

**Grand Valley Metropolitan Council**

**Traffic Crash Facts 2022**

**November 2023**

## **Introduction**

The Grand Valley Metro Council (GVMC) is the designated MPO for Grand Rapids Metro area and is responsible for the traffic safety planning in this area. The crash data assembled by GVMC staff can provide information to the MPO stakeholder and public for the future safety planning and selection of future road projects.

This report includes statistics of crash data for the Grand Rapids Metropolitan Area such as crash facts in 2022, top 50 crash intersections, and top 50 crash segments.

## **Definition**

The terms defined in this report as applied to the crash facts are as follows,

PDO: Number of crashes involving Property Damage Only

Injury: Number of crashes involving injuries, not the number of injuries

A-Type: Number of crashes involving incapacitating injuries

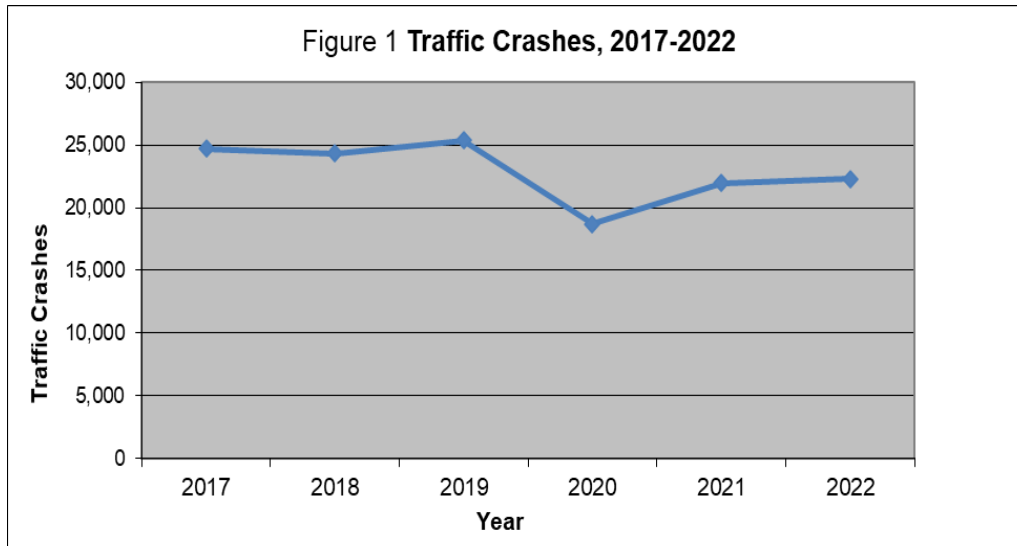
B-Type: Number of crashes involving non-incapacitating injuries

C-Type: Number of crashes involving possible injuries

Fatal: Number of crashes involving fatalities, not the number of fatalities

## All Traffic Crashes

In 2022, there were 22,287 traffic crashes reported in GVMC area. This is an increase of 1.4 percent from 2021. Figure 1 below shows total traffic crashes from 2017 to 2022.



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

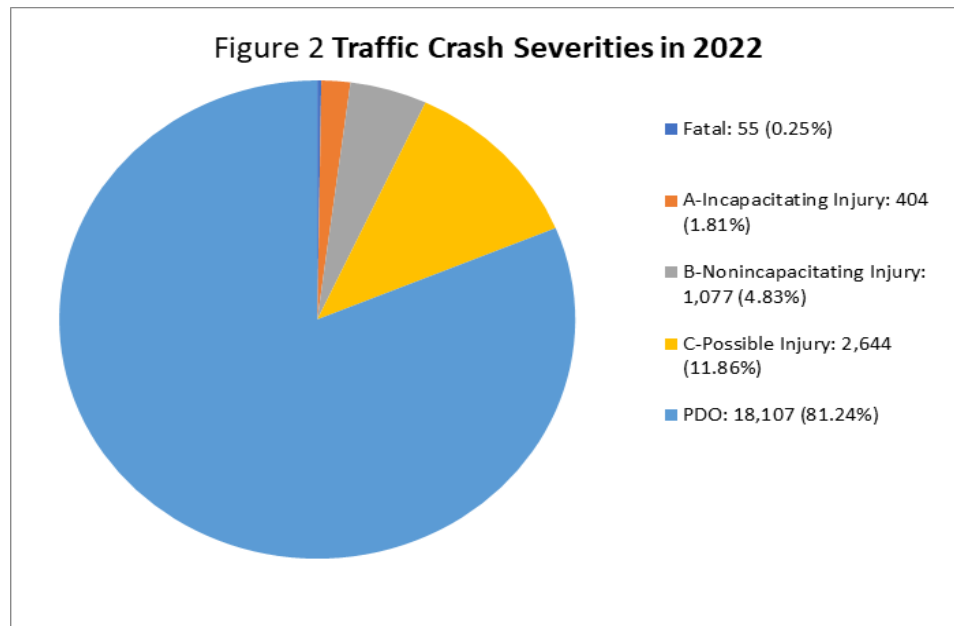
## Traffic Crashes by Jurisdiction

Table 1 shows the number of total crashes by jurisdiction in GVMC area from 2016-2021.

Local Governments	2017	2018	2019	2020	2021	2022
Ada	314	332	350	238	313	343
Algoma	285	363	296	227	253	308
Allendale	386	387	444	332	377	379
Alpine	323	313	367	297	352	264
Blendon	164	192	216	154	208	208
Bowne	87	64	88	64	72	108
Byron	746	742	814	565	703	774
Caledonia	354	383	430	314	430	466
Cannon	226	209	193	168	200	219
Cascade	795	763	839	582	708	949
Casnovia	2	7	4	1	0	0
Cedar Springs	77	82	82	70	75	88
Chester	54	52	61	49	56	69
Courtland	220	196	168	166	218	212
East Grand Rapids	163	156	199	96	135	178
Gaines	526	550	612	453	589	620
Georgetown	931	955	1020	737	861	1018
City of Grand Rapids	8907	8559	8936	6602	7119	5911
Grand Rapids Township	579	607	604	401	471	562
Grandville	870	808	782	575	703	802
Grattan	106	126	97	87	102	98
Hudsonville	195	215	246	133	182	218
Jamestown	220	211	243	200	207	265
Kent City	25	30	27	13	0	0
Kentwood	1354	1356	1433	1069	1381	1498
Lowell Twp	244	249	256	176	258	315
Lowell	108	111	100	64	101	106
Nelson	136	136	124	111	129	136
Oakfield	130	131	125	106	129	141
Plainfield	1075	1086	1127	711	914	1028
Polkton	217	203	254	176	224	217
Rockford	144	152	152	102	136	141
Sand Lake	5	11	11	9	0	0
Solon	247	238	201	174	195	209
Sparta	145	191	208	30	191	261
Spencer	67	86	67	85	85	98
Tallmadge	239	239	314	259	262	257
Tyrone	114	105	99	100	126	151
Vergennes	109	128	130	91	106	143
Walker	1465	1447	1559	1066	1350	1408
Wright	263	240	274	194	214	233
Wyoming	2655	2478	2611	2037	2525	2613

## Traffic Crashes by Severity

Of the 22,287 traffic crashes in GVMC area in 2022, there were 476 crashes causing fatalities or serious injuries. A total of 55 fatal crashes resulted in 60 deaths, and a total of 421 serious injury crashes resulted in 493 serious injuries. Figure 2 shows traffic crashes distribution by injury severity in 2022. Table 2 shows the number of each severity and the number of fatalities and injuries caused by the crashes.



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

**Table 2 Traffic Crash Severity in 2022**

Crash Severity	Number of Traffic Crashes	Number of Injuries
Fatal	55	60
A-Type Injury	404	493
B-Type Injury	1,077	1,389
C-Type Injury	2,644	3,726
Injury and Fatality subtotal	4,180	5,668
PDO	18,107	
Total	22,287	

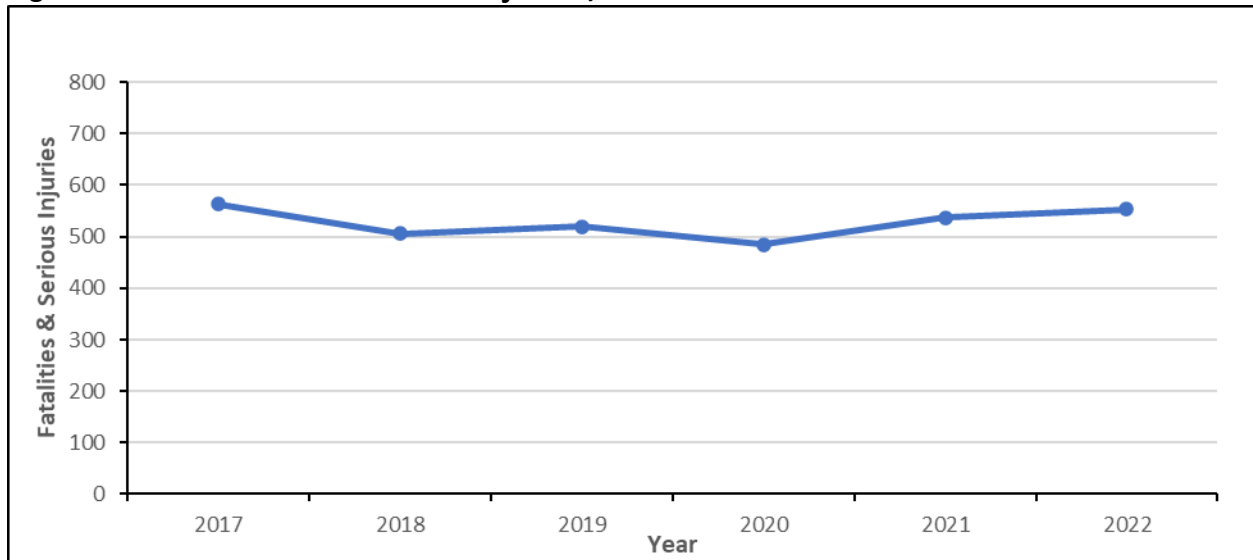
Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## All Fatalities and Serious Injuries

Fatalities and serious injuries are defined as a crash that causes death within 30 days of the crash or incapacitating injuries as defined in Michigan Traffic Crash Facts' Data Query Tool.

Figure 2a below shows fatalities and serious injuries in GVMC area, which decreased 1.8 percent from 2017 to 2022.

Figure 2a **Fatalities and Serious Injuries, 2017-2022**

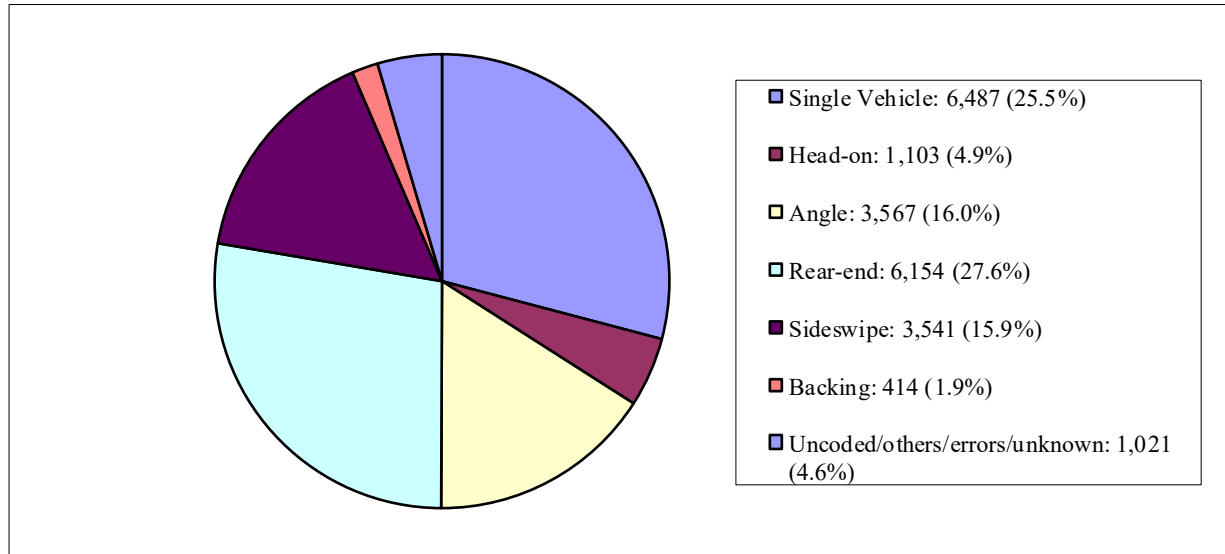


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Traffic Crashes by Crash Type

Figure 3 shows traffic crash distribution by crash type in 2022. As shown in the figure below, the most common type of crash was rear end crash, which accounted for 28.8% of all traffic crashes, and the least common type of crash was backing, which accounted for 2.1%.

