



2019

Annual Crash Report



David Rico, Traffic Studies Analyst

City of Mesa

2/3/2021

SECTION 1:

FATALITIES

In 2019, the City of Mesa had 28 fatal crashes with a total of 28 fatalities. The following collection of charts and tables documents fatal crashes of 2019. Descriptions of these tables and charts will be found underneath each respectively.

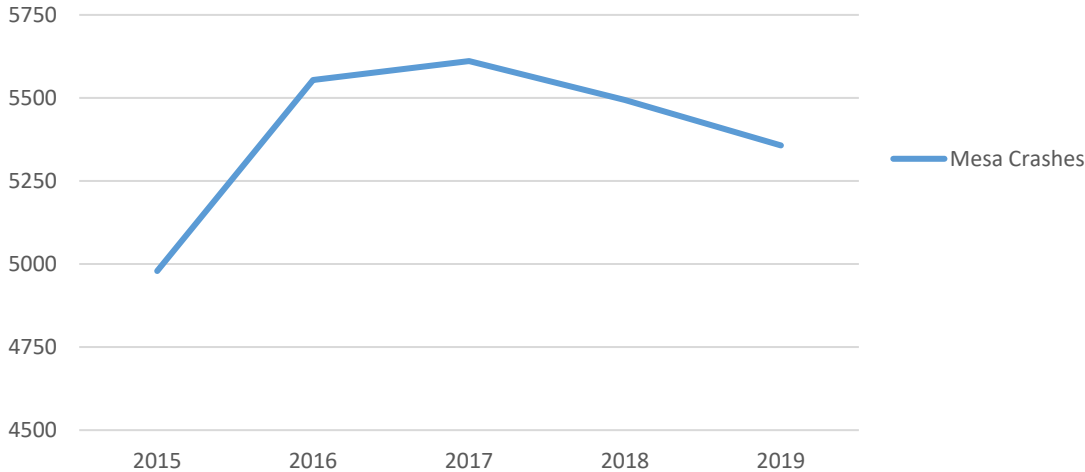
For the purposes of this document, “Vehicle 1” is defined as the motorist (or non-motorist) deemed at fault by Mesa Police Department. “Vehicle 2” is defined as the involved motorist (or non-motorist) that was deemed the victim by Mesa Police Department.

Mesa Fatal Crashes by Year

Year	Fatal Crashes	Total Fatalities	Total Crashes	Mesa Population	Fatalities Per 100,000 Population	% Change From 5-Year Average
2001	31	31	9928	416301	7.4	
2002	22	23	9155	427923	5.4	
2003	30	31	8520	435391	7.1	
2004	25	27	9184	443733	6.1	
2005	64	67	9205	450948	14.9	81.71%
2006	47	50	8522	456449	11.0	23.38%
2007	25	26	7933	460493	5.6	-36.79%
2008	25	26	5908	463829	5.6	-35.04%
2009	19	21	5504	467157	4.5	-45.92%
2010	15	15	5118	440031	3.4	-43.39%
2011	27	29	5178	444685	6.5	26.99%
2012	24	24	5134	451677	5.3	4.83%
2013	23	28	5313	457587	6.1	18.32%
2014	19	20	5025	464704	4.3	-16.16%
2015	15	15	4979	471825	3.2	-37.51%
2016	28	30	5554	475274	6.3	25.10%
2017	29	30	5611	496401	6.0	16.41%
2018	32	33	5494	508958	6.5	23.16%
2019	28	28	5357	511334	5.5	-0.42%

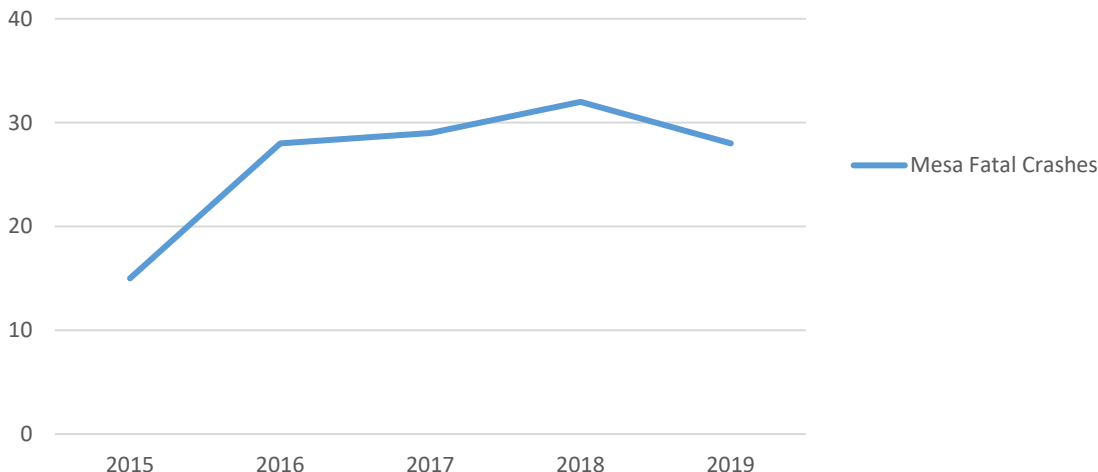
In 2019, 28 people lost their lives on Mesa’s public streets because of a collision with a motor vehicle, a decrease from the year before. Likewise, the number of fatalities per 100,000 population decreased by 15.5%.

Mesa Total Crashes by Year



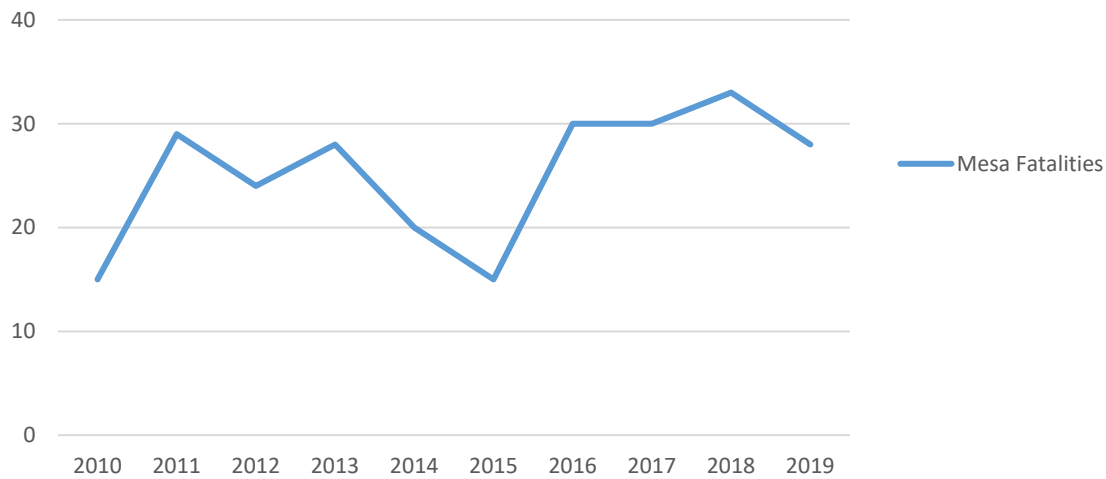
In 2019, City of Mesa **motor vehicle crashes** decreased by 137 from the year before; this is a 2.5% decrease from 2018.

Mesa Fatal Crashes by Year



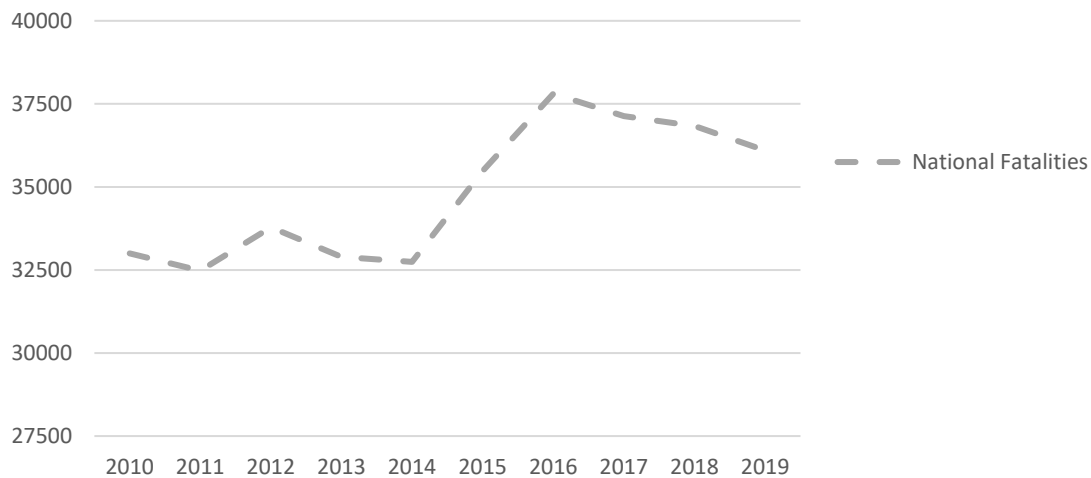
Over the past five years, **fatal crashes** in Mesa have had a general upward trend. From the chart above, the number of fatal crashes has increased since 2015. However, City of Mesa fatal collisions in 2019 were 12.5% less than the previous year.

Mesa Total Fatalities by Year



Based on a 10-year average (2010 – 2019), **total fatalities** are trending upward which is consistent with the national average over a 10-year period, as shown below.

National Total Fatalities by Year



According to the National Highway Traffic Safety Administration (NHTSA) report on fatal crashes, 36,096 people died because of a collision with a motor vehicle in 2019. This is a decrease of 2.1% from 2018. Note that this figure represents fatal crashes on all roads within the United States, not just local.

2019 Mesa Fatal Crashes: Intersection Relation

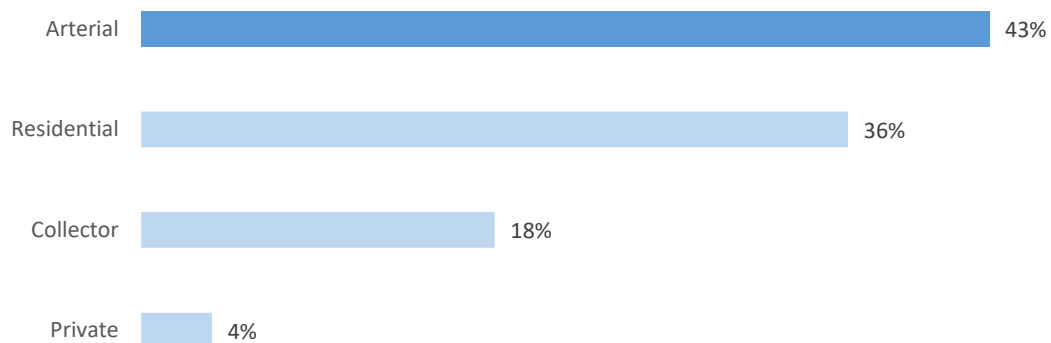


Of the 28 fatal crashes, **6 were intersection related** and **22 were non intersection related**.

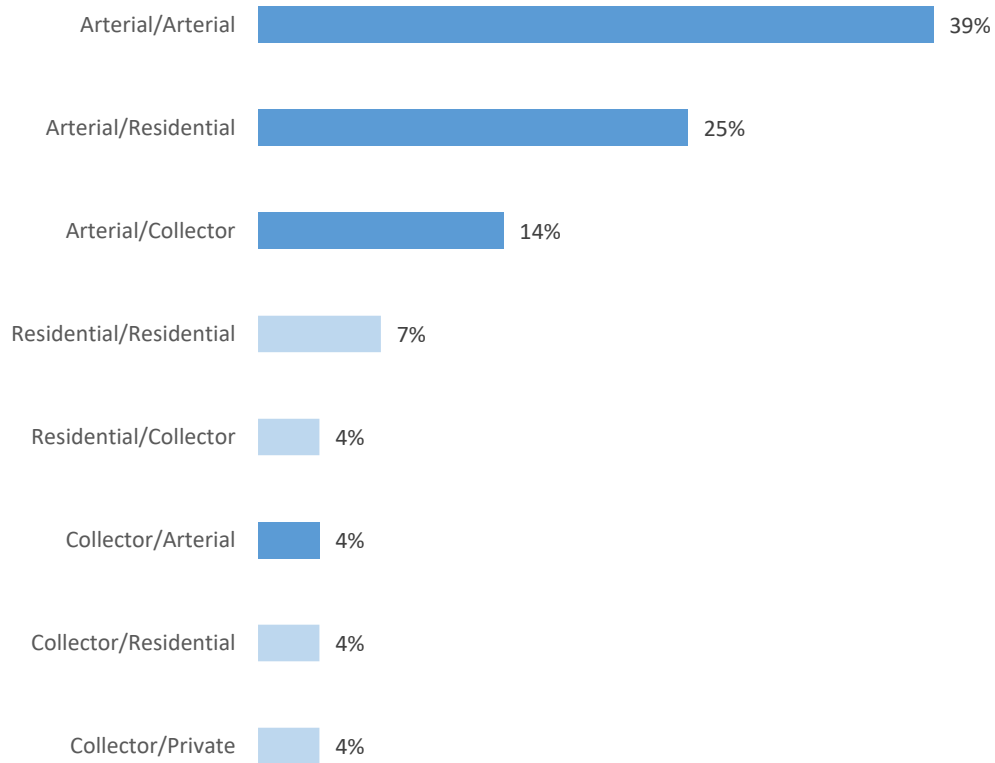
2019 Mesa Fatal Crashes: On Street Class



2019 Mesa Fatal Crashes: Cross Street Class



Mesa 2019 Fatal Crashes: Intersection Class



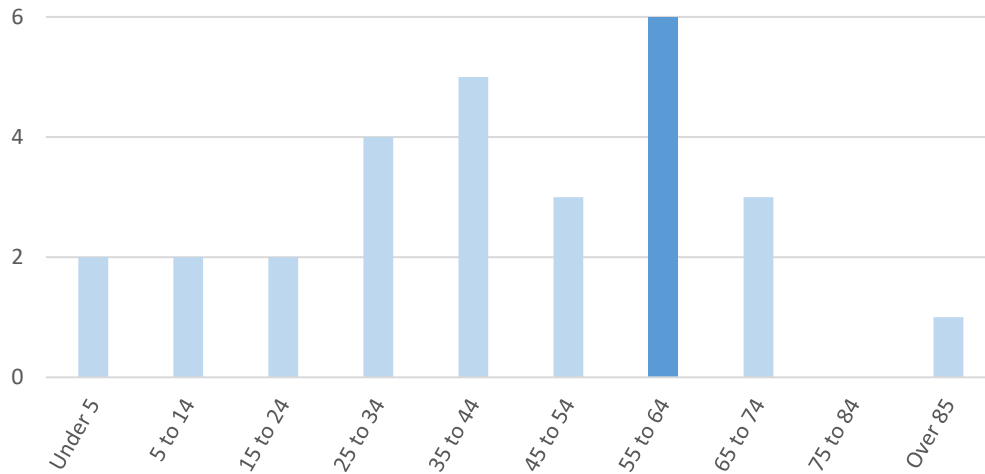
City of Mesa fatal crashes in 2019 primarily occurred along arterial streets. According to the crash data, 23 of the 28 fatal crashes [involved an arterial roadway](#).

2019 Mesa Fatalities by Gender



Data analysis of 2019 crashes within the City of Mesa found that motor vehicle fatalities were **higher among males** than females.

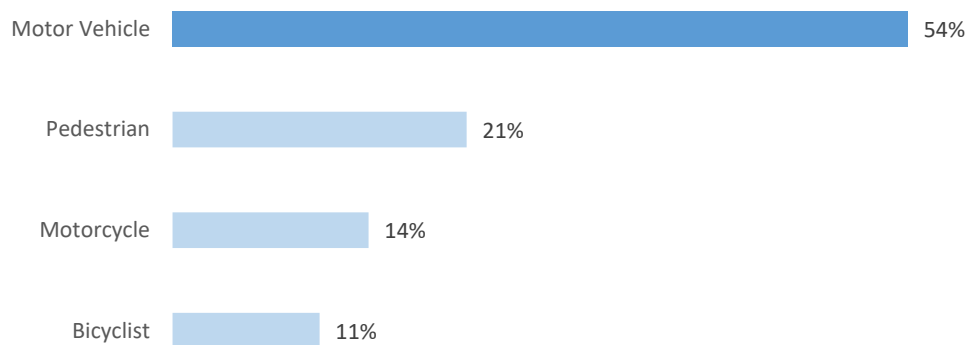
Mesa 2019 Fatalities by Age



Motor vehicle crash fatalities were higher among people **aged 55 to 64** than any other age group in 2019. The 15-24 age group made up a smaller percentage of total fatalities than the previous years. In 2017 and 2018 the 15-24 age group was the highest group, making up over 20% of the total fatalities.

