2015

Annual Crash Report

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City of Mesa

7/25/2017

SECTION 1:

FATALITIES

In 2015, the City of Mesa had 15 fatal crashes with a total of 15 fatalities. The following collection of charts and tables documents fatal crashes of 2015. Descriptions of these tables and charts will be found underneath their respective tables and charts.

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.

For the purposes of this document, the term "bike" and "pedalcycle" may be used interchangeably. Likewise, the term "bicyclist" and "pedalcyclist" may be used interchangeably.

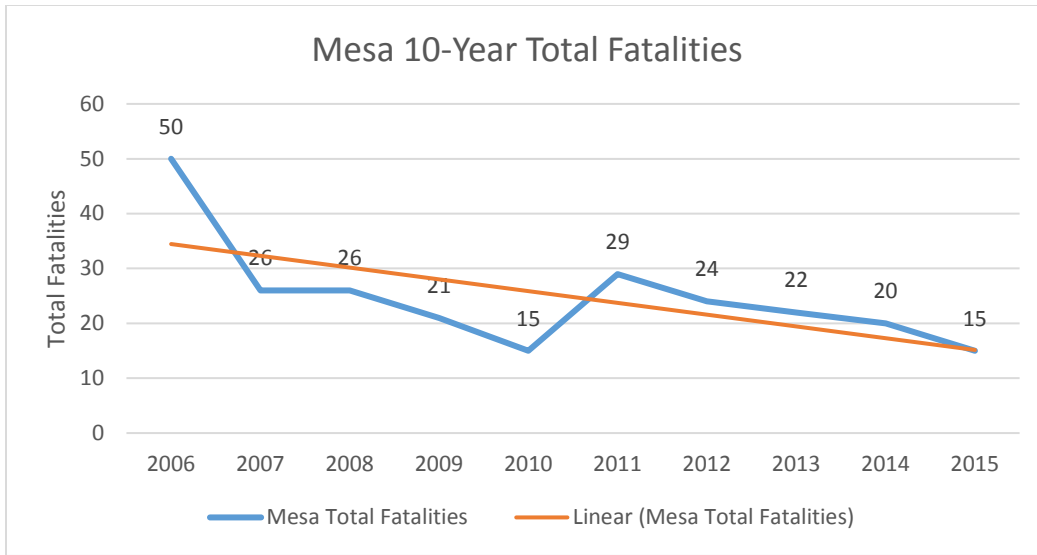|						
Mesa Fatal Crashes: General View w/ 5-Year Average						
YEAR	FATAL CRASHES BY YEAR	TOTAL FATALITIES BY YEAR	MESA TOTAL CRASHES BY YEAR	MESA ESTIMATED POPULATION BY YEAR	TOTAL FATALITIES PER 100,000 POPULATION	FATALITIES PER 100,000: PERCENT FROM 5-YEAR AVERAGE
2001	31	31	9928	416301	7	
2002	22	23	9155	427923	5	
2003	30	31	8520	435391	7	
2004	25	27	9184	443733	6	
2005	64	67	9205	450948	15	
2006	47	50	8522	456449	11	
2007	25	26	7933	460493	6	
2008	25	26	5908	463829	6	
2009	19	21	5504	467157	4	
2010	15	15	5118	440031	3	
2011	27	29	5178	444685	6.5	35.2%
2012	24	24	5134	451677	5.3	10.1%
2013	18	22	5313	457587	4.8	-0.4%
2014	19	20	5025	464704	4.3	-10.8%
2015	15	15	4979	471825	3.2	-34.1%
2016	28	30	5533	475274	6	
2015 5-YR AVG	21	22	5126	458096	4.8	
Information provided by City of Mesa website. (Their source is ESRI Community Analysis)						
Information from http://population.us/az/mesa/						
Information from https://www.census.gov/quickfacts/						

The outlined cells represent the 5-year period that is used to calculate the averages. Fatalities per 100,000 population were down 34.1%% from the 5-year average of 4.8 fatalities per 100,000 population.

Total Mesa Crashes
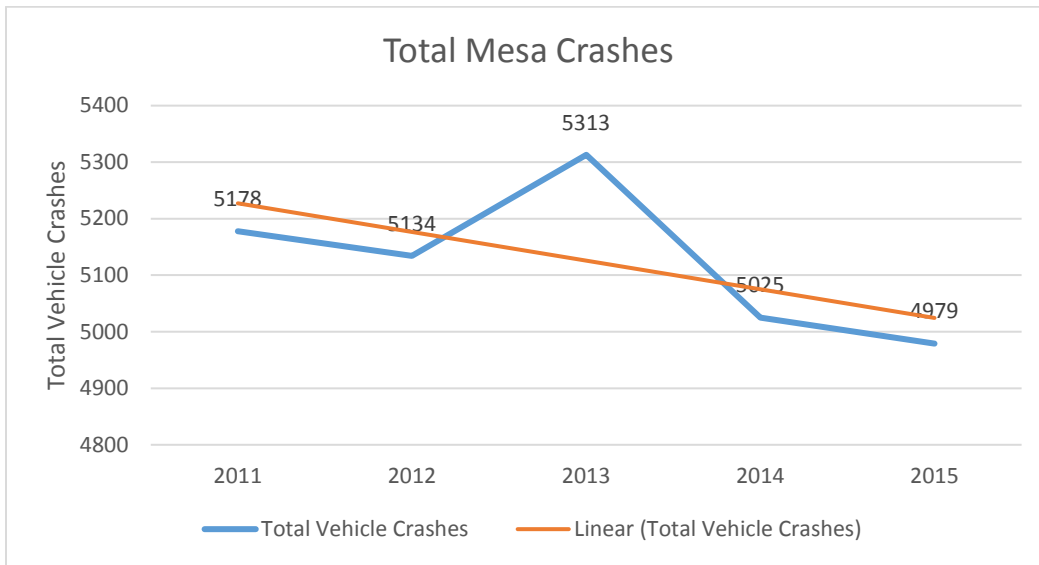

There were 0.92% less total vehicle crashes in 2015 compared to 2014.

Mesa 5-Year Fatal Crash Trend
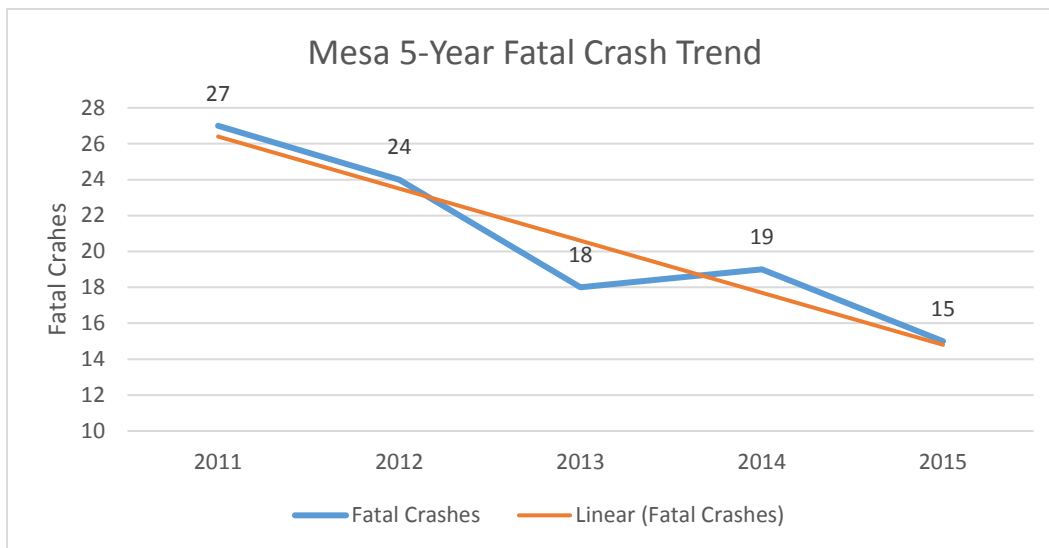
Based on a 5-year average (2011 – 2014), fatal crashes are trending downward.

Mesa 10-Year Total Fatalities

Total Fatalities

50 — 2006
26 — 2007
26 — 2008
21 — 2009
15 — 2010
29 — 2011
24 — 2012
22 — 2013
20 — 2014
15 — 2015

Legend: Mesa Total Fatalities, Linear (Mesa Total Fatalities)

Based on a 10-year average (2006 – 2015), total fatalities are trending downward which is consistent with the national average over a 10-year period, as shown below.

National Total Fatalities

Total Fatalities

Legend: National Total Fatalities, Linear (National Total Fatalities)
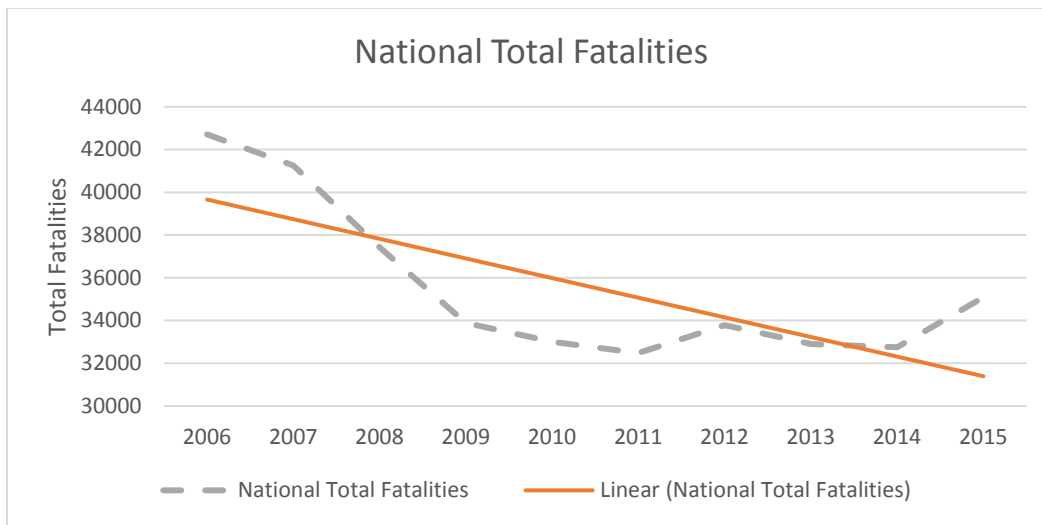
Nationally, 2015 saw a significant increase in total fatalities.

Fatal Crashes Per 100,000 Population: Mesa vs National
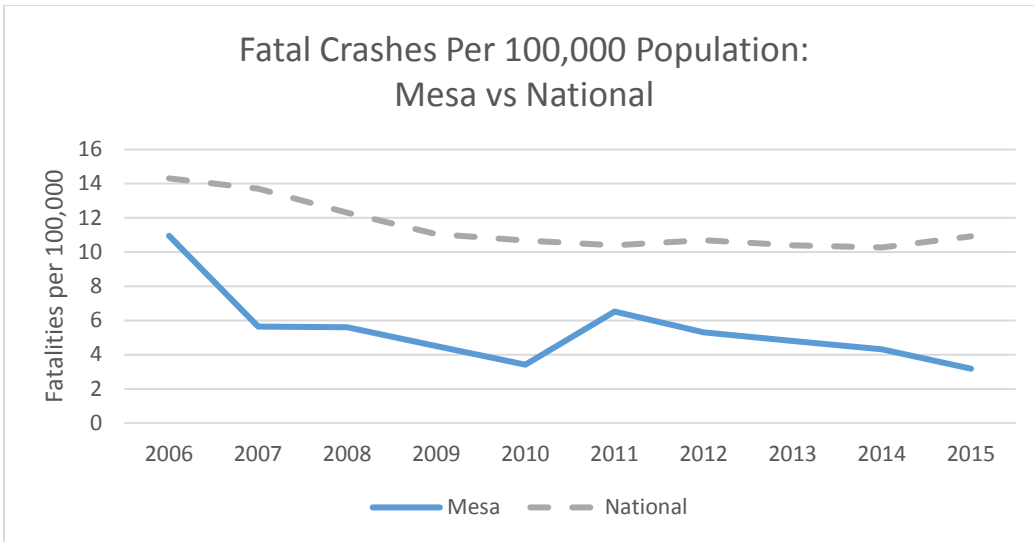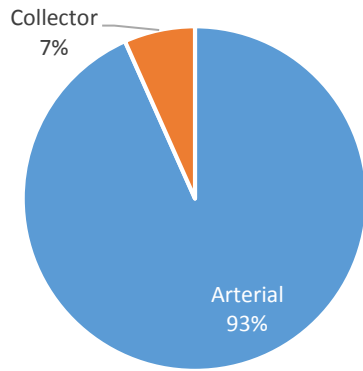
Fatalities per 100,000 population for Mesa have consistently been below the national average.

2015 Mesa Fatal Crashes: Intersection Relation
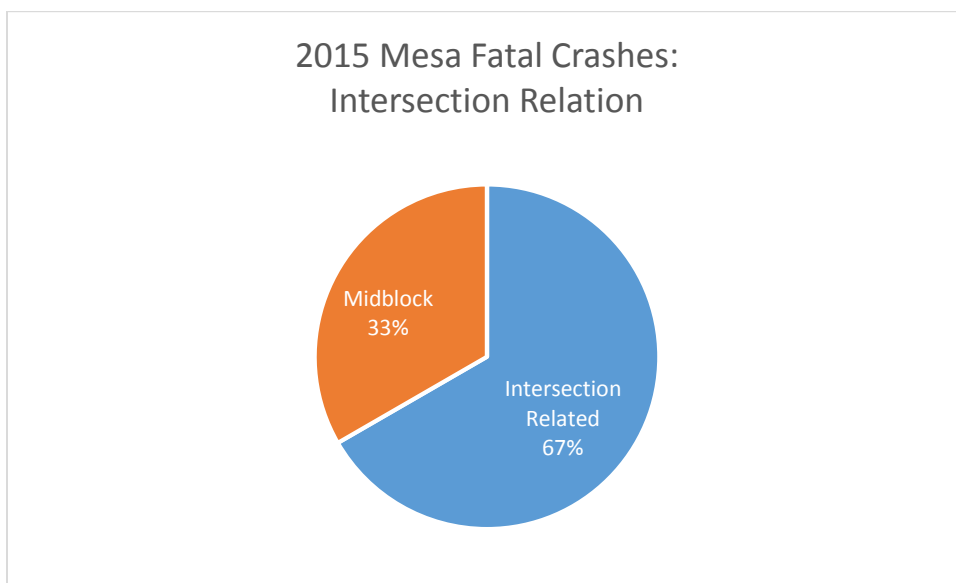
Of the 15 fatal crashes, ten (66.7%) were intersection related and five (33.3%) occurred midblock.

2015 Mesa Fatal Crashes: on Street Classification

Collector 7%

Arterial 93%

2015 Mesa Fatal Crashes: Cross Street Classification

Midblock 33%

Arterial 34%

Collector 33%

Mesa 2015 Fatal Crashes: Intersection Classification

Collector/Arterial 7%

Arterial/Arterial 27%

Arterial Midblock 33%

Arterial/Collector 33%
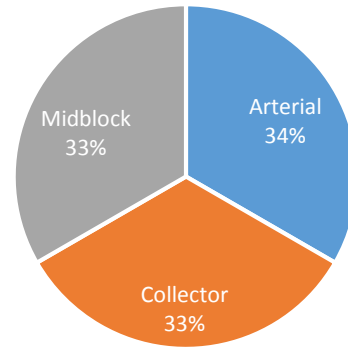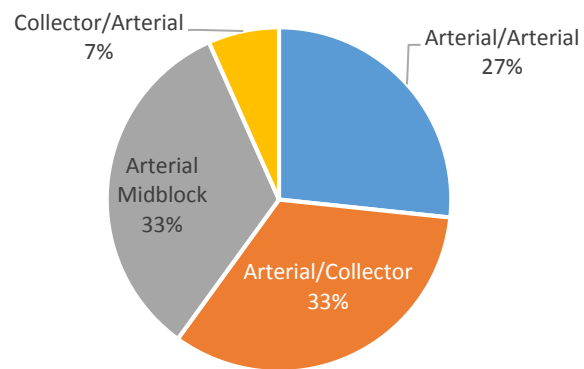
Of the 15 fatal crashes within Mesa in 2015, 14 (88%) occurred on an arterial roadway, and one crossed an arterial.

Mesa 2015 Fatalities by Gender
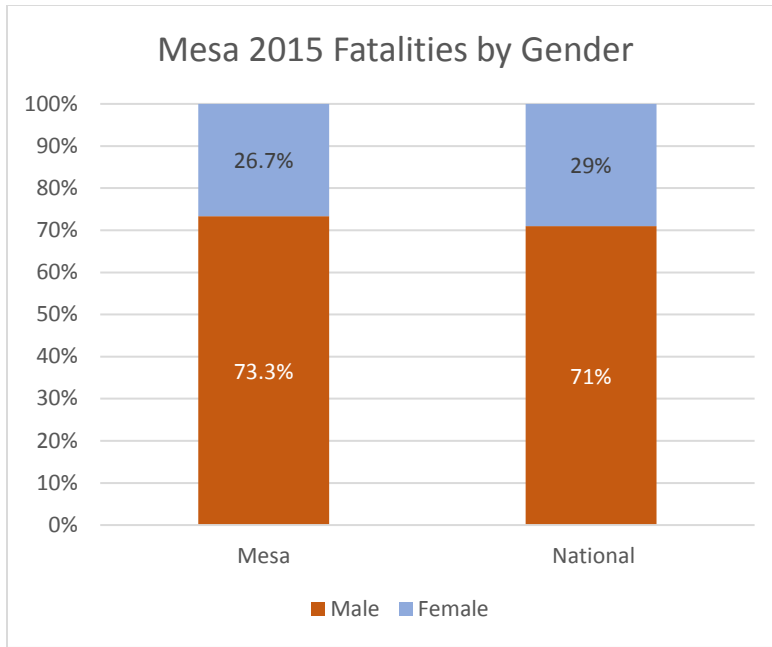
Fatalities by gender are similar in Mesa compared to the national average. Additionally, the gender of vehicle 1 in Mesa was predominantly male with 73.3%.

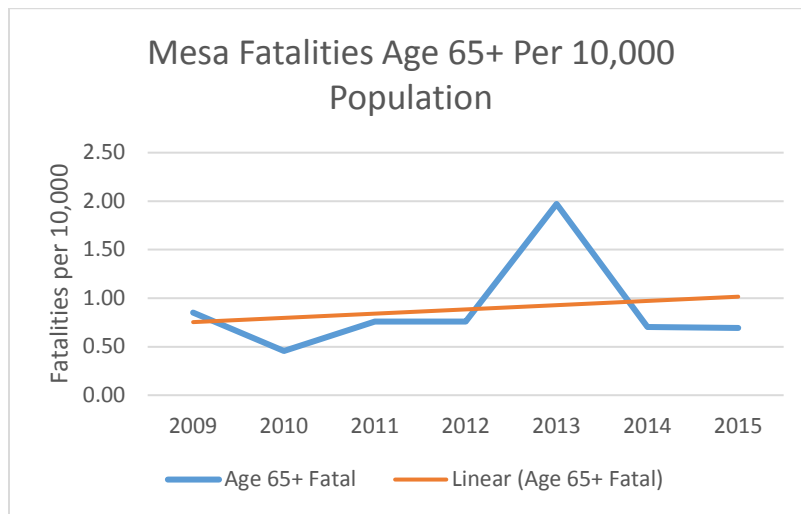| **Mesa 2015 Fatalities by Age Group and Gender**									
AGE	MALE POPULATION	PERCENT MALE*	FEMALE POPULATION	PERCENT FEMALE*	TOTAL POPULATION	PERCENT OF TOTAL POPULATION	NO. OF FATALITIES	PERCENT OF TOTAL FATALITIES	FATALITIES/ 10,000 PERSONS
under 5	16714	7.2%	15819	6.6%	32533	6.9%	1	6.7%	0.31
5 to 9	15785	6.8%	16778	7.0%	32563	6.9%	0	0.0%	0.00
10 to 14	15785	6.8%	15580	6.5%	31365	6.6%	0	0.0%	0.00
15 to 17	10446	4.5%	9108	3.8%	19554	4.1%	0	0.0%	0.00
18 to 19	5339	2.3%	6232	2.6%	11571	2.5%	1	6.7%	0.86
20	3946	1.7%	3595	1.5%	7542	1.6%	0	0.0%	0.00
21	3714	1.6%	3595	1.5%	7310	1.5%	1	6.7%	1.37
22 to 24	9982	4.3%	10786	4.5%	20768	4.4%	1	6.7%	0.48
25 to 29	18107	7.8%	16059	6.7%	34166	7.2%	1	6.7%	0.29
30 to 34	16714	7.2%	16299	6.8%	33013	7.0%	1	6.7%	0.30
35 to 39	14625	6.3%	12943	5.4%	27568	5.8%	0	0.0%	0.00
40 to 44	13928	6.0%	14621	6.1%	28549	6.1%	1	6.7%	0.35
45 to 49	14857	6.4%	14142	5.9%	28998	6.1%	2	13.3%	0.69
50 to 54	15785	6.8%	15580	6.5%	31365	6.6%	0	0.0%	0.00
55 to 59	12071	5.2%	13662	5.7%	25733	5.5%	1	6.7%	0.39
60 to 61	5107	2.2%	5752	2.4%	10860	2.3%	0	0.0%	0.00
62 to 64	7428	3.2%	8629	3.6%	16057	3.4%	0	0.0%	0.00
65 to 66	4178	1.8%	4314	1.8%	8493	1.8%	0	0.0%	0.00
67 to 69	5571	2.4%	6711	2.8%	12283	2.6%	0	0.0%	0.00
70 to 74	8125	3.5%	8868	3.7%	16993	3.6%	1	6.7%	0.59
75 to 79	6036	2.6%	7430	3.1%	13466	2.9%	0	0.0%	0.00
80 to 84	4875	2.1%	6232	2.6%	11107	2.4%	1	6.7%	0.90
85+	3250	1.4%	6711	2.8%	9961	2.1%	3	20.0%	3.01
Total	232138	49.2%	239687	50.8%	471825		15		

*Information from http://geo.azmag.gov/maps/demographic/

Mesa 2015 Fatalities by Age
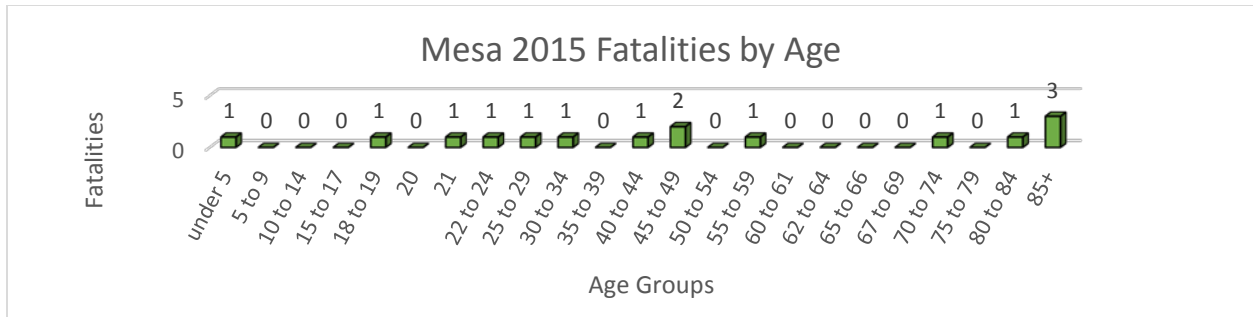
The greatest number of fatalities occurred among people aged over 85.