Figure 3 Traffic Crashes by Crash Type in 2022

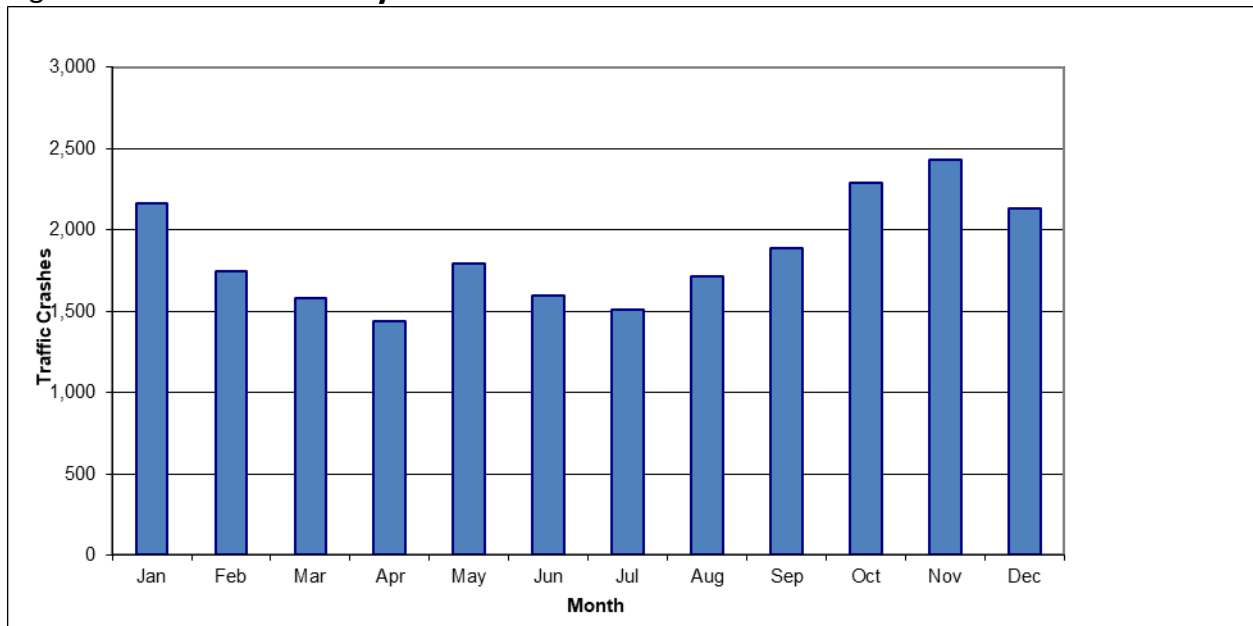


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Traffic Crashes by Month, Day, and Hour

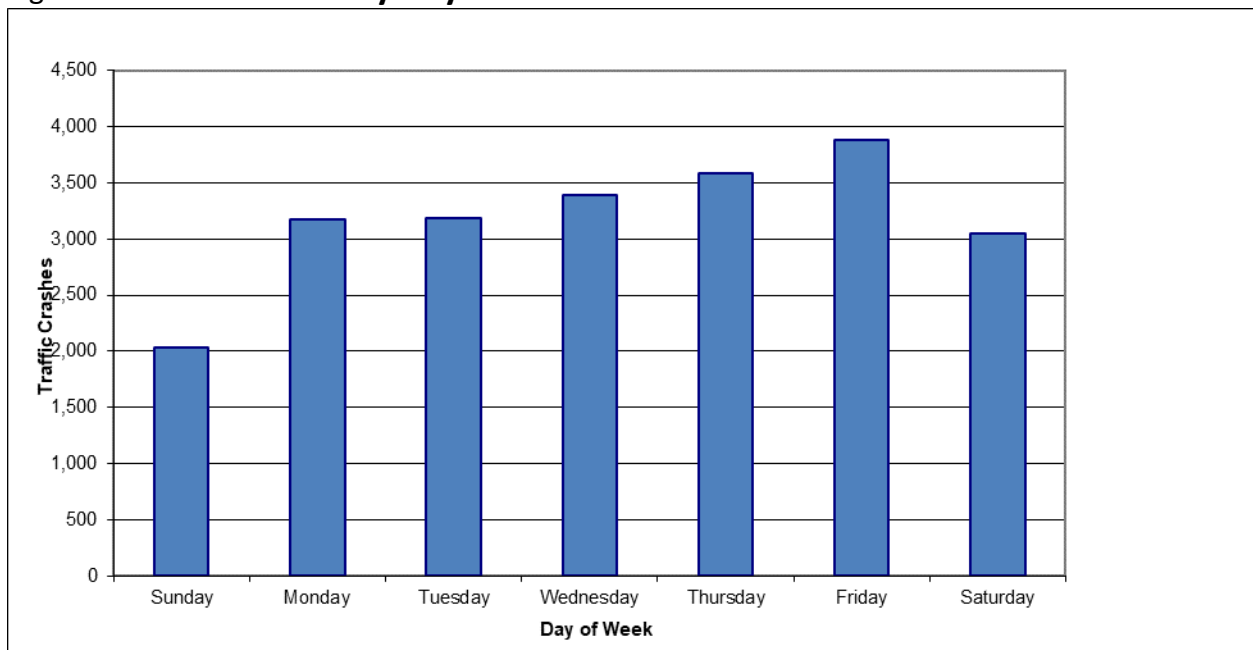
Figures 4-6 show traffic crashes distribution by month, day and hour, respectively. As shown in Figure 4, there were more traffic crashes in November than any other month (2,435). April had the fewest crashes (1,439) in 2022. Figure 5 shows that more traffic crashes occurred on Fridays than any other day of the week (3,875) in 2022, and Sunday had the fewest traffic crashes (2,034). Figure 6 shows that more traffic crashes occurred between 5 pm and 6 pm than any other hour interval (1,849), and the time of day with the fewest crashes was between 3 am and 4 am (241 crashes).

**Figure 4 Traffic Crashes by Month in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

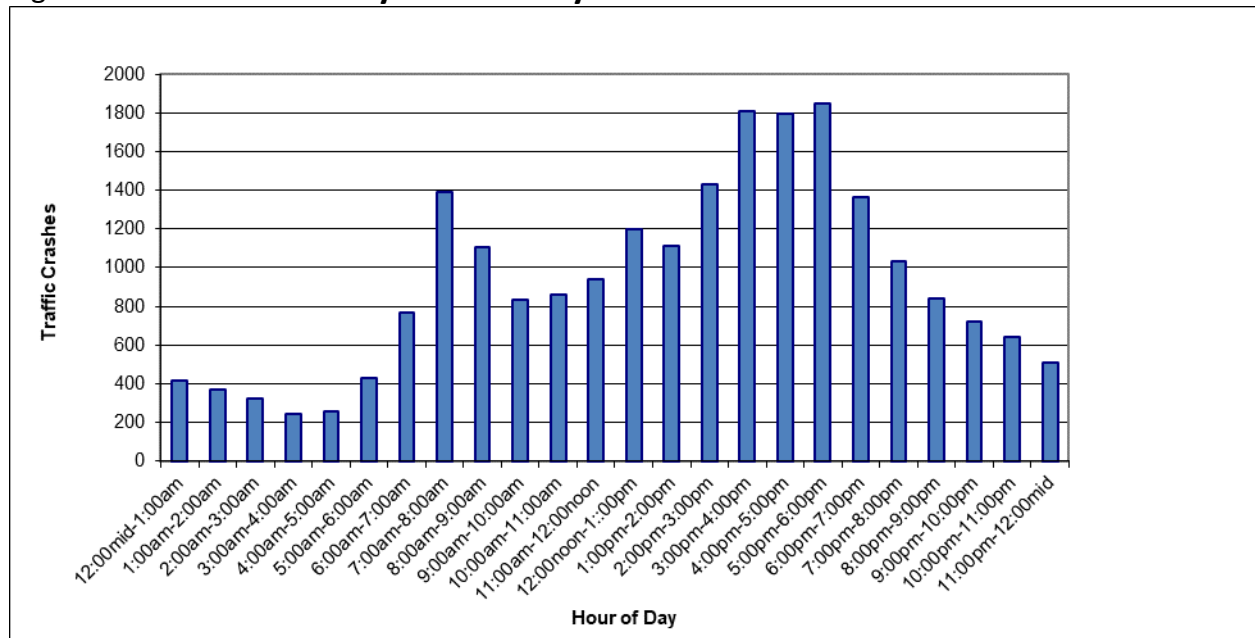
**Figure 5 Traffic Crashes by Day of Week in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)



Figure 6 **Traffic Crashes by Hour of Day in 2022**

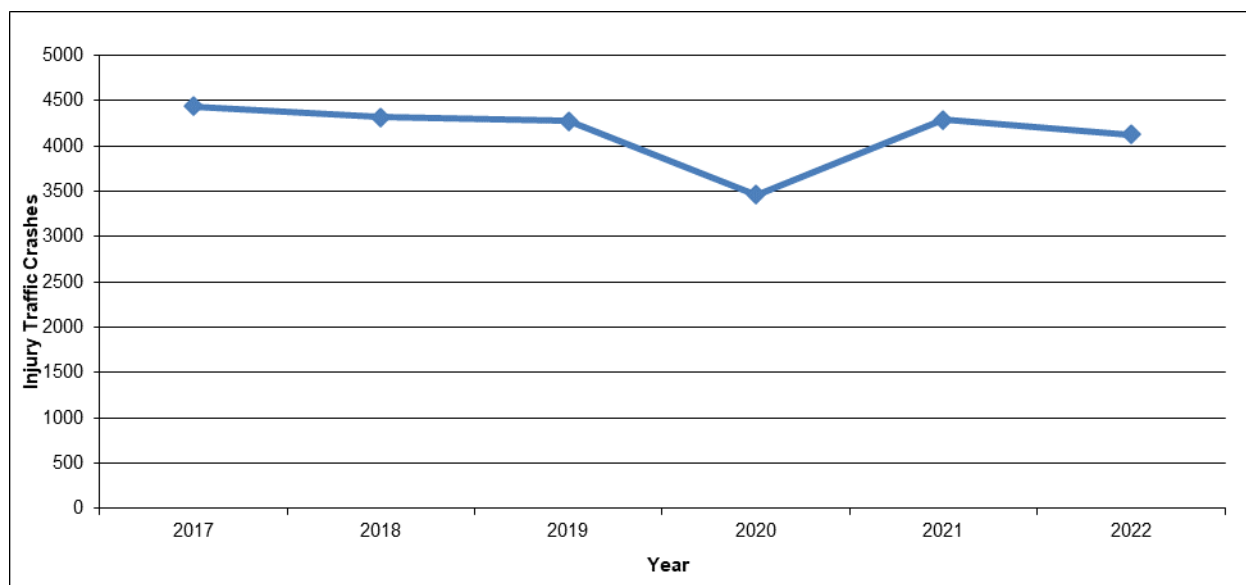


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Injury Traffic Crashes

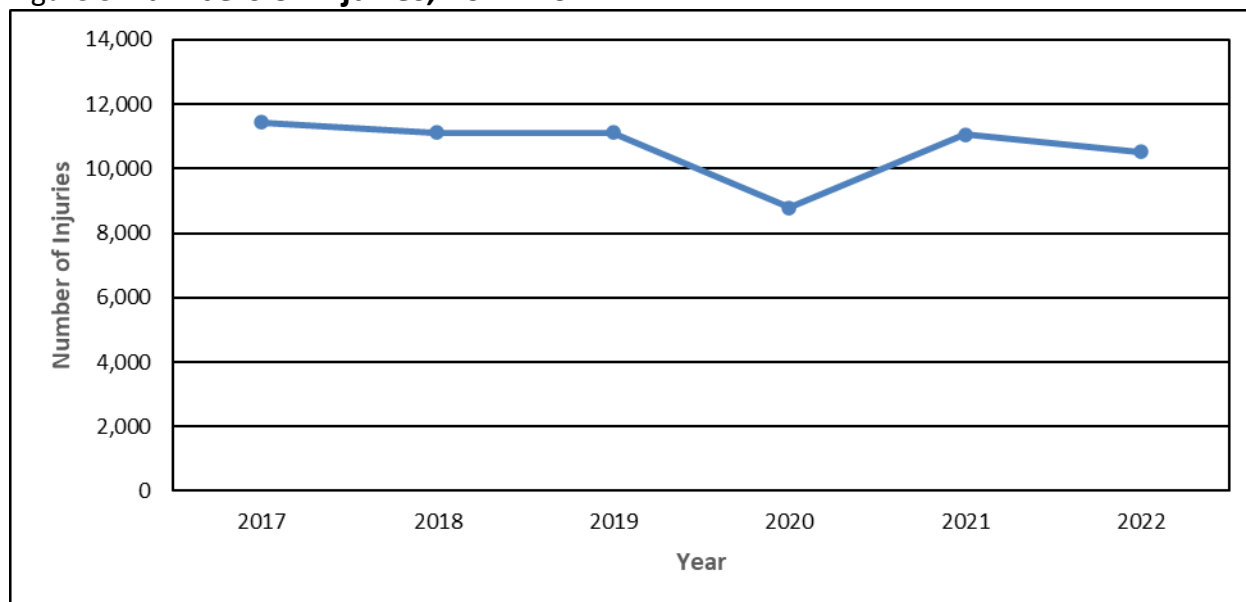
Injury traffic crash is defined as a crash resulting in an injury, but not a fatality. Figure 7 below shows injury traffic crash in GVMC area. Injury traffic crashes decreased 7.3 percent from 2017 to 2022, and Figure 8 shows a 8.2 percent decrease in number of injuries from 2017 to 2022.