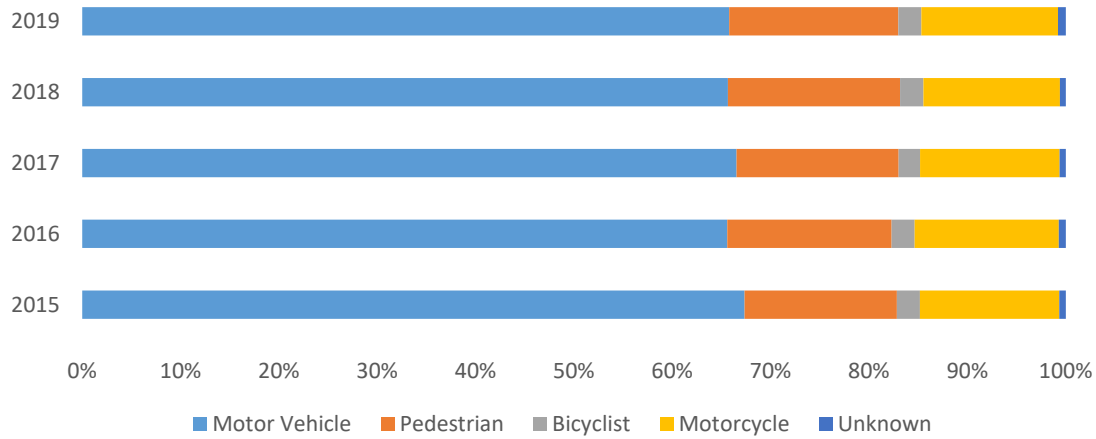
It should also be noted that the highest number of fatalities relative to the population within their respective age group was people aged 55 to 64. This group made up 11.1% of the total population in 2019 but contributed to 21.4% of the total fatalities within Mesa in 2019.

Mesa 2019 Fatalities: Unit Type



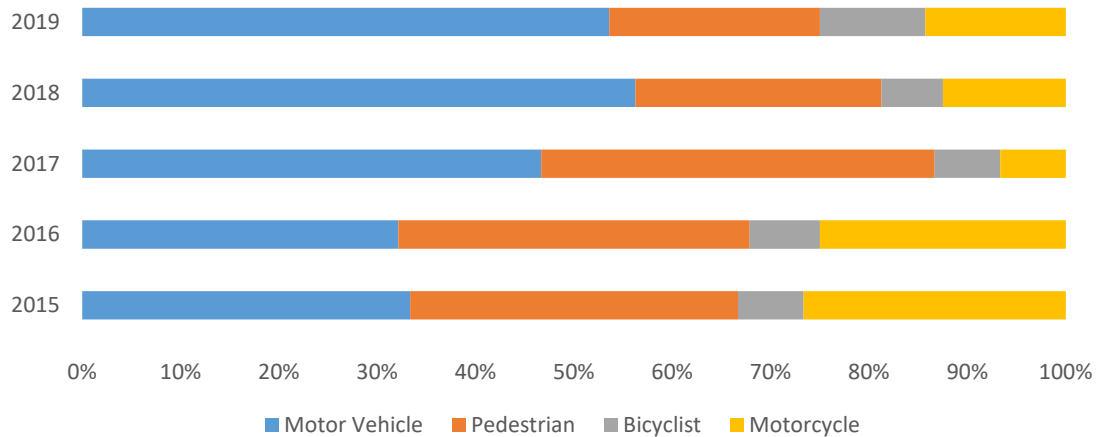
Among the unit types, drivers and passengers of **motor vehicles** were most involved in a fatal crash. The number of pedestrian fatalities in 2019 decreased by 25% compared to the previous year.

National Fatalities by Unit Type



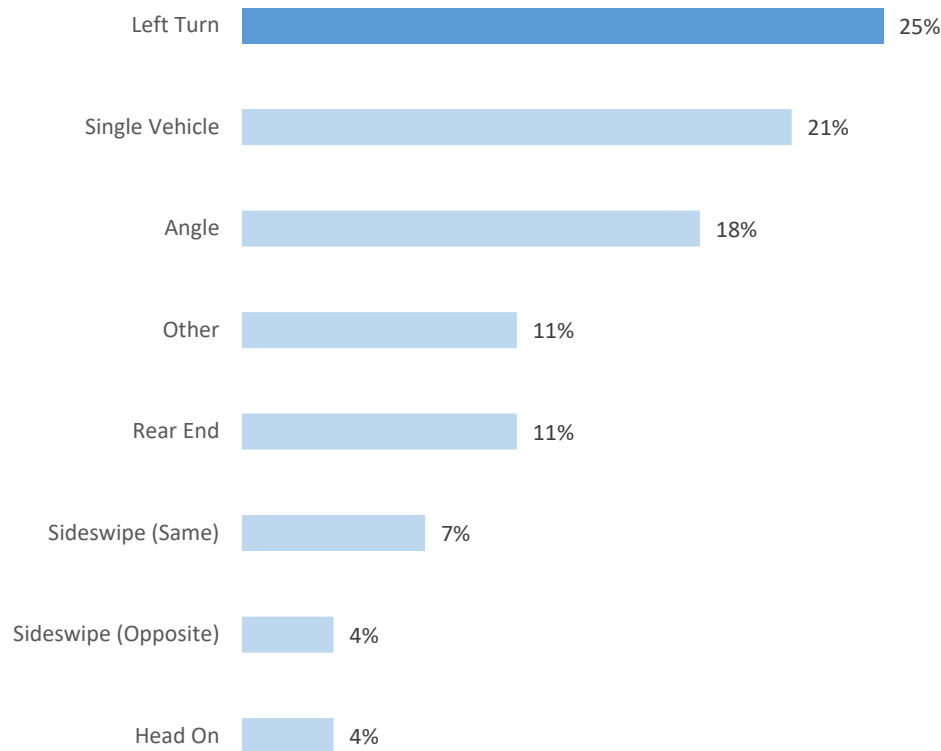
Nationally, fatalities involving **motor vehicles** greatly exceeded those involving other unit types. Collisions involving **pedestrians** across the United States comprised 17.2% of all fatalities in 2019.

Mesa Fatalities by Unit Type



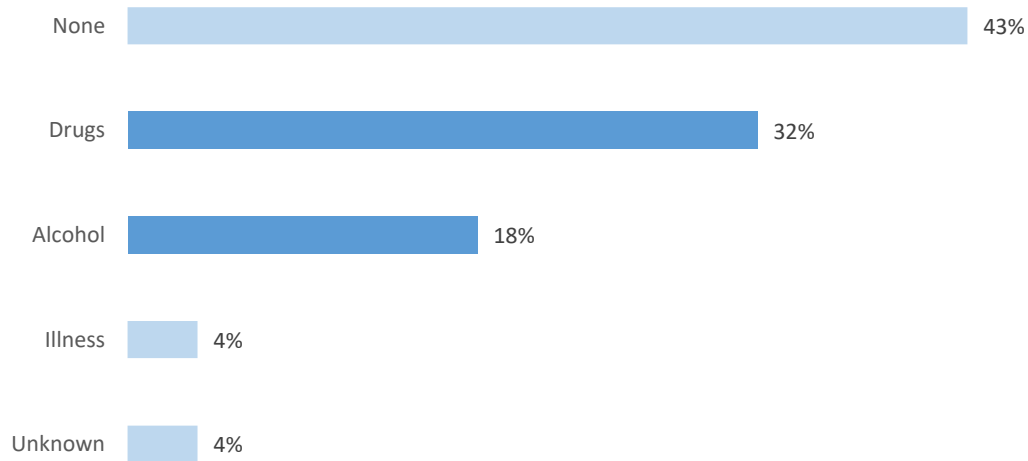
In Mesa, **motor vehicle** fatalities made up 54% of all fatalities in 2019. Compared to the previous five years, **pedestrian** fatalities in 2019 were the lowest in terms of percentage with 21%.

Mesa 2019 Fatal Crash Manner



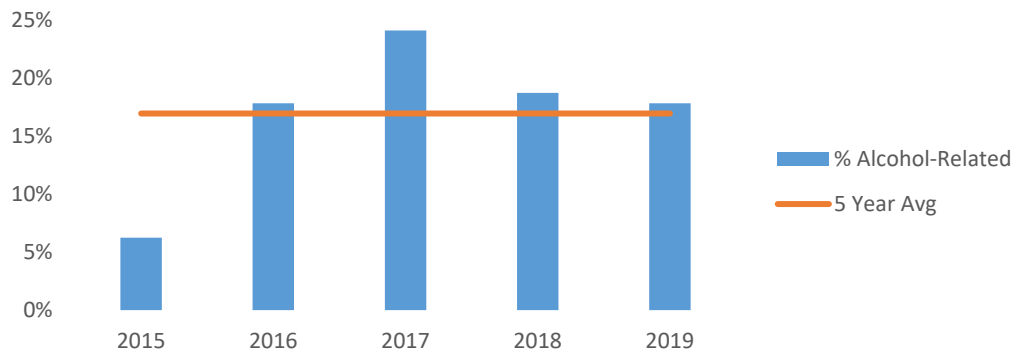
The highest percentage of motor vehicles fatalities within the City of Mesa in 2019 were **left turn** crashes. Angle and left turn crashes together made up 43% of all 2019 fatalities which includes three pedestrian crashes.

Mesa 2019 Fatal Crashes: Impairment



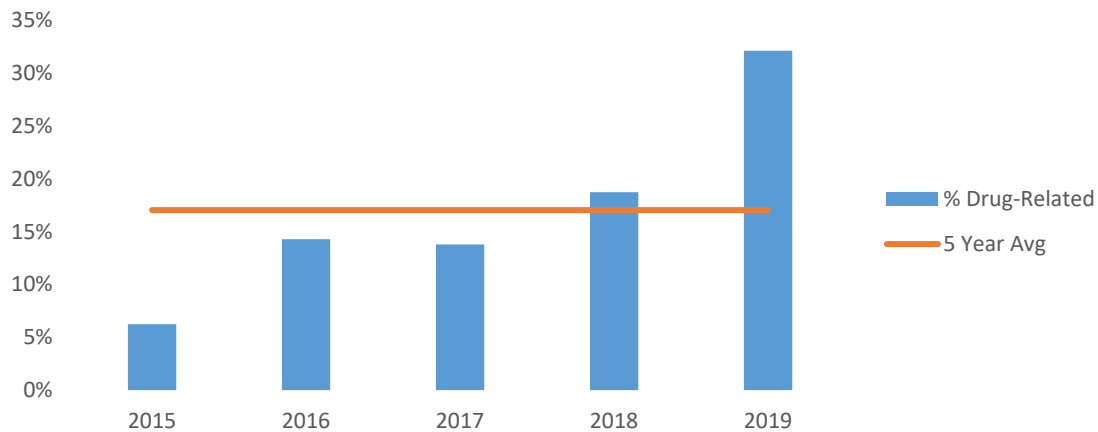
Half of the 28 fatal crashes in Mesa involved impairment from **drugs or alcohol**.

Mesa 2019 Fatal Crashes: Alcohol Involvement



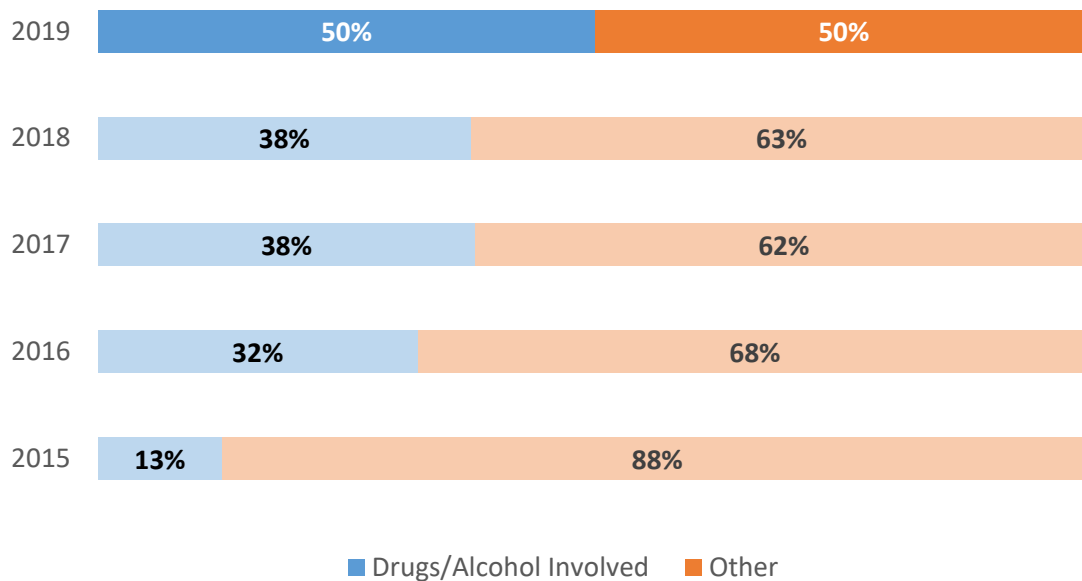
The above chart shows a 5-year trend in alcohol impairment involved with fatal crashes. The percentage is compared to the total number of fatal crashes per year. Over the past five years, an **average of 17%** of fatal collisions involved a person under the influence of alcohol.

Mesa 2019 Fatal Crashes: Drug Involvement



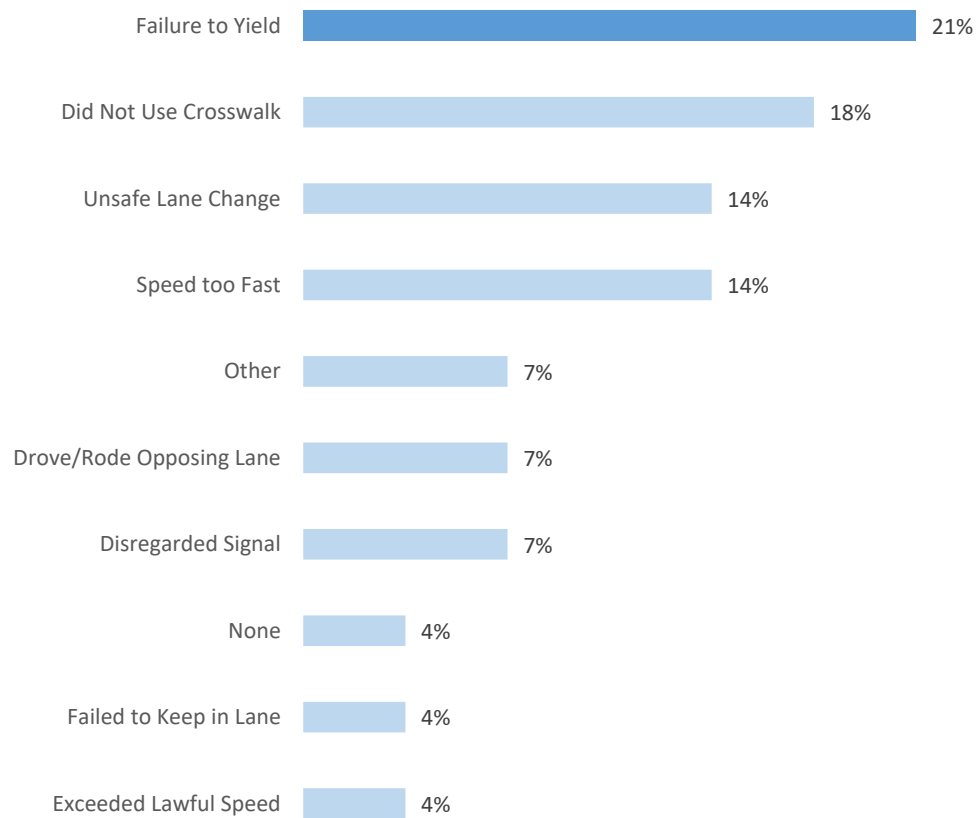
The above chart shows a 5-year trend in drug impairment involved with fatal crashes. The percentage is compared to the total number of fatal crashes per year. Over the past five years, an **average of 14%** of all fatal collisions involved a person under the influence of drugs.

