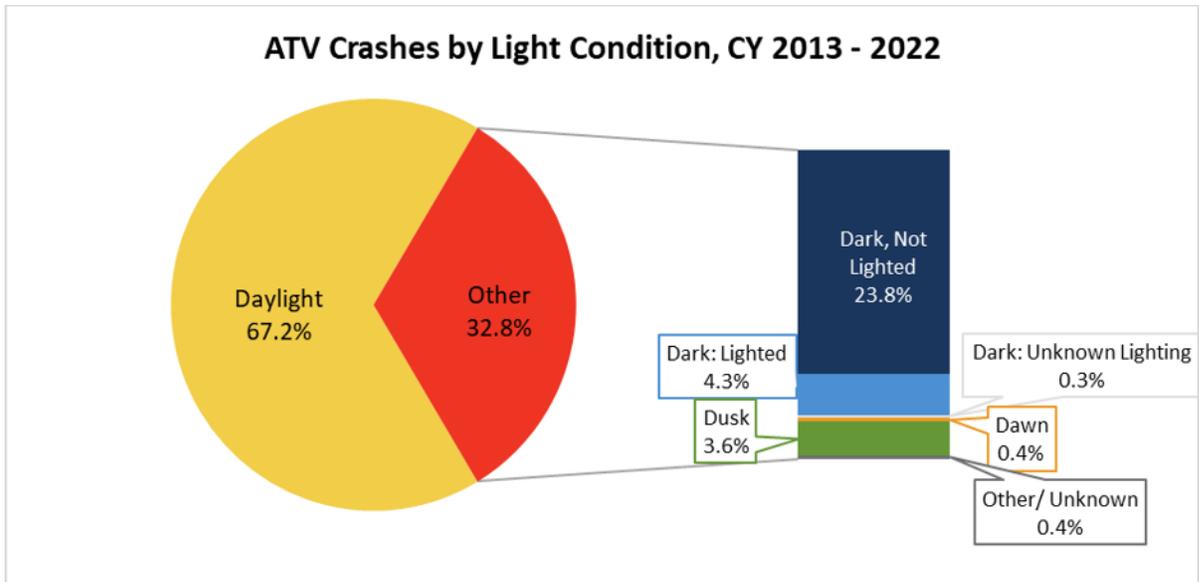
Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 14 Feb 2024.

Following the tables above, the majority of crashes occur under *daylight* conditions, leading at 67%, followed by “dark-not-lighted” at 24%.

Table 14: ATV Crashes by Light Condition, CY 2013-2022

Light Condition	Daylight	Dark: Not Lighted	Dark: Lighted	Dark: Unknown Lighting	Dawn	Dusk	Other/Unknown	TOTAL
2013	81	28	2	0	1	3	1	116
2014	82	36	2	1	0	3	0	124
2015	82	35	5	0	1	9	1	133
2016	83	27	11	0	0	3	1	125
2017	76	27	6	0	1	5	1	116
2018	106	27	8	1	1	3	0	146
2019	88	35	5	0	0	8	0	136
2020	102	39	4	0	2	9	0	156
2021	108	30	9	0	0	2	0	149
2022	106	40	7	2	0	4	1	160
TOTAL	914	324	59	4	6	49	5	1,361
Percent	67.2%	23.8%	4.3%	0.3%	0.4%	3.6%	0.4%	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 28 Nov 2023.