Figure 7 Injury Traffic Crashes, 2017-2022



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 8 Numbers of Injuries, 2017-2022



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Injury Traffic Crashes by Jurisdiction

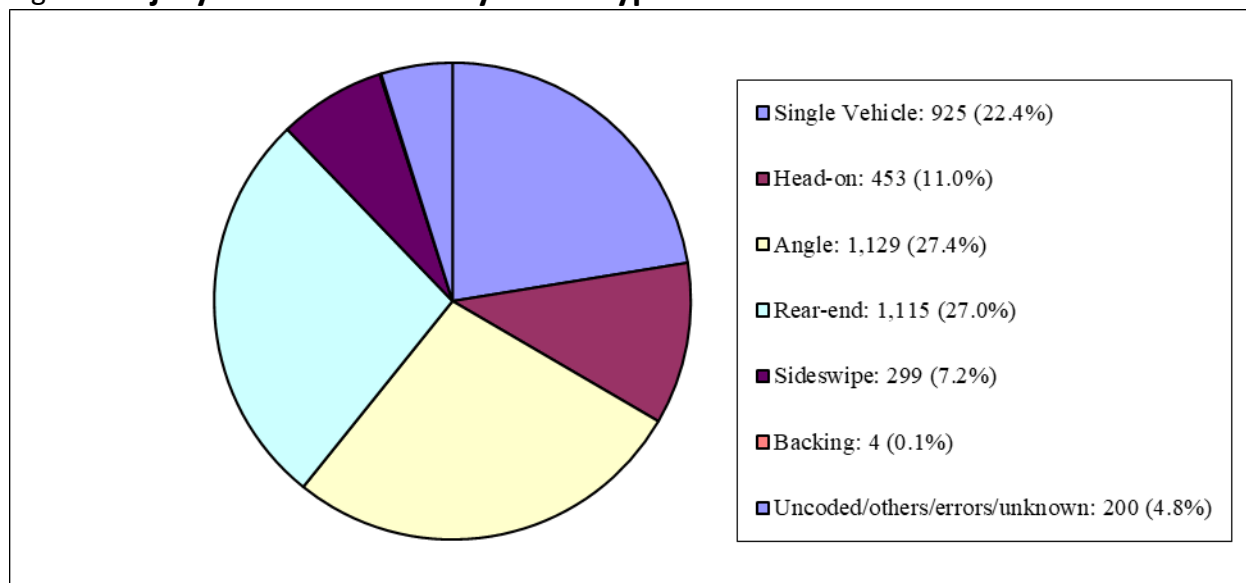
Table 3 shows the number of injury traffic crashes by jurisdiction in GVMC area from 2017-2022.

Local Governments	2017	2018	2019	2020	2021	2022
Ada	49	38	53	40	42	44
Algoma	59	62	43	41	44	48
Allendale	71	60	53	53	72	64
Alpine	68	75	75	61	64	45
Blendon	19	21	18	18	29	35
Bowne	18	13	10	15	11	20
Byron	129	131	148	98	144	137
Caledonia	65	66	74	53	75	77
Cannon	33	27	39	27	31	37
Cascade	127	110	113	83	137	170
Casnovia	1	2	2	0	0	0
Cedar Springs	7	16	17	14	12	23
Chester	8	7	9	9	7	10
Courtland	37	35	39	30	45	37
East Grand Rapids	17	24	25	11	15	31
Gaines	124	114	118	94	131	126
Georgetown	151	153	146	146	166	174
City of Grand Rapids	1476	1418	1403	1192	1420	1206
Grand Rapids Township	99	89	93	68	86	68
Grandville	161	166	132	121	146	147
Grattan	22	24	16	16	18	8
Hudsonville	30	17	12	12	26	28
Jamestown	47	28	45	45	45	52
Kent City	4	5	6	6	0	0
Kentwood	301	351	300	248	343	339
Lowell Twp	42	36	34	31	42	45
Lowell	13	18	17	8	21	19
Nelson	17	23	22	17	24	24
Oakfield	31	30	32	14	21	29
Plainfield	201	199	172	106	149	167
Polkton	36	34	20	20	31	25
Rockford	17	21	9	14	20	20
Sand Lake	1	3	3	1	0	0
Solon	35	40	42	26	39	33
Sparta	37	39	34	43	39	40
Spencer	7	20	16	19	22	19
Tallmadge	48	33	43	43	34	39
Tyrone	22	26	22	21	24	18
Vergennes	17	19	18	17	20	22
Walker	271	276	242	188	237	232
Wright	45	38	44	44	35	38
Wyoming	569	493	512	430	522	537

## Injury Traffic Crashes by Crash Type

Figure 9 shows that angle crashes were the most common type of injury crashes (27.4%) in 2022. Table 4 shows head-on crashes were more likely to cause injury than any other type of crashes, with 41.1% head-on crashes resulting in injury. Only 0.96% of backing crashes caused injury in 2022.

Figure 9 Injury Traffic Crashes by Crash Type in 2022



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Table 4 Traffic Crash Type by Percent Resulting in Injury in 2022

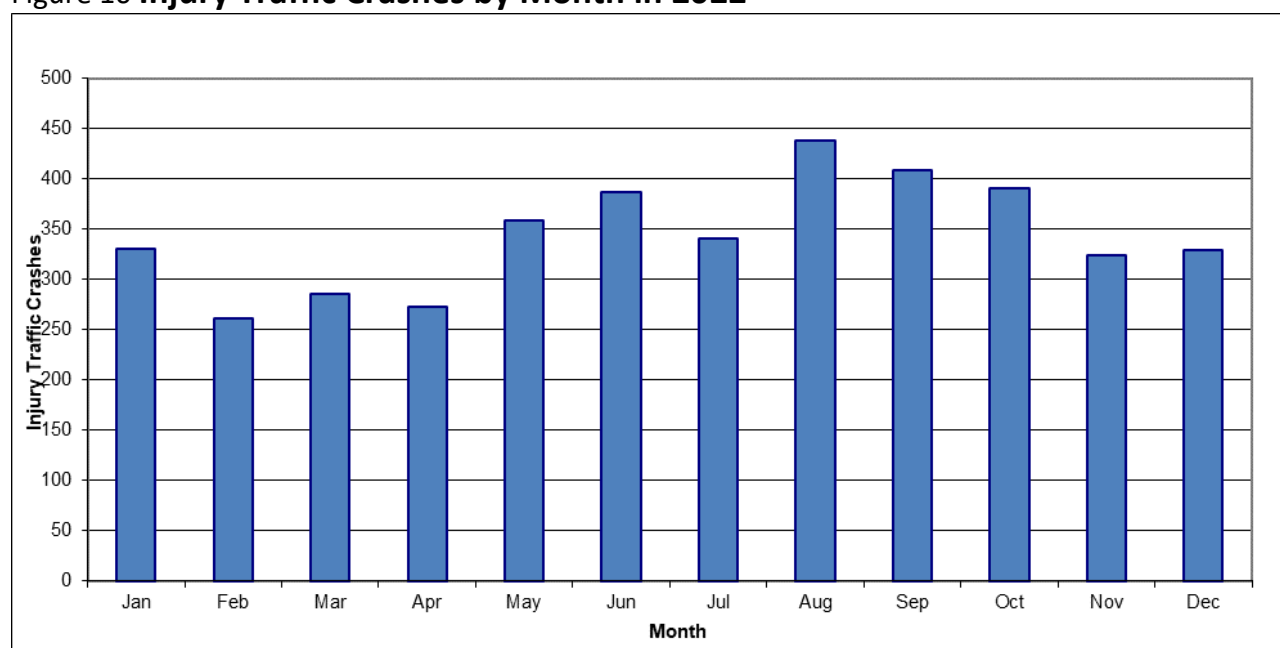
Crash Type	Injury Crashes	All Crashes	Percent Resulting in Injury
Head-on	453	1,103	41.1%
Angle	1,129	3,567	31.7%
Rear-End	1,115	6,154	18.1%
Single-Vehicle	925	6,487	14.3%
Sideswipe	299	3,541	8.4%
Backing	4	414	0.96%
Uncoded/others/errors/unknown	200	1,021	19.6%
<b>Total</b>	<b>4,125</b>	<b>22,287</b>	<b>18.5%</b>

Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Injury Traffic Crashes by Month, Day, and Hour

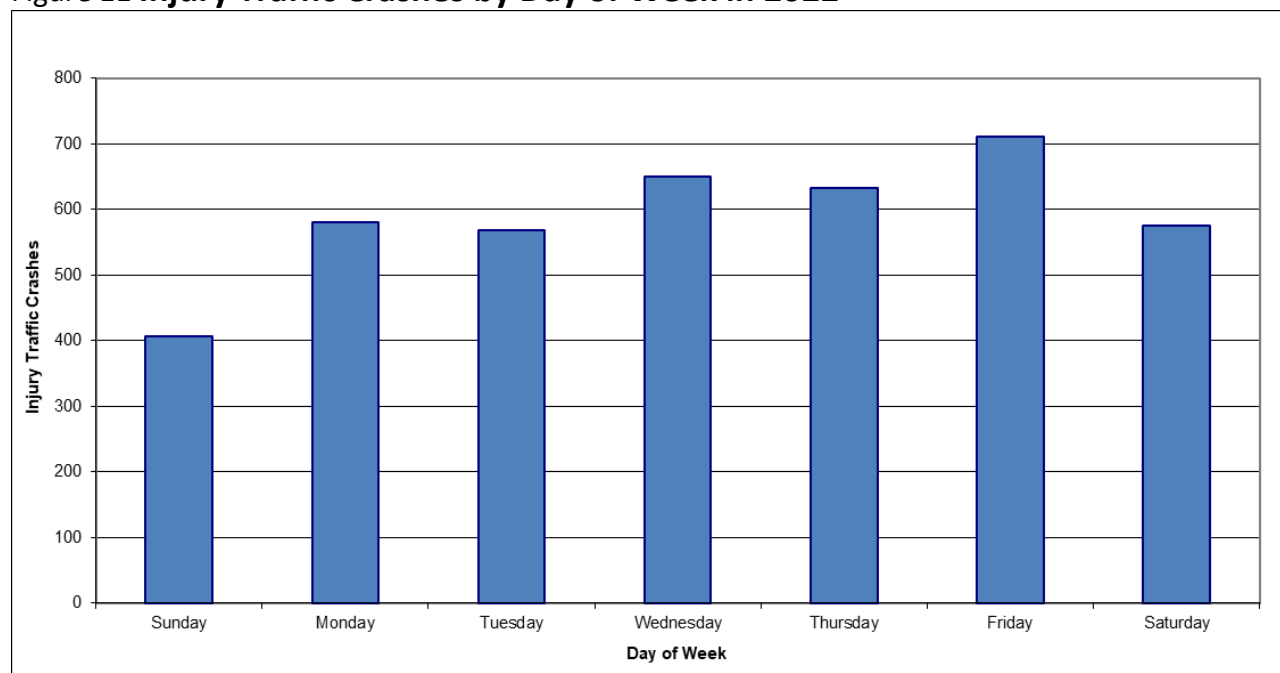
Figure 10 shows more injury traffic crashes occurred in August than any other months in 2022, with 438 injury traffic crash, and Figure 11 shows that Friday was the day of week with the most injury traffic crashes (711).

Figure 10 Injury Traffic Crashes by Month in 2022



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

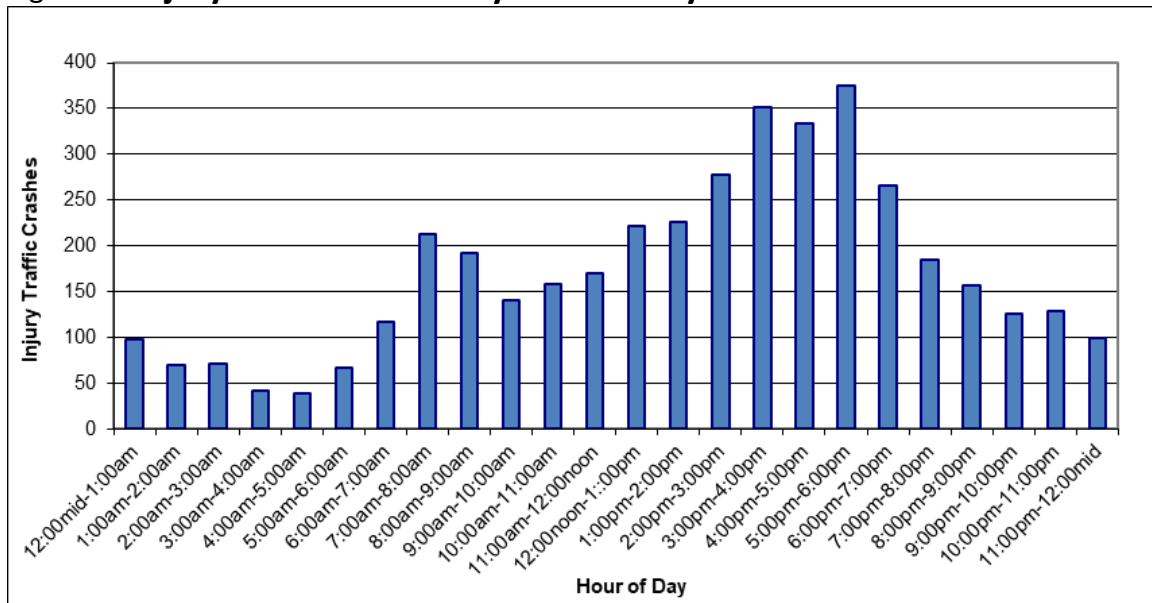
Figure 11 Injury Traffic Crashes by Day of Week in 2022



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 12 indicates that most injury traffic crashes occurred between 5 pm to 6 pm during each hour interval, with 375 injury crashes.