Mesa 2019 Drug & Alcohol Involvement



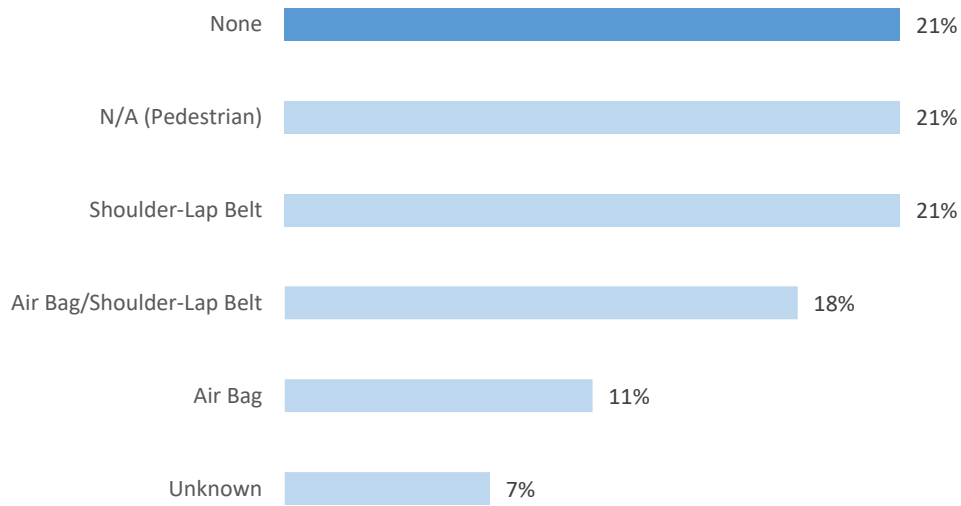
The above chart shows a 5-year trend that combines alcohol and drug impairment. Over the past five years, **alcohol and drug involvement** in fatal collisions has increased significantly. **Other crashes** include those that had no impairment and those which had other forms of impairment, such as fatigue.

Mesa 2019 Fatal Crashes: Vehicle 1 Violation



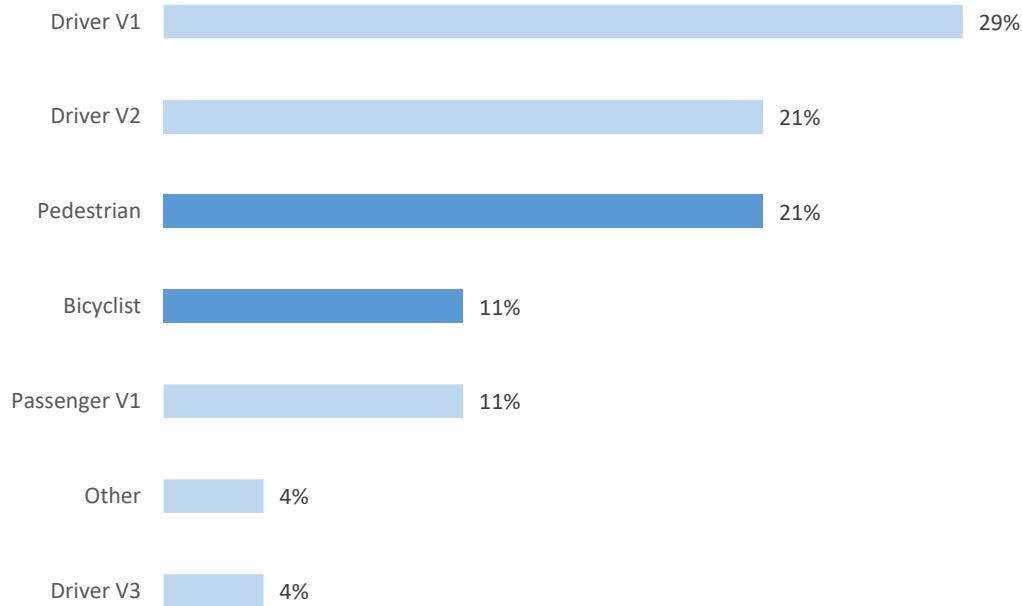
The above chart details the reported violations made by vehicle 1 which led to a fatal crash within Mesa in 2019. Of the 28 fatal motor vehicle fatalities, 6 resulted from a **failure to yield**.

Mesa 2019 Fatal Unit Safety Device



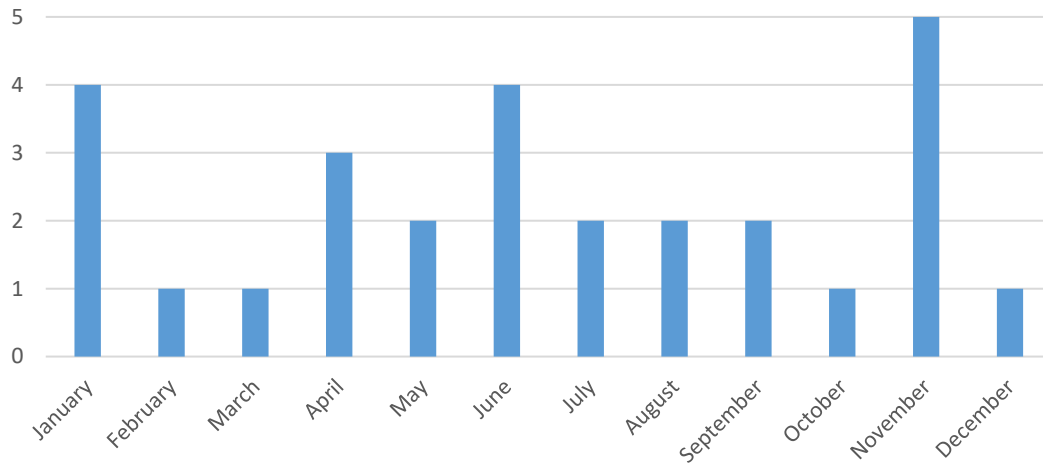
The chart above shows the known and unknown victim safety devices involved in the 28 Mesa fatalities in 2019. Six fatalities involved victims that were **not using a safety device**.

Mesa 2019 Location of Fatal Unit



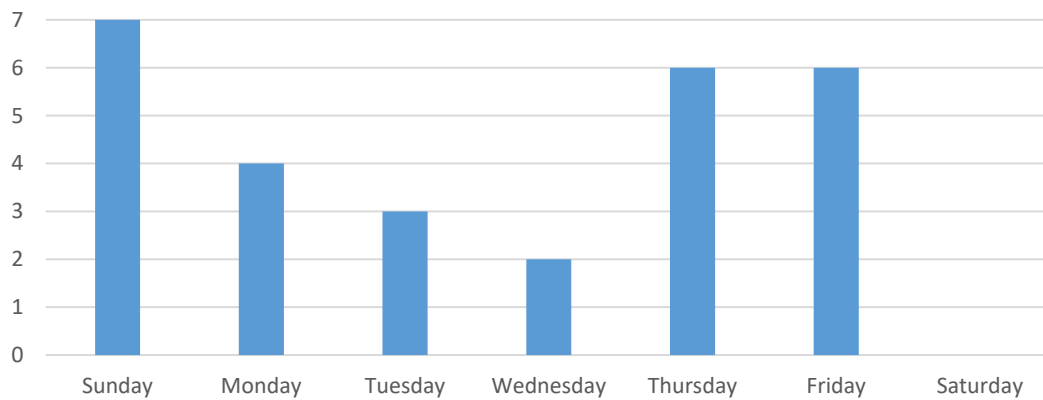
There were 28 fatalities in 2019. Among those, 9 involved a non-motorist victim (**6 pedestrian collisions and 3 bicyclist collisions**).

Mesa 2019 Fatal Crashes by Month



City of Mesa fatal crashes by month in 2019 showed increases in the months of January, April, June, and December.

Mesa 2019 Fatal Crashes by Day of Week



Zero fatal crashes occurred on a Saturday in 2019 within the City of Mesa, although many of them occurred during the weekend.

Mesa 2018 Fatal Crashes by Time of Day

Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM - 1:00 AM	1	0	1	0	0	0	0	2
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0
2:00 AM - 3:00 AM	0	0	0	0	0	0	0	0
3:00 AM - 4:00 AM	1	0	0	0	0	0	0	1
4:00 AM - 5:00 AM	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	1	0	0	0	0	0	1
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	1	0	0	0	0	0	0	1
8:00 AM - 9:00 AM	0	0	0	0	1	0	0	1
9:00 AM - 10:00 AM	0	0	0	0	0	1	0	1
10:00 AM - 11:00 AM	0	0	0	0	0	1	0	1
11:00 AM - 12:00 PM	0	0	0	0	0	0	0	0
12:00 PM - 1:00 PM	1	0	0	0	0	0	0	1
1:00 PM - 2:00 PM	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	1	1	0	0	2
3:00 PM - 4:00 PM	0	1	0	1	0	0	0	2
4:00 PM - 5:00 PM	0	0	1	0	2	0	0	3
5:00 PM - 6:00 PM	1	0	1	0	0	0	0	2
6:00 PM - 7:00 PM	0	1	0	0	0	1	0	2
7:00 PM - 8:00 PM	0	0	0	0	1	0	0	1
8:00 PM - 9:00 PM	2	1	0	0	0	2	0	5
9:00 PM - 10:00 PM	0	0	0	0	1	0	0	1
10:00 PM - 11:00 PM	0	0	0	0	0	0	0	0
11:00 PM - 12:00 AM	0	0	0	0	0	1	0	1
Total	7	4	3	2	6	6	0	28

In 2019, over half of the fatal crashes within Mesa occurred between 3:00 PM and 9:00 PM.

Mesa 5-Year Trend: Fatal Crashes by Time of Day

	2015	2016	2017	2018	2019	5-Year Total	% of Total
12:00 AM - 1:00 AM	0	0	3	0	2	5	3.8%
1:00 AM - 2:00 AM	0	0	0	1	0	1	0.8%
2:00 AM - 3:00 AM	0	0	0	0	0	0	0.0%
3:00 AM - 4:00 AM	1	0	0	0	1	2	1.5%
4:00 AM - 5:00 AM	0	0	1	1	0	2	1.5%
5:00 AM - 6:00 AM	0	1	0	0	1	2	1.5%
6:00 AM - 7:00 AM	0	1	1	0	0	2	1.5%
7:00 AM - 8:00 AM	0	0	1	1	1	3	2.3%
8:00 AM - 9:00 AM	0	0	1	0	1	2	1.5%
9:00 AM - 10:00 AM	1	0	1	1	1	4	3.0%
10:00 AM - 11:00 AM	3	1	0	2	1	7	5.3%
11:00 AM - 12:00 PM	2	1	0	3	0	6	4.5%
12:00 PM - 1:00 PM	1	0	3	1	1	6	4.5%
1:00 PM - 2:00 PM	0	1	1	1	0	3	2.3%
2:00 PM - 3:00 PM	1	4	0	4	2	11	8.3%
3:00 PM - 4:00 PM	2	2	1	1	2	8	6.0%
4:00 PM - 5:00 PM	0	0	2	1	3	6	4.5%
5:00 PM - 6:00 PM	2	3	0	3	2	10	7.5%
6:00 PM - 7:00 PM	1	0	5	2	2	10	7.5%
7:00 PM - 8:00 PM	0	4	3	1	1	9	6.8%
8:00 PM - 9:00 PM	0	4	4	4	5	17	12.8%
9:00 PM - 10:00 PM	0	4	1	2	1	8	6.0%
10:00 PM - 11:00 PM	1	1	0	3	0	5	3.8%
11:00 PM - 12:00 AM	1	1	1	0	1	4	3.0%
Total	16	28	29	32	28	133	

Over a 5-year trend, the highest concentration of fatal crashes also occurred between 3:00 PM and 9:00 PM with 45% of the total crashes.

SECTION 2:

SERIOUS INJURIES

As of 2014, serious injury crashes are now being measured by the City of Mesa to help determine problematic areas on roadways. This metric is likely to give a clearer view of the behaviors and factors that lead to collisions resulting in serious injuries by significantly increasing the sample size of analyzed crashes, when compared to only analyzing fatal crashes.

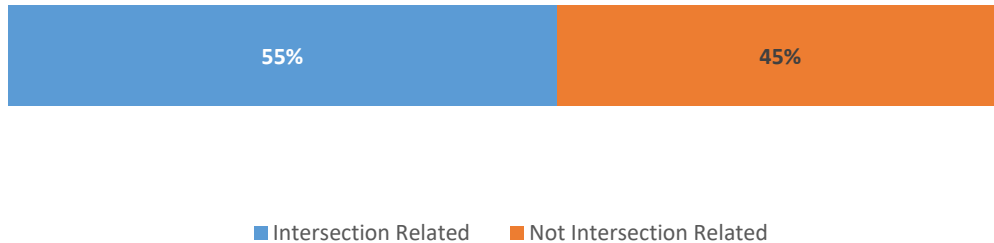
Mesa Serious Injury Crashes: General View

Year	Serious Injury Crashes	Total Serious Injuries	Total Crashes	Mesa Population	Serious Injuries Per 100,000 Population	% Change From 5-Year Average
2001			9928	416301		
2002			9155	427923		
2003			8520	435391		
2004			9184	443733		
2005			9205	450948		
2006			8522	456449		
2007			7933	460493		
2008			5908	463829		
2009			5504	467157		
2010		228	5118	440031	52	
2011		236	5178	444685	53	
2012		233	5134	451677	52	
2013		239	5313	457587	52	
2014	183	237	5025	464704	51	-1.8%
2015	181	213	4975	471825	45	-10.8%
2016	234	272	5511	475274	57	11.3%
2017	194	218	5579	496401	44	-12.0%
2018	169	191	5479	508958	38	-20.1%
2019	186	207	5357	511334	40	-9.8%

In 2019, 186 serious injury crashes occurred on Mesa roadways resulting in 207 serious injuries. The percentage of severe injury crashes per 100,000 population, increased by 7.9% from the previous year.

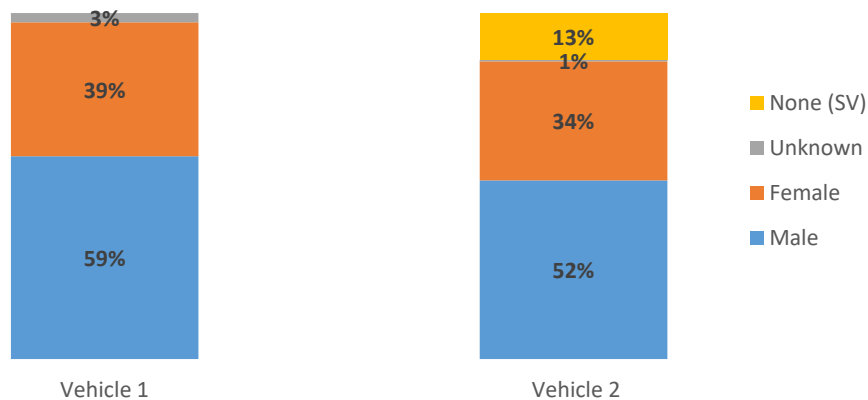
The average serious injury rate per 100,000 population within the City of Mesa between the five-year period of 2015 and 2019 was 45.

Mesa 2019 Serious Injury Crashes: Intersection Relation



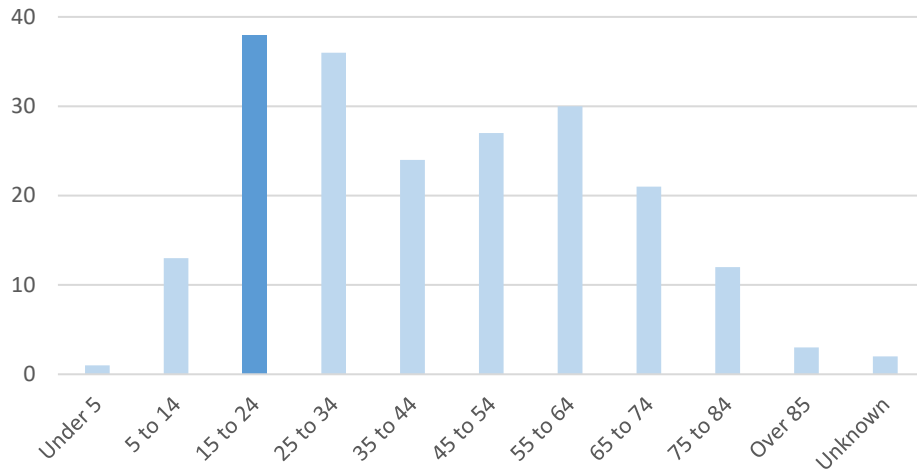
Of the 186 serious injury crashes that happened within Mesa in 2019, 114 were **intersection related**.

