

Younger Driver Crash Analysis

System Performance and Monitoring Committee
August 11, 2020



Project Background

- TMACOG Regional Safety Plan, TCH request
- 15 – 20 years old
- 2014 to 2019 data
- Data from ODOT GIS Crash Analysis Tool (GCAT)
<https://gis.dot.state.oh.us/tims/CrashAnalytics/Login>
- Excel – Each year has a summary & tables by age
+ 6-year summary
- Online Map
<https://arcg.is/1H5T14>



Crash Summary for Younger Drivers (15-20) in Lucas County,

	6yr Total	2014		
Total Crashes in Lucas County in 2014-2019:	84,334	12,926		
Total # of Teen Drivers Involved in a Crash in 2014-2019:	15,363	2,486		
Overall Crashes Involving a Teen Driver:				
	Number	Percent	Average	2014
1 Total Crashes:	14,672	17.4%	2,445	2,337
2a ¹ Injury Related Crashes:	4,493	30.6%	749	754
2b Number of Serious Injuries:	341		57	70
3a Fatal Crashes:	32	0.2%	5	9
3b Number of Fatalities:	33		6	10
4 ¹ Improper Restraint:	625	4.3%	104	93
5 ² Distracted Driving:	989	6.7%	165	145

Crash Summary for Younger Drivers (15-20) in Lucas County, 2019

	Number
Total Crashes in Lucas County in 2019:	14,378
Total Number of Teen Drivers Involved in a Crash in 2019:	2,330
Overall Crashes Involving a Teen Driver (may or may not be at fault)	
1 Total Crashes:	2,201 15.3%

Time of Day for Fatal and Serious Injury Crashes

Younger Driver Only										
Total	Percent	Average	2014	2015	2016	2017	2018	2019		
29	9.1%	4.8	9	2	6	3	6	3		
48	15.1%	8.0	9	8	12	7	7	5		
133	41.8%	22.2	28	17	26	30	23	9		
108	34.0%	18.0	20	23	18	18	18	11		
318	100.0%	53.0	66	50	62	58	54	28		

All Crashes

9.) Overall Crashes Involving a Teen Driver - Crash Types:

11.) Teen Driver at Fault - Total Crashes:

12a.) Teen Driver At Fault - Injury Related:

13a.) Teen Driver At Fault - Fatality Related:

Type	Number	Percent	Age	Number	Percent	Age	Serious	Non-IC	Possible	Total	Percent	Age	Number	Percent
1 - Head On	29	1.3%	15	14	0.9%	15	2	4	2	8	1.7%	15	0	0.0%
2 - Rear End	814	37.0%	16	184	12.0%	16	2	28	23	53	11.4%	16	1	50.0%
3 - Backing	44	2.0%	17	270	17.6%	17	3	36	34	73	15.7%	17	0	0.0%
4 - Sideswipe Meeting	0	0.0%	18	352	22.9%	18	6	45	57	108	23.2%	18	0	0.0%
5 - Sideswipe Passing	328	14.9%	19	371	24.1%	19	4	49	60	113	24.3%	19	1	50.0%
6 - Angle	392	17.8%	20	347	22.6%	20	4	59	47	110	23.7%	20	0	0.0%
7 - Parked Vehicle	36	1.6%	Total	1,538		Total	21	221	223	465		Total	2	
8 - Pedestrian	25	1.1%												
9 - Animal	19	0.9%												
10 - Train	0	0.0%												
11 - Bicycle	17	0.8%												
12 - Other Non-Vehicle	0	0.0%												
13 - Fixed Object	174	7.9%												
14 - Other Object	3	0.1%												
15 - Falling From/In Vehicle	0	0.0%												
16 - Overturning	4	0.2%												
17 - Other Non-Collision	9	0.4%												
18 - Left Turn	211	9.6%												
19 - Right Turn	95	4.3%												
20 - Unknown/No Citation	1	0.0%												
Total	2,201													