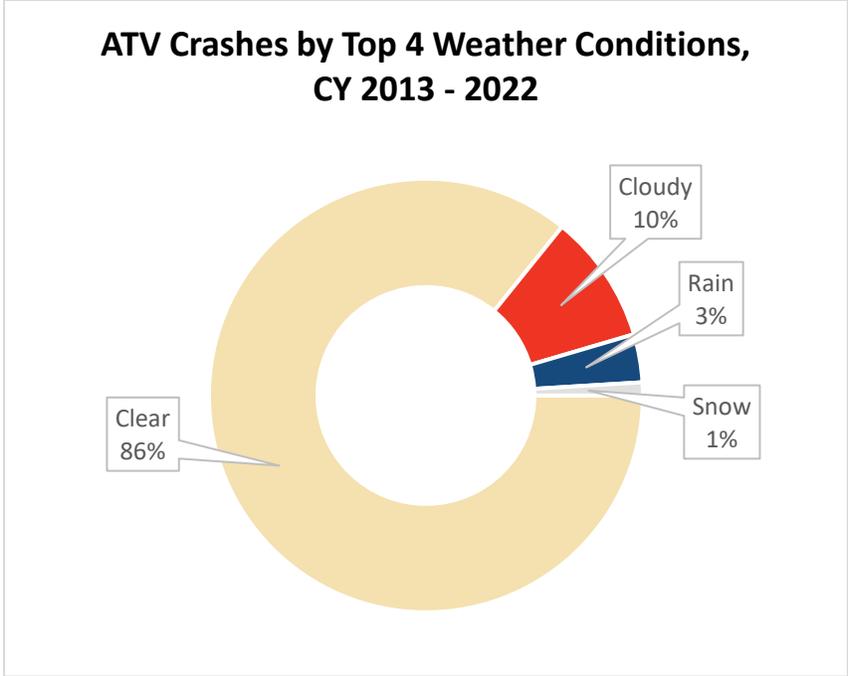
Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 28 Nov 2023.

Table 15: ATV Crashes by Weather Conditions, CY 2013-2022

Weather Conditions	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	Average	Percent
Clear	93	107	109	115	101	120	114	130	123	136	1,148	114.8	83.9%
Cloudy	13	11	11	8	12	15	14	14	15	16	129	12.9	9.4%
Rain	9	2	8	2	3	5	6	7	5	6	53	5.3	3.9%
Snow	0	2	4	0	0	4	0	1	5	0	16	1.6	1.2%
Fog	0	1	0	0	0	2	0	0	0	2	5	0.5	0.4%
Unknown	1	1	1	0	0	0	2	4	6	3	18	1.8	1.3%

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 1 Apr 2024.

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.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 1 Apr 2024.

95% ATV crashes occurred during non-adverse “clear” or “cloudy” weather conditions.

Table 16: ATV Crashes by County by Year (Top 10), CY 2013-2022

Ranking crash amounts by county reveals a fairly straightforward trend: six of the top ten counties by crash amount are primarily rural. Even so, counties in the top ten that feature major urban centers (Memphis in Shelby County, Nashville in Davidson, etc.) still include large swaths of rural lands, as well as higher population densities in general, presumably attributing to their high ranks statewide.

County Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	RANK
Shelby	7	9	10	11	17	16	9	16	17	12	124	1
Davidson	4	0	6	3	7	6	9	4	3	8	50	2
Scott	2	8	5	7	1	8	3	2	6	5	47	3
Hardin	2	3	3	5	3	4	5	4	7	4	40	4
Campbell	1	7	4	3	3	2	4	4	5	5	38	5
Hamilton	6	1	6	6	1	4	2	3	3	2	34	6
Lauderdale	3	3	3	4	3	2	3	3	4	3	31	7
Grundy	8	2	3	5	2	2	3	0	3	2	30	8
Anderson	1	1	1	10	1	2	5	1	4	3	29	9
Rutherford	3	1	6	1	1	4	2	2	3	2	25	10
Tipton	1	3	2	3	1	1	2	3	4	5	25	10
TOTAL	116	124	133	125	116	146	136	156	149	160	1,361	N/A

Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Section 4: ATV Driver Activity