Mesa 2019 Serious Injury Crashes by Gender



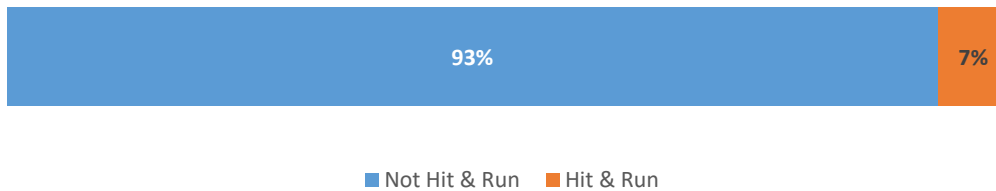
Data analysis of 2019 crashes within the City of Mesa found that motor vehicle serious injury crashes were higher among **males** than **females**. Genders that are **unknown** are typically attributed to hit and run crashes. Single vehicle (SV) crashes are crashes where vehicle 2 was not involved.

Mesa 2019 Serious Injuries by Age



Motor vehicle serious injury crashes were higher among people **aged 15 to 24** than any other age group in 2019.

Mesa 2019 Serious Injury Crashes: Hit & Run



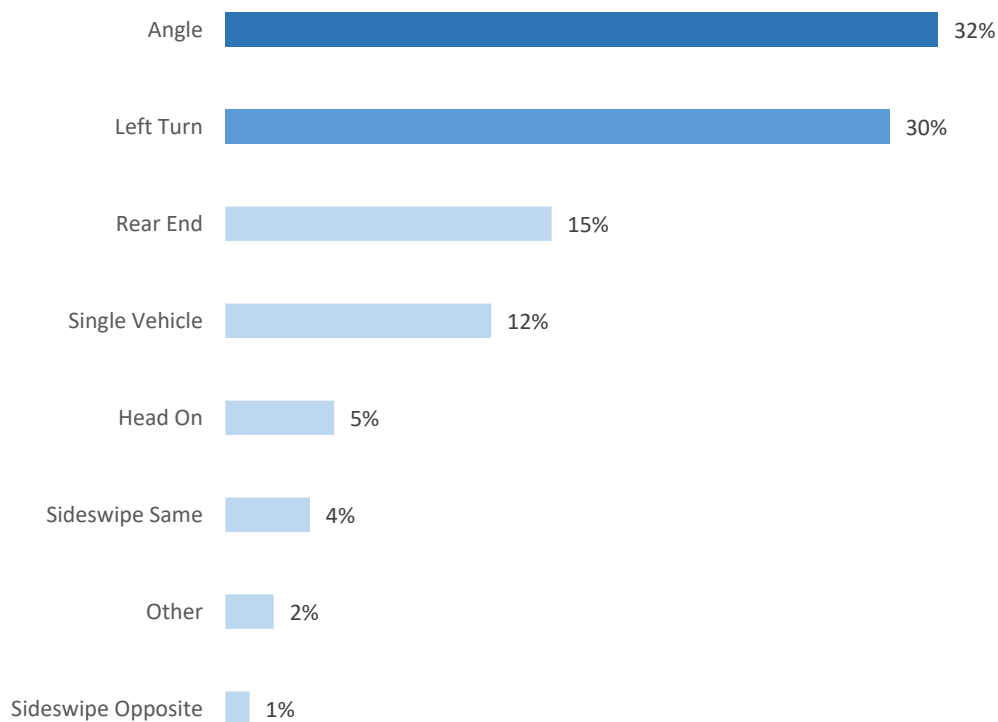
There were 13 serious injury crashes that were classified as **hit and run** in 2019. The percentage of hit and run crashes in 2019 is consistent with the previous year.

Mesa 2019 Serious Injury Crashes: Unit Type



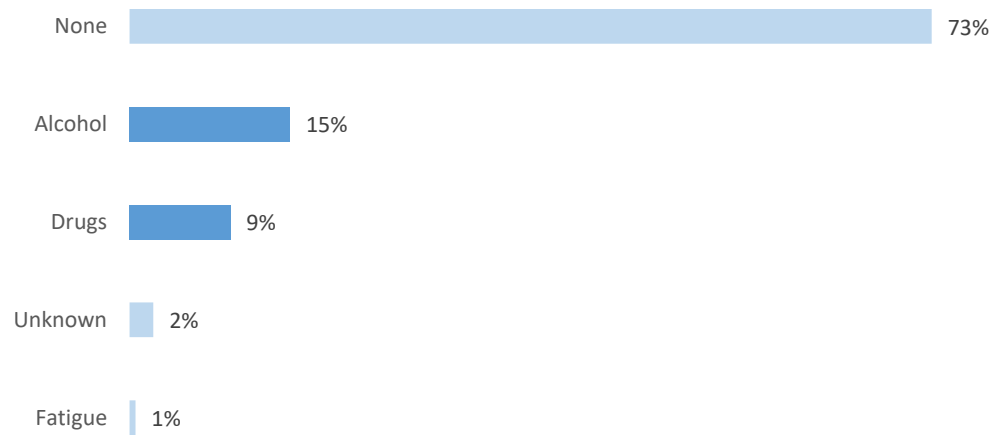
Most of the serious injury crashes that occurred in Mesa in 2019 were **motor vehicle** collisions. This number includes motorcyclists and single vehicle crashes.

Mesa 2019 Serious Injury Crash Manner



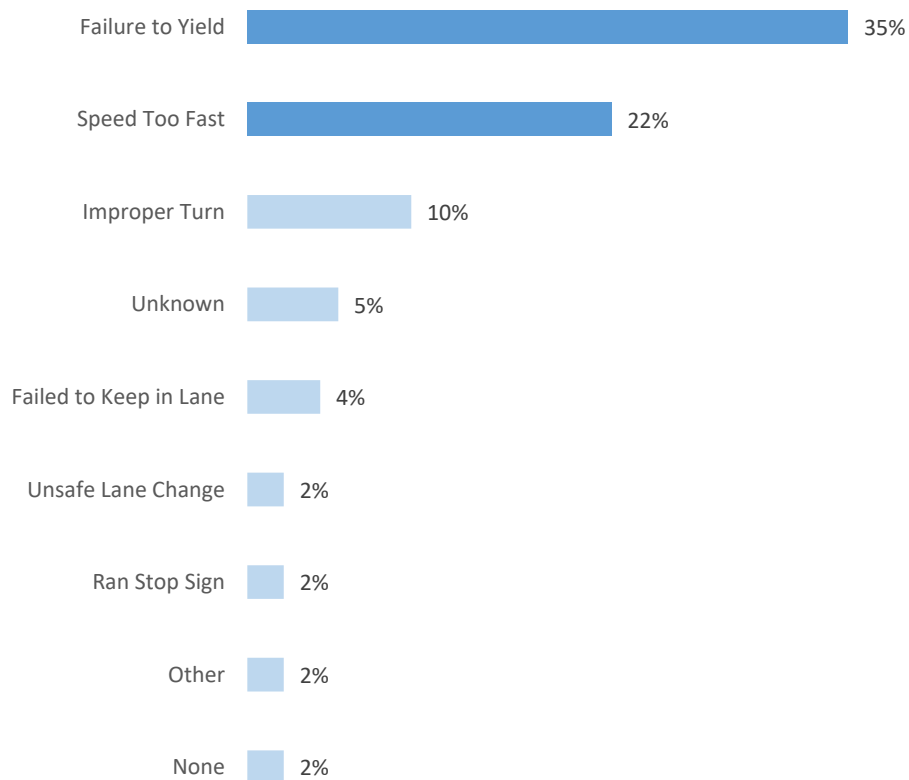
In 2019, the leading crash manners resulting in serious injuries were **angle** and **left turn** crashes. These include pedestrian and bicyclist crashes when direction and travel behaviors resembled the manners listed above.

Mesa 2019 Serious Injury Crashes: Impairment



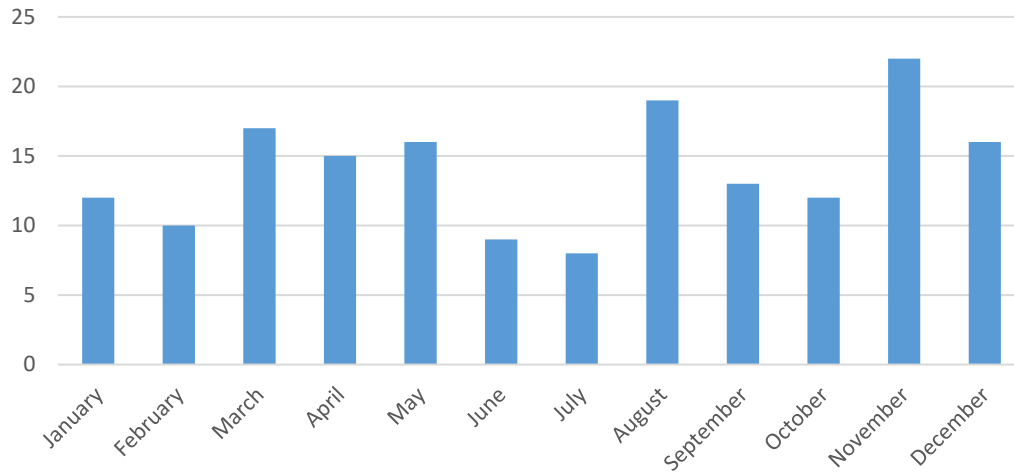
Impairment, including both **alcohol and drug** use, was a factor in 44 serious injury crashes in 2019 (27 alcohol-related incidents and 17 drug-related incidents).

Mesa 2019 Serious Injury Crashes: Vehicle 1 Violation



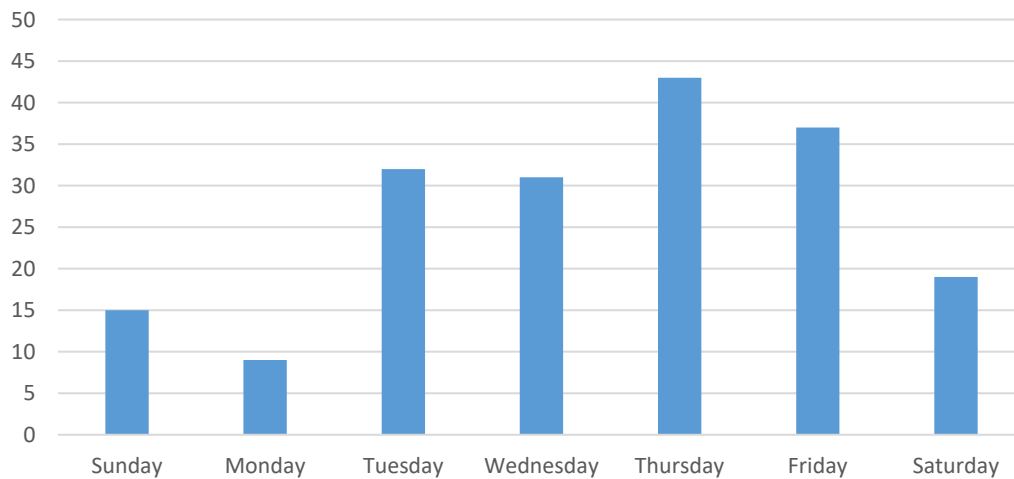
The above chart shows a distribution of Mesa vehicle 1 violations in 2019 that resulted in crashes with serious injuries. Over half of the reported violations, 57%, were noted as either a **failure to yield** or **speed too fast**.

Mesa 2019 Serious Injury Crashes by Month



The highest three-month period for serious injury crashes was from October to December. Those three months comprised 26.9% of all serious injury crashes within the City of Mesa in 2019.

Mesa 2019 Serious Injury Crashes by Day of Week



Serious injury crashes within Mesa were most frequent between Wednesday and Friday; 59.7% of all serious injury crashes occurred on those days.

Mesa Serious Injury Crashes by Time and Day of Week

Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM - 1:00 AM	0	0	0	0	0	0	0	0
1:00 AM - 2:00 AM	1	0	0	0	0	0	1	2
2:00 AM - 3:00 AM	1	0	0	0	0	0	0	1
3:00 AM - 4:00 AM	0	1	0	0	0	0	0	1
4:00 AM - 5:00 AM	0	0	1	0	0	0	0	1
5:00 AM - 6:00 AM	0	0	0	0	1	1	0	2
6:00 AM - 7:00 AM	1	0	1	0	1	0	0	3
7:00 AM - 8:00 AM	2	0	5	2	4	0	0	13
8:00 AM - 9:00 AM	2	1	1	2	4	0	0	10
9:00 AM - 10:00 AM	0	0	1	2	0	1	0	4
10:00 AM - 11:00 AM	0	2	5	0	1	0	1	9
11:00 AM - 12:00 PM	2	1	0	1	6	6	1	17
12:00 PM - 1:00 PM	0	1	2	1	6	6	0	16
1:00 PM - 2:00 PM	1	0	2	3	3	1	1	11
2:00 PM - 3:00 PM	0	0	4	5	1	2	2	14
3:00 PM - 4:00 PM	1	1	1	2	3	7	3	18
4:00 PM - 5:00 PM	0	0	1	3	2	1	0	7
5:00 PM - 6:00 PM	1	1	2	2	3	4	3	16
6:00 PM - 7:00 PM	1	1	3	4	4	4	4	21
7:00 PM - 8:00 PM	1	0	1	2	2	2	0	8
8:00 PM - 9:00 PM	1	0	1	1	1	0	1	5
9:00 PM - 10:00 PM	0	0	1	1	1	2	0	5
10:00 PM - 11:00 PM	0	0	0	0	0	0	2	2
11:00 PM - 12:00 AM	0	0	0	0	0	0	0	0
Total	15	9	32	31	43	37	19	186

Data analysis of City of Mesa serious injury collisions in 2019 showed that the highest concentration of crashes occurred between 1:00 PM and 7:00 PM.

SECTION 3:

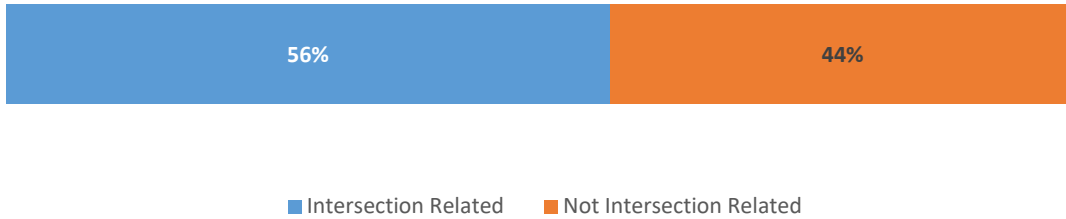
BIKE CRASHES

Mesa Bicycle Crashes: General View

Year	Bike Crashes	Total Crashes	Bike Crashes % Of Total	Mesa Population	Bike Crashes Per 100,000 Population	% Change From 5-Year Average
2001	284	9928	2.9%	416301	68.2	
2002	254	9155	2.8%	427923	59.4	
2003	282	8520	3.3%	435391	65	
2004	258	9184	2.8%	443733	58	
2005	276	9205	3.0%	450948	61	-1.82%
2006	181	8522	2.1%	456449	40	-29.97%
2007	231	7933	2.9%	460493	50	-8.44%
2008	212	5908	3.6%	463829	46	-10.33%
2009	222	5504	4.0%	467157	48	-2.72%
2010	206	5118	4.0%	440031	47	1.83%
2011	219	5178	4.2%	444685	49	2.83%
2012	257	5134	5.0%	451677	57	15.56%
2013	190	5313	3.6%	457587	42	-14.21%
2014	163	5025	3.2%	464704	35	-23.60%
2015	131	4979	2.6%	471825	28	-34.05%
2016	175	5554	3.2%	475274	37	-7.06%
2017	172	5611	3.1%	496401	35	-1.47%
2018	168	5479	3.1%	508958	33	-1.36%
2019	124	5357	2.3%	511334	24	-22.52%

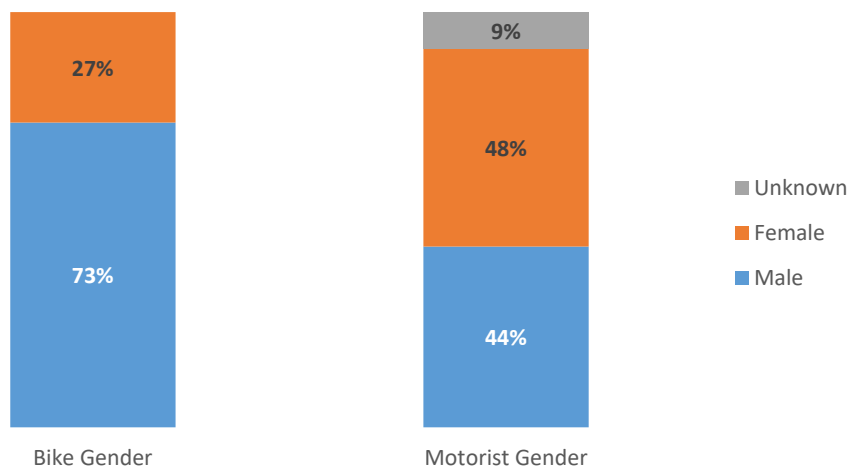
The City of Mesa had 124 bike-related crashes in 2019 which comprised 2.3% of all local crashes. The number of bicyclist crashes per 100,000 was 24, which is a 26.5% reduction from the previous year.