**Figure 12 Injury Traffic Crashes by Hour of Day in 2022**



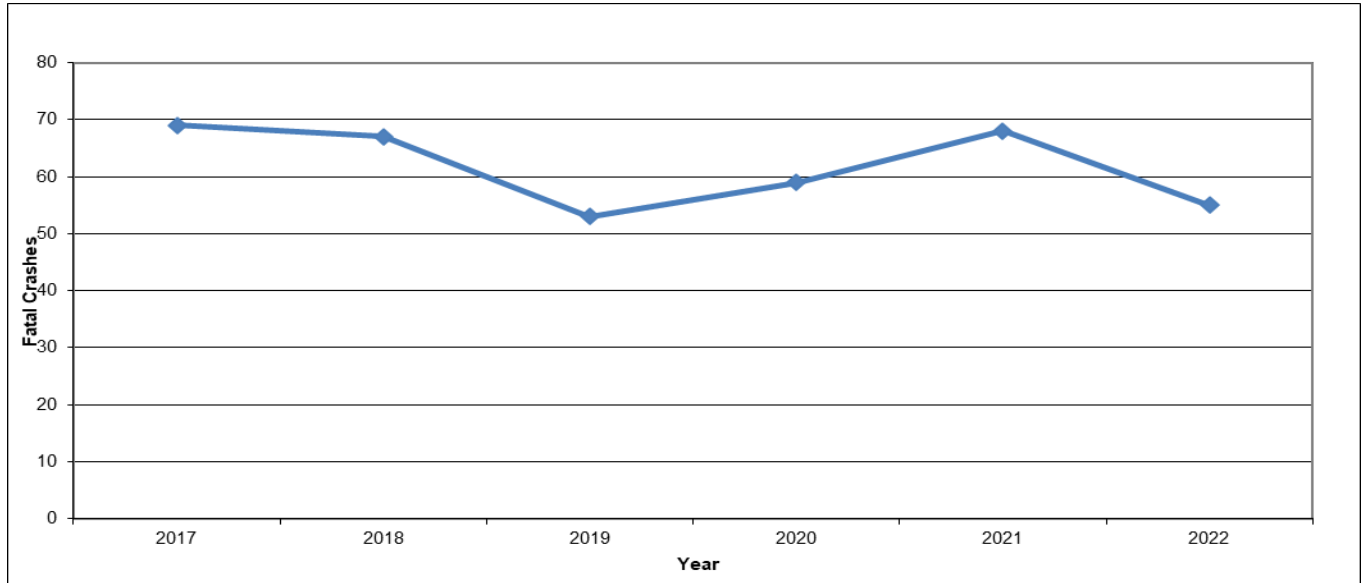
Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Fatal Traffic Crashes

A fatal crash is defined as a crash that causes death within 30 days of the crash. There were 55 fatal crashes in GVMC area in 2022, a 20.3% decrease from 2017, which had 69 fatal crashes.

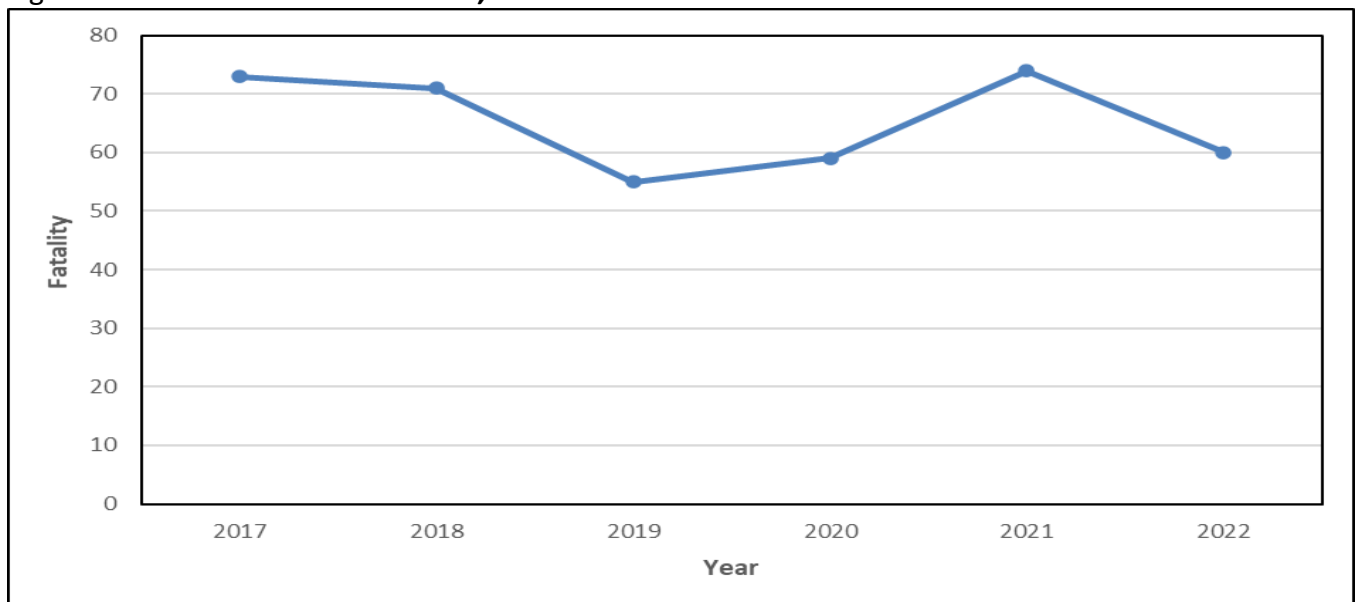
Figure 13 and Figure 14 show the number fatal crashes and the number of fatalities caused by traffic crashes from 2017 to 2022.

Figure 13 **Fatal Traffic Crashes, 2017-2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 14 **Traffic Crash Fatalities, 2017-2022**

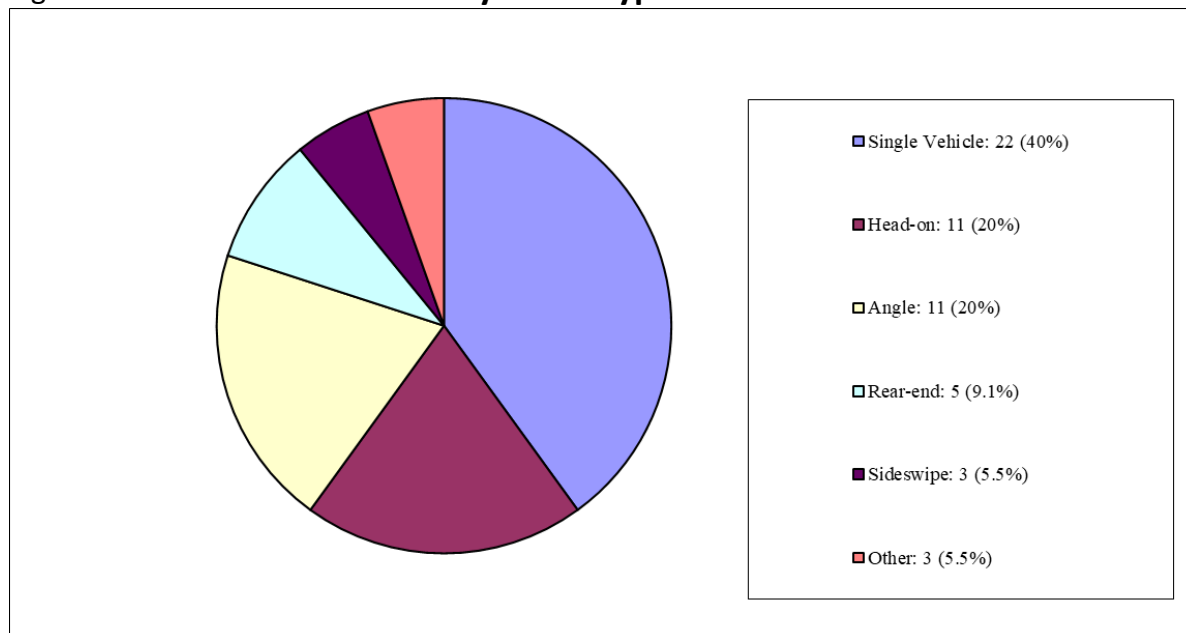


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Fatal Traffic Crashes by Crash Type

Figure 15 shows that the most common type of crash causing fatalities in 2022 was single vehicle crash, which accounts for 40 percent of all fatal crashes. However, head-on crashes were more likely to result in fatality, with 1.0% of head-on crashes causing fatality.

Figure 15 **Fatal Traffic Crashes by Crash Type in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Table 5 **Crash Type by Percent Resulting in Fatality in 2022**

Crash Type	Fatal Crashes	All Crashes	Percent Resulting in Fatality
Head-on	11	1,103	1.0%
Single-Vehicle	22	6,487	0.34%
Angle	11	3,567	0.31%
Sideswipe	3	3,541	0.08%
Rear-End	5	6,154	0.08%
Other	3	1,435	0.21%
<b>Total</b>	<b>55</b>	<b>22,287</b>	<b>0.25%</b>

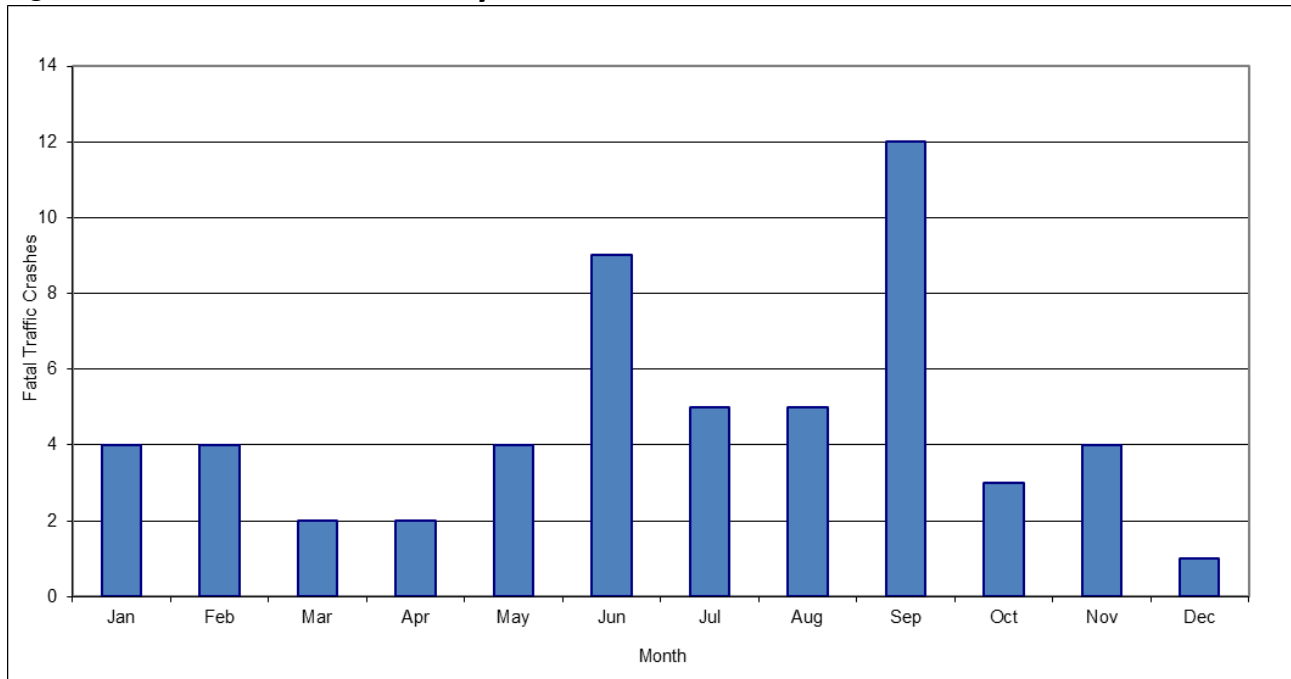
Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)



## Fatal Traffic Crashes by Month, Day, and Hour

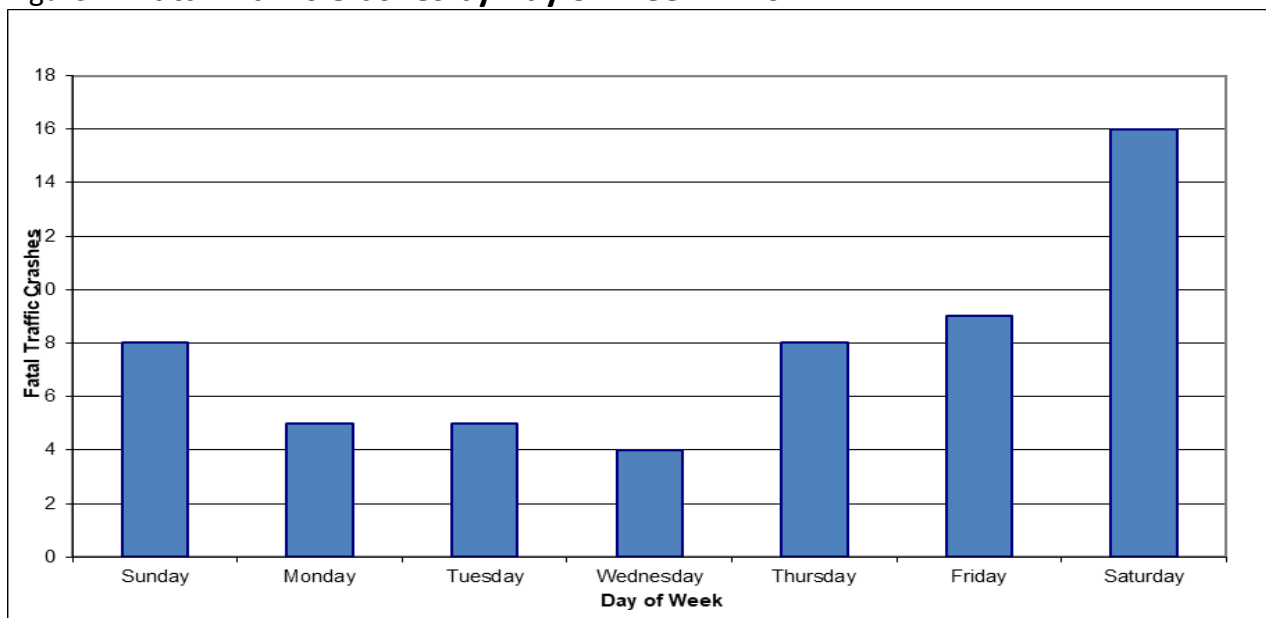
Figures 16 and 17 show the distribution of fatal traffic crashes by month and day of week in GVMC area in 2022.