Mesa Fatalities Age 65+ Per 10,000 Population

2015 numbers were below the trendline, with 0.69 fatalities per 10,000 people aged 65 and over.

National Fatal Crashes by Year and Unit Type					
National Statistics*	2011	2012	2013	2014	2015
MV	22510	23017	22383	21706	23108
Motorcycle	4630	4986	4692	4594	4976
Pedalcycle	682	734	743	729	818
Pedestrian	4457	4818	4735	4910	5376
Unk	200	227	190	204	227
Total	32479	33782	32743	32143	34505
MV includes passenger cars, light trucks, and large trucks					
*Information from https://crashstats.nhtsa.dot.gov					

Mesa 2015 Fatal Crash: Unit Type

- Pedalcycle 7%
- Motor Vehicle 33%
- Pedestrian 33%
- Motorcycle 27%

National 2015 Fatal Crash: Unit Type

- Unk 1%
- Pedestrian 2%
- Pedalcycle 16%
- Motorcycle 14%
- Motor Vehicle 67%

Mesa 5-Year View: Fatal Crashes by Unit Type

Legend: Motor Vehicle, Motorcycle, Pedestrian, Pedalcycle
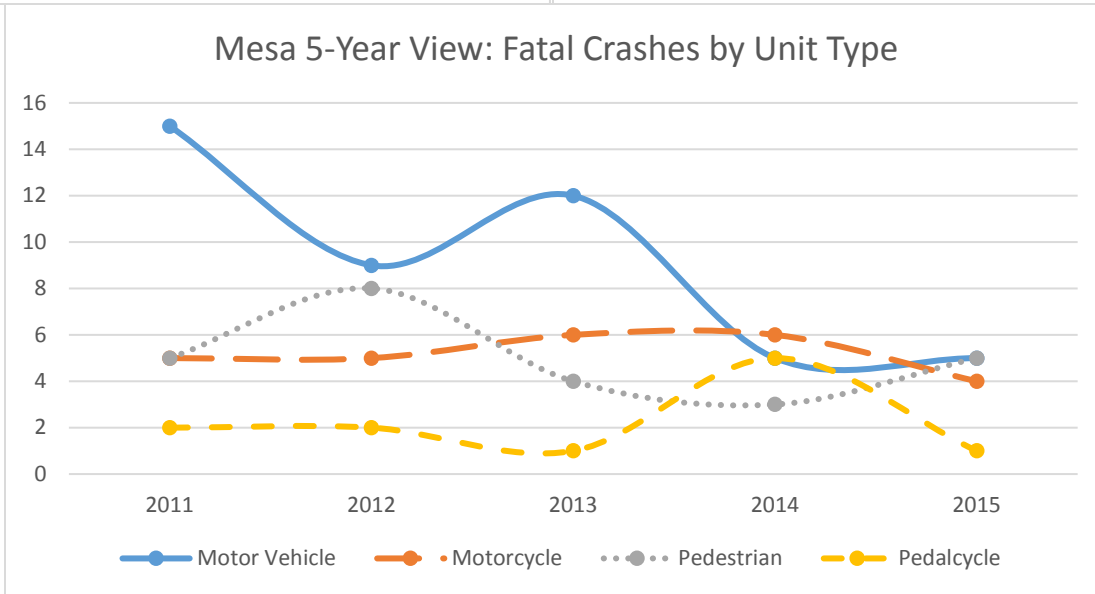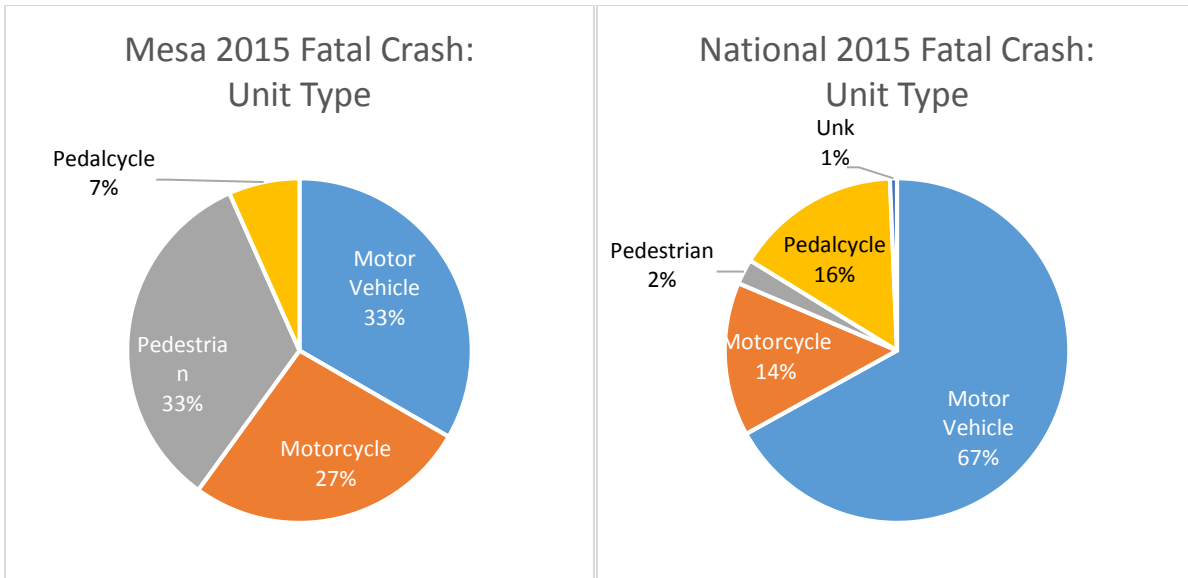
In 2015, Mesa had five motor vehicle fatalities, four motorcycle fatalities, five pedestrian fatalities, and one bicycle fatality. Their distribution differs from national numbers.

Mesa 2015 Motorcycle Fatalities by Age Group

- 20 to 24: 25%
- 30 to 39: 25%
- 40 to 49: 50%
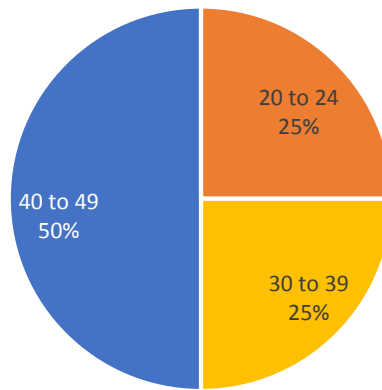
Of the four motorcycle-related fatal crashes, one was among people in their 20s. Three fatal motorcycle crashes were among people over 30.

National 2015 Motorcycle Fatalities by Age Group

- Under 30: 30%
- 30-39: 17%
- 40-49: 18%
- 50+: 35%
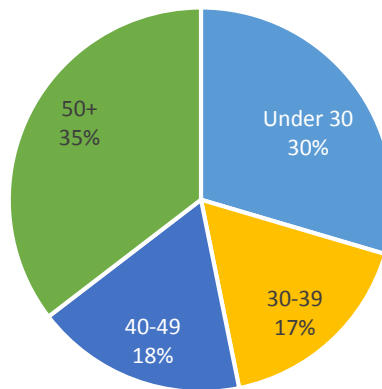
Nationally, 30% of motorcycle crashes happened among people under 30, 35% among people ages 30-49, and 35% among people over 50.

Mesa 2015 Fatal Crash Manner

Pedalcycle, 6.7%
Single Vehicle, 13.3%
Left Turn, 20.0%
Angle, 26.7%
Pedestrian, 33.3%
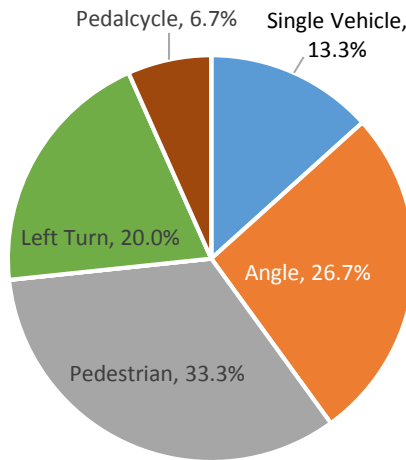
In 2015, left turn crashes, angle crashes, and pedestrian crashes accounted for 80% of all fatal crashes in Mesa.

Mesa 2015 Fatal crashes: Impairment

Alcohol, 6.7%
Drug, 6.7%
Physical Disability, 6.7%
None, 73.3%
Unk, 6.7%
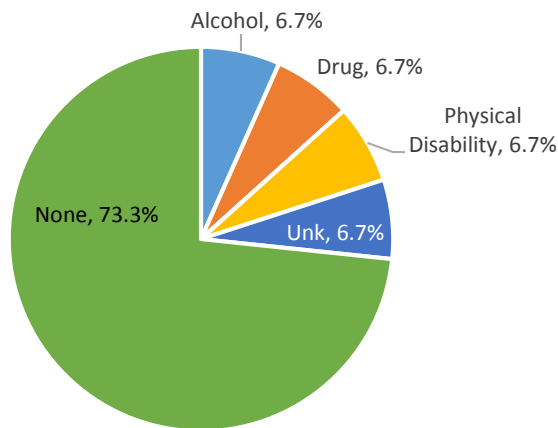
Three of the 15 fatal crashes in Mesa 2015 involved impairment. Alcohol was involved in one of the 16 fatal crashes, drugs were involved in one fatal crash, and physical impairment was a factor in one fatal crash.

Mesa 5-Year View: Alcohol Involvement

Percent of Total Crashes

Year	Percent
2011	63.0%
2012	29.2%
2013	17.4%
2014	26.3%
2015	6.7%

AVG, 28.5%
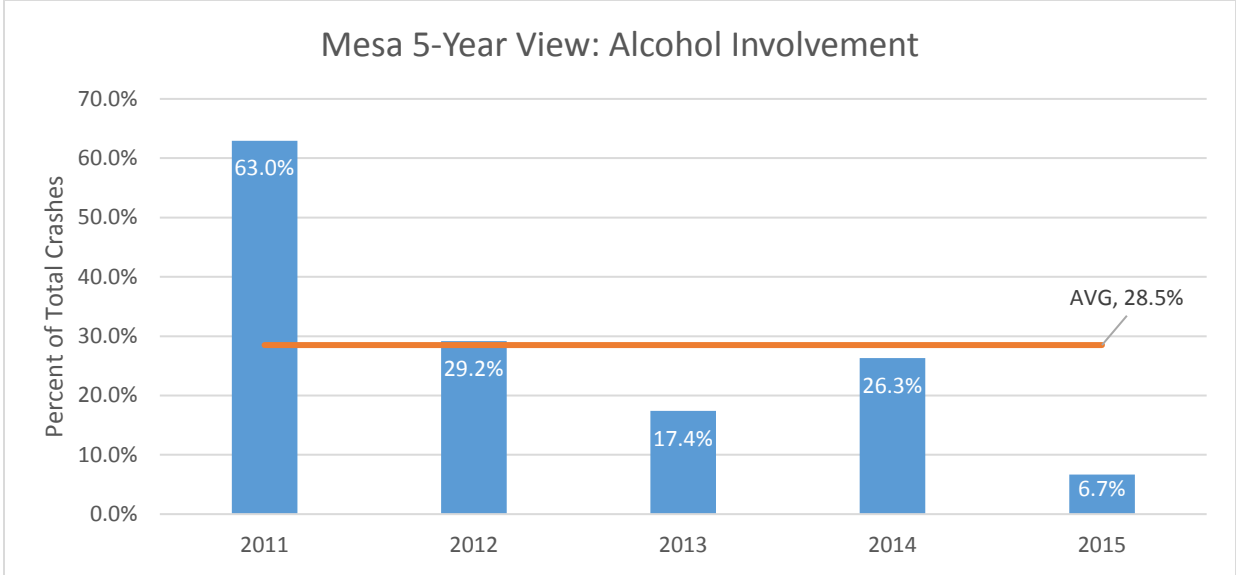
The above chart shows a 5-year trend in alcohol impairment linked to fatal crashes. Over the past five years, approximately 29% of fatal collisions involved a person under the influence of alcohol.

Mesa 5-Year View: Drug Involvement

Percent of Total Crashes

Year	Percent
2011	11.1%
2012	12.5%
2013	4.3%
2014	21.1%
2015	6.7%

AVG, 11.1%
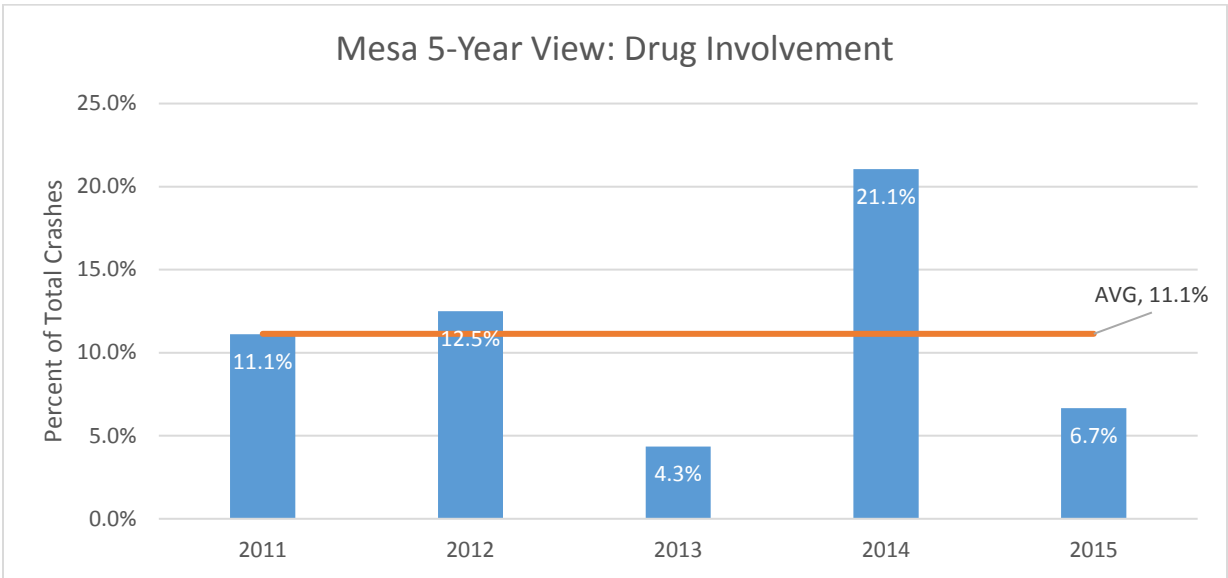
The above chart shows a 5-year trend in drug impairment linked to fatal crashes. Over the past five years, approximately 11% of fatal collisions involved a person under the influence of drugs.

Mesa 2015 Fatal Crashes: Vehicle 1 Violation
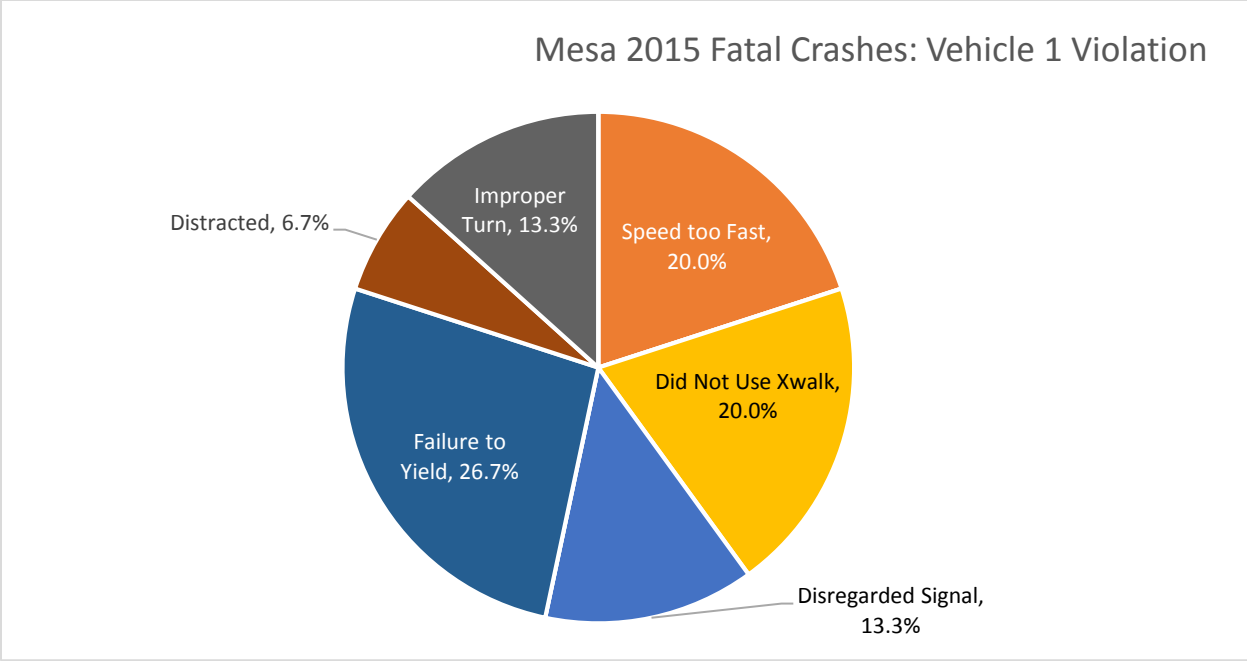
The above chart details the violations made by vehicle 1 leading to a fatal crash within Mesa in 2015.

Mesa 2015 Fatal Unit Safety Device
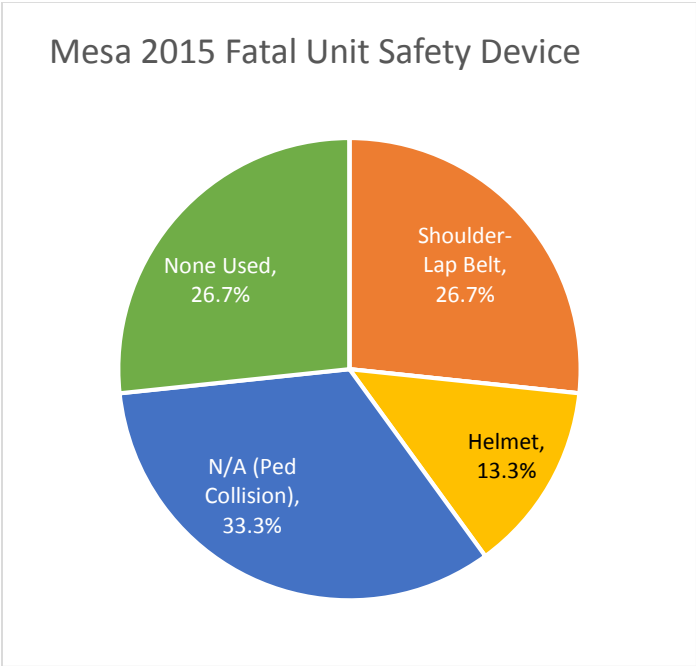
The chart above shows the known and unknown victim safety devices involved in the 15 Mesa fatalities in 2015. Four (26.7%) involved victims that were not using a safety device.