Mesa 2019 Bicycle Crashes: Intersection Relation



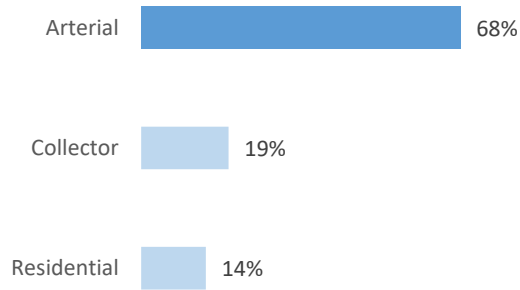
Of the 124 bike crashes within the City of Mesa in 2019, 70 were **intersection related**.

Mesa 2019 Bicycle Crash Gender

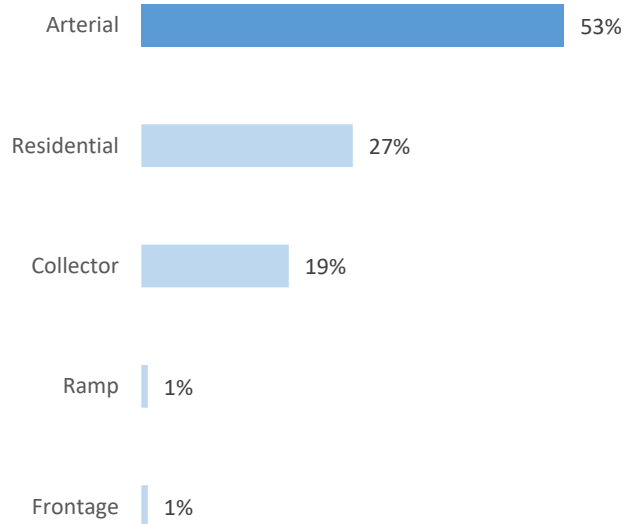


Data analysis of 2019 bicycle crashes showed that most bicyclists involved in crashes were **male**. Crashes where the driver was **unknown** are typically attributed to hit and run collisions.

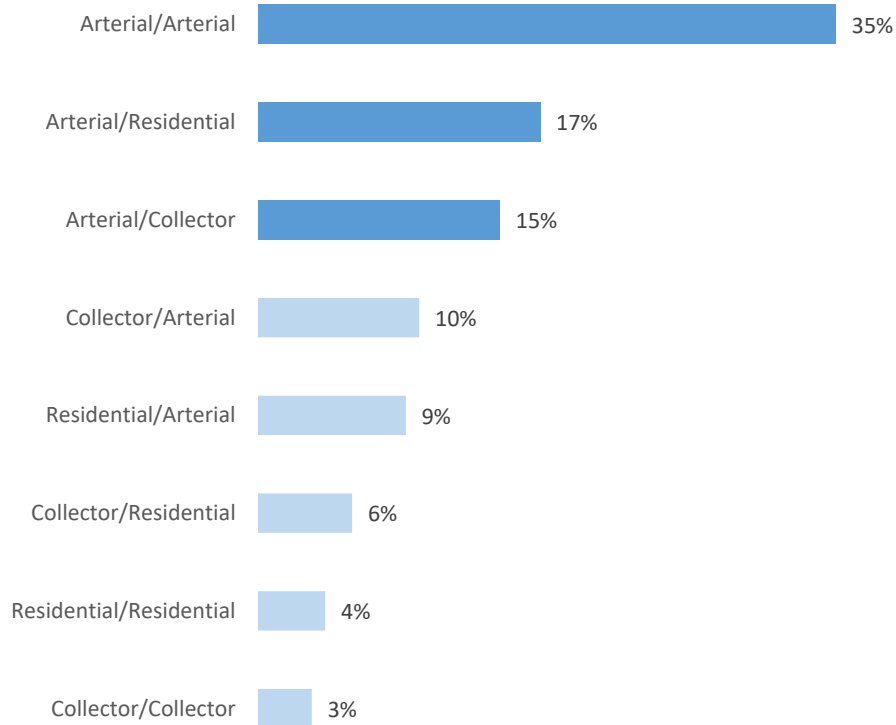
Mesa 2019 Bicycle Crashes: On Street Classification



Mesa 2019 Bicycle Crashes: Cross Street Classification

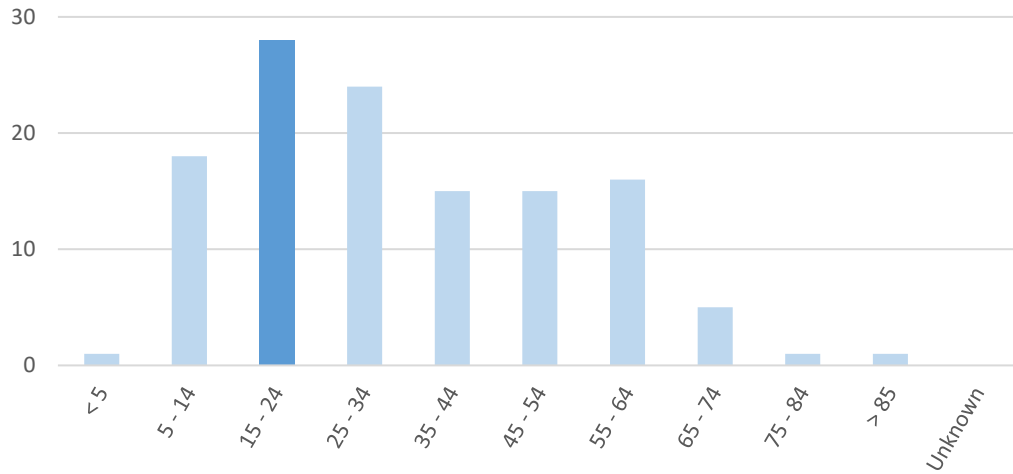


Mesa 2019 Bicycle Crashes: Intersection Classification



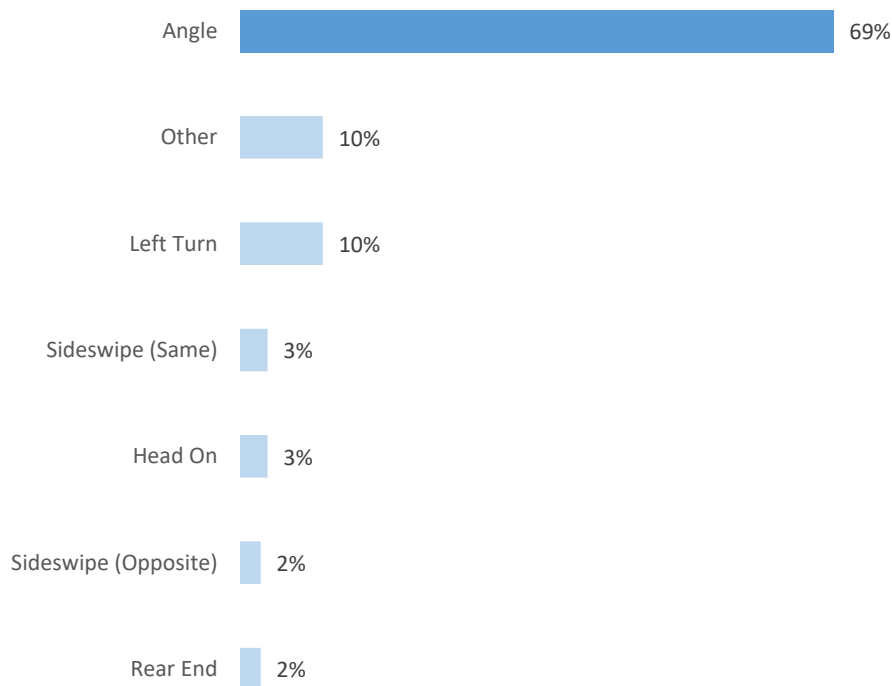
The charts above show the street intersection classifications for Mesa bicycle crashes in 2019. Most bike crashes occurred along **arterial streets**, contributing to 68% of all cases.

Mesa 2019 Bicycle Crashes by Age



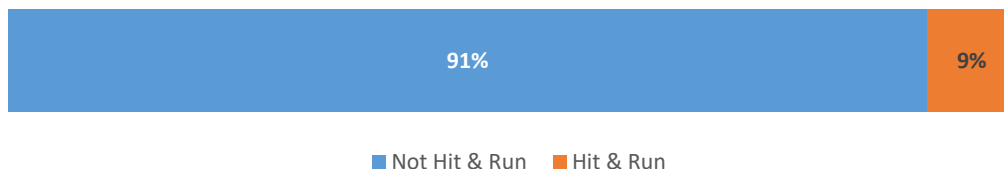
Bicycle crashes were higher among people **aged 15 to 24** than any other age group in 2019. Bicyclists 34 years old and younger were involved in 57.3% of all respective collisions.

Mesa 2019 Bicycle Crash Manner



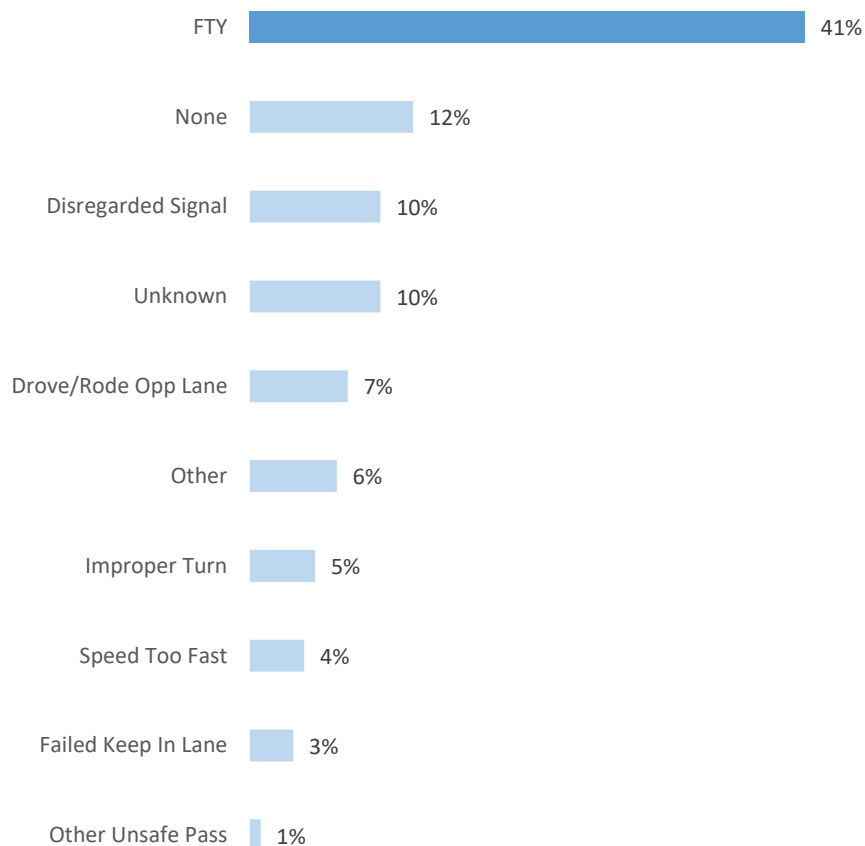
Over half of the total bicycle crashes were **angle crashes** with 86 incidents. These types of conflicts commonly occur at intersections and driveways.

Mesa 2019 Bicycle Crashes: Hit & Run



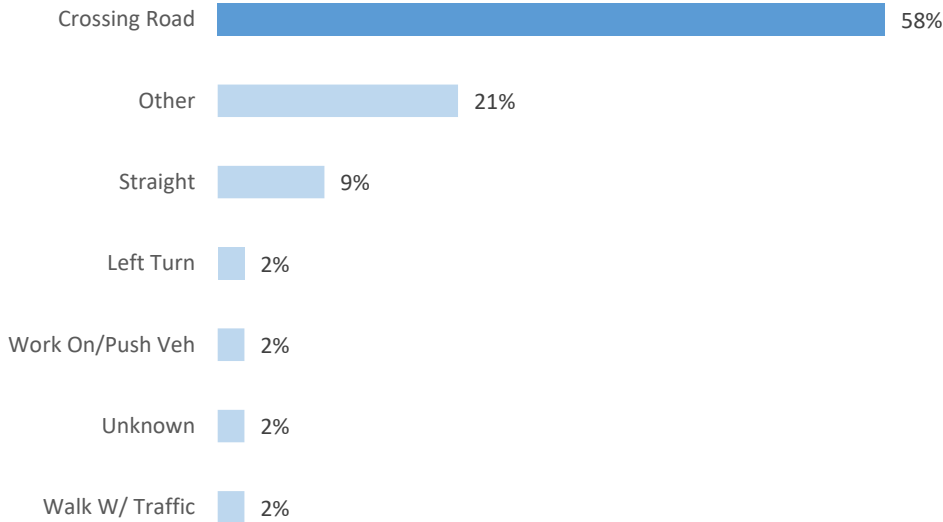
Of the 124 bicycle crashes within Mesa in 2019, 11 were deemed **hit and run** collisions. Relative to the total number of bike crashes, this is a decrease of 9.6% from the previous year.

Mesa 2019 Bicycle Crashes: Vehicle 1 Violation



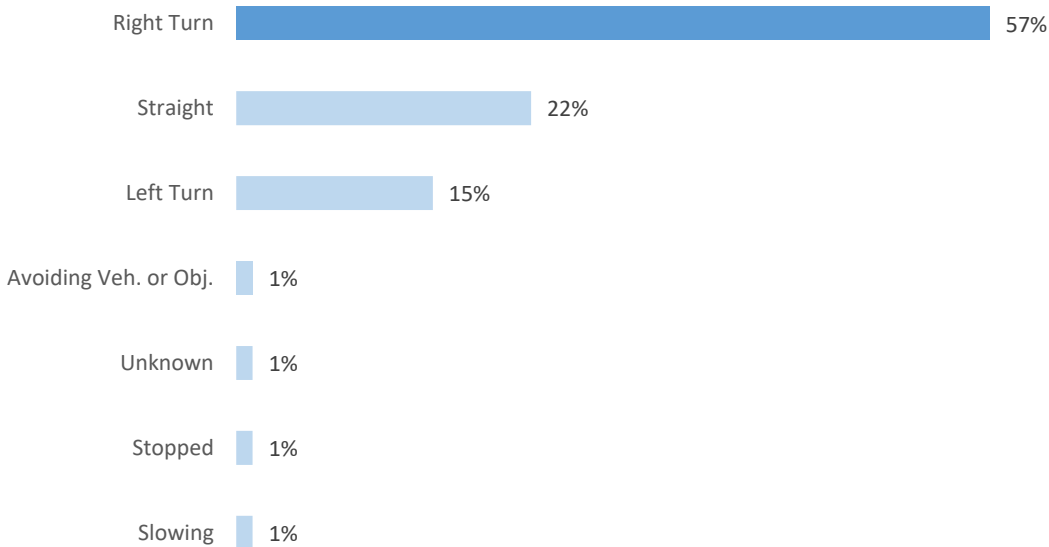
The reported violations of vehicle 1, inclusive of both bicyclists and drivers of motor vehicles, were highest for a **failure to yield**. In this category, there were 51 crashes.