Figure 16 **Fatal Traffic Crashes by Month in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

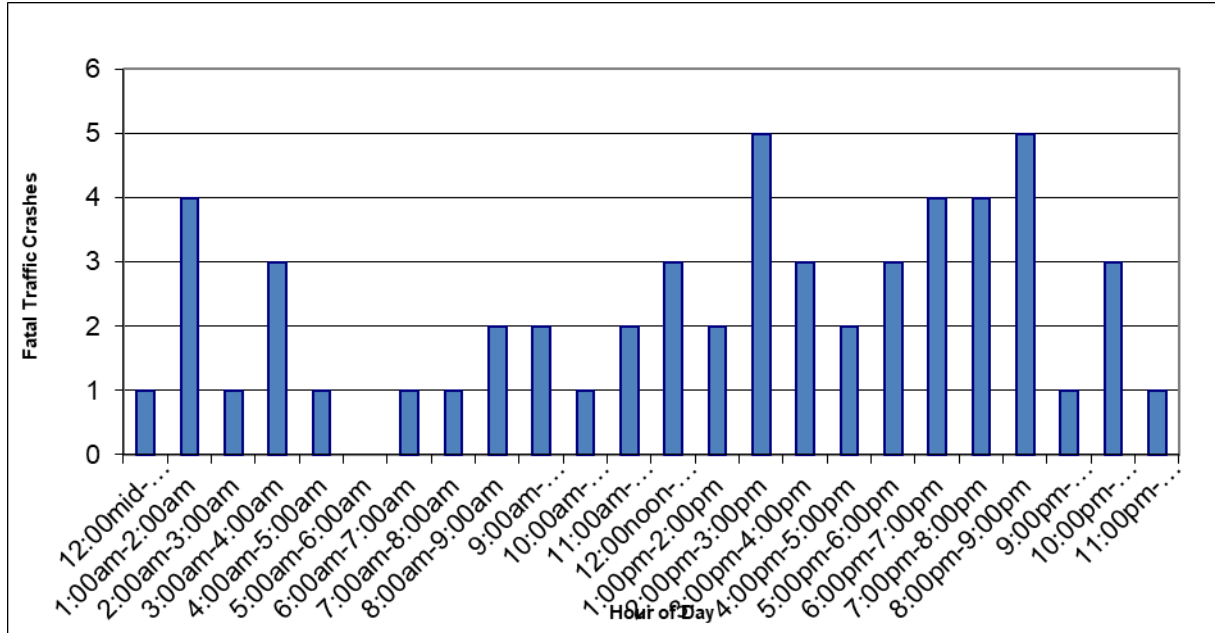
Figure 17 **Fatal Traffic Crashes by Day of Week in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 18 below shows the hourly distribution of fatal traffic crashes in GVMC area in 2022.

Figure 18 **Fatal Traffic Crashes by Hour of Day in 2022**

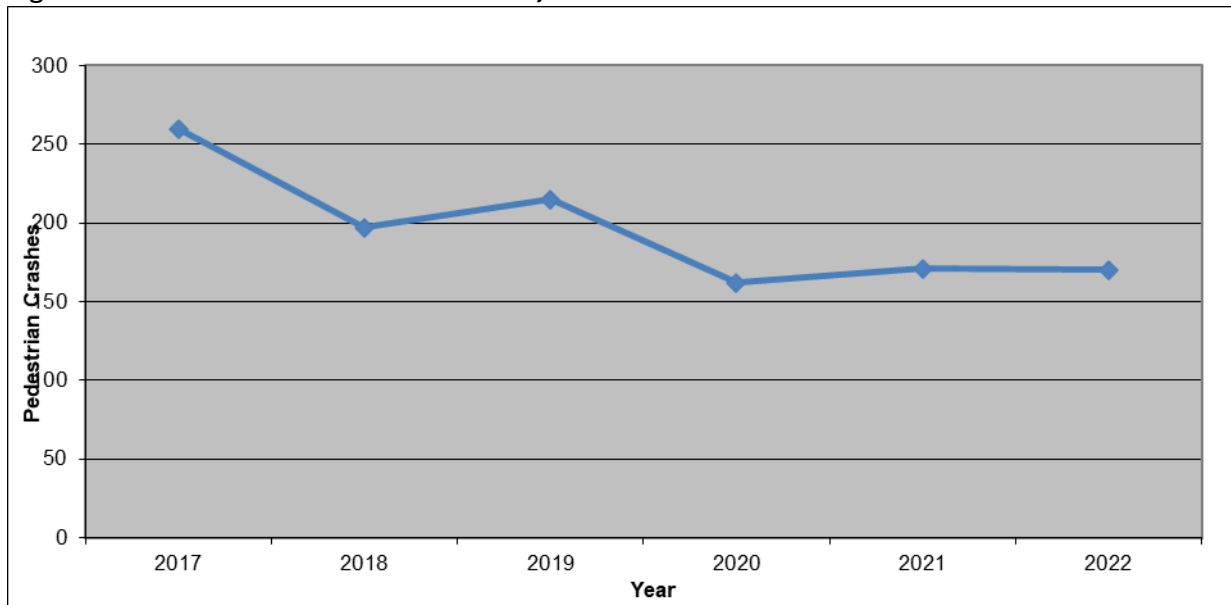


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Pedestrian Traffic Crashes

As shown in Figure 19, the pedestrian traffic crashes both increased and decreased between 2017 and 2022 in the GVMC area. There were 170 pedestrian crashes in 2022. Figure 20 and Table 6 show pedestrian traffic crashes by severity in 2022.

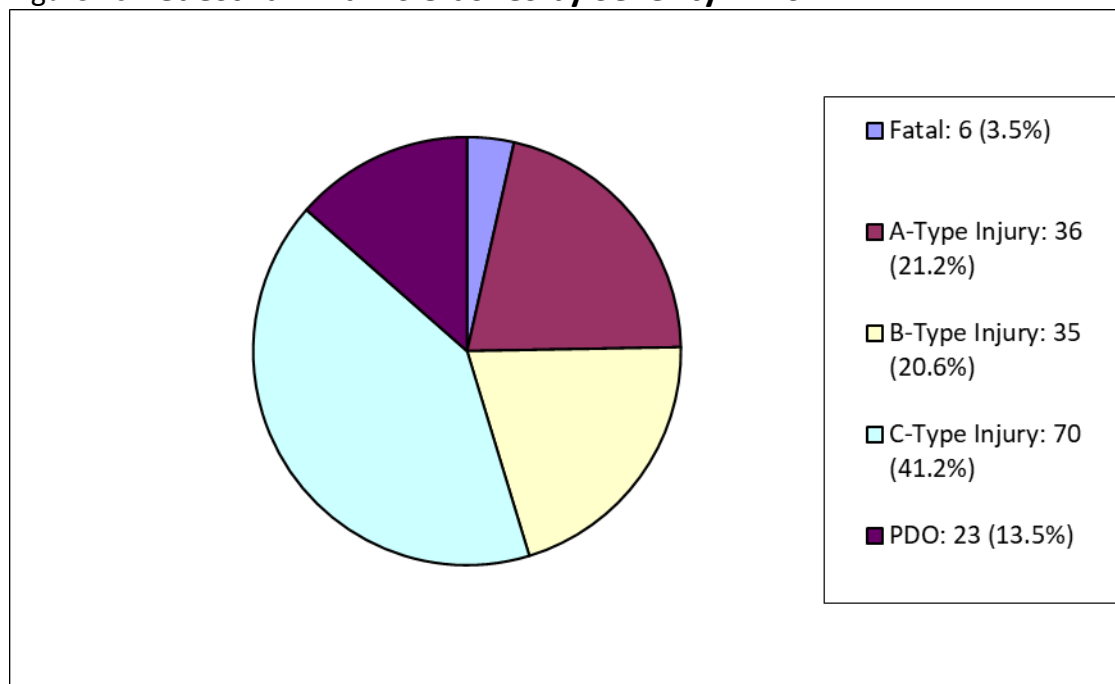
Figure 19 **Pedestrian Traffic Crashes, 2017-2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Pedestrian Traffic Crashes by Severity

Figure 20 **Pedestrian Traffic Crashes by Severity in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Table 6 **Pedestrian Traffic Crash by Severity in 2022**

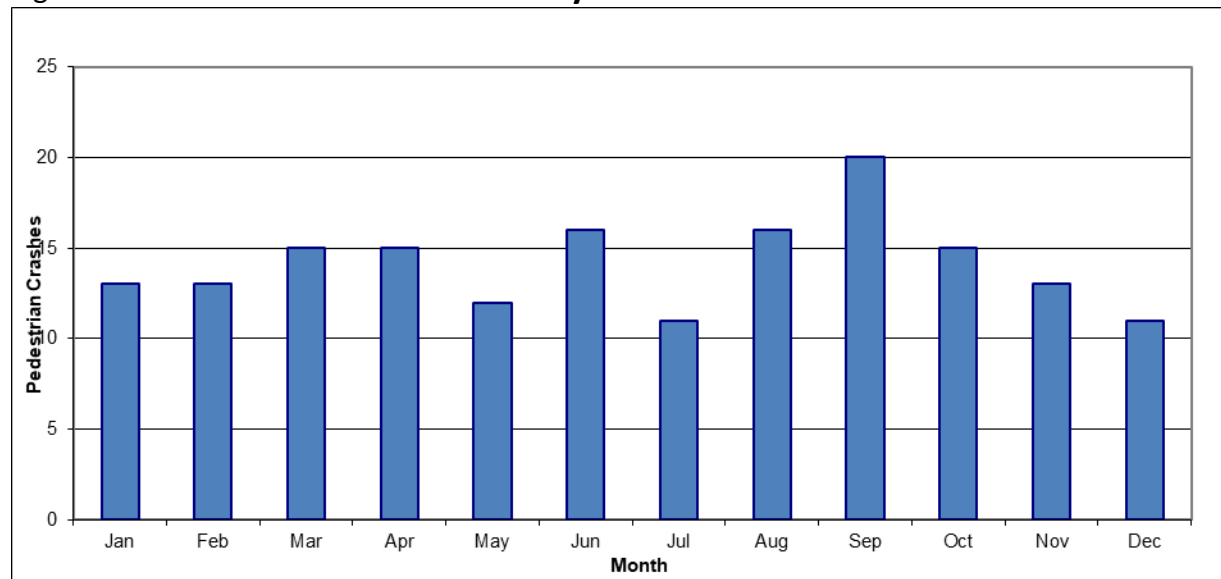
Crash Severity	Pedestrian Traffic Crashes	All Traffic Crashes	Pedestrian Crashes Percentage
Fatal	6	55	10.91%
A-Type Injury	36	404	8.91%
B-Type Injury	35	1,077	3.25%
C-Type Injury	70	2,644	2.65%
PDO	23	18,107	0.13%
<b>Total</b>	<b>170</b>	<b>22,287</b>	<b>0.76%</b>

Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Pedestrian Traffic Crashes by Month, Day, and Hour

Figure 21 shows pedestrian traffic crashes in the GVMC area in 2022.