Location of Fatal Victim 2015

Passenger of Unit 1, 6.7%
Passenger of Unit 2, 13.3%
Driver of Unit 2, 26.7%
Other, 40.0%
Driver of Unit 1, 13.3%
Pedestrian, 33.3%
Pedalcycle, 6.7%
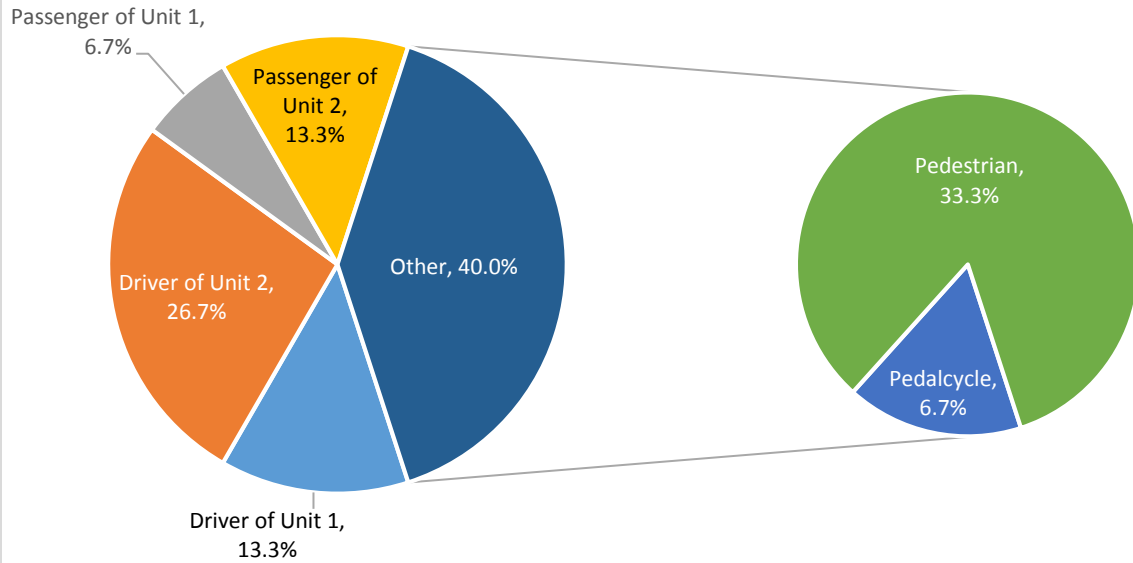
There were 15 fatalities in 2015. Of those 15 fatalities, six involved a non-motorist victim (five pedestrian collisions and one pedalcycle collision).

5-Year Average by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5-Year Average	2.2	1	2.8	1.6	1.6	2	1.6	2.2	1.4	1.2	2	2.4
2015	3	1	1	1	0	2	0	2	1	1	0	3
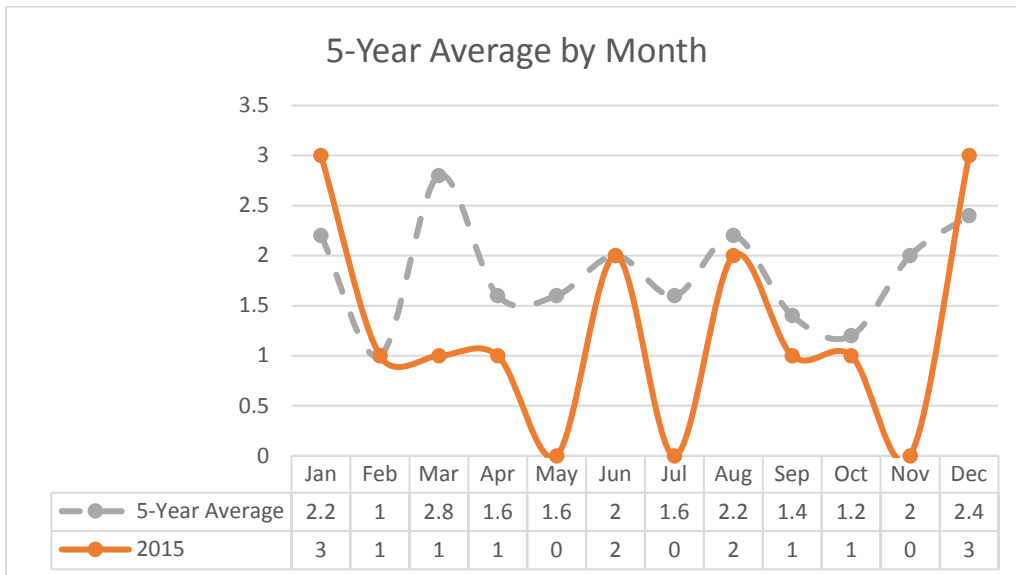
Over the past five years (2011 – 2015), fatal collisions by month have varied, with a small rise in March. Comparatively, fatal crashes in 2015 fluctuated greatly, with rises in January, June, August, and December.

Fatalities by Day of Week (5-Year Average)

Day	Fatalities
Sun	4.2
Mon	3
Tue	3.6
Wed	2.8
Thu	2.8
Fri	3.2
Sat	2
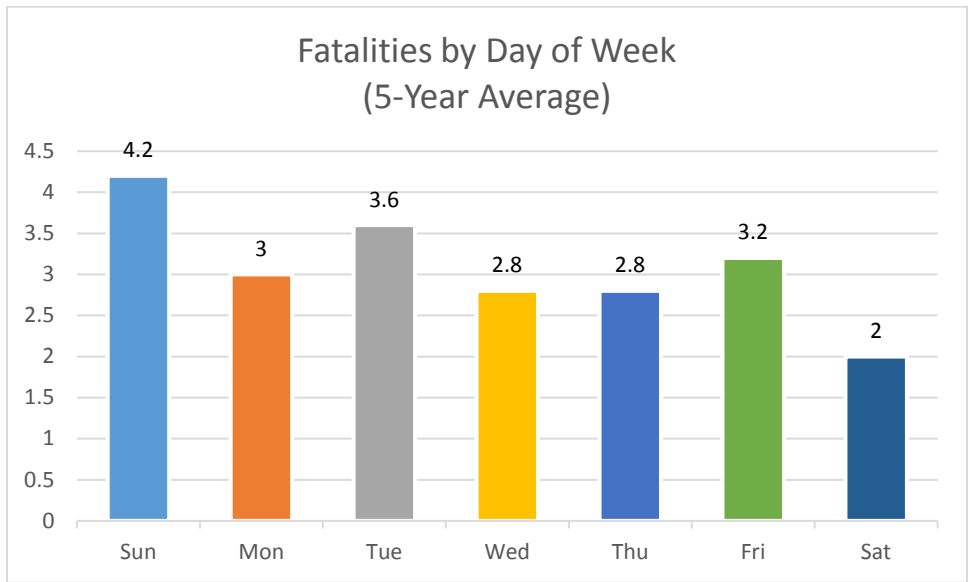
Over a five-year average, Sunday and Tuesday had the highest number of fatal crashes.

Mesa 2015 Fatalities by Day of Week

Day	Percentage
Sun	13.3%
Mon	13.3%
Tue	40.0%
Wed	6.7%
Thu	6.7%
Fri	6.7%
Sat	13.3%
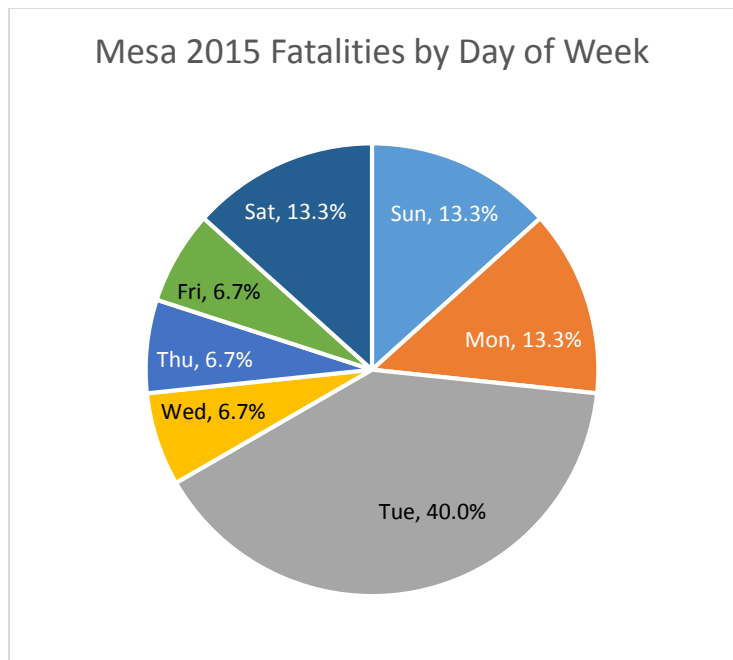
In 2015, the highest concentration of fatalities happened during the 3-day periods of Sunday, Monday, and Tuesday

		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Mesa 2015 Fatalities by Time of Day									
12:00:00 AM	1:00:00 AM	0	0	0	0	0	0	0	0
1:00:00 AM	2:00:00 AM	0	0	0	0	0	0	0	0
2:00:00 AM	3:00:00 AM	0	0	0	0	0	0	0	0
3:00:00 AM	4:00:00 AM	1	0	0	0	0	0	0	1
4:00:00 AM	5:00:00 AM	0	0	0	0	0	0	0	0
5:00:00 AM	6:00:00 AM	0	0	0	0	0	0	0	0
6:00:00 AM	7:00:00 AM	0	0	0	0	0	0	0	0
7:00:00 AM	8:00:00 AM	0	0	0	0	0	0	0	0
8:00:00 AM	9:00:00 AM	0	0	0	0	0	0	0	0
9:00:00 AM	10:00:00 AM	0	0	0	0	0	0	1	1
10:00:00 AM	11:00:00 AM	0	0	1	0	1	0	1	3
11:00:00 AM	12:00:00 PM	0	0	2	0	0	0	0	2
12:00:00 PM	1:00:00 PM	0	0	1	0	0	0	0	1
1:00:00 PM	2:00:00 PM	0	0	0	0	0	0	0	0
2:00:00 PM	3:00:00 PM	0	0	1	0	0	0	0	1
3:00:00 PM	4:00:00 PM	0	1	0	0	0	0	0	1
4:00:00 PM	5:00:00 PM	0	0	0	0	0	0	0	0
5:00:00 PM	6:00:00 PM	0	1	0	1	0	0	0	2
6:00:00 PM	7:00:00 PM	1	0	0	0	0	0	0	1
7:00:00 PM	8:00:00 PM	0	0	0	0	0	0	0	0
8:00:00 PM	9:00:00 PM	0	0	0	0	0	0	0	0
9:00:00 PM	10:00:00 PM	0	0	0	0	0	0	0	0
10:00:00 PM	11:00:00 PM	0	0	1	0	0	0	0	1
11:00:00 PM	12:00:00 AM	0	0	0	0	0	1	0	1
	Total	2	2	6	1	1	1	2	15

In 2015, the highest concentration of crashes within a three-hour period occurred from 9:00AM to 12:00PM, and from 10:00AM to 1:00PM.

		2011	2012	2013	2014	2015	5-Year Total	5-Year Percent	6- HR TOTAL	
Mesa 5-Year Trend: Fatalities by Time of Day										
12:00:00 AM	1:00:00 AM	1	1	0	0	0	2	1.8%	7pm-1am	33
1:00:00 AM	2:00:00 AM	0	0	1	1	0	2	1.8%	8pm-2am	29
2:00:00 AM	3:00:00 AM	1	0	0	0	0	1	0.9%	9pm-3am	23
3:00:00 AM	4:00:00 AM	2	0	0	0	1	3	2.7%	10pm-4am	22
4:00:00 AM	5:00:00 AM	1	0	0	0	0	1	0.9%	11pm-5am	13
5:00:00 AM	6:00:00 AM	1	0	0	2	0	3	2.7%	12am-6am	12
6:00:00 AM	7:00:00 AM	0	1	0	0	0	1	0.9%	1am-7am	11
7:00:00 AM	8:00:00 AM	1	0	1	2	0	4	3.6%	2am-8am	13
8:00:00 AM	9:00:00 AM	0	0	0	0	0	0	0.0%	3am-9am	12
9:00:00 AM	10:00:00 AM	1	2	2	1	1	7	6.4%	4am-10am	16
10:00:00 AM	11:00:00 AM	3	1	0	0	3	7	6.4%	5am-11am	22
11:00:00 AM	12:00:00 PM	0	2	5	1	2	10	9.1%	6am-12pm	29
12:00:00 PM	1:00:00 PM	0	0	0	1	1	2	1.8%	7am-1pm	30
1:00:00 PM	2:00:00 PM	1	0	2	2	0	5	4.5%	8am-2pm	31
2:00:00 PM	3:00:00 PM	5	2	0	3	1	11	10.0%	9am-3pm	42
3:00:00 PM	4:00:00 PM	1	3	0	0	1	5	4.5%	10am-4pm	40
4:00:00 PM	5:00:00 PM	1	2	0	1	0	4	3.6%	11am-5pm	37
5:00:00 PM	6:00:00 PM	1	0	1	1	2	5	4.5%	12pm-6pm	32
6:00:00 PM	7:00:00 PM	1	0	3	1	1	6	5.5%	1pm-7pm	36
7:00:00 PM	8:00:00 PM	0	4	1	1	0	6	5.5%	2pm-8pm	37
8:00:00 PM	9:00:00 PM	2	1	4	0	0	7	6.4%	3pm-9pm	33
9:00:00 PM	10:00:00 PM	0	1	1	2	0	4	3.6%	4pm-10pm	32
10:00:00 PM	11:00:00 PM	4	2	2	1	1	10	9.1%	5pm-11pm	38
11:00:00 PM	12:00:00 AM	0	2	0	1	1	4	3.6%	6pm-12am	37
	Total	27	24	23	21	15	110			

Over a 5-year trend, the peak times when Mesa fatalities occurred most frequently are concentrated over the period of 9:00AM and 3:00PM.

FATAL CRASH LOCATIONS
2015

mesa·az

THOMAS RD
3600 N

MCDOWELL RD
2800 N

MCKELLIPS RD
2000 N

BROWN RD
1200 N

UNIVERSITY DR
400 N

BROADWAY RD
400 S

SOUTHERN AVE
1200 S

BASELINE RD
2000 S

GUADALUPE RD
2800 S

ELLIOT RD
3600 S

WARNER RD
4400 S

RAY RD
5200 S

WILLIAMS FIELD RD
6000 S

PECOS RD
6800 S

GERMANN RD
7200 S

101 PRICE FRWY 2800 W
DOBSON RD 2000 W
ALMA SCHOOL RD 1200 W
COUNTRY CLUB DR 400 W
MESA DR 400 E
STAPLEY DR 1200 E
GILBERT RD 2000 E
LINDSAY RD 2800 E
VAL VISTA DR 3600 E
GREENFIELD RD 4400 E
HIGLEY RD 5200 E
RECKER RD 6000 E
POWER RD 6800 E
SOSSAMAN RD 7600 E
HAWES RD 8400 E
ELLSWORTH RD 9200 E
CRISMON RD 10000 E
SIGNAL BUTTE RD 10800 E
MERIDIAN RD 11600 E

Legend

● Fatal Crashes

✚ Center of Downtown Mesa

☐ City of Mesa Boundary

0 0.5 1   2
━━━━━━━━━━━━━━━ Miles

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Locations of all 15 fatal crashes. Intersection related crashes accounted for 67% of all fatal 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.

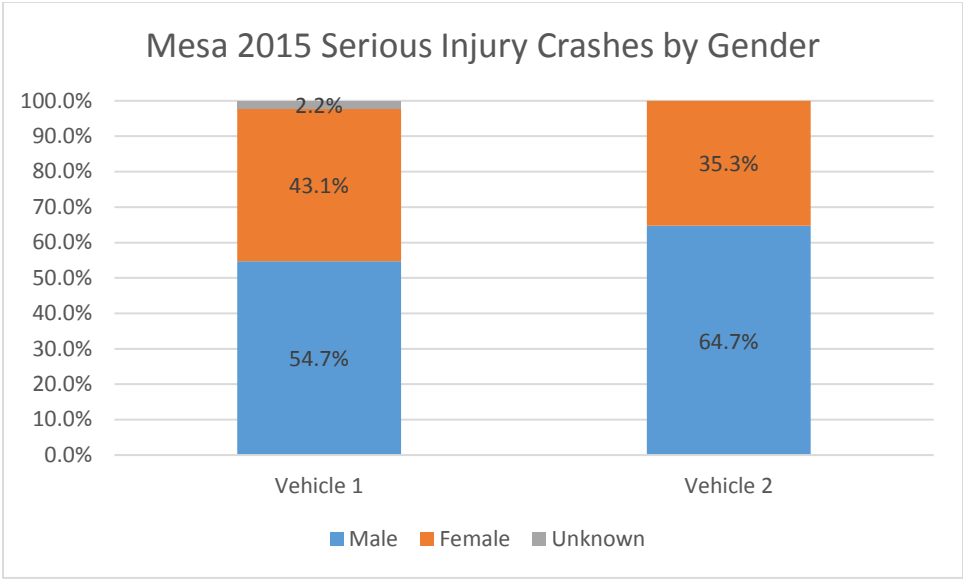|							SERIOIUS INJURIES PER 100,000:
YEAR	SERIOUS INJURY CRASHES BY YEAR	TOTAL SERIOUS INJURIES BY YEAR*	MESA TOTAL CRASHES BY YEAR	MESA ESTIMATED POPULATION BY YEAR	PERCENT OF SERIOUS INJURIES PER TOTAL CRASHES	TOTAL SERIOUS INJURIES PER 100,000 POPULATION	PERCENT CHANGE FROM 5-YEAR AVERAGE
2001			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	4.5%	52	
2011	-	236	5178	444685	4.6%	53.1	1.8%
2012	-	233	5134	451677	4.5%	51.6	-1.0%
2013	-	239	5313	457587	4.5%	52.2	0.2%
2014	183	237	5025	464704	4.7%	51.0	-2.2%
2015	181	249	4979	471825	5.0%	52.8	1.2%
2016		317	5533	475274		67	
2015 5-YR AVG	-	239	5125.8	458096	4.7%	52.1	

Mesa Serious Injury Crashes: General View

Information provided by City of Mesa website. (Their source is ESRI Community Analysis)			
Information from http://population.us/az/mesa/			
Information from https://www.census.gov/quickfacts/			
*Totals Pulled From Performance Measures			

In 2015, 181 serious injury crashes occurred on Mesa roadways resulting in 249 serious injuries. Values for the 5-year average were derived from the City of Mesa Performance Metrics. The percentage of severe injury crashes per total vehicle crashes has increased from the previous year.

The 5-year average per 100,000 population was around 52, and 2015 was slightly above that average with nearly 53 serious injury crashes per 100,000 population.

Mesa 2015 Serious Injury Crashes: Relation to Intersection

Not Related 28%

Intersection Related 72%
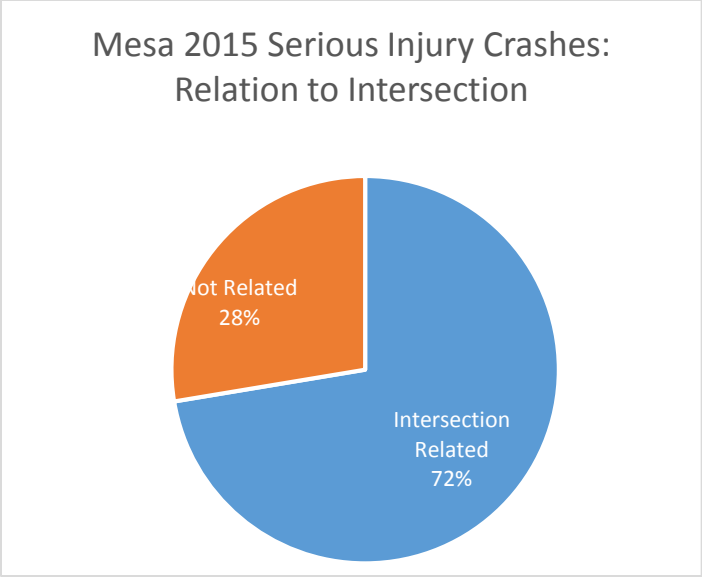
Of the 181 serious injury crashes that happened within Mesa in 2015, 131 were intersection related. The other of crashes happened in other locations such as driveways or midblock.

Mesa 2015 Serious Injury Crashes by Gender

Vehicle 1: Male 54.7%, Female 43.1%, Unknown 2.2%

Vehicle 2: Male 64.7%, Female 35.3%

Legend: Male, Female, Unknown

Of the 181 serious injury crashes that occurred within Mesa in 2015, the gender of vehicle 1 was predominantly male at 99. Of the 153 serious injury crashes that involved two or more units, the gender of vehicle 2 was mostly male at 99.

Mesa 2015 Serious Injury Crashes: Hit and Run Percentage

Hit and Run, 3.7%

Not Hit and Run, 93.0%
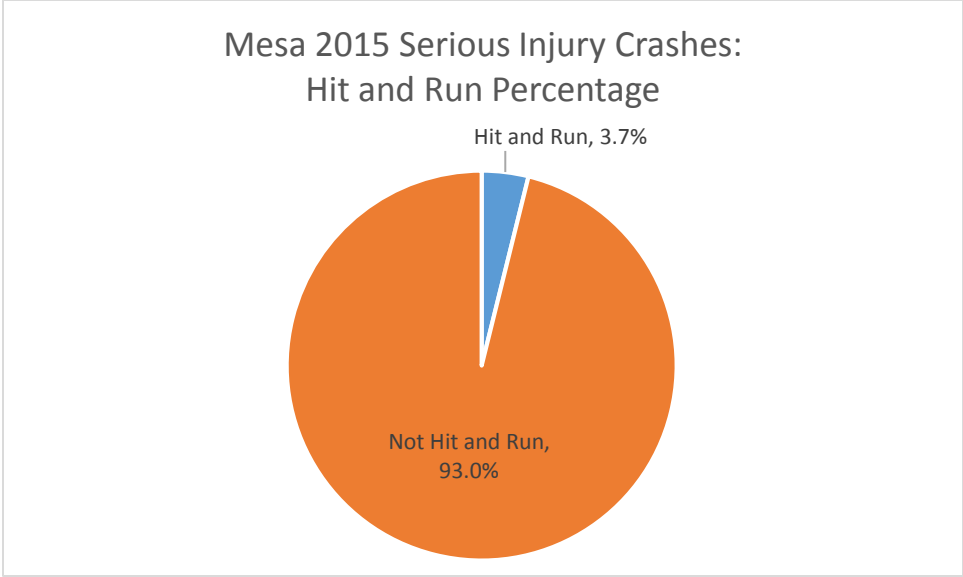
There were 7 serious injury crashes that were classified as hit and run in 2015.