Mesa 2019 Bicycle Crashes: Bicyclist at Fault Actions



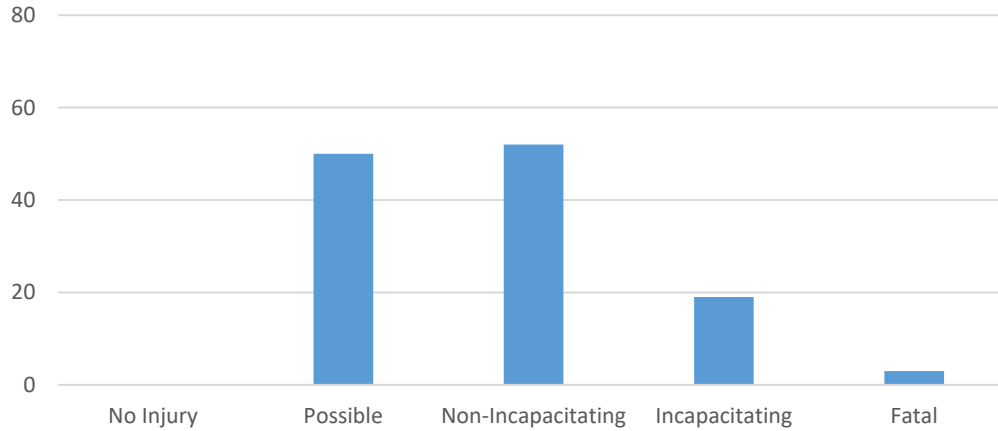
Breaking the crashes down by unit, out of the 124 total bicyclist collisions, 43 were reportedly caused by a violation of the bicyclist. Of those crashes, 25 were caused by bicyclists attempting to **cross the road**. This includes midblock and intersection crossings.

Mesa 2019 Bicycle Crashes: Motorist at Fault Actions



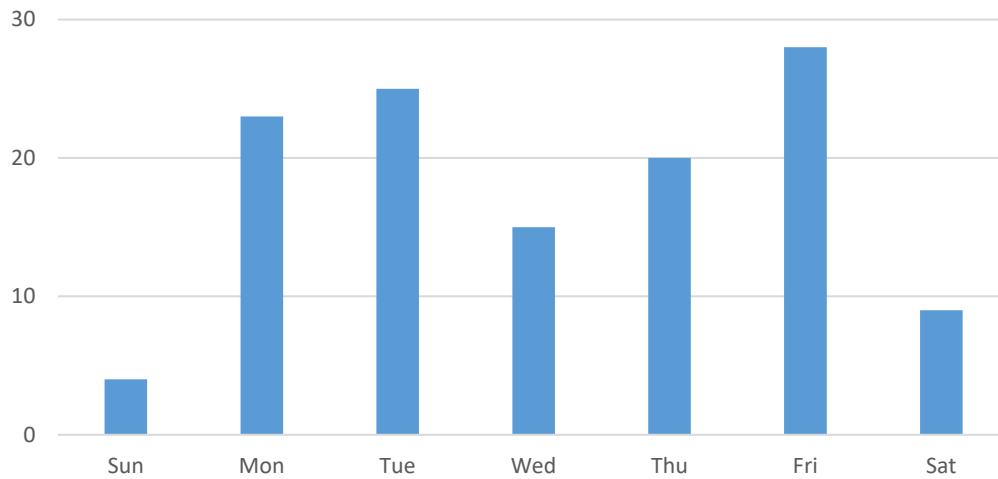
Of the 124 bicyclist crashes, 81 were caused by actions of the motor vehicle driver, as reported by police officers. Of those crashes, 46 were caused by motorists attempting to make a **right turn** movement.

Mesa 2019 Bicycle Crashes: Injury Severity



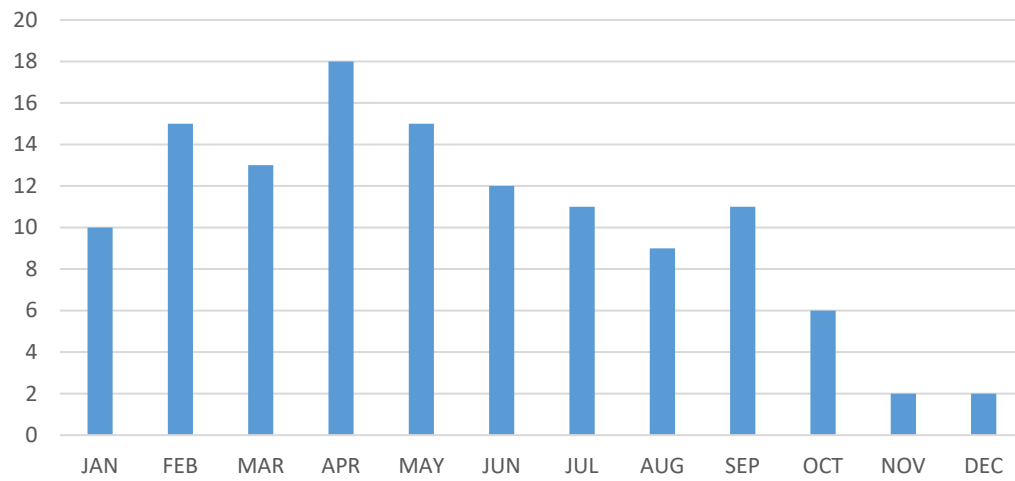
Of the 124 total bicycle crashes within the City of Mesa in 2019, there were 3 fatalities and 19 serious injuries, totalling 18% of all bicycle-related crashes.

Mesa 2019 Bicycle Crashes by Day of Week



Bicycle crashes were more frequent during weekdays which generally coincides with higher vehicle traffic volumes and more work commuting.

Mesa 2019 Bicycle Crashes by Month



Data analysis of bicycle crashes by month revealed an increase in the winter and spring months, followed by a gradual decrease throughout the remainder of the year.

Mesa 2019 Bicycle Crashes by Time and Day of Week

Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM - 1:00 AM	0	0	0	0	0	0	0	0
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0
2:00 AM - 3:00 AM	0	0	0	0	0	0	0	0
3:00 AM - 4:00 AM	0	0	0	0	0	0	0	0
4:00 AM - 5:00 AM	0	1	0	0	0	0	0	1
5:00 AM - 6:00 AM	0	0	1	0	1	2	0	4
6:00 AM - 7:00 AM	0	1	0	1	0	1	0	3
7:00 AM - 8:00 AM	0	3	3	0	1	1	1	9
8:00 AM - 9:00 AM	0	2	2	2	3	2	1	12
9:00 AM - 10:00 AM	0	3	0	1	1	1	1	7
10:00 AM - 11:00 AM	0	1	0	0	0	2	2	5
11:00 AM - 12:00 PM	0	2	1	3	1	1	0	8
12:00 PM - 1:00 PM	1	0	2	0	0	2	0	5
1:00 PM - 2:00 PM	0	1	1	1	2	1	0	6
2:00 PM - 3:00 PM	1	0	2	0	2	3	0	8
3:00 PM - 4:00 PM	0	1	3	2	2	2	2	12
4:00 PM - 5:00 PM	1	2	3	2	4	3	0	15
5:00 PM - 6:00 PM	0	2	3	0	1	1	0	7
6:00 PM - 7:00 PM	0	0	1	0	0	2	1	4
7:00 PM - 8:00 PM	1	2	3	1	2	1	0	10
8:00 PM - 9:00 PM	0	1	0	1	0	1	0	3
9:00 PM - 10:00 PM	0	1	0	0	0	0	1	2
10:00 PM - 11:00 PM	0	0	0	1	0	2	0	3
11:00 PM - 12:00 AM	0	0	0	0	0	0	0	0
Total	4	23	25	15	20	28	9	124

Bicycle crashes in 2019 were most common during local rush hour in the morning and afternoon. The peak AM hour for these crashes was from 8:00 AM to 9:00 AM, and the peak PM hour was between 4:00 PM and 5:00 PM.

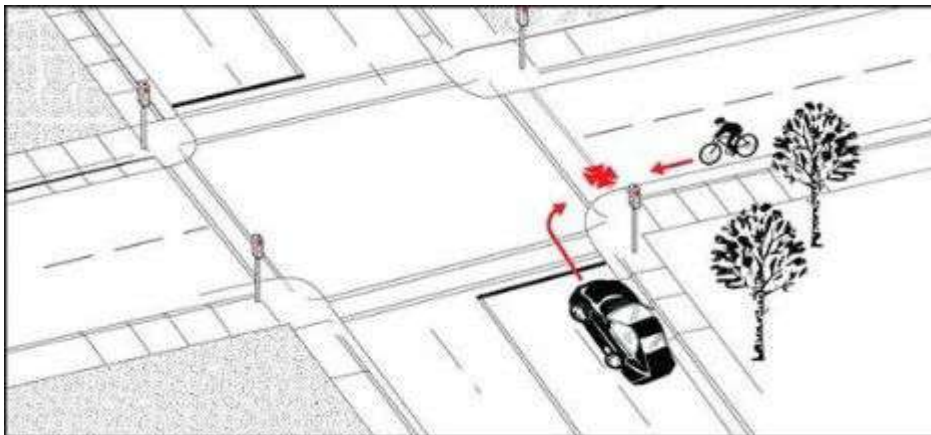
Mesa 5-Year Trend: Bicycle Crashes by Time of Day

	2015	2016	2017	2018	2019	5-Year Total	% of Total
12:00 AM - 1:00 AM	0	0	0	1	0	1	0.1%
1:00 AM - 2:00 AM	0	1	0	0	0	1	0.1%
2:00 AM - 3:00 AM	0	0	0	0	0	0	0.0%
3:00 AM - 4:00 AM	0	0	1	0	0	1	0.1%
4:00 AM - 5:00 AM	0	0	1	1	1	3	0.4%
5:00 AM - 6:00 AM	1	4	1	3	4	13	1.7%
6:00 AM - 7:00 AM	5	4	9	3	3	24	3.1%
7:00 AM - 8:00 AM	8	11	8	12	9	48	6.2%
8:00 AM - 9:00 AM	8	15	18	4	12	57	7.4%
9:00 AM - 10:00 AM	10	8	9	7	7	41	5.3%
10:00 AM - 11:00 AM	7	6	3	7	5	28	3.6%
11:00 AM - 12:00 PM	6	8	6	7	8	35	4.5%
12:00 PM - 1:00 PM	7	17	14	16	5	59	7.7%
1:00 PM - 2:00 PM	5	13	7	10	6	41	5.3%
2:00 PM - 3:00 PM	6	15	12	12	8	53	6.9%
3:00 PM - 4:00 PM	17	11	26	13	12	79	10.3%
4:00 PM - 5:00 PM	18	13	14	16	15	76	9.9%
5:00 PM - 6:00 PM	8	12	8	18	7	53	6.9%
6:00 PM - 7:00 PM	7	14	14	10	4	49	6.4%
7:00 PM - 8:00 PM	7	12	9	7	10	45	5.8%
8:00 PM - 9:00 PM	6	6	2	7	3	24	3.1%
9:00 PM - 10:00 PM	3	2	4	7	2	18	2.3%
10:00 PM - 11:00 PM	2	3	4	5	3	17	2.2%
11:00 PM - 12:00 AM	0	0	2	2	0	4	0.5%
Total	131	175	172	168	124	770	

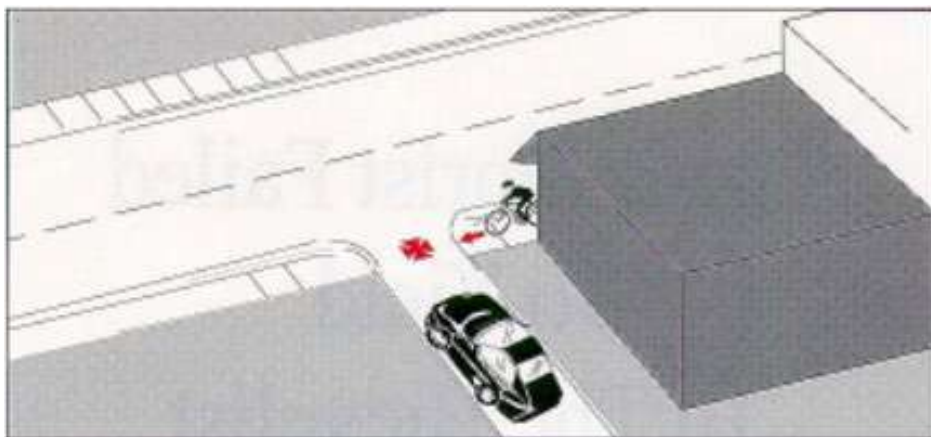
Analyzing the bicycle crash trend over the past five years shows that the peak time frame for bicycle-related crashes is between 12:00 PM to 6:00 PM.

The following is a list of the most common crash types for bicycle-motorist collisions. They are ordered from highest to lowest and show the number of collisions of a certain type followed by the percentage of total crashes. Graphics sourced from Federal Highway Administration, *Bicycle Crash Types: A 1990's Informational Guide*. The most common crash types (and associated crash manner) for bicycle-motorist collisions of 2019 were as follows:

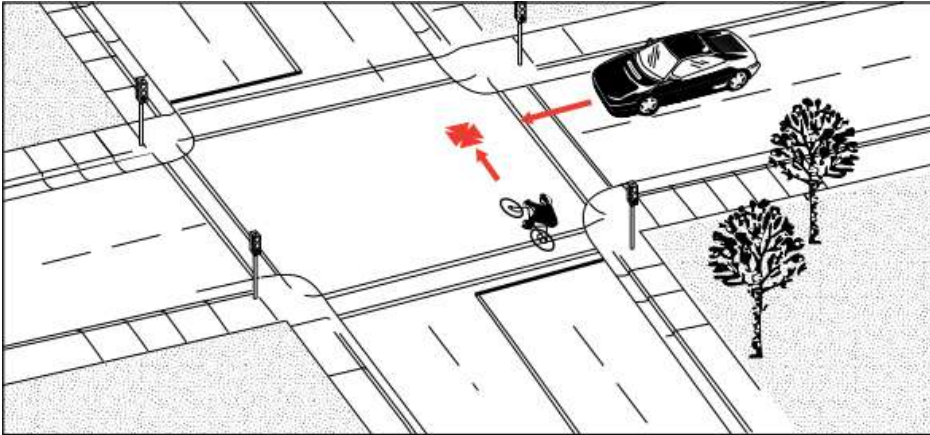
1. **Bike Ride into Intersection (Angle)** – bicycle traveling against traffic: 32 (**26%**)



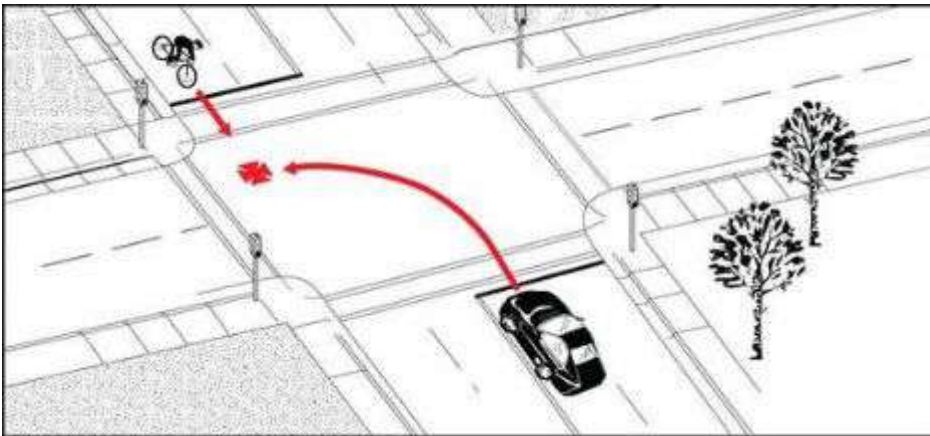
2. **Motorist Drive Out (Angle)** – driveway or alley: 32 (**26%**)