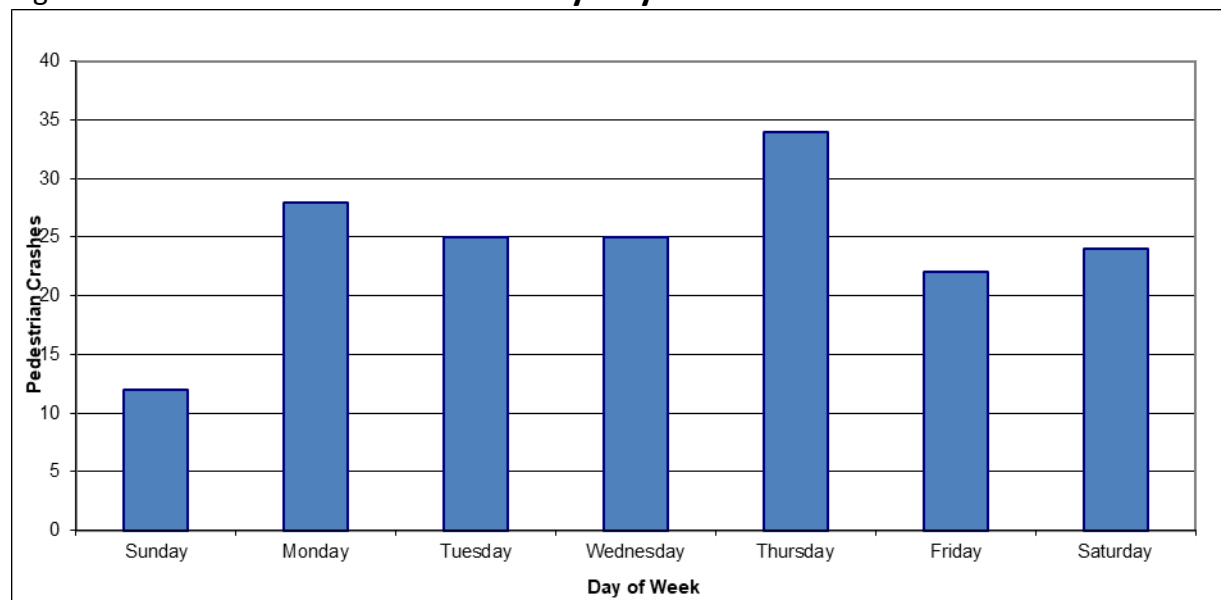
Figure 21 **Pedestrian Traffic Crashes by Month in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

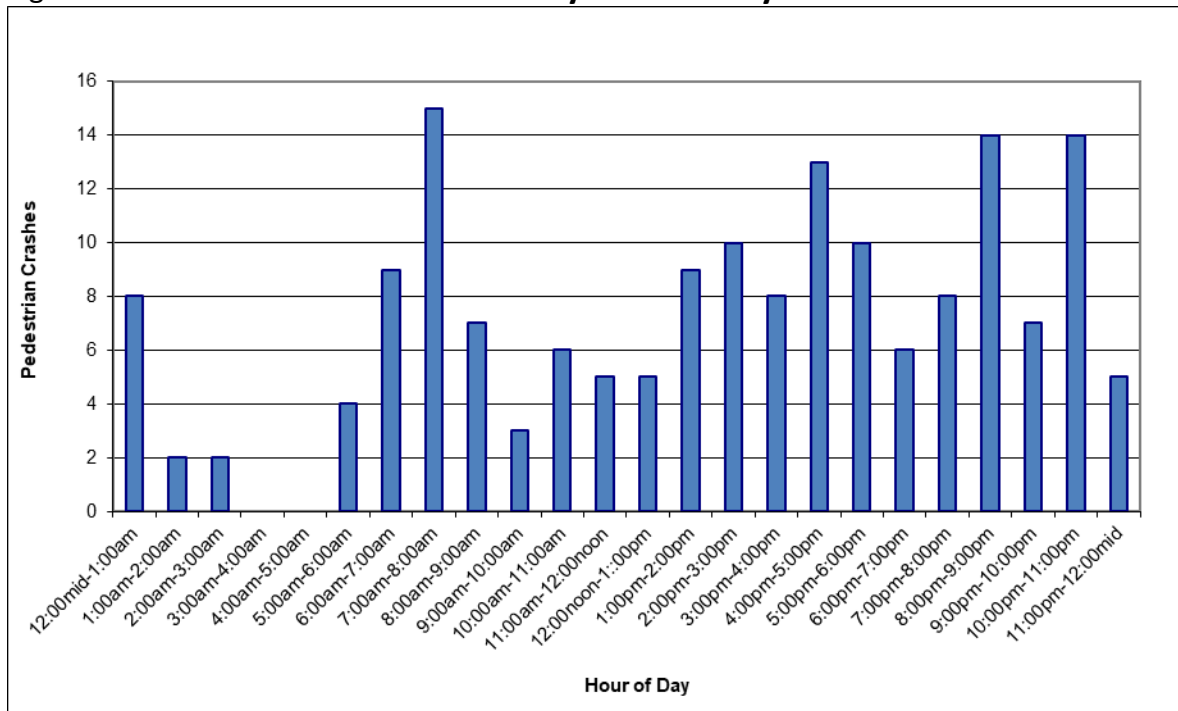
Figure 22 shows that Mondays had the most pedestrian crashes and Sundays had the fewest. As shown in Figure 23, pedestrian crashes were most likely to occur between 7am and 8am in 2022.

Figure 22 **Pedestrian Traffic Crashes by Day of Week in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 23 **Pedestrian Traffic Crashes by Hour of Day in 2022**

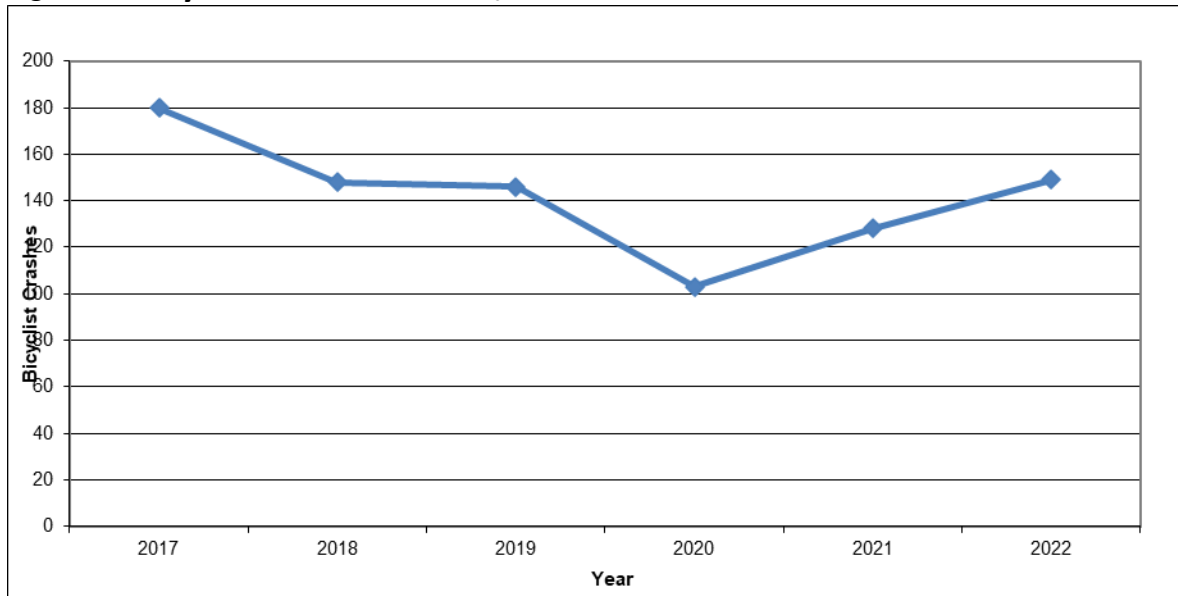


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Bicyclist Traffic Crashes

Figure 24 shows bicyclist traffic crashes between 2017 and 2022. There was a 17.2 percent decrease of bicyclist traffic crashes in 2022 compared to 2017.

Figure 24 **Bicyclist Traffic Crashes, 2017-2022**

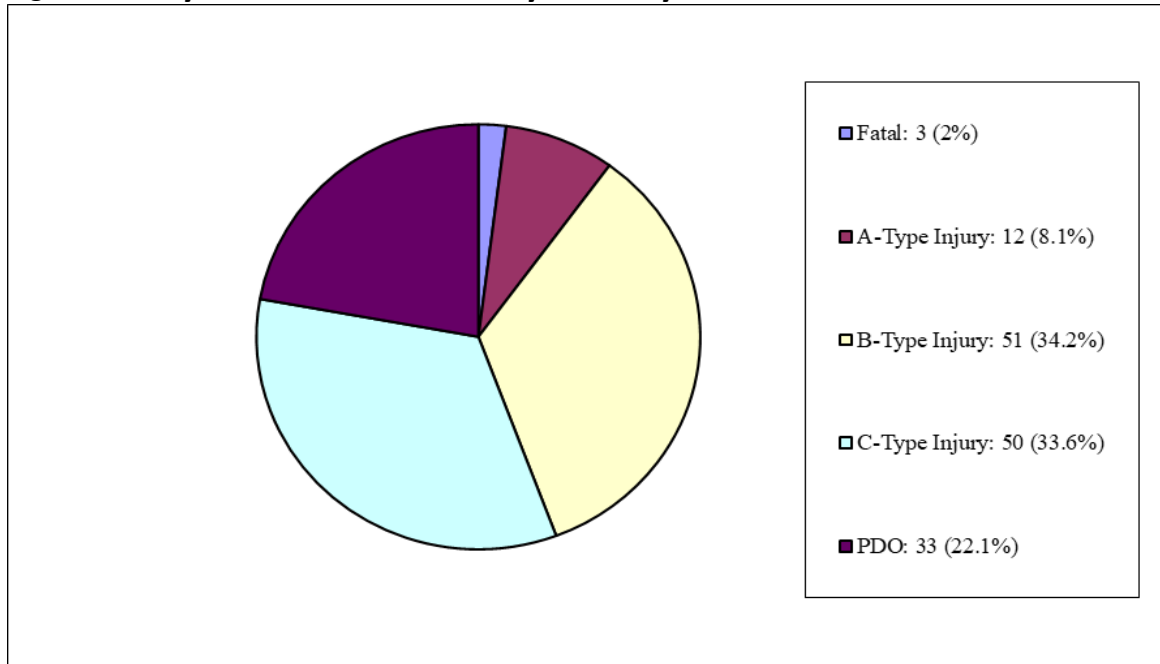


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Bicyclist Traffic Crashes by Severity

Figure 25 indicates that bicyclists can be easily injured when involved in traffic crashes, since PDO only accounted for 22.1 percent of all bicyclist traffic crashes. Table 7 shows the distribution of bicyclist severity in 2022.

Figure 25 **Bicyclist Traffic Crashes by Severity in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Table 7 **Bicyclist Traffic Crash by Severity in 2022**

Crash Severity	Bicyclist Traffic Crashes	All Traffic Crashes	Bicyclist Crashes Percentage
Fatal	3	55	5.45%
A-Type Injury	12	404	2.97%
B-Type Injury	51	1,077	4.74%
C-Type Injury	50	2,644	1.89%
PDO	33	18,107	0.18%
<b>Total</b>	<b>149</b>	<b>22,287</b>	<b>0.67%</b>

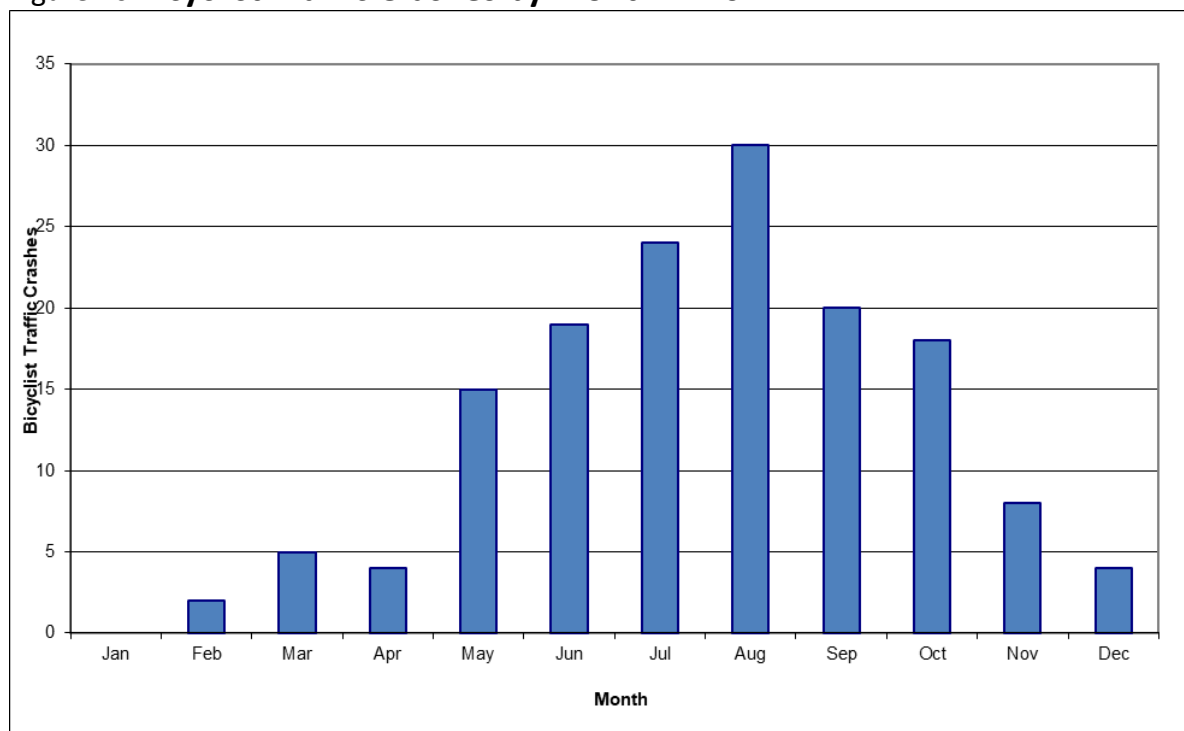
Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)