12b.) Teen Driver At Fault - # Serious Injuries:

13b.) Teen Driver At Fault - # Fatalities:

Age	Number	Age	Number
15	2	15	0
16	2	16	1
17	3	17	0
18	7	18	0
19	4	19	1
20	6	20	0
Total	24	Total	2

23b Gender - Male:	5,343	52.0%	891	880	19b Teen Driver Not in Motorized Vehicle:	16	1.0%	39,334	46.9%	6,589	6,024	6,690	7,000	6,659	6,448	6,683
23c Gender - Remaining/Unclassified:	9	0.1%	2	0	20 Top Hour of Crash: 3 PM to 4 PM (164)	10.7%	13,788	16.3%	2,298	2,148	2,265	2,320	2,320	2,325	2,410	
Roadway Departure:	1,459	14.2%	243	247	21 Top Month of Crash: October (167)	10.9%	13,523	16.0%	2,254	2,123	2,081	2,363	2,524	1,793	2,639	
					22 Top Day of Week: Friday (258)	16.8%	remaining difference is made up of crashes with an unclassified gender or no citation was administered to a unit.									
					23a Gender - Female:	792	51.5%									
					23b Gender - Male:	745	48.4%									
					23c Gender - Unclassified:	1	0.1%									
					24 Roadway Departure:	228	14.8%									

¹ Cannot differentiate between the teen driver and the other involved driver.

² Crashes involving distracted driving may be underreported.



Younger Driver Involved

Younger Driver At Fault



LUCAS COUNTY

Total Crashes – all ages (2014-2019)

84,334

(average – 14,056)

Total Number of Younger Drivers Involved in a Crash

15,563

(average – 2,594)

LUCAS COUNTY Crash Severity

Younger Driver Involved

	Amt.	%	Avg.
Total Crashes	14,672	17.4%	2,445
Injury Crash	4,493	30.6%	749
# Serious Injuries	341	-	57
Fatal Crash	32	0.2%	5
# Fatalities	33	-	6

Younger Driver At Fault

	Amt.	%	Avg.
Total Crashes	10,284	70.1%	1,714
Injury Crash	3,208	31.2%	535
# Serious Injuries	234	-	39
Fatal Crash	25	0.2%	4
# Fatalities	26	-	4

LUCAS COUNTY Misc. Variables

Younger Driver Involved

	Amt.	%	Avg.
Total	14,672	17.4%	2,445
Improper Restraint	625	4.3%	104
Distracted Driving	989	6.7%	165
Alcohol/ Drug Use	268	1.8%	45
Speed	964	6.6%	161
Roadway Departure	-	-	-

Younger Driver At Fault

	Amt.	%	Avg.
Total	10,284	70.1%	1,714
Improper Restraint	447	4.3%	75
Distracted Driving	795	7.7%	133
Alcohol/ Drug Use	135	1.3%	23
Speed	734	7.1%	122
Roadway Departure	1,459	14.2%	243

LUCAS COUNTY Crash Types

Younger Driver Involved

	Amt.	%	Avg.
1. Rear End	5,632	38.4%	939
2. Left Turn	2,080	14.2%	347
3. Angle	1,879	12.8%	313
4. Sideswipe – Same	1,873	12.8%	312
5. Fixed Object	1,212	8.3%	202

Younger Driver At Fault

	Amt.	%	Avg.
1. Rear End	4,132	40.2%	689
2. Left Turn	1,378	13.4%	230
3. Fixed Object	1,185	11.5%	198
4. Angle	1,172	11.4%	195
5. Sideswipe – Same	1,158	11.3%	193

LUCAS COUNTY

Pedestrian & Bicycle Related

Younger Driver Involved

	Amt.	%	Avg.
Motorized	14,389	98.1%	2,398
Non-Motorized	283	1.9%	47

Younger Driver At Fault

	Amt.	%	Avg.
Motorized	10,177	99.0%	1,696
Non-Motorized	107	1.0%	18

LUCAS COUNTY

Gender and Time Factors

I only did this for the younger driver at fault

Gender	Amt.	%	Avg.
Female	4,932	48.0%	822
Male	5,343	52.0%	891
Remainder/ Unclass	9	0.1%	2