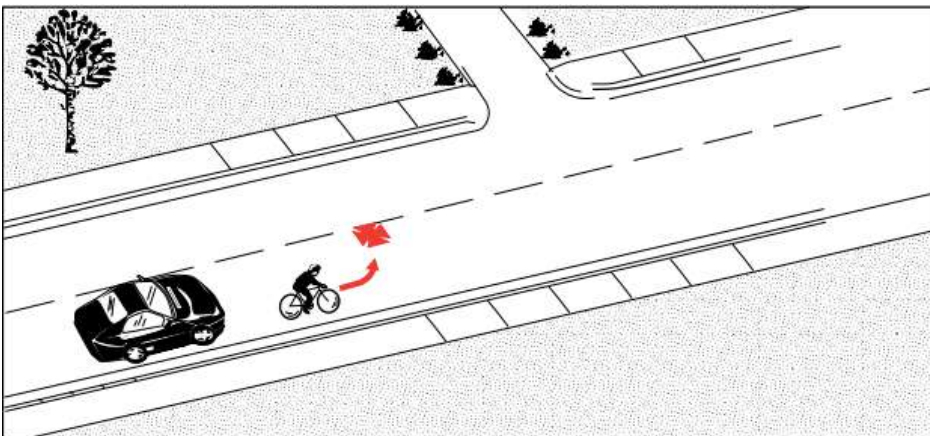
3. Motorist Failed to Yield (Angle) – signal or stop sign: 10 (8%)



4. Motorist Left Turn (Left Turn) – bicycle with or against traffic: 10 (8%)



5. Bike Left Turn into Traffic (Varies) – Midblock Crossing: 8 (6%)



SECTION 4:

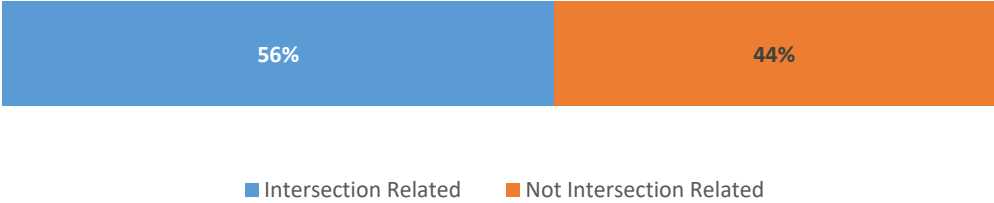
PEDESTRIAN CRASHES

Mesa 2018 Pedestrian Crashes: General View

Year	Ped Crashes	Total Crashes	Ped Crashes % Of Total	Mesa Population	Ped Crashes Per 100,000 Population	% Change From 5-Year Average
2001	112	9928	1.13%	416301	27	
2002	122	9155	1.33%	427923	29	
2003	116	8520	1.36%	435391	27	
2004	126	9184	1.37%	443733	28	
2005	109	9205	1.18%	450948	24	-10.23%
2006	102	8522	1.20%	456449	22	-14.10%
2007	120	7933	1.51%	460493	26	2.10%
2008	104	5908	1.76%	463829	22	-9.14%
2009	102	5504	1.85%	467157	22	-6.56%
2010	79	5118	1.54%	440031	18	-18.85%
2011	98	5178	1.89%	444685	22	-0.11%
2012	120	5134	2.34%	451677	27	19.87%
2013	103	5313	1.94%	457587	23	1.48%
2014	72	5025	1.43%	464704	15	-25.91%
2015	68	4979	1.37%	471825	14	-28.67%
2016	96	5554	1.73%	475274	20	1.83%
2017	104	5611	1.85%	496401	21	11.96%
2018	109	5479	1.99%	508958	21	15.80%
2019	79	5357	1.47%	511334	15	-16.42%

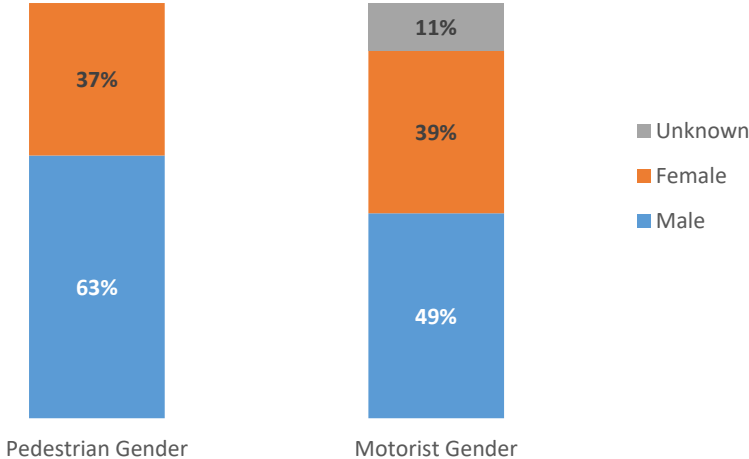
The City of Mesa had 79 pedestrian crashes in 2019, making up 1.5% of all crashes for that year. The number of pedestrian crashes per 100,000 people was 27.9% lower than the previous year.

Mesa 2019 Pedestrian Crashes: Intersection Relation



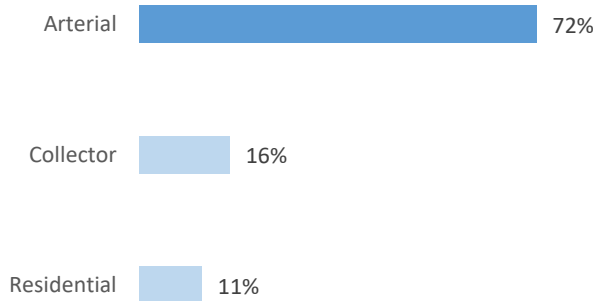
Of the 79 pedestrian crashes that occurred within the City of Mesa in 2019, 44 were [intersection related](#).

Mesa 2019 Pedestrian Crash Gender

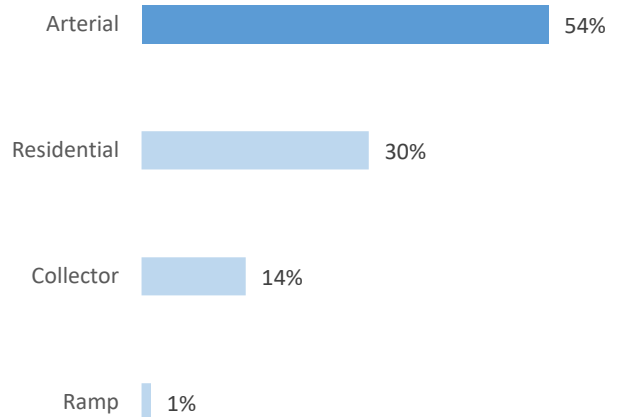


Data analysis of pedestrian crashes in 2019 showed that the persons involved in these types of collisions were mostly **male**. Crashes where the gender of the involved person was **unknown** are typically attributed to hit and run collisions.

Mesa 2019 Pedestrian Crashes: On Street Classification

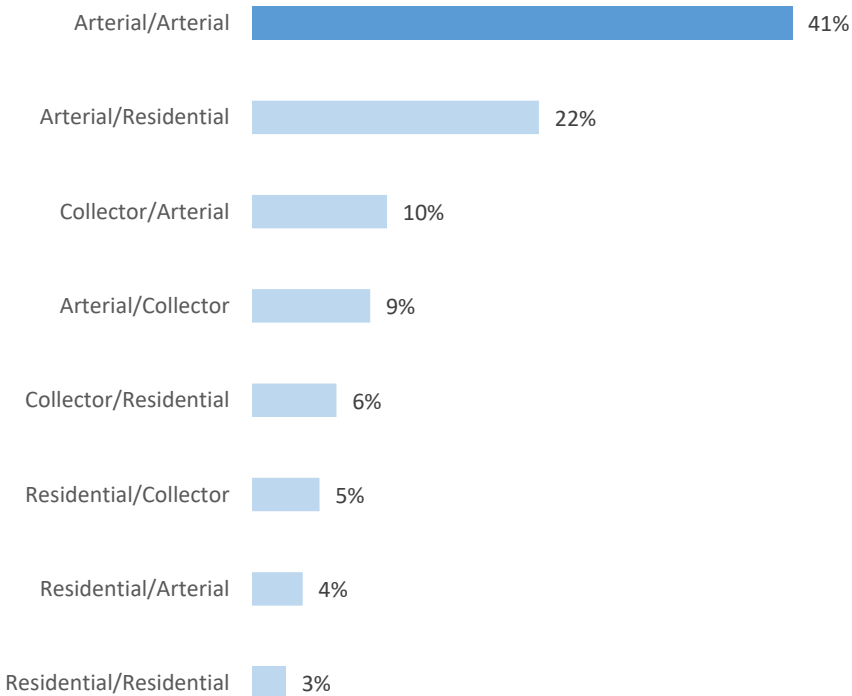


Mesa 2019 Pedestrian Crashes: Cross Street Classification



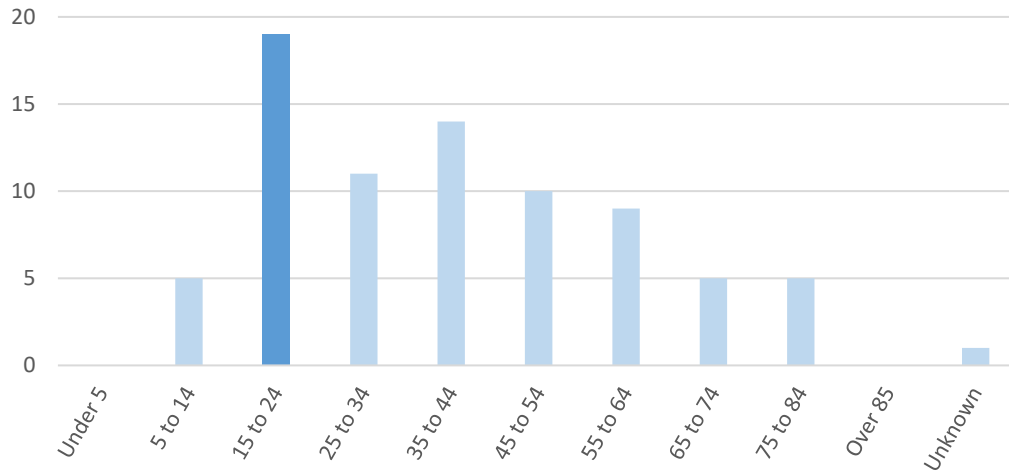
Of the 79 pedestrian crashes within Mesa in 2019, 57 occurred along an **arterial** roadway.

Mesa 2019 Pedestrian Crashes: Intersection Classification



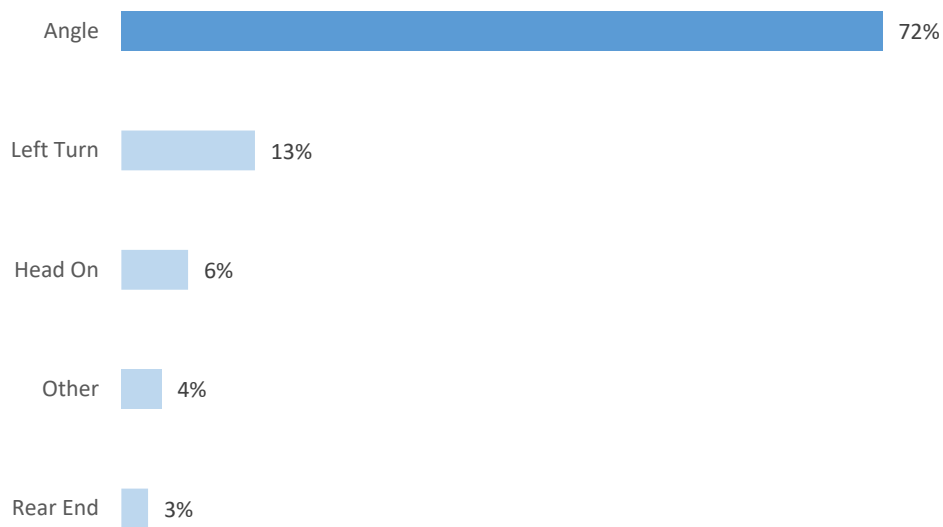
Arterial roads, whether on-street or cross street, were involved in 85% of all pedestrian crashes.

Mesa 2019 Pedestrian Crashes by Age



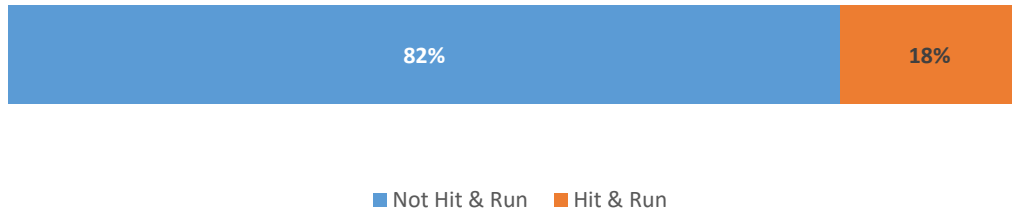
When analyzed by age group, most pedestrian crashes were among people aged **15 to 24 years old**. This group makes up the second-highest percent of the total population at 13.6% but contributed to 24.1% of the total pedestrian crashes.

Mesa 2019 Pedestrian Crash Manner



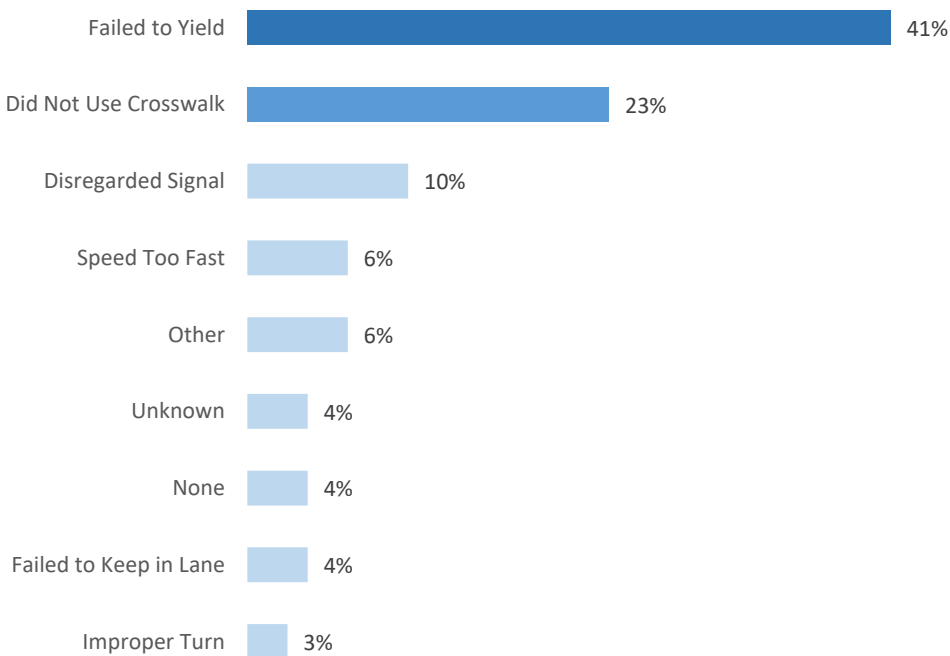
Most of all pedestrian crashes were considered **angle crashes** with 57. Within the City of Mesa in 2019, these types of crashes were common for intersection and midblock crossings.

Mesa 2019 Pedestrian Crashes: Hit & Run



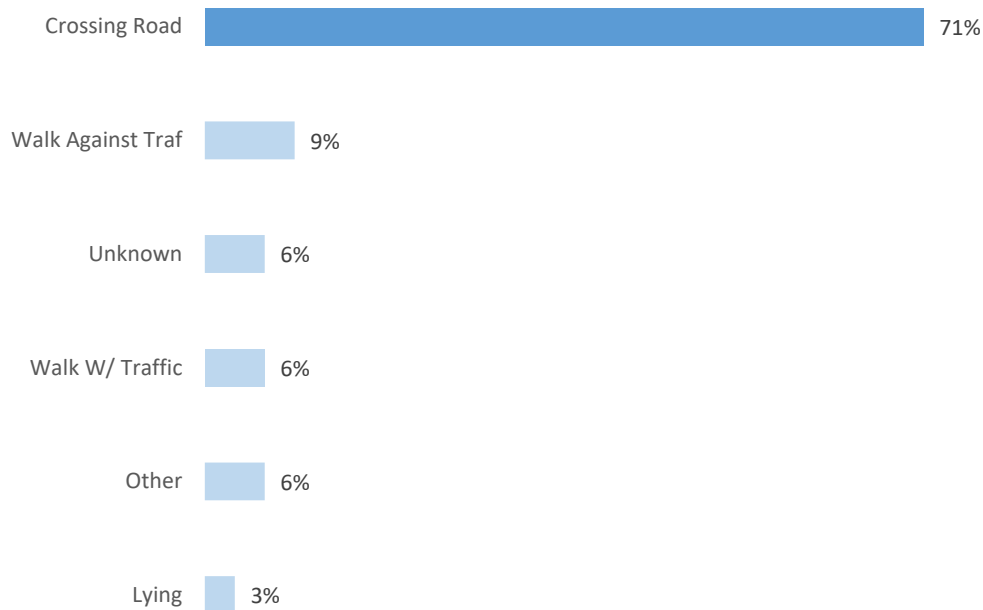
Data analysis of crashes within the City of Mesa in 2019 showed 14 of the 79 pedestrian crashes were reported as **hit and run**.