Mesa 2015 Unit Type

Pedestrian, 9.3%

Cyclist, 9.3%
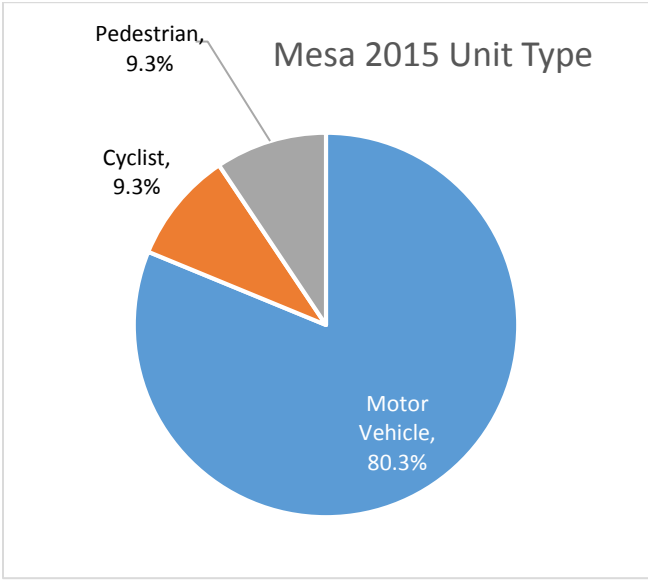
Motor Vehicle, 80.3%

Most of the serious injury crashes that occurred in Mesa in 2015 were motor vehicle collisions. This number includes motorcyclists and single vehicle crashes.

National 2015 Unit Type

Pedestrian, 2.9%
Pedalcycle, 1.8%
Unk, 0.4%
Motor Vehicle, 94.1%
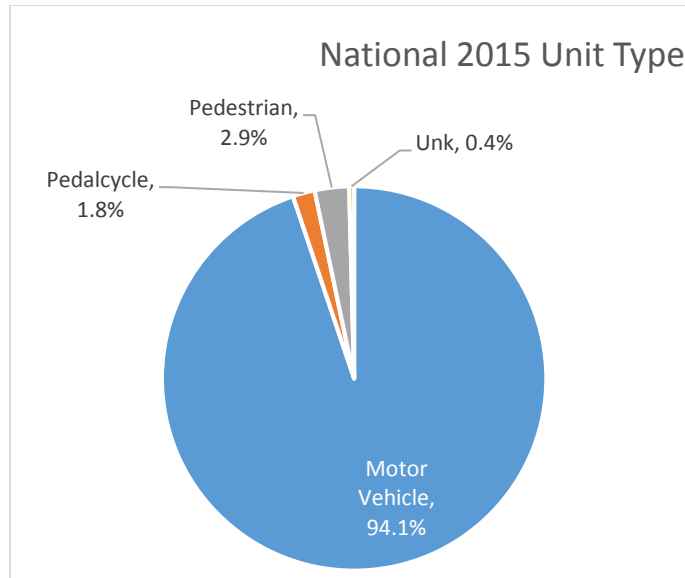
Nationally, 2015 crashes were mostly motor vehicle collisions. This number includes motorcycle and single vehicle crashes.

Mesa 2015 Serious Injury Crash Manner

Other, 2.8%
Sideswipe Same Direction, 5.0%
Bike Coll, 9.4%
Single Vehicle, 12.7%
Left Turn, 15.5%
Angle, 24.3%
Head-On, 6.6%
Rear End, 14.4%
Ped Coll, 9.4%
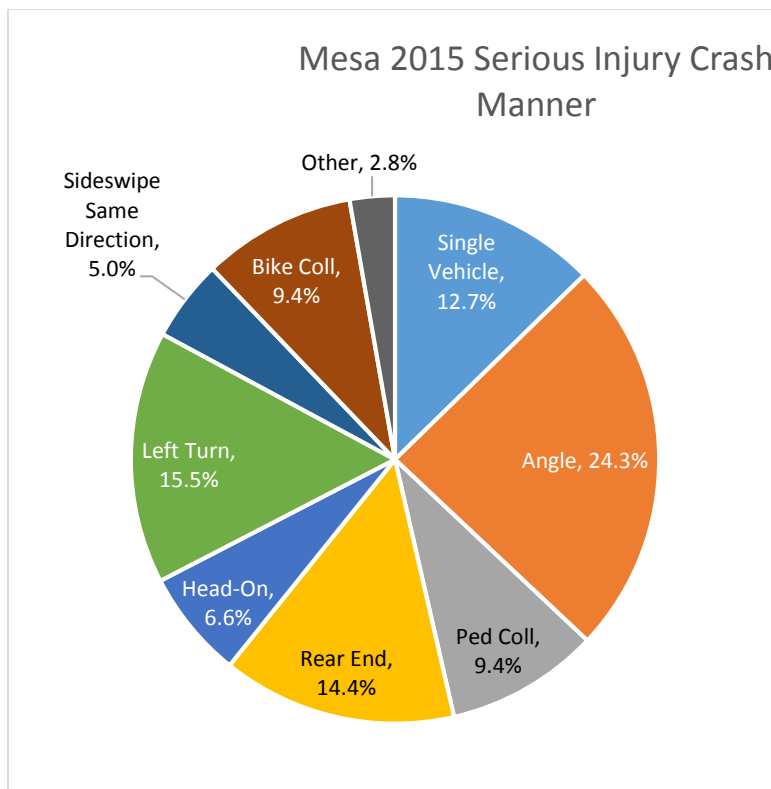
In 2015 the leading crash manners resulting in serious injuries were Left Turn and Angle crashes. Bike and pedestrian collisions account for another 18.8% of serious injuries.

Mesa 2015 Serious Injury Crashes: Impairment

- ALCOHOL, 9.4%
- DRUGS, 6.1%
- ILLNESS, 1.1%
- PHYSICAL, 1.1%
- NONE, 71.3%
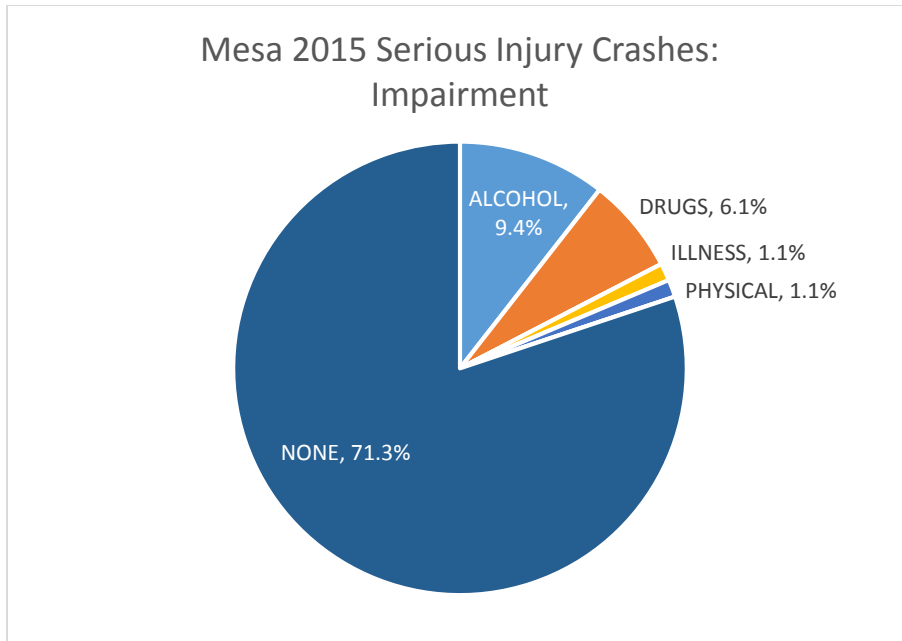
Impairment was a factor in 17.7% of serious injury crashes in 2015.

Mesa 2015 Serious Injury Crashes: Vehicle 1 Violation

- None, 4.4%
- Failed to Keep in Lane, 3.9%
- Other, 18.2%
- Speed too Fast, 24.3%
- Exceeded Lawful Speed, 0.6%
- Unk, 6.1%
- Did Not Use Xwalk, 3.9%
- Improper Turn, 13.3%
- Disregarded Signal, 12.2%
- Distracted, 3.9%
- Drove/Rode Opp Lane, 3.9%
- Failed to Yield, 2.2%
- Unsafe Lane Change, 3.3%
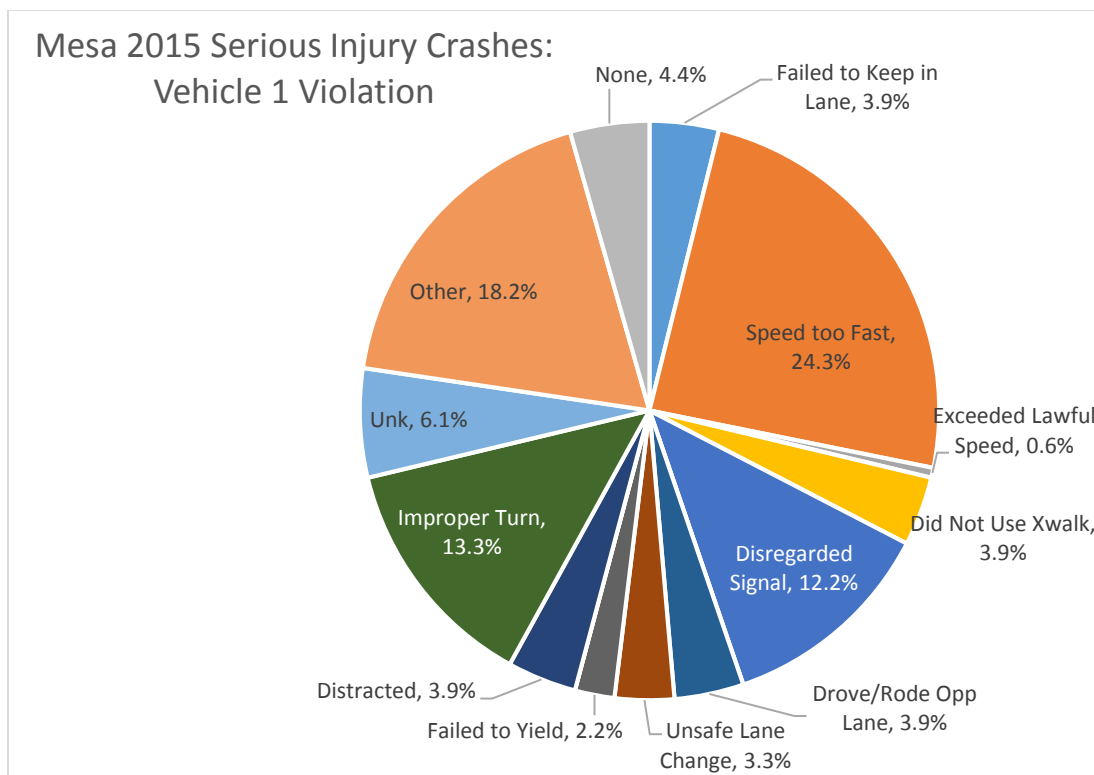
This chart shows a distribution of Mesa vehicle 1 violations in 2015 that resulted in crashes with serious injuries.

Mesa 2015 Serious Injury Crashes by Month

Month	Crashes
Jan	9
Feb	15
Mar	14
Apr	14
May	13
Jun	13
Jul	14
Aug	27
Sep	18
Oct	16
Nov	15
Dec	19
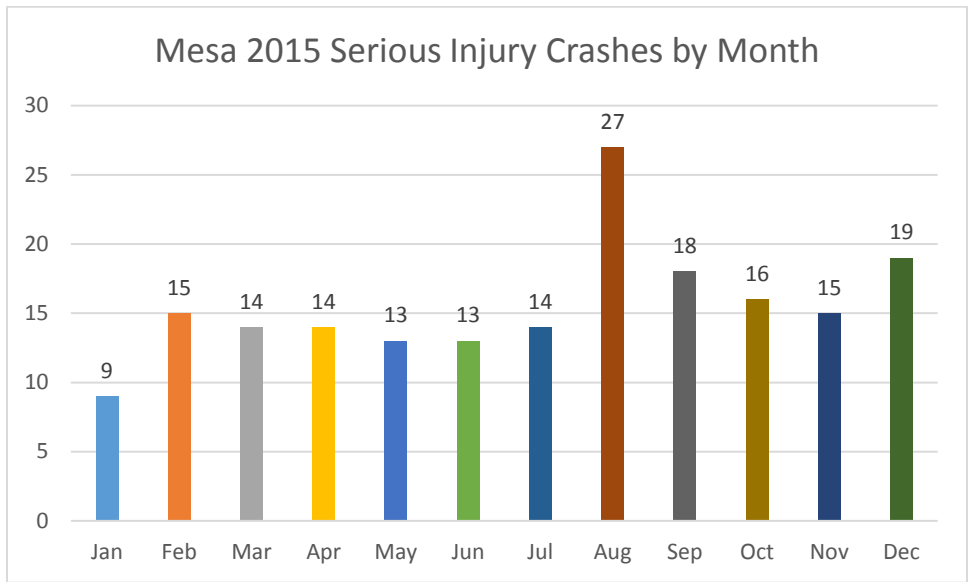
Within Mesa in 2015, there was a rise of serious injury crashes in the month of August.

Mesa 2015 Serious Injury Crashes by Day

Day	Crashes
Sun	9
Mon	22
Tue	36
Wed	33
Thu	37
Fri	31
Sat	13
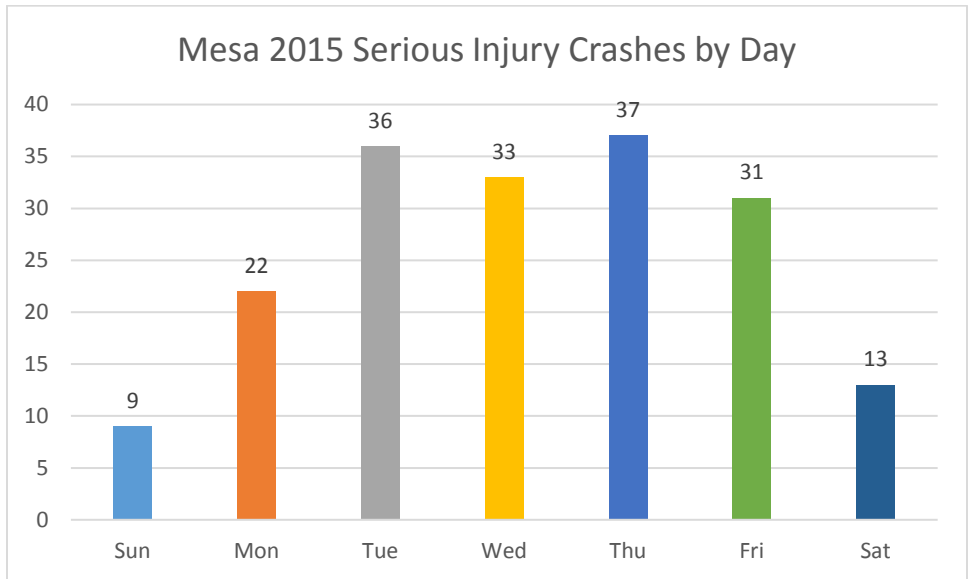
The highest 3-day period for serious injury crashes was Tuesday, Wednesday, and Thursday, which is consistent to high-volume periods.

Mesa 2015 Serious Injury Crashes by Time and Day of Week w/ 6-Hour Totals

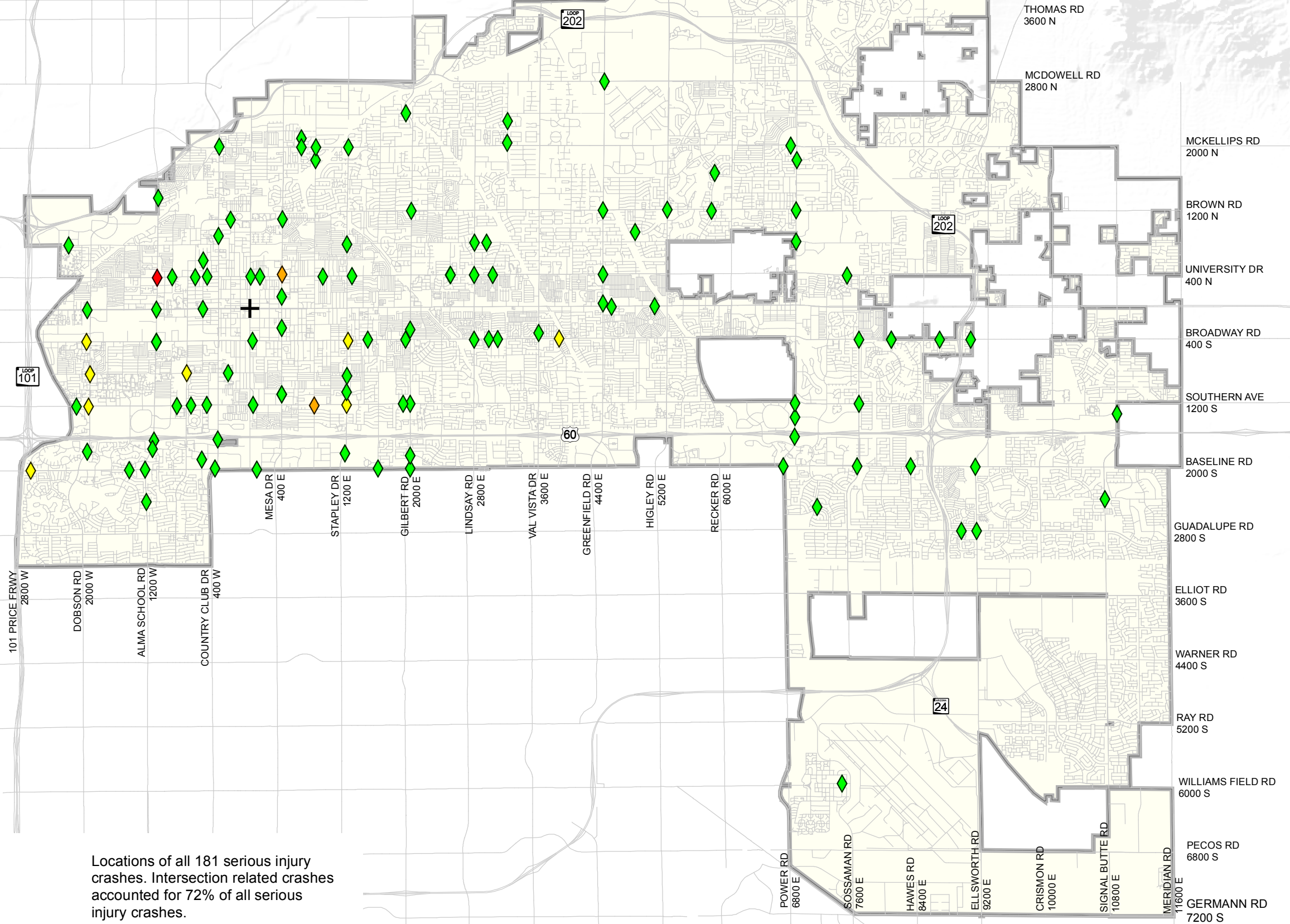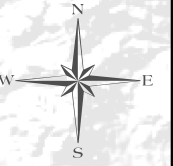|		1	2	3	4	5	6	7	2015 Total	Percent	6- HR TOTAL	
12:00:00 AM	1:00:00 AM	1	0	0	0	0	0	0	1	0.6%	7pm-1am	28
1:00:00 AM	2:00:00 AM	0	0	0	0	1	1	0	2	1.1%	8pm-2am	18
2:00:00 AM	3:00:00 AM	0	0	0	0	0	0	1	1	0.6%	9pm-3am	15
3:00:00 AM	4:00:00 AM	0	0	0	0	1	0	1	2	1.1%	10pm-4am	12
4:00:00 AM	5:00:00 AM	0	0	0	0	0	0	0	0	0.0%	11pm-5am	8
5:00:00 AM	6:00:00 AM	0	1	0	0	0	0	0	1	0.6%	12am-6am	7
6:00:00 AM	7:00:00 AM	0	0	1	2	2	1	1	7	3.9%	1am-7am	13
7:00:00 AM	8:00:00 AM	1	2	2	4	2	1	1	13	7.2%	2am-8am	24
8:00:00 AM	9:00:00 AM	0	1	3	1	0	0	0	5	2.8%	3am-9am	28
9:00:00 AM	10:00:00 AM	0	4	1	2	4	1	0	12	6.6%	4am-10am	38
10:00:00 AM	11:00:00 AM	0	3	5	1	1	2	0	12	6.6%	5am-11am	50
11:00:00 AM	12:00:00 PM	1	1	2	1	2	2	1	10	5.5%	6am-12pm	59
12:00:00 PM	1:00:00 PM	2	2	3	1	2	1	1	12	6.6%	7am-1pm	64
1:00:00 PM	2:00:00 PM	0	1	3	4	2	2	2	14	7.7%	8am-2pm	65
2:00:00 PM	3:00:00 PM	0	0	2	1	3	3	1	10	5.5%	9am-3pm	70
3:00:00 PM	4:00:00 PM	0	3	4	3	3	6	0	19	10.5%	10am-4pm	77
4:00:00 PM	5:00:00 PM	2	0	4	1	3	0	1	11	6.1%	11am-5pm	76
5:00:00 PM	6:00:00 PM	0	0	1	1	3	2	0	7	3.9%	12pm-6pm	73
6:00:00 PM	7:00:00 PM	0	2	3	4	2	4	0	15	8.3%	1pm-7pm	76
7:00:00 PM	8:00:00 PM	1	2	0	3	4	2	0	12	6.6%	2pm-8pm	74
8:00:00 PM	9:00:00 PM	0	0	1	2	0	0	1	4	2.2%	3pm-9pm	68
9:00:00 PM	10:00:00 PM	1	0	0	2	1	1	0	5	2.8%	4pm-10pm	54
10:00:00 PM	11:00:00 PM	0	0	1	0	0	1	2	4	2.2%	5pm-11pm	47
11:00:00 PM	12:00:00 AM	0	0	0	0	1	1	0	2	1.1%	6pm-12am	42
	Total	9	22	36	33	37	31	13	181			
		SUN	MON	TUE	WED	THU	FRI	SAT				

Most crashes in Mesa in 2015 that resulted in a serious injury occurred from 10:00 AM- 4:00 PM. The lowest number of crashes happened from 12:00AM- 6:00AM.