Table 17: ATV Fatalities by Helmet and Seatbelt Use, CY 2013-2022

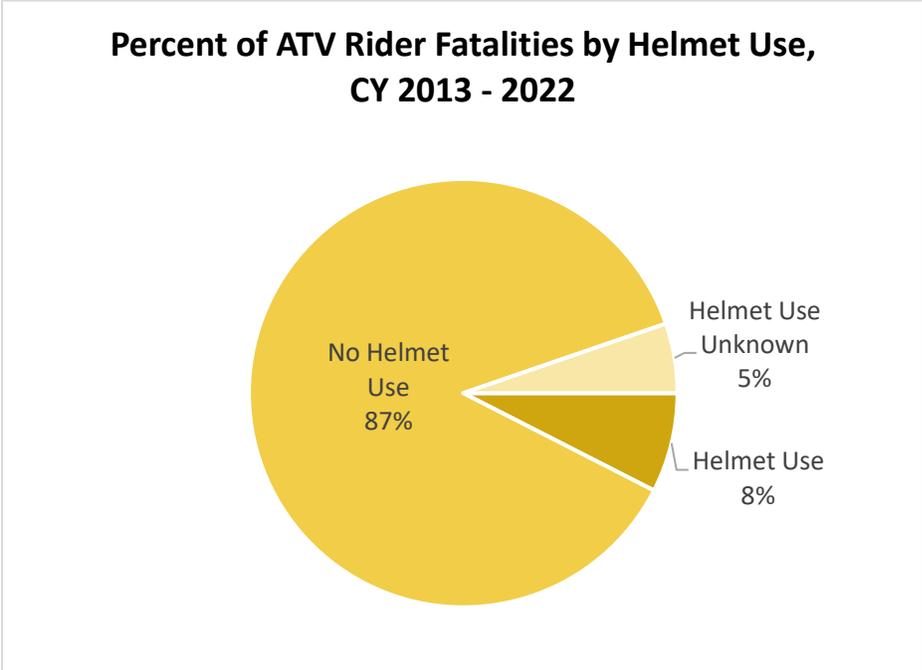
Regarding use of safety equipment, the following tables are separated by helmet use and seatbelt use, as many models of “All Terrain Cycles” include safety harnesses for on-road and recreational off-road use. The most troubling figure here is “No Helmet Use,” with a massive 87% share for ATV riders.

Year		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	Percent
Helmet Use	Yes	2	0	0	3	0	2	1	1	1	0	10	8%
	No	14	19	6	11	8	15	6	12	17	8	116	87%
	Unknown	1	0	0	1	0	1	0	1	2	1	7	5%
	TOTAL	17	19	6	15	8	18	7	14	20	9	133	N/A
Seatbelt Use	Yes	0	0	0	0	1	0	5	0	0	1	7	29%
	No	0	0	0	0	1	0	2	3	3	4	13	54%
	Unknown	0	0	0	0	0	0	0	1	3	0	4	17%
	TOTAL	0	0	0	0	2	0	7	4	6	5	24	N/A