Top 3 Month	Amt.	%	Avg.
October	1,026	10.0%	171
January	941	9.2%	157
December	887	8.6%	148

Top 3 Day	Amt.	%	Avg.
Friday	1,777	17.3%	296
Wednesday	1,608	15.6%	268
Thursday	1,556	15.1%	259

Top 3 Hour	Amt.	%	Avg.
4PM	1,120	10.9%	187
3PM	1,066	10.4%	178
5 PM	1,022	9.9%	170



WOOD COUNTY

Total Crashes – all ages (2014-2019)

22,571

(average – 3,762)

Total Number of Younger Drivers Involved in a Crash

5,051

(average – 842)

WOOD COUNTY Crash Severity

Younger Driver Involved

	Amt.	%	Avg.
Total Crashes	4,711	20.9%	785
Injury Crash	1,252	26.6%	209
# Serious Injuries	189	-	32
Fatal Crash	11	0.2%	2
# Fatalities	16	-	3

Younger Driver At Fault

	Amt.	%	Avg.
Total Crashes	3,565	75.7%	594
Injury Crash	579	16.2%	165
# Serious Injuries	149	-	25
Fatal Crash	10	0.3%	2
# Fatalities	14	-	2

WOOD COUNTY
Misc. Variables

Younger Driver Involved

	Amt.	%	Avg.
Total	4,711	20.9%	785
Improper Restraint	182	3.9%	30
Distracted Driving	372	7.9%	62
Alcohol/ Drug Use	114	2.4%	19
Speed	551	11.7%	92
Roadway Departure	-	-	-

Younger Driver At Fault

	Amt.	%	Avg.
Total	3,565	75.7%	594
Improper Restraint	150	4.2%	25
Distracted Driving	301	8.4%	50
Alcohol/ Drug Use	81	2.3%	14
Speed	456	12.8%	76
Roadway Departure	1,119	31.4%	187



WOOD COUNTY Crash Types

Younger Driver Involved

	Amt.	%	Avg.
1. Rear End	1,534	32.6%	256
2. Fixed Object	981	20.8%	164
3. Left Turn	507	10.8%	85
4. Angle	505	10.7%	84
5. Sideswipe - Same	434	9.2%	72

Younger Driver At Fault

	Amt.	%	Avg.
1. Rear End	1,203	33.7%	201
2. Left Turn	971	27.2%	162
3. Fixed Object	354	9.9%	59
4. Angle	343	9.6%	57
5. Sideswipe - Same	274	7.7%	46

WOOD COUNTY

Pedestrian & Bicycle Related

Younger Driver Involved

	Amt.	%	Avg.
Motorized	4,654	98.8%	776
Non-Motorized	57	1.2%	10

Younger Driver At Fault

	Amt.	%	Avg.
Motorized	3,548	99.5%	591
Non-Motorized	17	0.5%	3

WOOD COUNTY

Gender and Time Factors

I only did this for the younger driver at fault

Gender	Amt.	%	Avg.
Female	1,687	47.3%	281
Male	1,878	52.7%	313
Remainder/ Unclass	0	0.0%	0

Top 3 Month	Amt.	%	Avg.
January	405	11.4%	68
October	334	9.4%	56
November	328	9.2%	55

Top 3 Day	Amt.	%	Avg.
Friday	594	16.7%	99
Thursday	554	15.5%	92
Tuesday	518	14.5%	86

Top 3 Hour	Amt.	%	Avg.
3PM	386	10.8%	64
4PM	353	9.9%	59
5 PM	318	8.9%	53



Online Map

<https://arcg.is/1H5T14>



Thank you!



Lisa Householder

householder@tmacog.org