## Bicyclist Traffic Crashes by Month, Day, and Hour

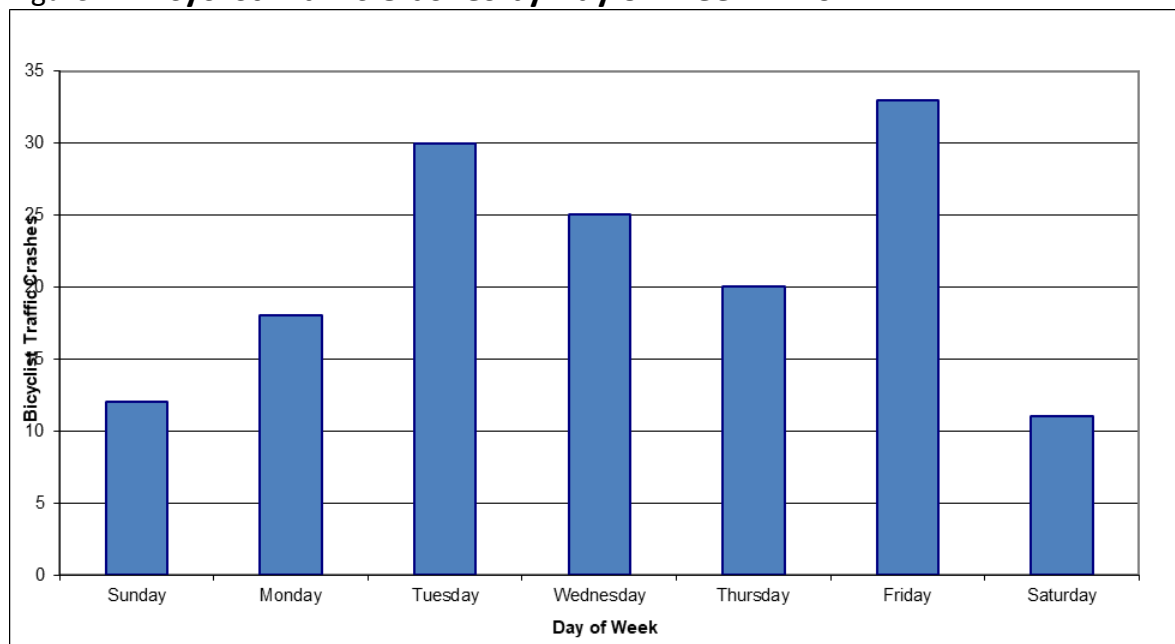
As shown in Figure 26, bicyclist traffic crashes were more likely to occur during summer and least likely to occur during winter season due to the harsh weather condition.

Figure 26 **Bicyclist Traffic Crashes by Month in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

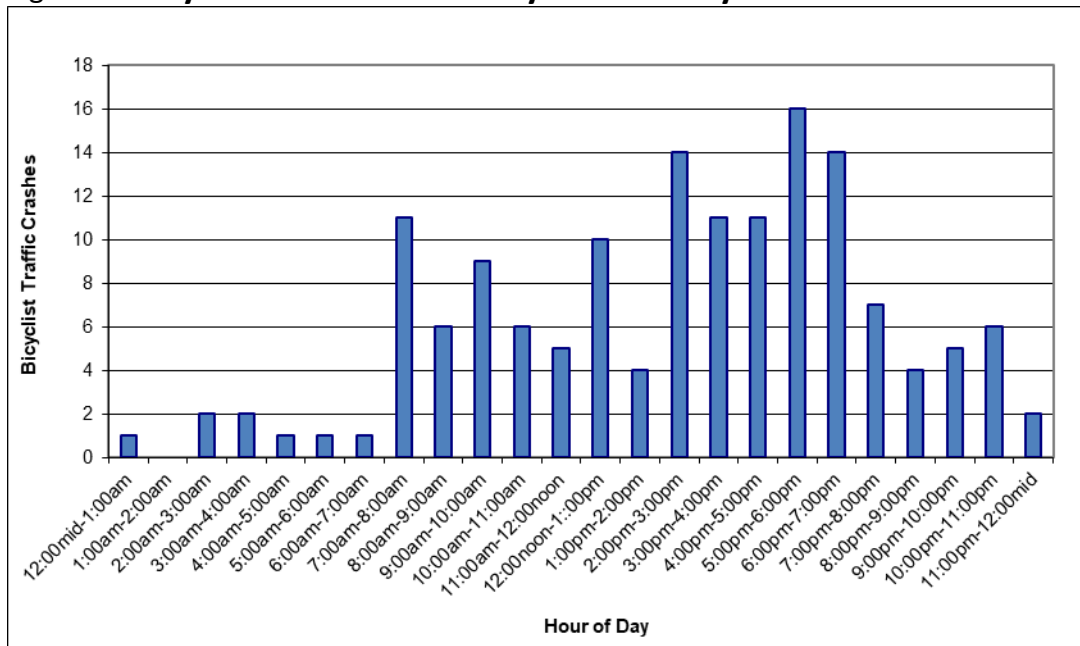
Figure 27 **Bicyclist Traffic Crashes by Day of Week in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 28 shows that bicyclist traffic crashes were more likely to take place during morning commute and in the afternoon.

Figure 28 **Bicyclist Traffic Crashes by Hour of Day in 2022**

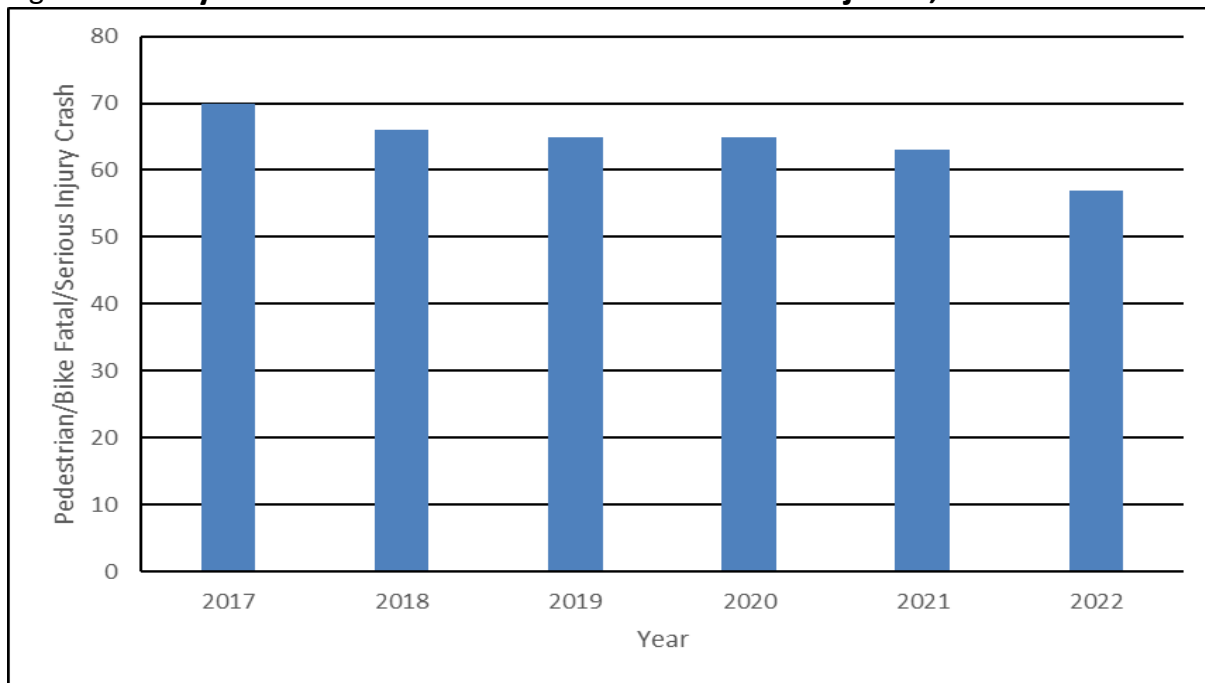


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Bicycle & Pedestrian Fatalities and Serious Injuries

Bicycle and pedestrian fatalities and serious injuries are defined as a crash that causes death within 30 days of the crash or incapacitating injuries as defined in Michigan Traffic Crash Facts' Data Query Tool involving a bicyclist or pedestrian. Figure 28a below shows fatal and serious injury crashes in GVMC area. These crashes decreased 18.6 percent from 2017 to 2022.

Figure 28a **Bicycle & Pedestrian Fatalities and Serious Injuries, 2017-2022**

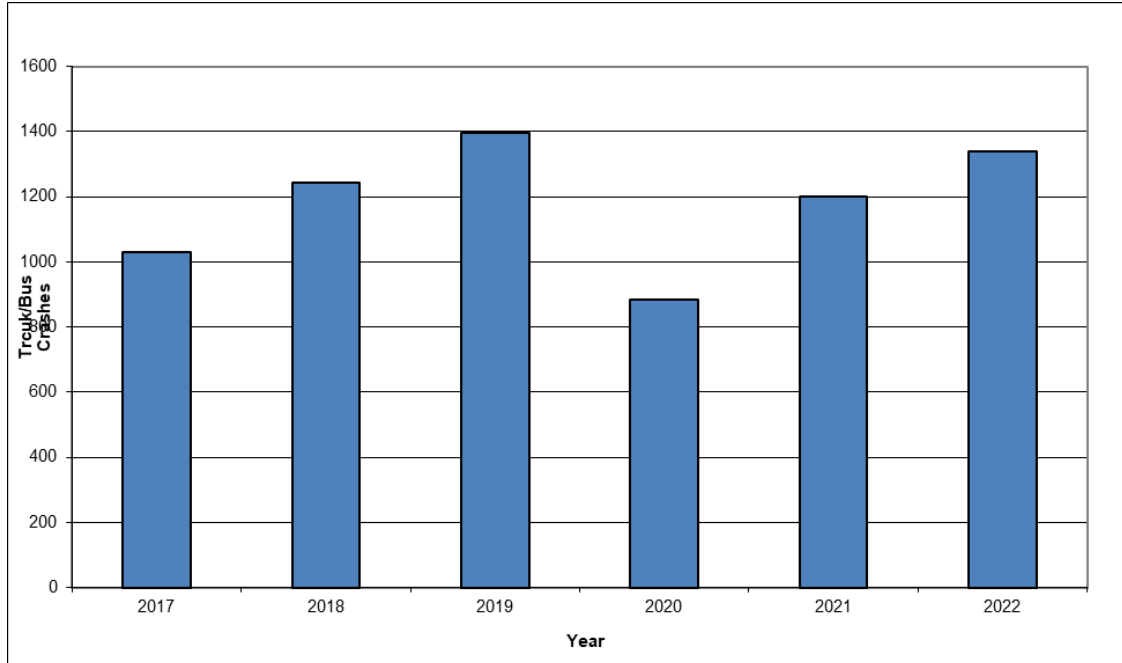


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Truck and Bus Traffic Crashes

Figure 29 shows the trend of truck/bus crashes from 2017 to 2022 in GVMC area.

Figure 29 **Truck/Bus Traffic Crashes, 2017-2022**

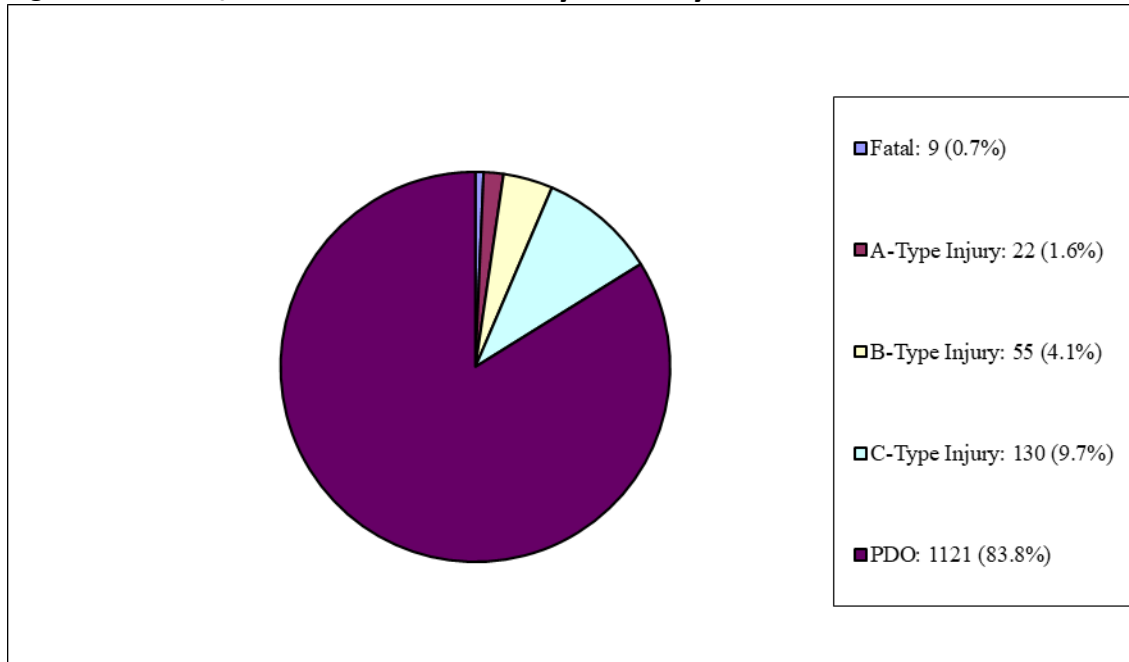


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Truck/Bus Traffic Crashes by Severity

Figure 30 shows truck/bus traffic crashes by severity in 2022. Most of the crashes were PDO crash (83.8%). As shown in Table 8, fatalities and A-type injuries in truck/bus crashes accounted for 16.4% of all traffic fatal crashes and 5.4% of all traffic A-Type injuries, respectively.