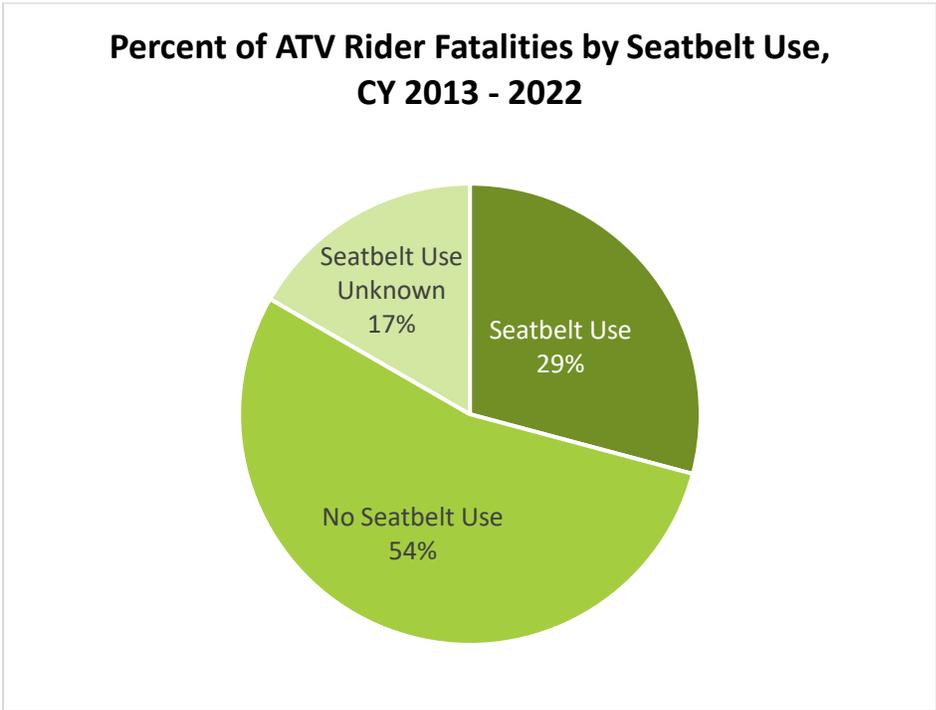
Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

Of note in the table above, various makes and models of ATV/ATCs do or do not require helmets; further, some do not include safety harnesses for larger model ATCs. The data above reflect what could be collected from crash reports to the best of the responding officers' abilities.

As would be expected, proper helmet/safety equipment use is associated with a drastic relation to survivorship in an ATV crash. Below, a telling 87% of fatality crashes involve riders with no helmet, as well as over half with no seatbelt/harness use indicated.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 02 Nov 2023.

While the following does not reflect alcohol use in conjunction with the *age* of riders, fatal crashes still comprise nearly one-fifth of all alcohol-related crashes, further telling of safety risks of ATV operation when more reckless behavior is bound to be exhibited by drivers.

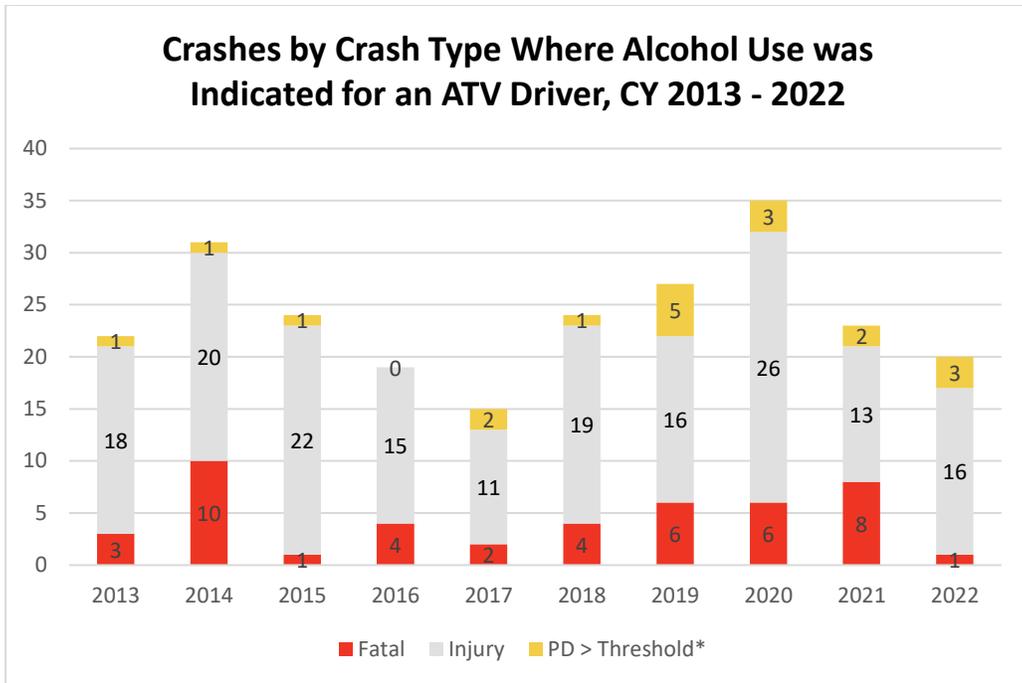
Table 18: Crashes where Alcohol Use was Indicated for an ATV Operator, CY 2013-2022