Mesa 2019 Pedestrian Crashes: Vehicle 1 Violation



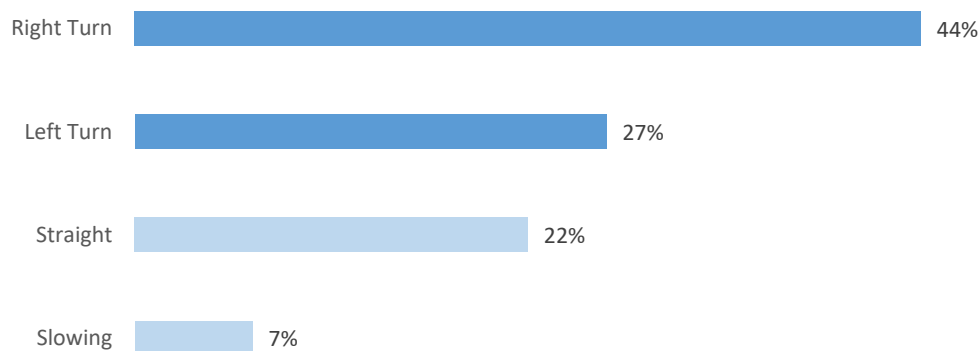
The reported violations of vehicle 1, inclusive of both pedestrians and drivers of motor vehicles, were mostly attributed to a **failure to yield**. In this category, there were 32 crashes. Another 18 crashes were caused when a pedestrian **did not use the crosswalk**.

Mesa 2019 Pedestrian Crashes: Pedestrian at Fault Actions



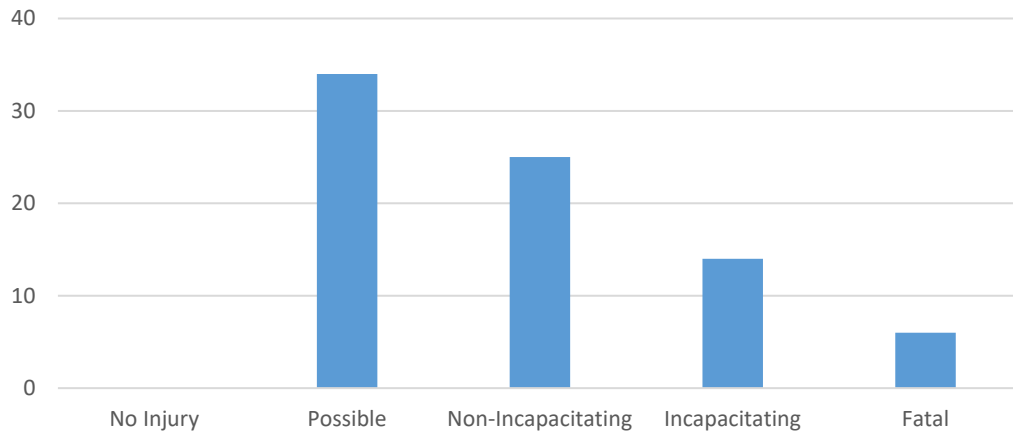
Of the 79 pedestrian crashes within the City of Mesa in 2019, 34 were reported as being caused by the pedestrian. Of those crashes, the most common action was **crossing the road**, with 24 cases.

Mesa 2019 Pedestrian Crashes: Motorist at Fault Actions



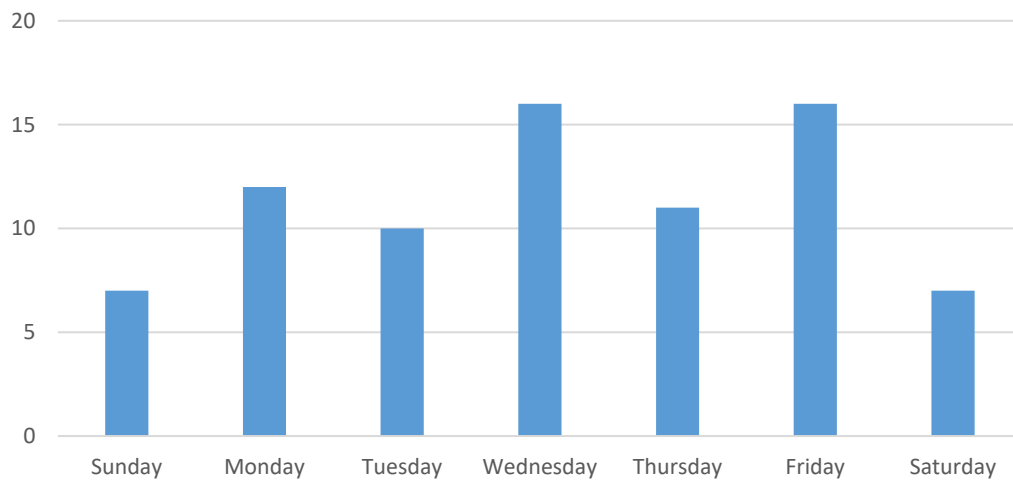
Of the 79 pedestrian crashes within the City of Mesa in 2019, 45 were reported as being caused by the driver of a motor vehicle. Of those crashes where the motorist was deemed at fault, **left and right turning movements** made up 71% of the actions leading to a crash with a pedestrian with 32.

Mesa 2019 Pedestrian Crashes: Injury Severity



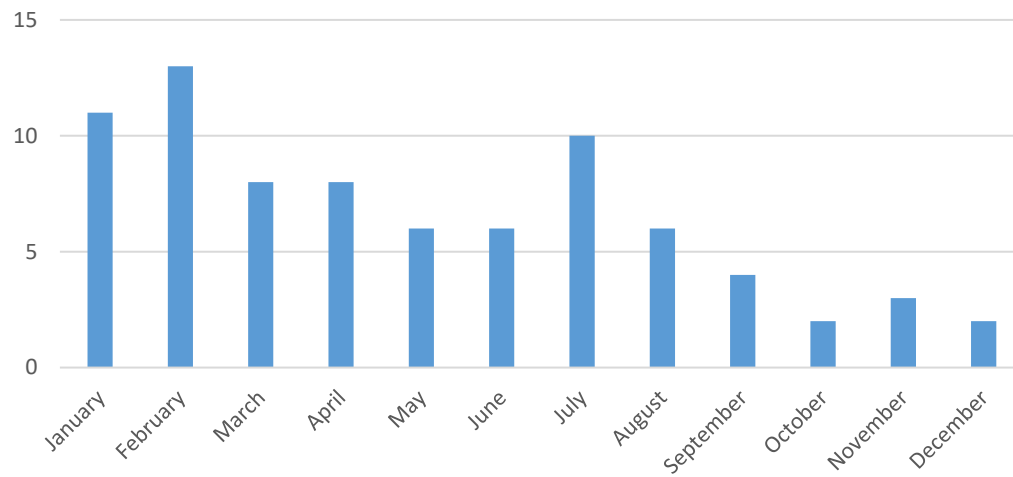
There were 6 fatal pedestrian crashes and 14 serious injuries in 2019, totaling 25% of all pedestrian crashes. There were zero crashes that resulted in no injury.

Mesa 2019 Pedestrian Crashes by Day of Week



Pedestrian crashes occurred more frequently on Wednesday, Thursday, and Friday than any other three-day period, totaling 54.4% of all related crashes.

Mesa 2019 Pedestrian Crashes by Month



Similar to bicycle crashes, City of Mesa pedestrian collisions in 2019 increased in the early months, then gradually decreased throughout the rest of the year.

Mesa 2019 Pedestrian Crashes by Time and Day of Week

Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12:00 AM - 1:00 AM	1	0	0	0	0	0	0	1
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0
2:00 AM - 3:00 AM	0	0	0	0	0	0	0	0
3:00 AM - 4:00 AM	0	1	0	0	0	0	0	1
4:00 AM - 5:00 AM	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	0	0	1	2	2	1	0	6
8:00 AM - 9:00 AM	0	1	0	0	0	1	0	2
9:00 AM - 10:00 AM	0	0	0	0	1	1	0	2
10:00 AM - 11:00 AM	0	0	0	1	1	0	0	2
11:00 AM - 12:00 PM	0	0	2	0	0	1	0	3
12:00 PM - 1:00 PM	0	0	2	0	1	1	1	5
1:00 PM - 2:00 PM	0	0	0	2	0	0	0	2
2:00 PM - 3:00 PM	0	1	0	3	0	2	1	7
3:00 PM - 4:00 PM	0	1	1	4	3	1	1	11
4:00 PM - 5:00 PM	1	1	1	2	1	1	0	7
5:00 PM - 6:00 PM	0	0	0	0	0	0	1	1
6:00 PM - 7:00 PM	0	2	1	0	2	1	1	7
7:00 PM - 8:00 PM	1	0	0	2	0	0	0	3
8:00 PM - 9:00 PM	2	1	1	0	0	2	0	6
9:00 PM - 10:00 PM	1	3	1	0	0	3	1	9
10:00 PM - 11:00 PM	1	0	0	0	0	0	0	1
11:00 PM - 12:00 AM	0	1	0	0	0	1	1	3
Total	7	12	10	16	11	16	7	79

Within the City of Mesa in 2019, the peak hour for pedestrian crashes was from 3:00 PM to 4:00 PM.

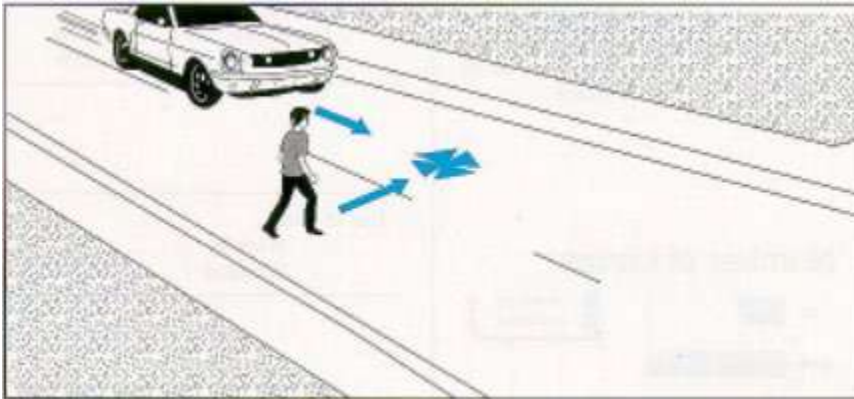
Mesa 5-Year Trend: Pedestrian Crashes by Time of Day

	2015	2016	2017	2018	2019	5-Year Total	% of Total
12:00 AM - 1:00 AM	0	3	2	1	1	7	1.5%
1:00 AM - 2:00 AM	0	1	0	0	0	1	0.2%
2:00 AM - 3:00 AM	0	0	0	0	0	0	0.0%
3:00 AM - 4:00 AM	0	0	0	0	1	1	0.2%
4:00 AM - 5:00 AM	0	0	1	0	0	1	0.2%
5:00 AM - 6:00 AM	0	0	0	0	0	0	0.0%
6:00 AM - 7:00 AM	4	3	2	7	0	16	3.5%
7:00 AM - 8:00 AM	6	7	5	7	6	31	6.8%
8:00 AM - 9:00 AM	0	5	4	3	2	14	3.1%
9:00 AM - 10:00 AM	6	5	5	3	2	21	4.6%
10:00 AM - 11:00 AM	1	1	2	3	2	9	2.0%
11:00 AM - 12:00 PM	1	0	6	4	3	14	3.1%
12:00 PM - 1:00 PM	2	3	3	6	5	19	4.2%
1:00 PM - 2:00 PM	1	7	3	4	2	17	3.7%
2:00 PM - 3:00 PM	7	2	6	5	7	27	5.9%
3:00 PM - 4:00 PM	3	6	6	7	11	33	7.2%
4:00 PM - 5:00 PM	5	8	9	8	7	37	8.1%
5:00 PM - 6:00 PM	6	9	5	6	1	27	5.9%
6:00 PM - 7:00 PM	9	8	12	13	7	49	10.7%
7:00 PM - 8:00 PM	3	6	13	9	3	34	7.5%
8:00 PM - 9:00 PM	3	8	8	10	6	35	7.7%
9:00 PM - 10:00 PM	4	7	8	9	9	37	8.1%
10:00 PM - 11:00 PM	5	4	1	2	1	13	2.9%
11:00 PM - 12:00 AM	2	3	3	2	3	13	2.9%
Total	68	96	104	109	79	456	

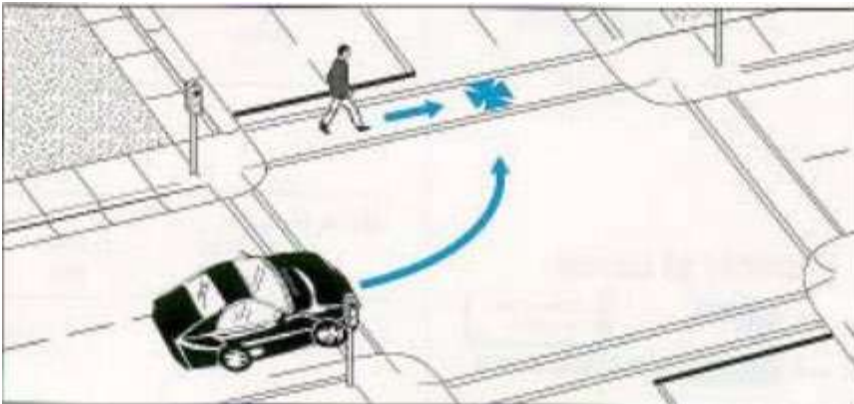
Analyzing the five-year pedestrian crash trend within Mesa revealed that the peak hours for pedestrian-related collisions to be between 4:00 PM and 10:00 PM.

The following is a list of the most common crash types for pedestrian-motorist collisions. They are ordered from highest to lowest and show the number of collisions of a certain type, followed by the percentage of total crashes. Graphics sourced from Federal Highway Administration, *Pedestrian Crash Types: A 1990's Informational Guide*. The most common crash types (and associated crash manner) for pedestrian-motorist collisions of 2019 were as follows:

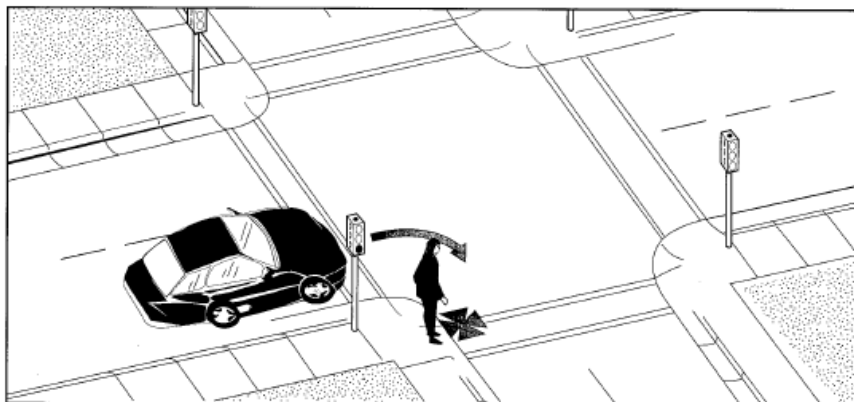
1. Pedestrian Walk Out Midblock (Angle) – outside of crosswalk 27 (34%)



2. Motorist Left Turn (Left Turn) – parallel pedestrian travel (either direction): 13 (16%)



3. Motorist Right Turn (Angle) – pedestrian in crosswalk (either direction): 12 (15%)



4. Pedestrian Dash Out (Angle) – jaywalking or against the light: 8 (10%)