Figure 30 **Truck/Bus Traffic Crashes by Severity in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Table 8 **Truck/Bus Traffic Crash by Severity in 2022**

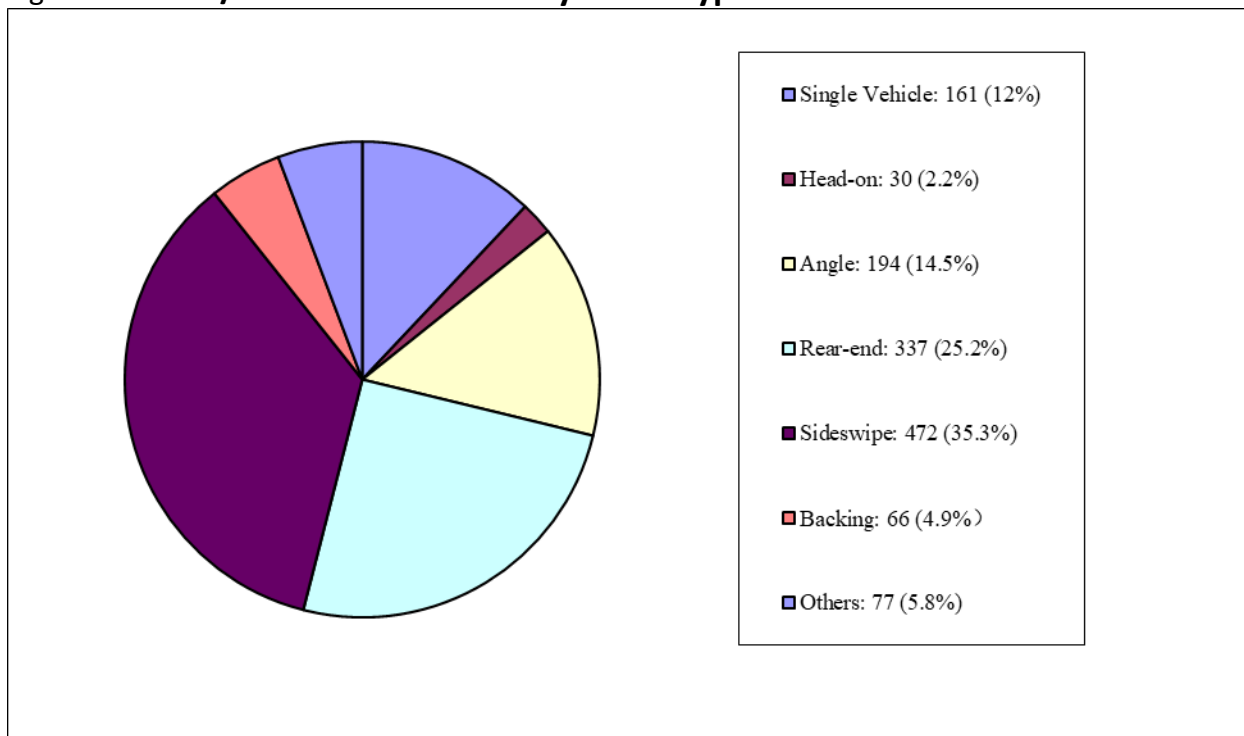
Crash Severity	Truck/Bus Traffic Crashes	All Traffic Crashes	Truck/Bus Crashes Percentage
Fatal	9	55	16.4%
A-Type Injury	22	404	5.4%
B-Type Injury	55	1,077	5.1%
C-Type Injury	130	2,644	4.9%
PDO	1121	18,107	6.2%
<b>Total</b>	<b>1,337</b>	<b>22,287</b>	<b>6.0%</b>

Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Truck/Bus Traffic Crashes by Crash Type

Figure 31 shows the crash type distribution of truck/bus crashes. There were more sideswipe truck/bus crashes (35.3%) than any other crash type in 2022.

Figure 31 **Truck/Bus Traffic Crashes by Crash Type in 2022**

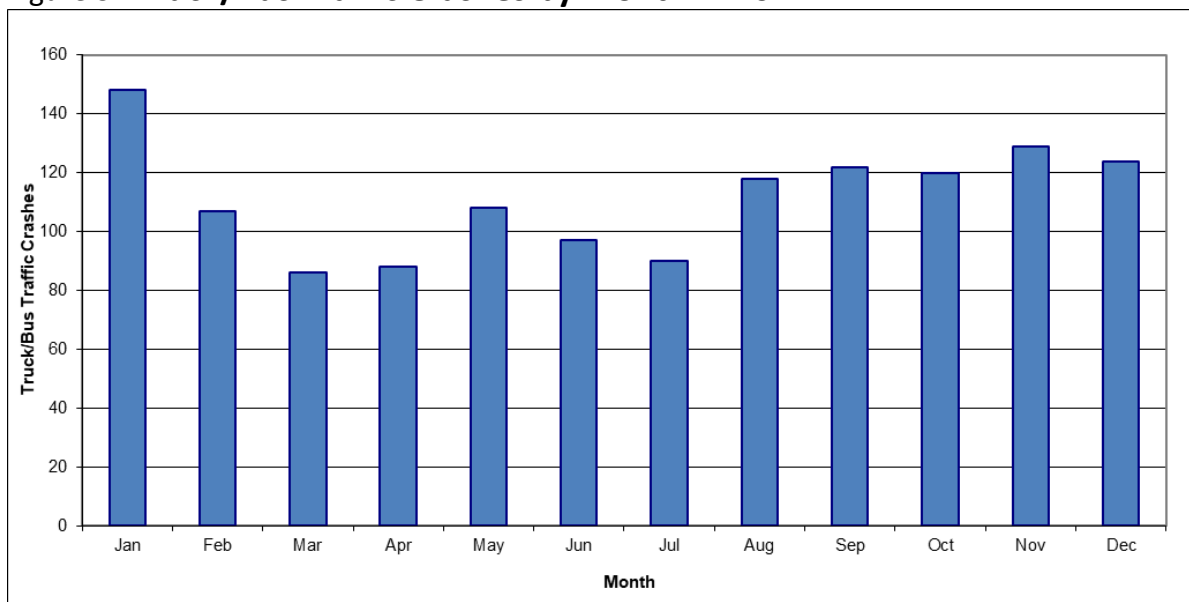


Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

## Truck/Bus Traffic Crashes by Month, Day, and Hour

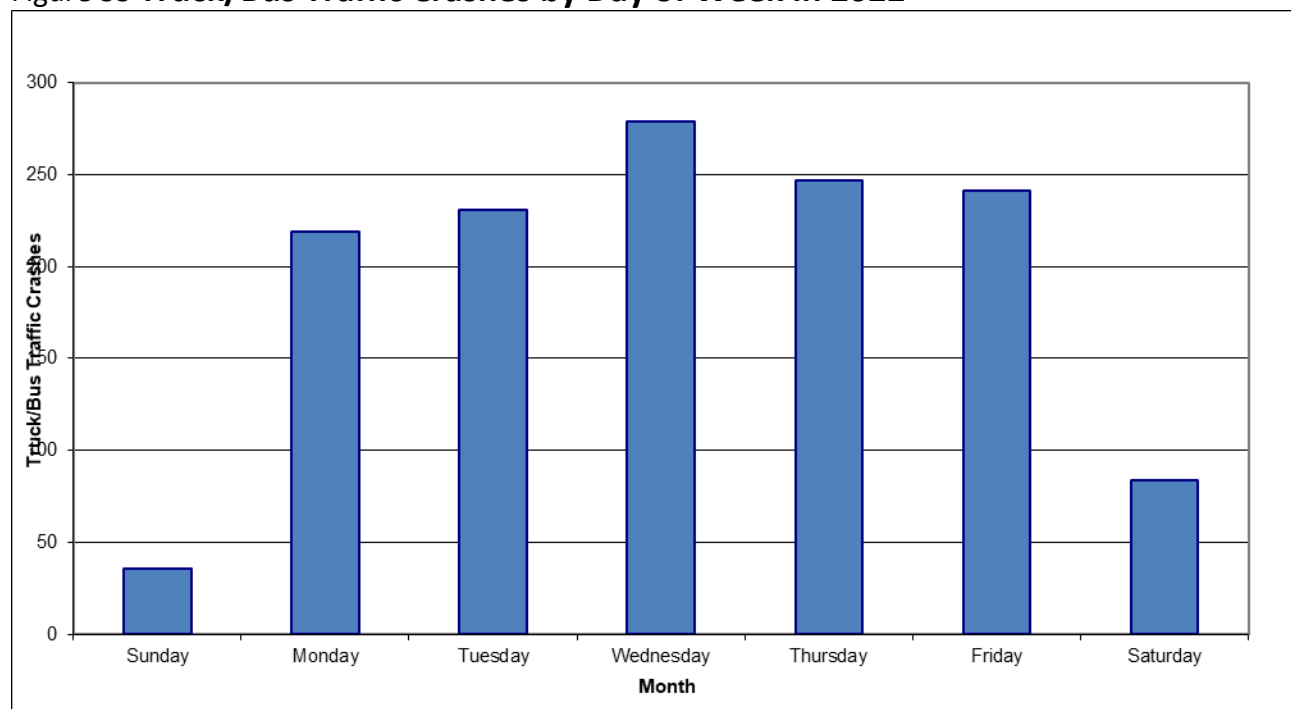
Figure 32 shows that truck/bus crashes were more likely to take place in January, and least likely to occur in March in 2022.

Figure 32 **Truck/Bus Traffic Crashes by Month in 2022**



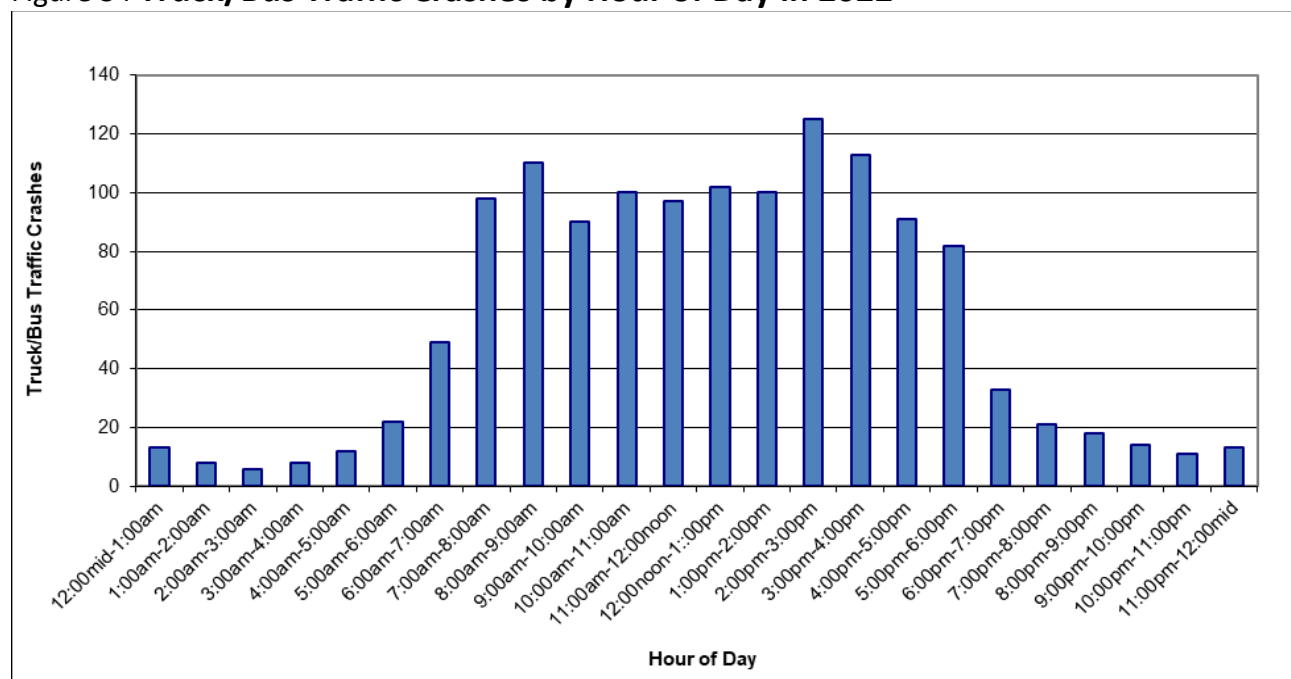
Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 33 **Truck/Bus Traffic Crashes by Day of Week in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

Figure 34 **Truck/Bus Traffic Crashes by Hour of Day in 2022**



Source: [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)