Crash Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Fatal	3	10	1	4	2	4	6	6	8	1	45
Injury	18	20	22	15	11	19	16	26	13	16	176
PD > Threshold*	1	1	1	0	2	1	5	3	2	3	19
TOTAL	22	31	24	19	15	24	27	35	23	20	240

Table 19: Percentage of Crashes Where Alcohol Use was Indicated for an ATV Driver, CY 2013-2022

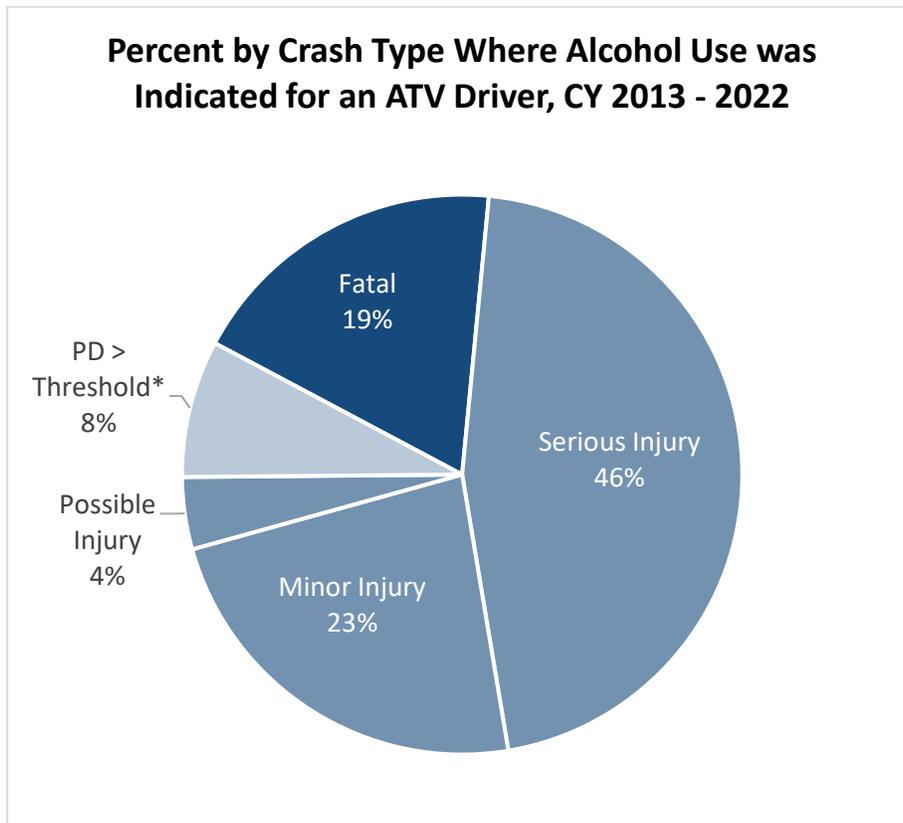
Crash Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Fatal	19%	56%	17%	31%	25%	24%	67%	55%	40%	11%	35%
Injury	21%	25%	23%	19%	13%	20%	18%	24%	15%	14%	19%
PD > Threshold*	8%	4%	3%	0%	8%	3%	13%	9%	5%	8%	6%
TOTAL	19%	25%	18%	15%	13%	16%	20%	22%	15%	13%	18%

Source: TN Dept. of Safety and Homeland Security, CY 2013-2022, 16 Nov 2023.