SERIOUS INJURY CRASH LOCATIONS
2015

mesa·az

THOMAS RD
3600 N

MCDOWELL RD
2800 N

MCKELLIPS RD
2000 N

BROWN RD
1200 N

UNIVERSITY DR
400 N

BROADWAY RD
400 S

SOUTHERN AVE
1200 S

BASELINE RD
2000 S

GUADALUPE RD
2800 S

ELLIOT RD
3600 S

WARNER RD
4400 S

RAY RD
5200 S

WILLIAMS FIELD RD
6000 S

PECOS RD
6800 S

GERMANN RD
7200 S

MESA DR 400 E
STAPLEY DR 1200 E
GILBERT RD 2000 E
LINDSAY RD 2800 E
VAL VISTA DR 3600 E
GREENFIELD RD 4400 E
HIGLEY RD 5200 E
RECKER RD 6000 E

101 PRICE FRWY 2800 W
DOBSON RD 2000 W
ALMA SCHOOL RD 1200 W
COUNTRY CLUB DR 400 W

POWER RD 6800 E
SOSSAMAN RD 7600 E
HAWES RD 8400 E
ELLSWORTH RD 9200 E
CRISMON RD 10000 E
SIGNAL BUTTE RD 10800 E
MERIDIAN RD 11600 E

Legend

Serious Injury Crashes

◆ 1 Crash

◆ 2 Crashes

◆ 3 Crashes

◆ 4 Crashes

✛ Center of Downtown Mesa
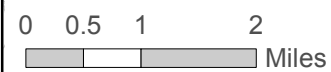
▭ City of Mesa Boundary

0   0.5   1   2
Miles

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Locations of all 181 serious injury crashes. Intersection related crashes accounted for 72% of all serious injury crashes.

SECTION 3:

BIKE CRASHES

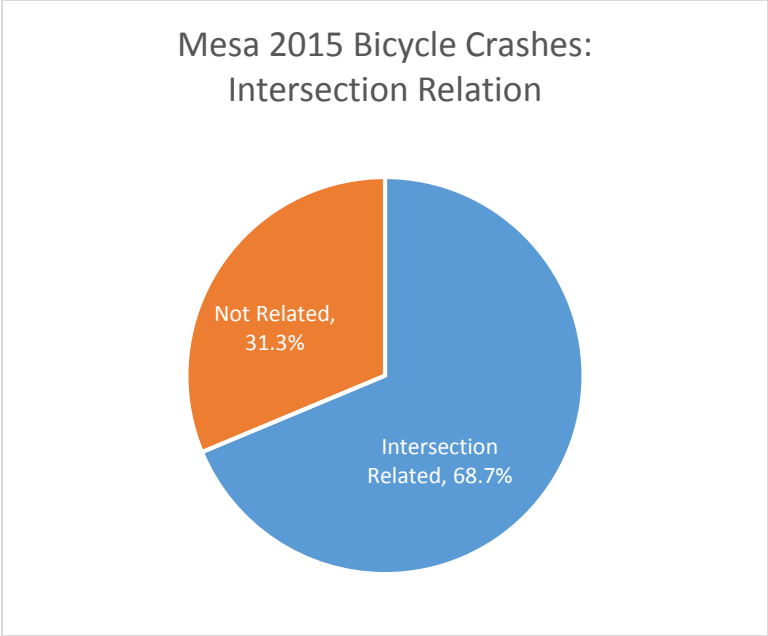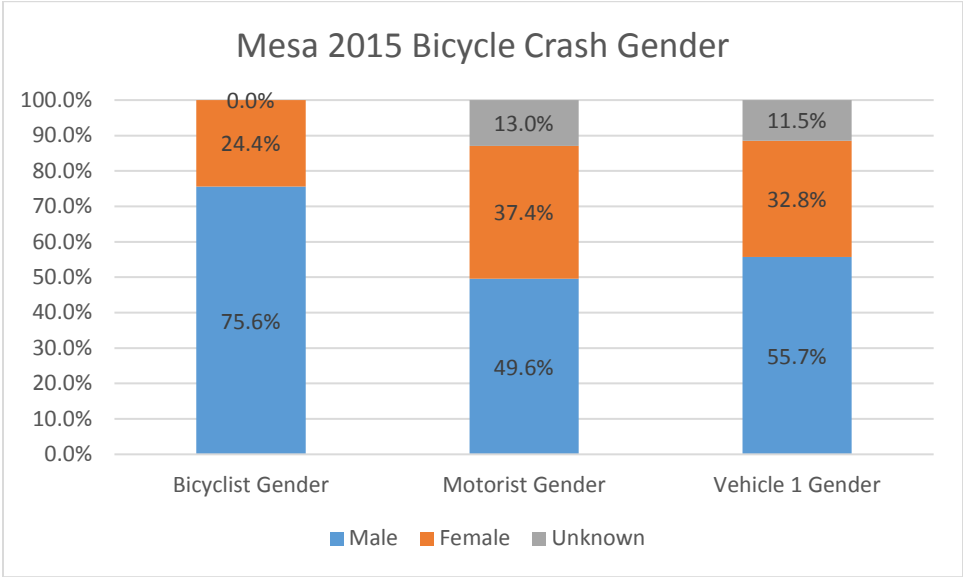|						BIKE CRASHES
Mesa Bicycle Crashes: General View						
YEAR	MESA BIKE CRASHES BY YEAR	TOTAL MESA VEHICLE CRASHES BY YEAR	MESA BIKE CRASHES % OF TOTAL CRASHES	MESA ESTIMATED POPULATION BY YEAR	MESA BIKE CRASHES PER 100,000 POPULATION	BIKE CRASHES PER 100,000: PERCENT FROM 5-YEAR AVERAGE
2001	284	9928	2.9%	416301	68	
2002	254	9155	2.8%	427923	59	
2003	282	8520	3.3%	435391	65	
2004	258	9184	2.8%	443733	58	
2005	276	9205	3.0%	450948	61	
2006	181	8522	2.1%	456449	40	
2007	231	7933	2.9%	460493	50	
2008	212	5908	3.6%	463829	46	
2009	222	5504	4.0%	467157	48	
2010	206	5118	4.0%	440031	47	
2011	219	5178	4.2%	444685	49.2	17%
2012	257	5134	5.0%	451677	56.9	35%
2013	190	5313	3.6%	457587	41.5	-1%
2014	163	5025	3.2%	464704	35.1	-17%
2015	131	4979	2.6%	471825	27.8	-34%
2016		5533	-	475274	-	
2015 5-YR AVG	192	5126	3.7%	458096	42.1	
Information provided by City of Mesa website. (Their source is ESRI Community Analysis)						
Information from http://population.us/az/mesa/						
Information from https://www.census.gov/quickfacts/						

The City of Mesa had 131 bike crashes in 2015 which was 2.6% of all Mesa crashes. The number of bike crashes per 100,000 population was 34% less than the 5-year average of about 42 bike crashes per100,000 population.

Mesa 2015 Bicycle Crashes: Intersection Relation

Not Related, 31.3%

Intersection Related, 68.7%

Of the 131 bike crashes in Mesa 2015, 90 were intersection related.

Mesa 2015 Bicycle Crash Gender

	Male	Female	Unknown
Bicyclist Gender	75.6%	24.4%	0.0%
Motorist Gender	49.6%	37.4%	13.0%
Vehicle 1 Gender	55.7%	32.8%	11.5%

The gender of vehicle 1 is primarily male, and the same can be said about the gender of the bicyclist that was hit regardless of fault.

Mesa 2015 Bike Crashes: On Street Classification

Mesa 2015 Bike Crashes: Cross Street Classification
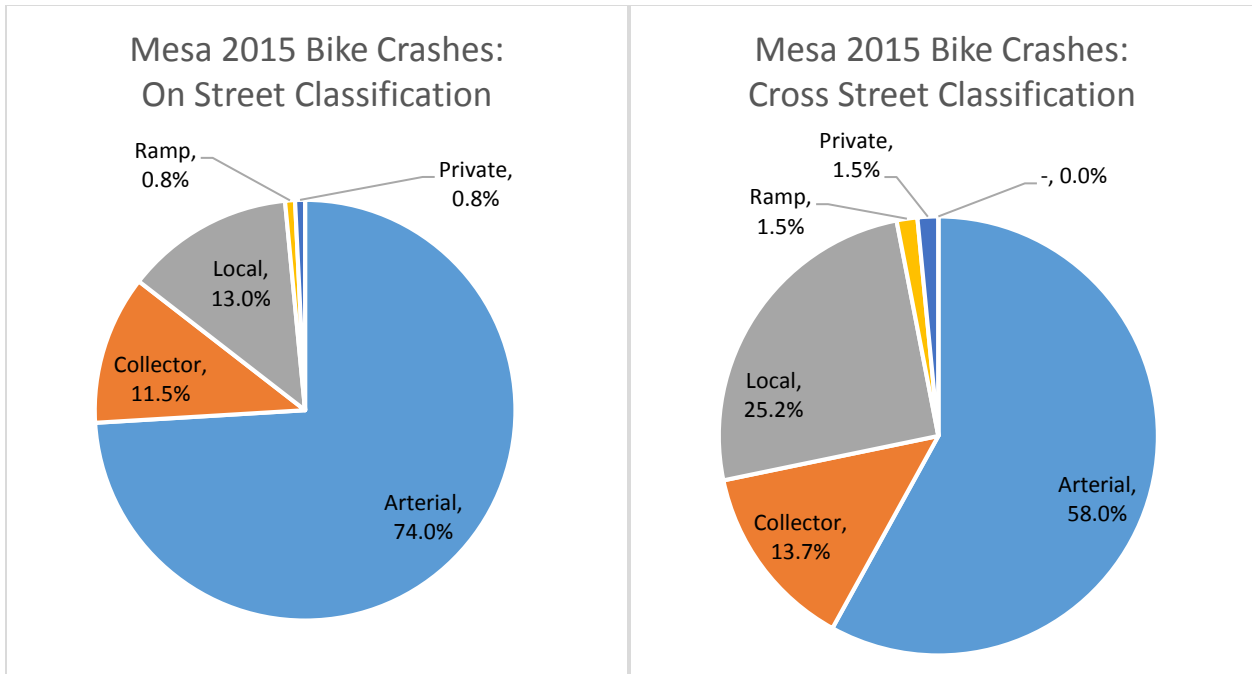
74% of Mesa bike crashes in 2015 occurred on arterial roadways. Likewise, the cross street was primarily an arterial.

Mesa 2015 Bicycle Crashes: Intersection Classification
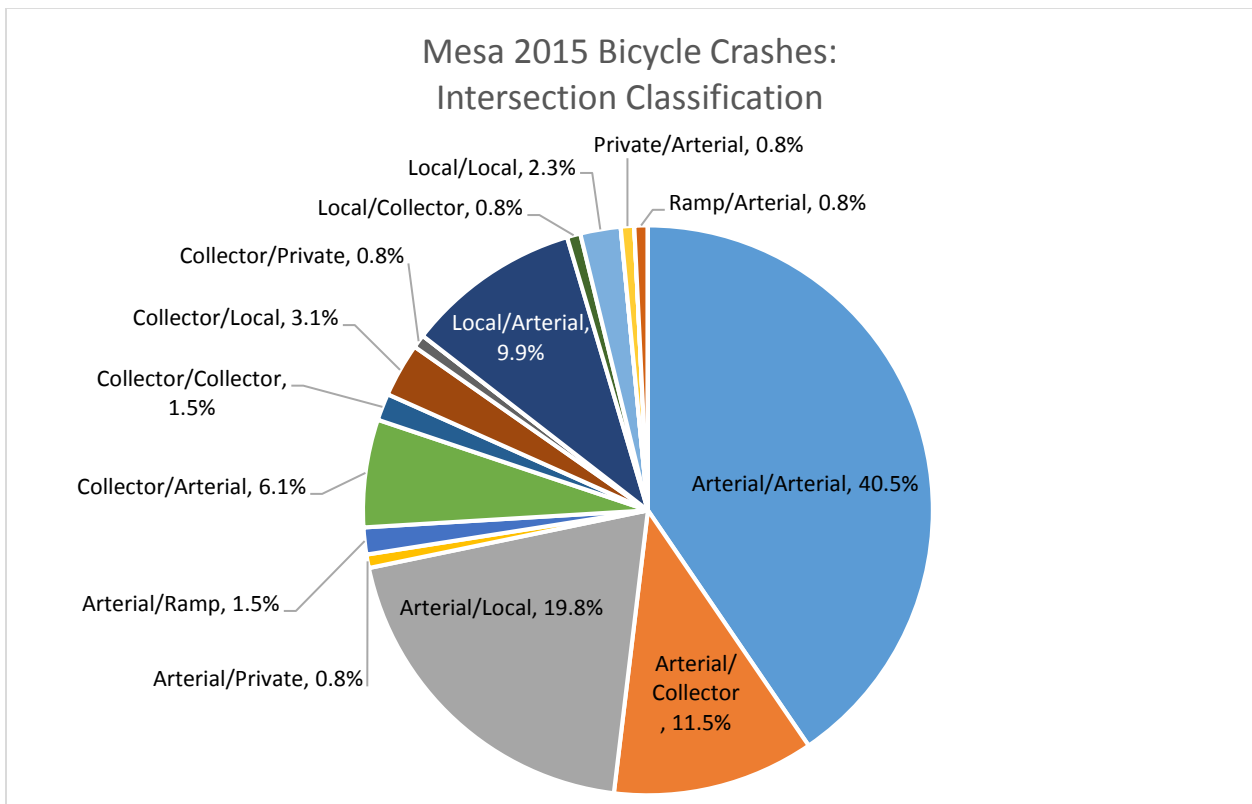
The chart above shows the street intersection classifications for Mesa bicycle crashes in 2015.

	Mesa 2015 Bicyclists Involved in Crashes: Age Group			
AGE GROUP	TOTAL MESA POPULATION BY AGE	AGE PERCENT OF TOTAL POPULATION	TOTAL BIKE CRASHES BY AGE	PERCENT OF TOTAL CRASHES BY AGE
under 5	32533	6.9%	1	0.8%
5 to 9	32563	6.9%	0	0.0%
10 to 14	31365	6.6%	18	13.7%
15 to 17	19554	4.1%	8	6.1%
18 to 19	11571	2.5%	11	8.4%
20	7542	1.6%	5	3.8%
21	7310	1.5%	2	1.5%
22 to 24	20768	4.4%	14	10.7%
25 to 29	34166	7.2%	11	8.4%
30 to 34	33013	7.0%	12	9.2%
35 to 39	27568	5.8%	5	3.8%
40 to 44	28549	6.1%	5	3.8%
45 to 49	28998	6.1%	5	3.8%
50 to 54	31365	6.6%	15	11.5%
55 to 59	25733	5.5%	6	4.6%
60 to 61	10860	2.3%	3	2.3%
62 to 64	16057	3.4%	5	3.8%
65 to 66	8493	1.8%	0	0.0%
67 to 69	12283	2.6%	0	0.0%
70 to 74	16993	3.6%	2	1.5%
75 to 79	13466	2.9%	2	1.5%
80 to 84	11107	2.4%	1	0.8%
85+	9961	2.1%	0	0.0%
Total	471825	100.0%		
Unk			0	0.0%
Total			131	

The above table shows the ages of the bicyclists that were involved in crashes within Mesa in 2015. The highest concentration of crashes occurred among bicyclist aged 10-14.
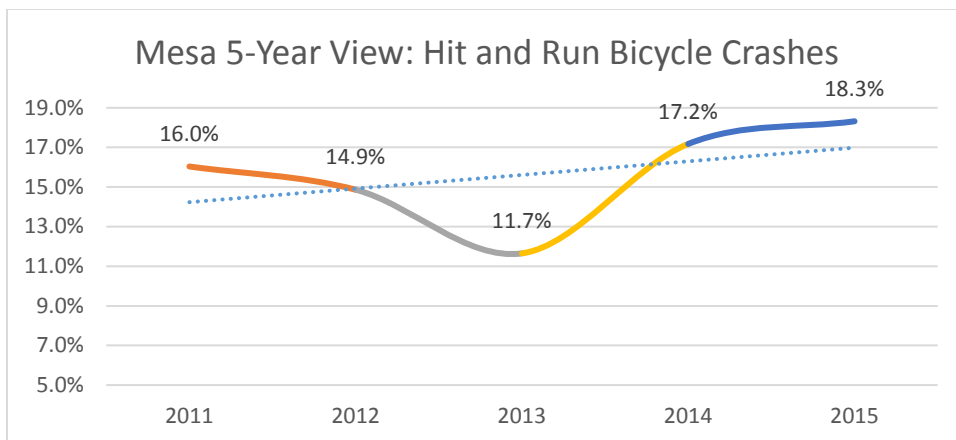
AGE GROUP	MESA 2015 MALE POPULATION	PERCENT MALE	MALE BIKE CRASHES	PERCENT OF MALE CRASHES	MESA 2015 FEMALE POPULATION	PERCENT FEMALE	FEMALE BIKE CRASHES	PERCENT OF FEMALE CRASHES
				Mesa 2015 Bicyclists Involved in Crashes:				
				Age Group and Gender				
under 5	16714	7.2%	0	0.0%	15819	6.6%	1	3.1%
5 to 9	15785	6.8%	0	0.0%	16778	7.0%	0	0.0%
10 to 14	15785	6.8%	17	17.2%	15580	6.5%	1	3.1%
15 to 17	10446	4.5%	6	6.1%	9108	3.8%	2	6.3%
18 to 19	5339	2.3%	8	8.1%	6232	2.6%	3	9.4%
20	3946	1.7%	3	3.0%	3595	1.5%	2	6.3%
21	3714	1.6%	1	1.0%	3595	1.5%	1	3.1%
22 to 24	9982	4.3%	9	9.1%	10786	4.5%	5	15.6%
25 to 29	18107	7.8%	8	8.1%	16059	6.7%	3	9.4%
30 to 34	16714	7.2%	8	8.1%	16299	6.8%	4	12.5%
35 to 39	14625	6.3%	3	3.0%	12943	5.4%	2	6.3%
40 to 44	13928	6.0%	4	4.0%	14621	6.1%	1	3.1%
45 to 49	14857	6.4%	4	4.0%	14142	5.9%	1	3.1%
50 to 54	15785	6.8%	12	12.1%	15580	6.5%	3	9.4%
55 to 59	12071	5.2%	5	5.1%	13662	5.7%	1	3.1%
60 to 61	5107	2.2%	3	3.0%	5752	2.4%	0	0.0%
62 to 64	7428	3.2%	4	4.0%	8629	3.6%	1	3.1%
65 to 66	4178	1.8%	0	0.0%	4314	1.8%	0	0.0%
67 to 69	5571	2.4%	0	0.0%	6711	2.8%	0	0.0%
70 to 74	8125	3.5%	1	1.0%	8868	3.7%	1	3.1%
75 to 79	6036	2.6%	2	2.0%	7430	3.1%	0	0.0%
80 to 84	4875	2.1%	1	1.0%	6232	2.6%	0	0.0%
85+	3250	1.4%	0	0.0%	6711	2.8%	0	0.0%
Total	232138	49.2%			239687	50.8%		0.0%
Unk			0	0.0%			0	0.0%
Total			99	75.6%			32	24.4%

The above table is a breakdown of bicyclists involved in bicycle crashes within Mesa 2015 by gender. Consistent with the gender charts on page 28, male cyclists made up 76% of all bicyclist-involved crashes.

Mesa 2015 Bicycle Crash Manner

Head On, 6.1%

Rear End, 3.1%

Side Swipe, 14.5%

Left Turn, 7.6%

Angle , 68.7%
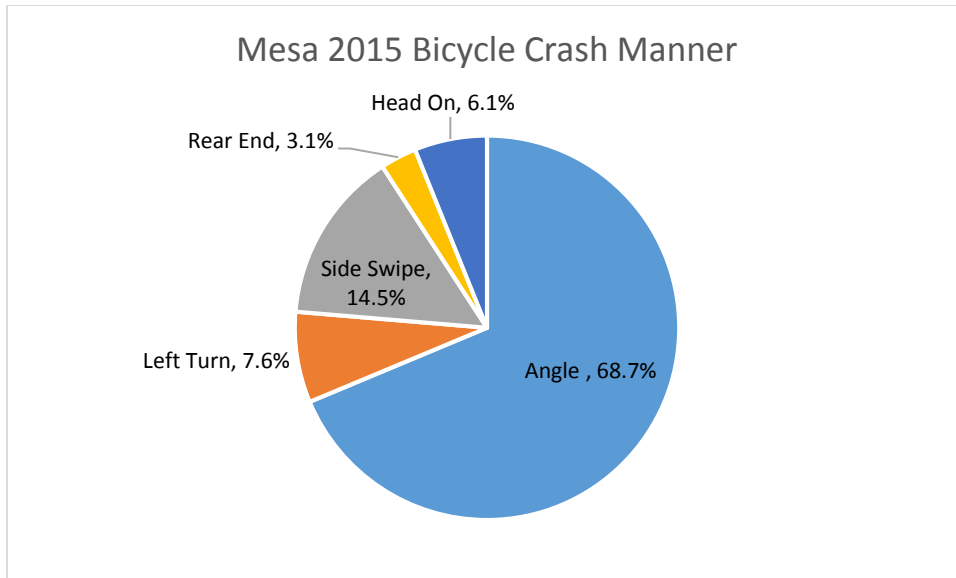
Over half of the crashes that involved bicyclists in 2014 were angle crashes. This document will also delve into the behaviors that lead to collisions.