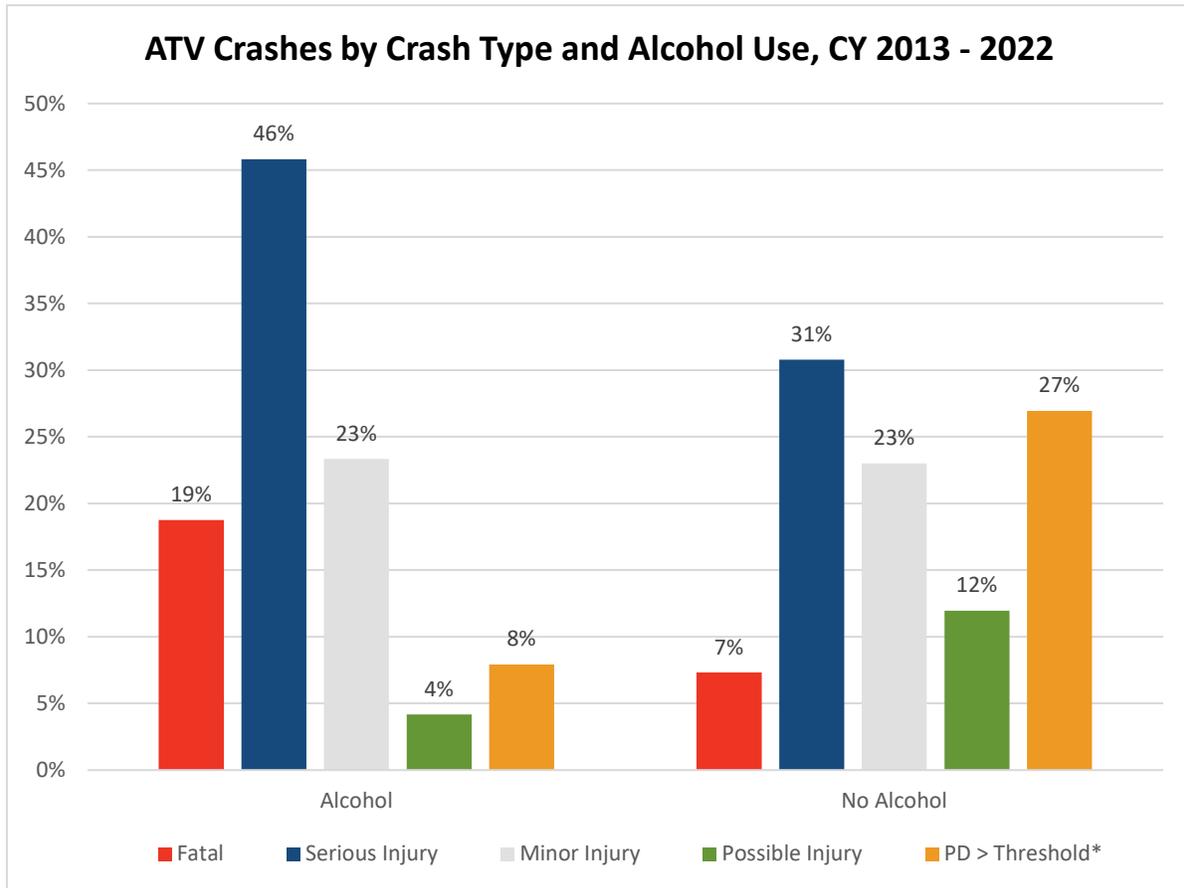


Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 16 Nov 2023.

Table 18: Crashes Where Alcohol Use was Indicated for an ATV Driver, CY 2013-2022



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 16 Nov 2023.



Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 16 Nov 2023.

As shown in the graph above, the three leading crash types for alcohol-related crashes are serious injury, minor injury, and fatal. However, for non-alcohol crashes, property damage is the second most frequent crash type while fatalities are the least frequent.