Mesa 5-Year View: Hit and Run Bicycle Crashes

16.0%

14.9%

11.7%

17.2%

18.3%

19.0%
17.0%
15.0%
13.0%
11.0%
9.0%
7.0%
5.0%

2011   2012   2013   2014   2015

Of the 131 bike crashes in Mesa 2015, 24 were deemed hit and run collisions. This number is up 3% from the 5-year average, and up 1.1% from the previous year.

Mesa 2015 Bicycle Crashes: Vehicle 1 Designation		
Motorist at Fault	80	61.1%
Cyclist at Fault	51	38.9%
Total	131	

More than half of the cases of bicyclist crashes were the result of a violation by a motorist.

Mesa 2015 Bicycle Crashes: Vehicle 1 Violation
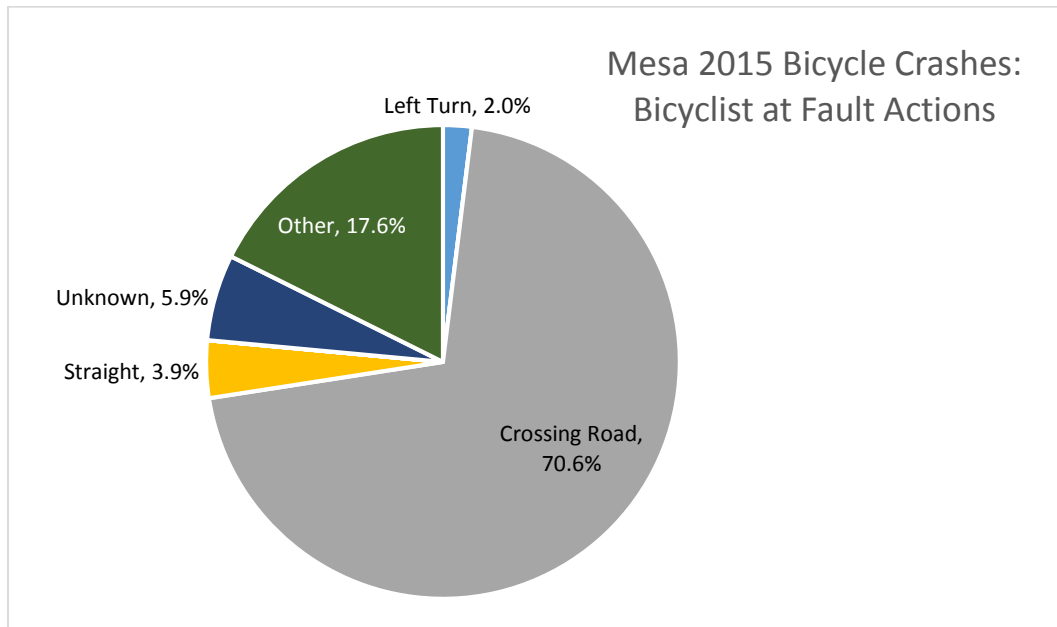
- Other Unsafe Pass, 1.5%
- [Bike] Rode Wrong Side, 0.0%
- Disregarded Striping, 1.5%
- Failed to Keep in Lane, 0.8%
- Distracted, 3.1%
- Ran Stop Sign, 1.5%
- Unknown, 10.7%
- Disregarded Signal, 12.2%
- Other, 25.2%
- None, 14.5%
- Drove/Rode Opp Lane, 13.0%
- Speed Too Fast, 8.4%
- Improper Turn, 7.6%
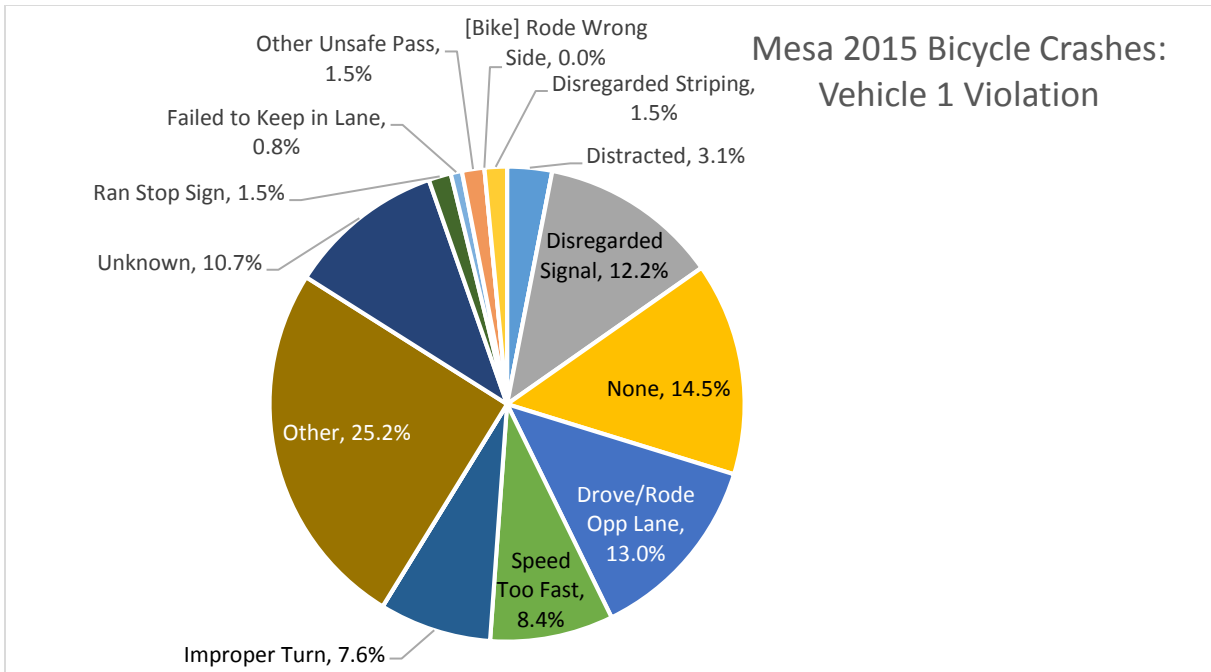
The chart above shows the violations of V1 which includes violations performed by both the cyclist and the motorist. The highest percentage is attributed to the disregard of traffic signals and riding in the wrong lane.

Mesa 2015 Bicycle Crashes: Bicyclist at Fault Actions

- Left Turn, 2.0%
- Other, 17.6%
- Unknown, 5.9%
- Straight, 3.9%
- Crossing Road, 70.6%

When the cyclist was vehicle 1, they were primarily crossing the road during a non-permitted crossing interval (DON'T WALK interval) or without a crosswalk.

Mesa 2015 Bicycle Crashes: Motorist at Fault Actions

- Stopped, 1.3%
- Unknown, 1.3%
- Slowing, 2.5%
- Other, 1.3%
- Passing, 1.3%
- Changing Lanes, 1.3%
- Left Turn, 12.5%
- Straight, 22.5%
- Right Turn, 56.3%
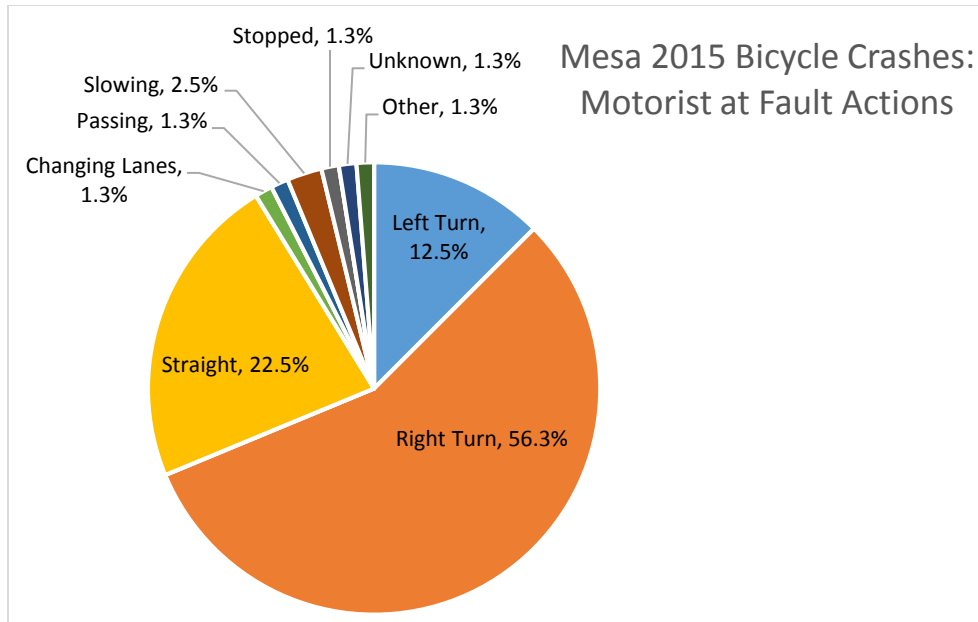
When the motorist was vehicle 1, turning motions were the primary actions.

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 for bicycle-motorist collisions of 2015 were as follows:

1. Bicycle Ride Through - signal controlled intersection: 26 (19.7%)
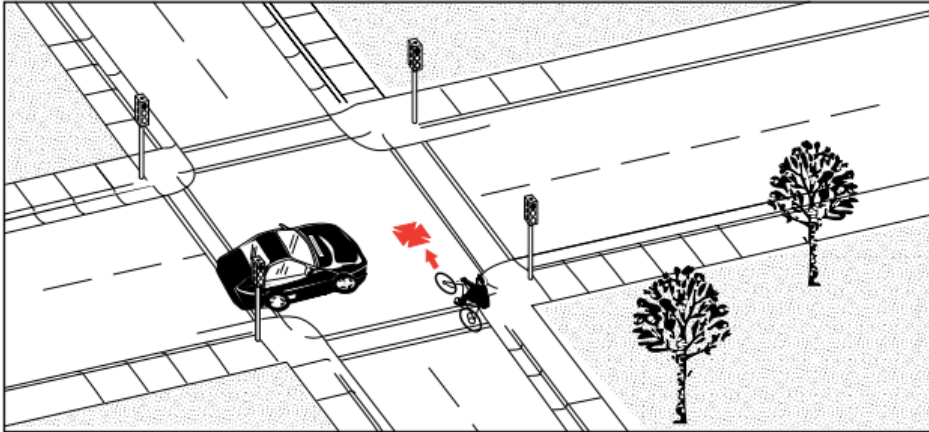
2. Motorist Right Turn – bicycle traveling perpendicular direction: 20 (15.2%)
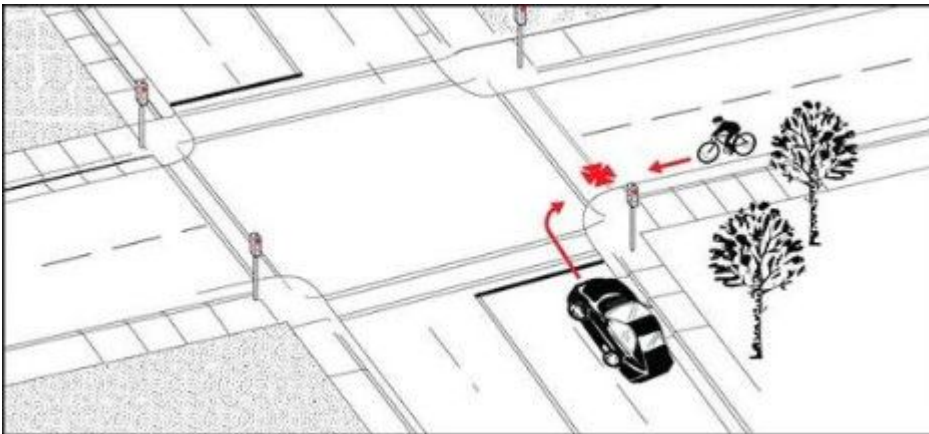
3. Motorist Drive Out – driveway or alley: 18 (13.6%)
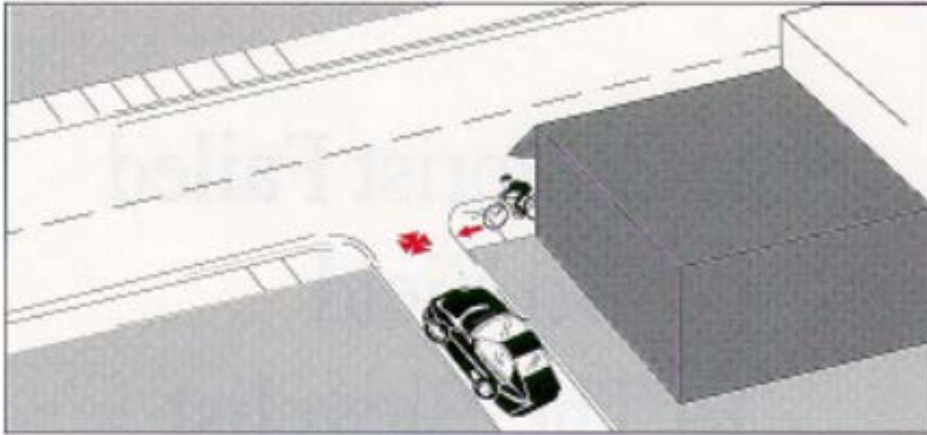
4. Motorist Right Turn - bicycle travelling in the same direction: 10 (7.6%)
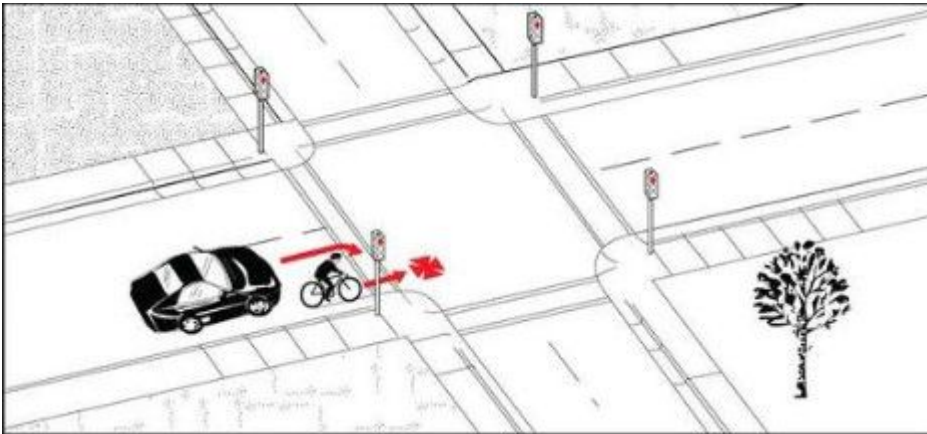
5. Motorist Left Turn – bicycle travelling in the opposite direction: 7 (5.3%)

Mesa 2015 Bicycle Crashes: Injury Severity

Category	Value
No Injury	2
Possible	54
Non-Incapacitating	57
Incapacitating	17
Fatal	1
Unknown	0

Mesa 2015 Bicycle Crashes: Injury Severity

- Fatal 1%
- No Injury 2%
- Incapacitating 13%
- Possible 41%
- Non-Incapacitating 43%
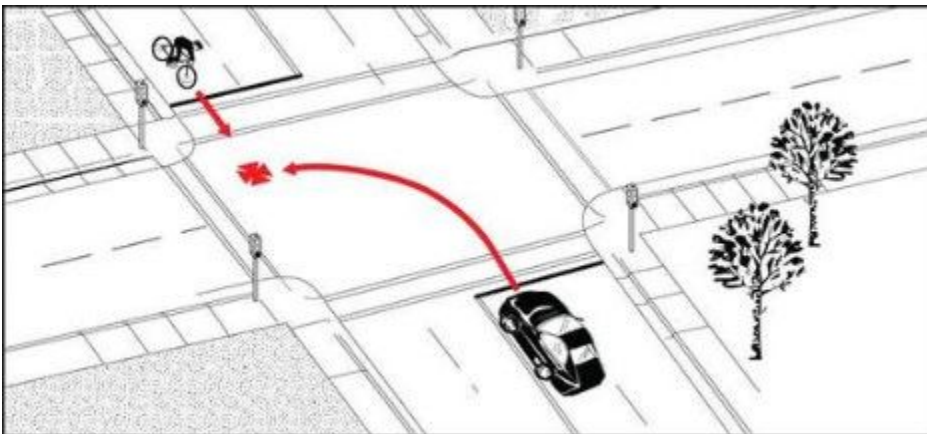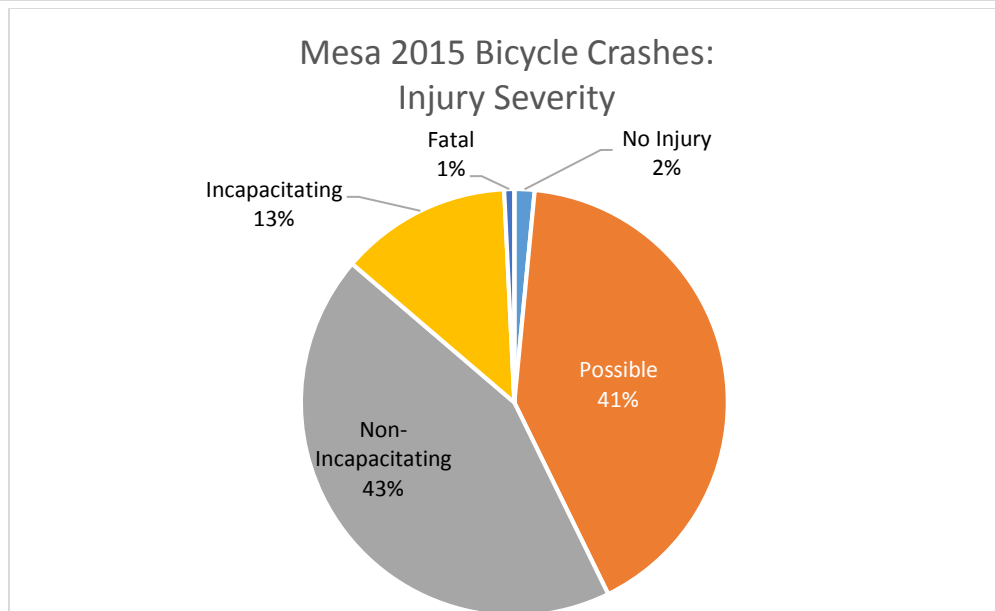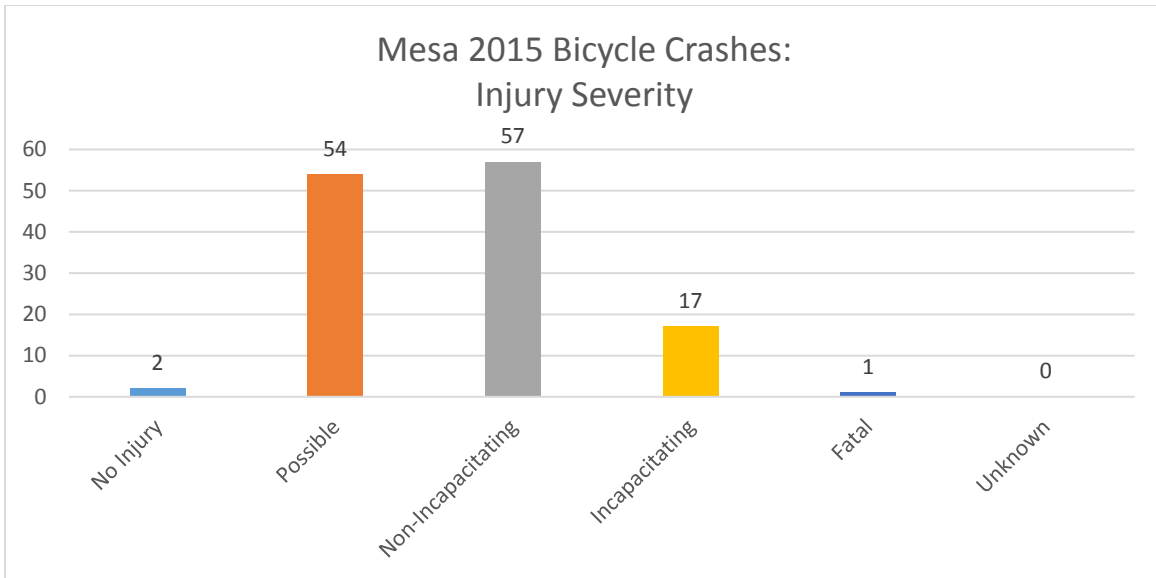
Of the 131 total bike crashes within Mesa in 2015, there was one fatality and 17 serious injuries, totalling 13.8% of all bicycle-related crashes.

Mesa 2015 Bicycle Crashes by Day vs 5-Year Average

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
2015	11	19	27	20	24	19	11
2011-2015 AVG	11.4	31.4	38.4	29	33.2	29.2	19.4
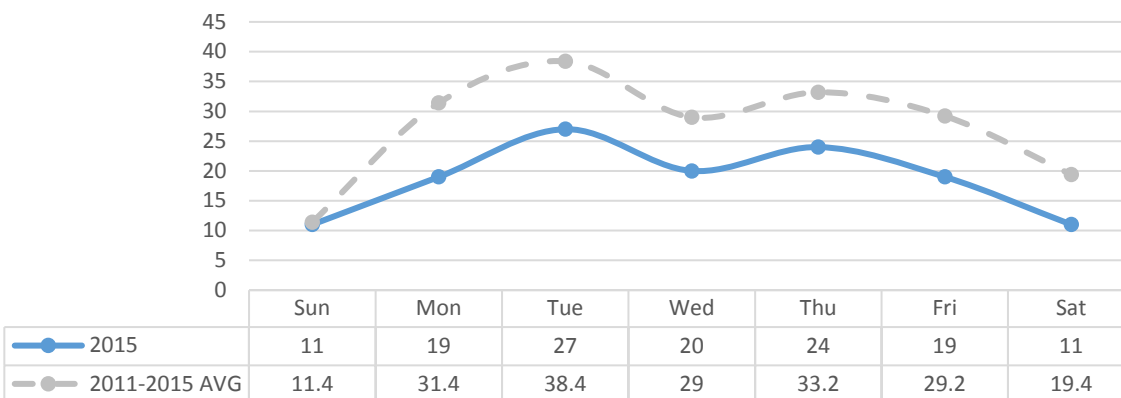
2015 remained under the 5-year average for crashes by weekday. The highest 3-day period for bicycle crashes was Tuesday- Thursday.

Mesa 2015 Bicycle Crashes by Month vs 5-Year Average

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2015	4	3	7	9	8	10	11	12	20	22	9	16
2011-2015 AVG	16.2	13.6	16.2	18.8	18	14.2	10.4	17.2	17	21.4	14.8	14.2
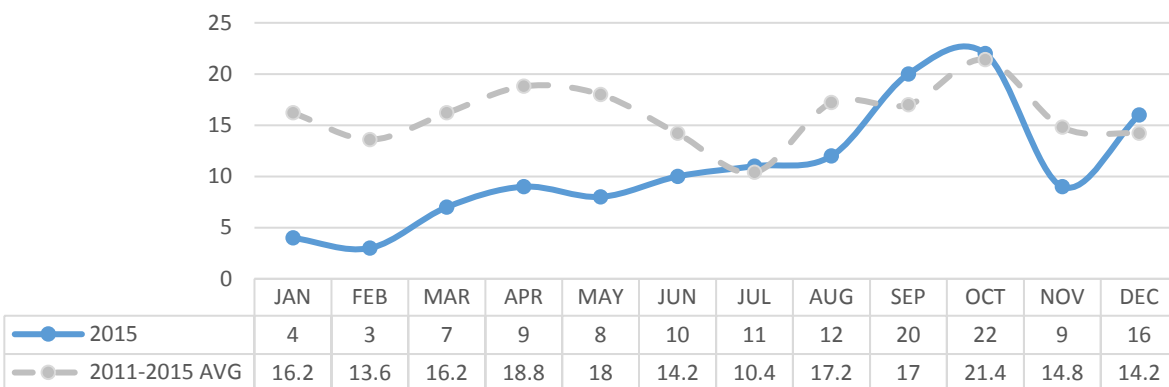
The bicycle trend in 2015 steadily increased, with the peak months being September and October.

		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Mesa 2015 Bicycle Crashes by Time of Day and Day of Week									
12:00:00 AM	1:00:00 AM	0	0	0	0	0	0	0	0
1:00:00 AM	2:00:00 AM	0	0	0	0	0	0	0	0
2:00:00 AM	3:00:00 AM	0	0	0	0	0	0	0	0
3:00:00 AM	4:00:00 AM	0	0	0	0	0	0	0	0
4:00:00 AM	5:00:00 AM	0	0	0	0	0	0	0	0
5:00:00 AM	6:00:00 AM	0	0	0	1	0	0	0	1
6:00:00 AM	7:00:00 AM	0	1	2	0	2	0	0	5
7:00:00 AM	8:00:00 AM	0	1	2	3	0	1	1	8
8:00:00 AM	9:00:00 AM	1	2	1	1	3	0	0	8
9:00:00 AM	10:00:00 AM	0	2	2	2	2	0	2	10
10:00:00 AM	11:00:00 AM	2	0	1	0	1	2	1	7
11:00:00 AM	12:00:00 PM	0	0	1	2	1	2	0	6
12:00:00 PM	1:00:00 PM	0	1	2	1	1	1	1	7
1:00:00 PM	2:00:00 PM	2	1	0	1	0	0	1	5
2:00:00 PM	3:00:00 PM	1	1	1	1	1	1	0	6
3:00:00 PM	4:00:00 PM	1	6	4	0	3	3	0	17
4:00:00 PM	5:00:00 PM	0	1	7	2	3	4	1	18
5:00:00 PM	6:00:00 PM	1	1	1	2	0	3	0	8
6:00:00 PM	7:00:00 PM	1	0	0	1	3	1	1	7
7:00:00 PM	8:00:00 PM	1	1	0	3	2	0	0	7
8:00:00 PM	9:00:00 PM	1	1	2	0	1	0	1	6
9:00:00 PM	10:00:00 PM	0	0	1	0	0	1	1	3
10:00:00 PM	11:00:00 PM	0	0	0	0	1	0	1	2
11:00:00 PM	12:00:00 AM	0	0	0	0	0	0	0	0
	Total	11	19	27	20	24	19	11	131

In 2015, most of the bicycle crashes occurred between 3:00PM and 5:00PM.

		2011	2012	2013	2014	2015	5-Year Total	5-Year Percent	6- HR TOTAL	
Mesa 5-Year Trend: Bicycle Crashes by Time of Day										
12:00:00 AM	1:00:00 AM	1	0	0	0	0	1	0.1%	7pm-1am	106
1:00:00 AM	2:00:00 AM	1	0	0	0	0	1	0.1%	8pm-2am	62
2:00:00 AM	3:00:00 AM	0	2	0	0	0	2	0.2%	9pm-3am	37
3:00:00 AM	4:00:00 AM	0	0	0	0	0	0	0.0%	10pm-4am	22
4:00:00 AM	5:00:00 AM	0	0	2	1	0	3	0.4%	11pm-5am	14
5:00:00 AM	6:00:00 AM	3	3	1	5	1	12	1.4%	12am-6am	19
6:00:00 AM	7:00:00 AM	5	7	8	5	5	25	3.0%	1am-7am	43
7:00:00 AM	8:00:00 AM	19	22	11	8	8	60	7.2%	2am-8am	102
8:00:00 AM	9:00:00 AM	14	18	12	8	8	52	6.3%	3am-9am	152
9:00:00 AM	10:00:00 AM	8	9	1	5	10	23	2.8%	4am-10am	175
10:00:00 AM	11:00:00 AM	7	7	6	6	7	26	3.1%	5am-11am	198
11:00:00 AM	12:00:00 PM	12	18	15	11	6	56	6.8%	6am-12pm	242
12:00:00 PM	1:00:00 PM	12	19	9	6	7	46	5.5%	7am-1pm	263
1:00:00 PM	2:00:00 PM	14	11	10	5	5	40	4.8%	8am-2pm	243
2:00:00 PM	3:00:00 PM	12	21	18	8	6	59	7.1%	9am-3pm	250
3:00:00 PM	4:00:00 PM	32	23	23	20	17	98	11.8%	10am-4pm	325
4:00:00 PM	5:00:00 PM	19	29	16	26	18	90	10.9%	11am-5pm	389
5:00:00 PM	6:00:00 PM	24	20	14	12	8	70	8.4%	12pm-6pm	403
6:00:00 PM	7:00:00 PM	14	18	18	10	7	60	7.2%	1pm-7pm	417
7:00:00 PM	8:00:00 PM	8	13	11	13	7	45	5.4%	2pm-8pm	422
8:00:00 PM	9:00:00 PM	9	6	6	6	6	27	3.3%	3pm-9pm	390
9:00:00 PM	10:00:00 PM	2	4	6	3	3	15	1.8%	4pm-10pm	307
10:00:00 PM	11:00:00 PM	2	4	2	3	2	11	1.3%	5pm-11pm	228
11:00:00 PM	12:00:00 AM	1	3	1	2	0	7	0.8%	6pm-12am	165
	Total	219	257	190	163	131	829			

For bicycle crashes, the highest two-hour period over a 5-year trend was between 3:00PM and 5:00PM. Consistent with 2015 numbers, the highest six-hour period is between and 2:00PM to 8:00PM.
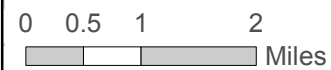
BICYCLE CRASH LOCATIONS
2015
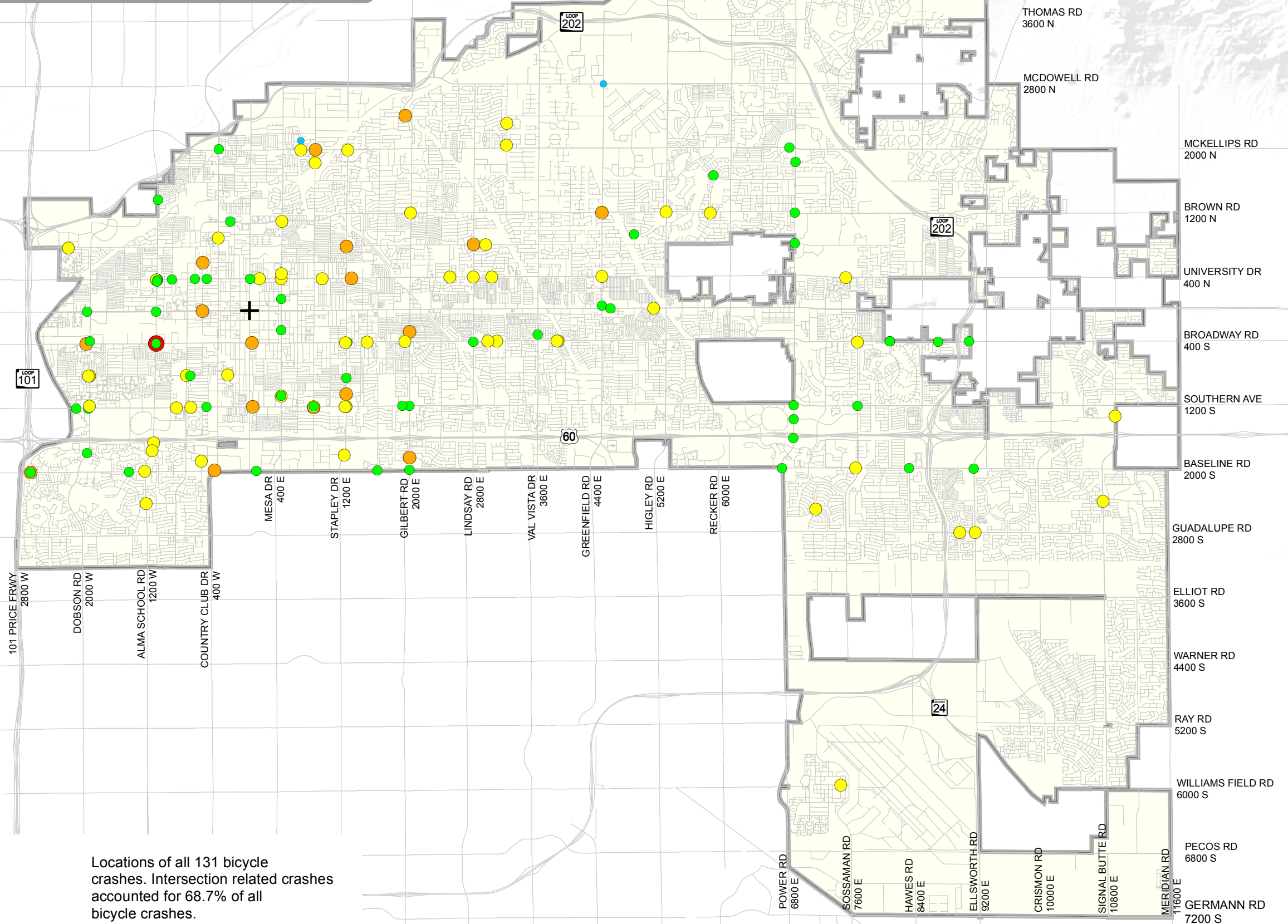
mesa·az

Legend

Injury Severity

- 🔴 Fatal
- 🟠 Incapacitating
- 🟡 Non-Incapacitating
- 🟢 Possible
- 🔵 None
- ➕ Center of Downtown Mesa
- ▢ City of Mesa Boundary

0   0.5   1   2
Miles

Please note that the City of Mesa makes no claims concerning the accuracy of the data provided, nor assumes any liability resulting from the use of the information herein. The data provided is the property of the City of Mesa and is not to be distributed in any form nor used in any manner not authorized by the City of Mesa in writing. Copyright 1988, 2017. CITY OF MESA, ARIZONA

Locations of all 131 bicycle crashes. Intersection related crashes accounted for 68.7% of all bicycle crashes.

THOMAS RD 3600 N
MCDOWELL RD 2800 N
MCKELLIPS RD 2000 N
BROWN RD 1200 N
UNIVERSITY DR 400 N
BROADWAY RD 400 S
SOUTHERN AVE 1200 S
BASELINE RD 2000 S
GUADALUPE RD 2800 S
ELLIOT RD 3600 S
WARNER RD 4400 S
RAY RD 5200 S
WILLIAMS FIELD RD 6000 S
PECOS RD 6800 S
GERMANN RD 7200 S

101 PRICE FRWY 2800 W
DOBSON RD 2000 W
ALMA SCHOOL RD 1200 W
COUNTRY CLUB DR 400 W
MESA DR 400 E
STAPLEY DR 1200 E
GILBERT RD 2000 E
LINDSAY RD 2800 E
VAL VISTA DR 3600 E
GREENFIELD RD 4400 E
HIGLEY RD 5200 E
RECKER RD 6000 E
POWER RD 6800 E
SOSSAMAN RD 7600 E
HAWES RD 8400 E
ELLSWORTH RD 9200 E
CRISMON RD 10000 E
SIGNAL BUTTE RD 10800 E
MERIDIAN RD 11600 E

SECTION 4:

PEDESTRIAN CRASHES

Mesa 2015 Pedestrian Crashes: General View						
YEAR	MESA PED CRASHES BY YEAR	TOTAL MESA VEHICLE CRASHES BY YEAR	MESA PED CRASH % OF TOTAL CRASHES	MESA ESTIMATED POPULATION BY YEAR	MESA PED CRASHSES PER 100,000 POPULATION	PED CRASHES PER 100,000: PERCENT FROM 5-YEAR AVERAGE
2001	112	9928	1.1%	416301	27	
2002	122	9155	1.3%	427923	29	
2003	116	8520	1.4%	435391	27	
2004	126	9184	1.4%	443733	28	
2005	109	9205	1.2%	450948	24	
2006	102	8522	1.2%	456449	22	
2007	120	7933	1.5%	460493	26	
2008	104	5908	1.8%	463829	22	
2009	102	5504	1.9%	467157	22	
2010	79	5118	1.5%	440031	18	
2011	98	5178	1.9%	444685	22.0	9.1%
2012	120	5134	2.3%	451677	26.6	31.5%
2013	103	5313	1.9%	457587	22.5	11.4%
2014	72	5025	1.4%	464704	15.5	-23.3%
2015	68	4979	1.4%	471825	14.4	-28.7%
2016		5533	-	475274	-	
2015 5-YR AVG	92	5126	1.8%	458096	20.2	
Information provided by City of Mesa website. (Their source is ESRI Community Analysis)						
Information from http://population.us/az/mesa/						
Information from https://www.census.gov/quickfacts/						

The City of Mesa had 68 pedestrian crashes in 2015, making up 1.4% of all crashes that year. The number of pedestrian crashes per 100,000 people was 28.7% less than the five-year average of 20. The 5-year average (2011-2015) number of pedestrian crashes was 92. Mesa 2015 pedestrian crashes per 100,000 were nearly 29% under the 5-year average.

Mesa 2015 Pedestrian Crashes:
Intersection Relation
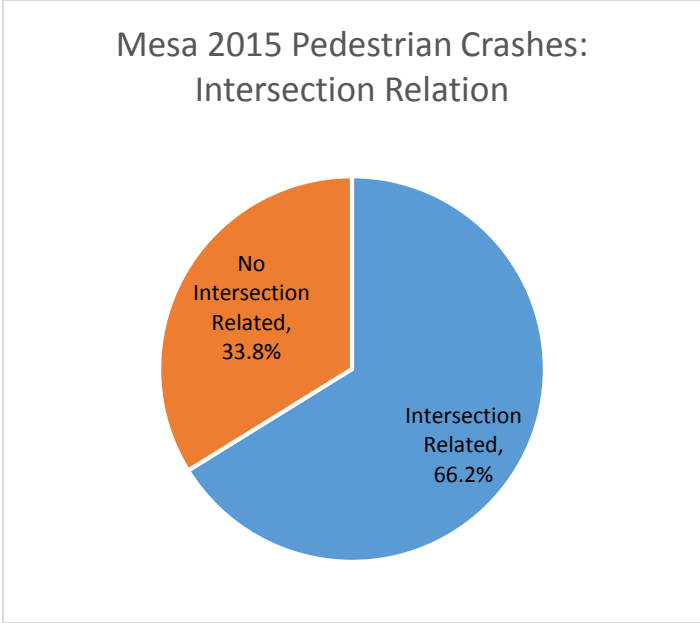
Of the 68 pedestrian crashes, about 66% were intersection related.

Mesa 2015 Pedestrian Crash Gender
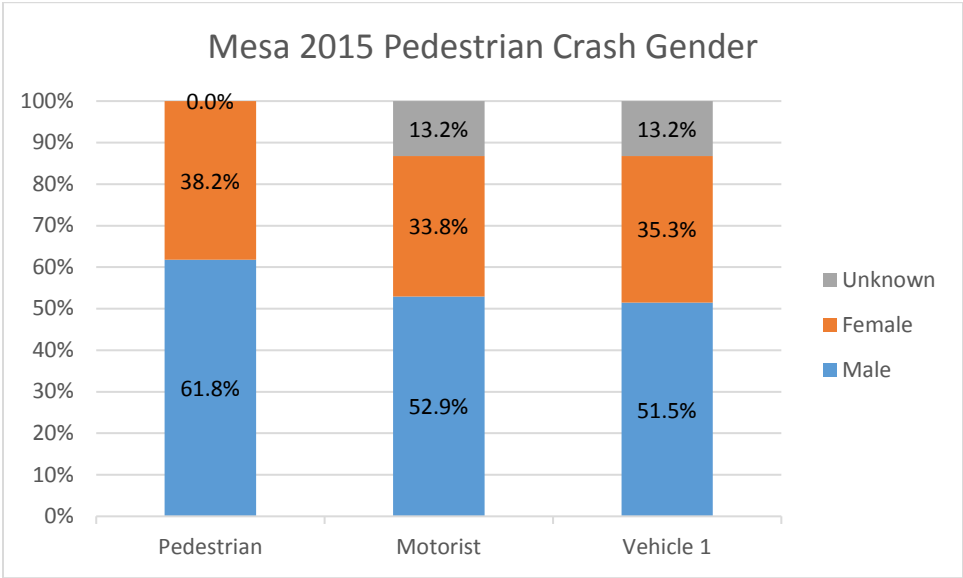
The gender of pedestrians involved in collisions was primarily male. The gender of vehicle 1 involved in a pedestrian crash was primarily male.

Mesa 2015 Pedestrian Crashes: On Street Classification

- Local, 22%
- Collector, 9%
- Arterial, 69%
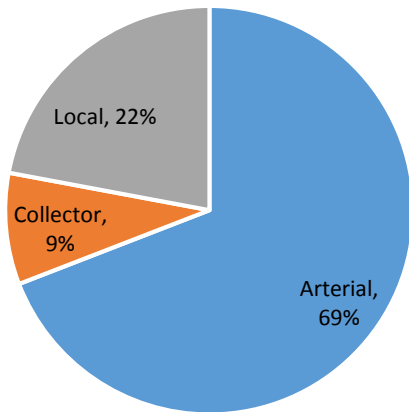
Mesa 2015 Pedestrian Crashes: Cross Street Classification

- Ramp, 1%
- Private, 3%
- Local, 34%
- Arterial, 46%
- Collector, 16%
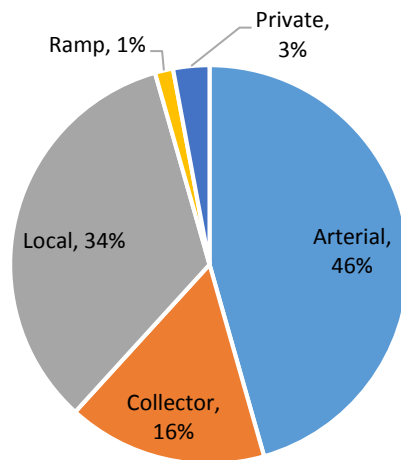
Of the 68 pedestrian crashes within Mesa 2015, 69% occurred along an arterial roadway. 46% of the time, the cross street was an arterial.

Mesa 2015 Pedestrian Crashes: Intersection Classification

- Local/Private, 1%
- Local/Local, 6%
- Local/Collector, 3%
- Collector/Local, 3%
- Collector/Collector, 1%
- Collector/Arterial, 4%
- Arterial/Ramp, 1%
- Arterial/Private, 1%
- Local/Arterial, 12%
- Arterial/Local, 25%
- Arterial/Collector, 12%
- Arterial/Arterial, 29%
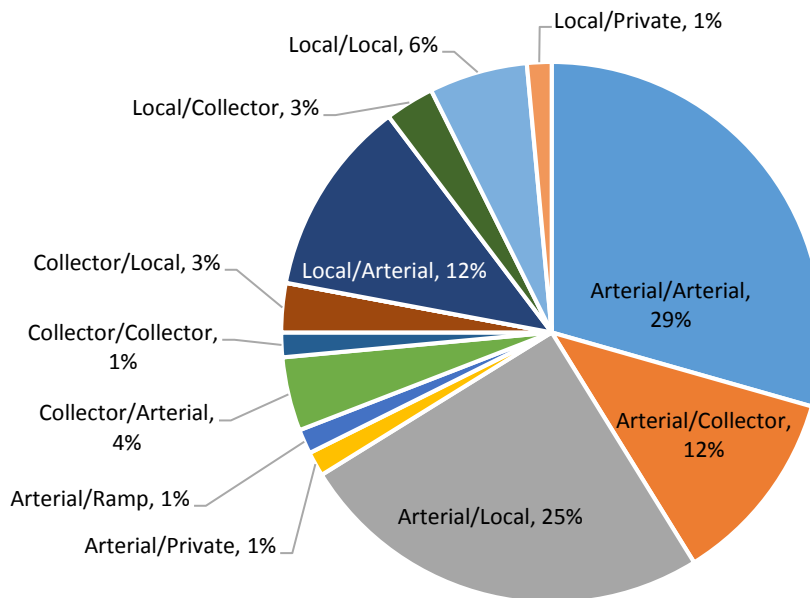
The chart above shows the street intersection classifications for pedestrian crashes within Mesa in 2015.

	Mesa 2015 Pedestrian Crashes: Age Group			
AGE	TOTAL MESA POPULATION BY AGE	AGE PERCENT OF TOTAL POPULATION	TOTAL PED CRASHES BY AGE	PERCENT OF TOTAL CRASHES BY AGE
under 5	32533	6.9%	3	4.4%
5 to 9	32563	6.9%	1	1.5%
10 to 14	31365	6.6%	8	11.8%
15 to 17	19554	4.1%	6	8.8%
18 to 19	11571	2.5%	2	2.9%
20	7542	1.6%	2	2.9%
21	7310	1.5%	0	0.0%
22 to 24	20768	4.4%	6	8.8%
25 to 29	34166	7.2%	5	7.4%
30 to 34	33013	7.0%	6	8.8%
35 to 39	27568	5.8%	7	10.3%
40 to 44	28549	6.1%	2	2.9%
45 to 49	28998	6.1%	4	5.9%
50 to 54	31365	6.6%	3	4.4%
55 to 59	25733	5.5%	2	2.9%
60 to 61	10860	2.3%	3	4.4%
62 to 64	16057	3.4%	0	0.0%
65 to 66	8493	1.8%	0	0.0%
67 to 69	12283	2.6%	1	1.5%
70 to 74	16993	3.6%	2	2.9%
75 to 79	13466	2.9%	0	0.0%
80 to 84	11107	2.4%	3	4.4%
85+	9961	2.1%	1	1.5%
Total	471825	100.0%		
Unk			1	1.5%
Total			68	

The above table shows the age groups of the pedestrians involved in crashes within Mesa in 2015. 48.5% of pedestrian crashes involved people under the age of 30.
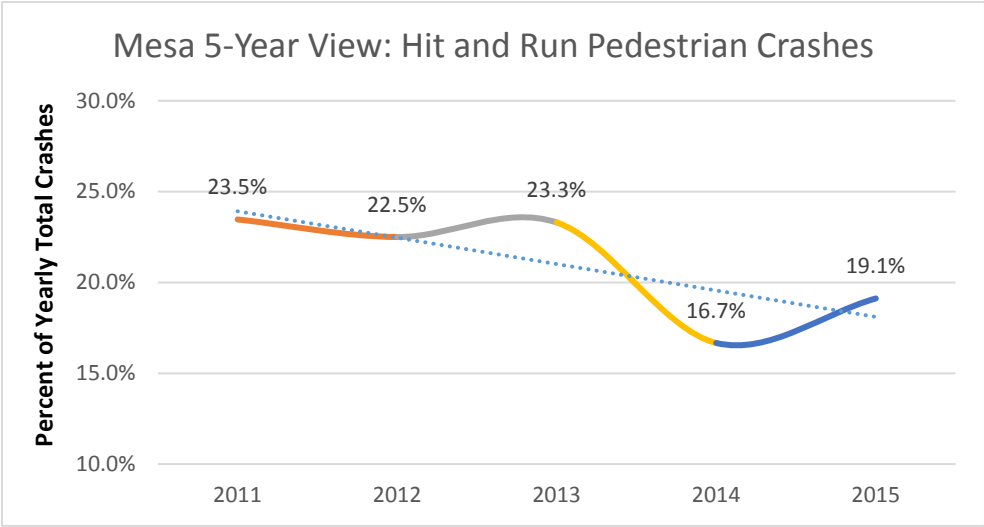
				Mesa 2015 Pedestrian Crashes: Age Group and Gender				
AGE GROUP	MESA 2014 MALE POPULATION	PERCENT MALE	MALE PED CRASHES	PERCENT OF MALE CRASHES	MESA 2014 FEMALE POPULATION	PERCENT FEMALE	FEMALE PED CRASHES	PERCENT OF FEMALE CRASHES
under 5	16714	7.2%	2	4.8%	15819	6.6%	1	3.8%
5 to 9	15785	6.8%	1	2.4%	16778	7.0%	0	0.0%
10 to 14	15785	6.8%	5	11.9%	15580	6.5%	3	11.5%
15 to 17	10446	4.5%	6	14.3%	9108	3.8%	0	0.0%
18 to 19	5339	2.3%	0	0.0%	6232	2.6%	2	7.7%
20	3946	1.7%	0	0.0%	3595	1.5%	2	7.7%
21	3714	1.6%	0	0.0%	3595	1.5%	0	0.0%
22 to 24	9982	4.3%	4	9.5%	10786	4.5%	2	7.7%
25 to 29	18107	7.8%	4	9.5%	16059	6.7%	1	3.8%
30 to 34	16714	7.2%	4	9.5%	16299	6.8%	2	7.7%
35 to 39	14625	6.3%	3	7.1%	12943	5.4%	4	15.4%
40 to 44	13928	6.0%	2	4.8%	14621	6.1%	0	0.0%
45 to 49	14857	6.4%	3	7.1%	14142	5.9%	1	3.8%
50 to 54	15785	6.8%	2	4.8%	15580	6.5%	1	3.8%
55 to 59	12071	5.2%	2	4.8%	13662	5.7%	0	0.0%
60 to 61	5107	2.2%	1	2.4%	5752	2.4%	2	7.7%
62 to 64	7428	3.2%	0	0.0%	8629	3.6%	0	0.0%
65 to 66	4178	1.8%	0	0.0%	4314	1.8%	0	0.0%
67 to 69	5571	2.4%	0	0.0%	6711	2.8%	1	3.8%
70 to 74	8125	3.5%	1	2.4%	8868	3.7%	1	3.8%
75 to 79	6036	2.6%	0	0.0%	7430	3.1%	0	0.0%
80 to 84	4875	2.1%	1	2.4%	6232	2.6%	2	7.7%
85+	3250	1.4%	0	0.0%	6711	2.8%	1	3.8%
Total	232138	49.2%			239687	50.8%		0.0%
Unk			1	2.4%			0	0.0%
Total			42	61.8%			26	38.2%

The peak combined age group of pedestrian crashes in 2015 was between 10 and 14 years old. The peak age group for male pedestrian crashes was 15 to 17 years old, and the peak age group for female pedestrian crashes was 35 to 39 years old.

Mesa 2015 Pedestrian Crash Manner

Head On, 1.5%
Other, 5.9%
Rear End, 2.9%
Side Swipe, 7.4%
Left Turn, 19.1%
Angle , 63.2%
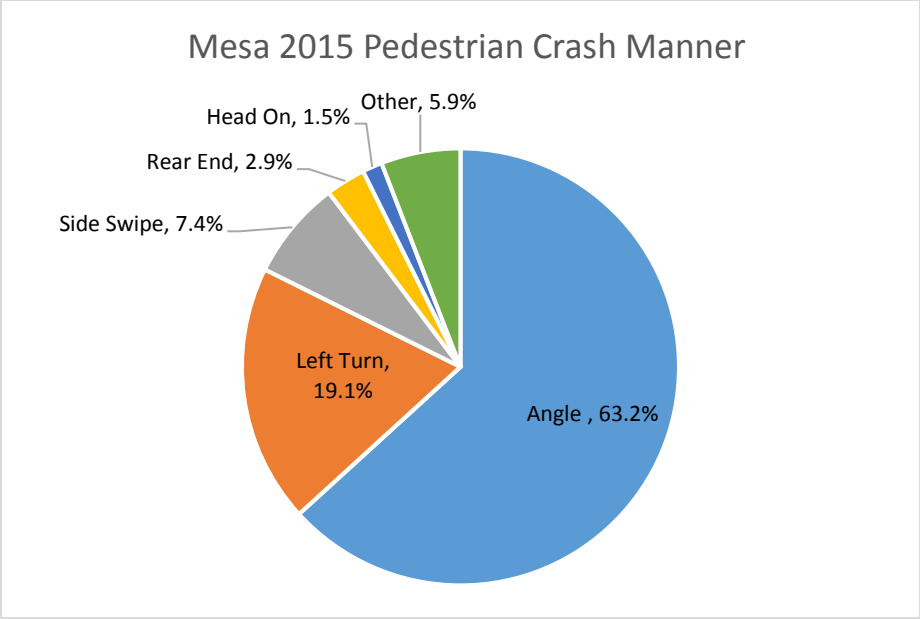
Most crashes that involved a pedestrian and a motorist were angle crashes with a total of 43 out of 68.

Mesa 5-Year View: Hit and Run Pedestrian Crashes

Percent of Yearly Total Crashes

30.0%

23.5%
25.0%
22.5%
23.3%

19.1%
20.0%
16.7%

15.0%

10.0%
2011   2012   2013   2014   2015

Trending downward, hit and run crashes made up about 19% of total pedestrian collisions with 13 out of 68.

Mesa 2015 Pedestrian Crashes: Vehicle 1 Designation		
Motorist at Fault	48	70.6%
Ped at Fault	20	29.4%
Total	68	

In most cases, motorists were at fault in pedestrian crashes.

Mesa 2015 Pedestrian Crashes: Vehicle 1 Violation

- Ran Stop Sign, 2.9%
- Distracted, 4.4%
- Failure to Yield, 2.9%
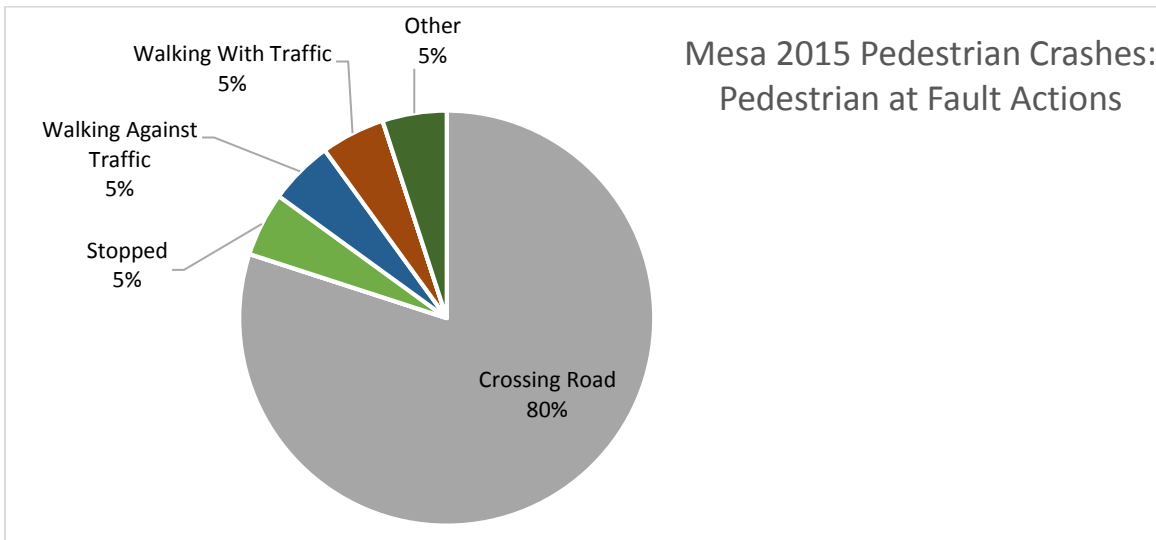- Failed to Keep in Lane, 1.5%
- Disregarded Signal, 5.9%
- Unknown, 11.8%
- None, 14.7%
- Other, 16.2%
- Speed Too Fast, 14.7%
- Did Not Use Crosswalk, 20.6%
- Improper Turn, 4.4%
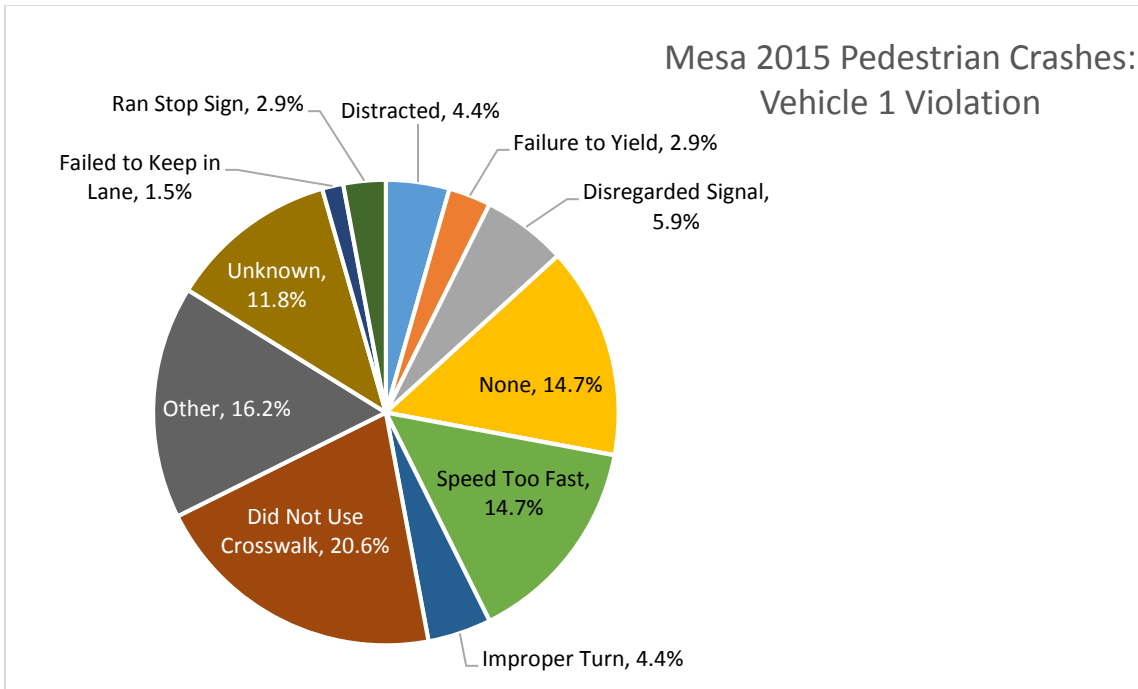
The graph above shows the violations of vehicle 1 which includes violations performed by both the pedestrian and the motorist. The highest percentage was a pedestrian violation of not using the crosswalk.

Mesa 2015 Pedestrian Crashes: Pedestrian at Fault Actions

- Other 5%
- Walking With Traffic 5%
- Walking Against Traffic 5%
- Stopped 5%
- Crossing Road 80%

When a pedestrian was at fault, the most common action was crossing the road

Mesa 2015 Pedestrian Crashes: Motorist at Fault Actions

- Backing 6%
- Swerving 2%
- Slowing 2%
- Left Turn 31%
- Straight 21%
- Right Turn 38%
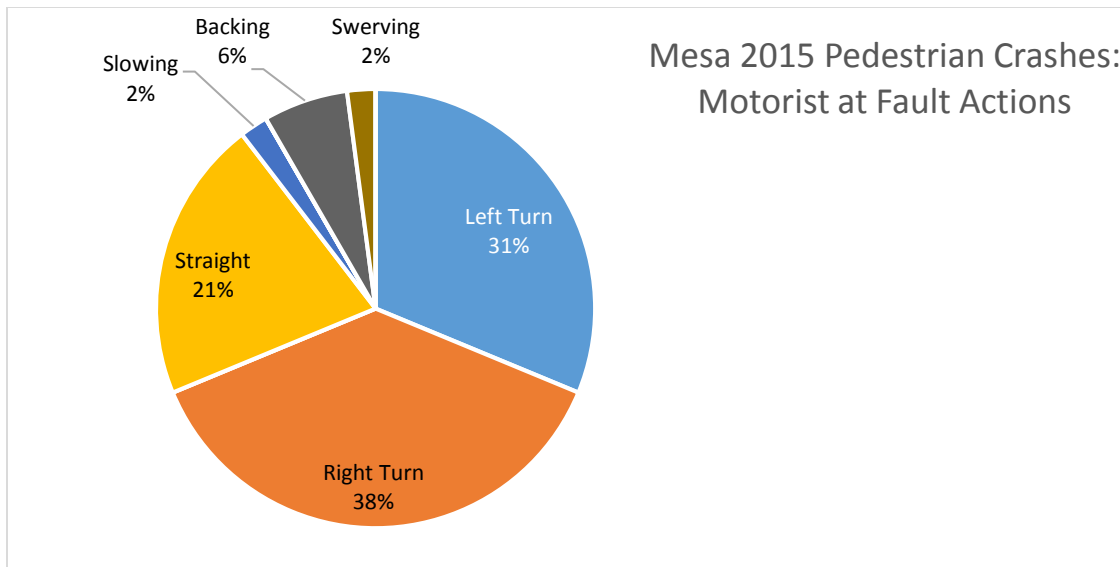
When a motorist was at fault, turning actions made up over half of the actions leading up to a crash with a pedestrian.

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 for pedestrian-motorist collisions of 2015 were as follows:

1. Pedestrian Dash Out – jaywalking or against the light: 20 (29.4%)
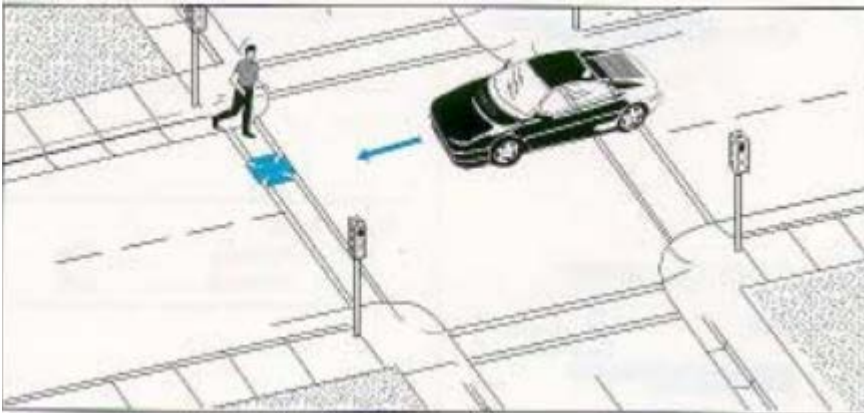
2. Motorist Right Turn – perpendicular pedestrian travel (either direction): 14 (20.6%)

[No Graphic]

3. Motorist Left Turn – parallel pedestrian travel (either direction): 13 (19.1%)
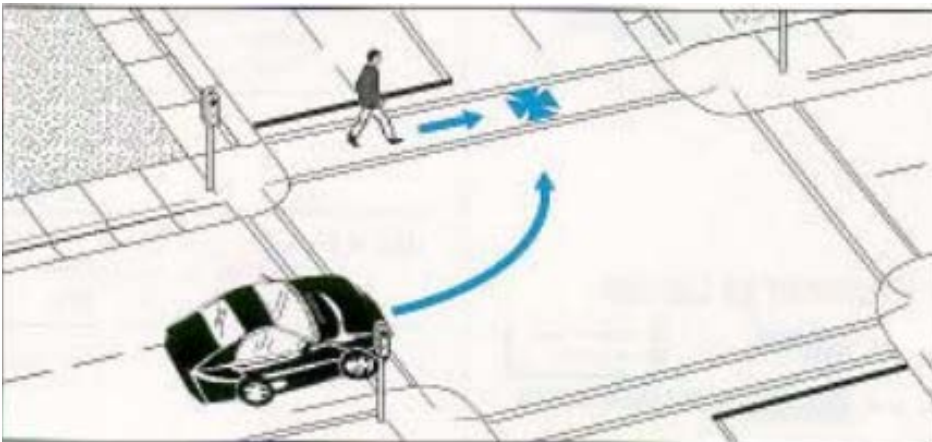
4. Motorist Right Turn – parallel pedestrian travel: 4 (5.9%)

[No Graphic]

Mesa 2015 Pedestrian Crashes: Injury Severity

Category	Count
None	2
Possible	21
Non Incapacitating	24
Incapacitating	16
Fatal	5

Mesa 2015 Pedestrian Crashes: Injury Severity

- None, 2.9%
- Fatal, 7.4%
- Incapacitating, 23.5%
- Possible, 30.9%
- Non Incapacitating, 35.3%
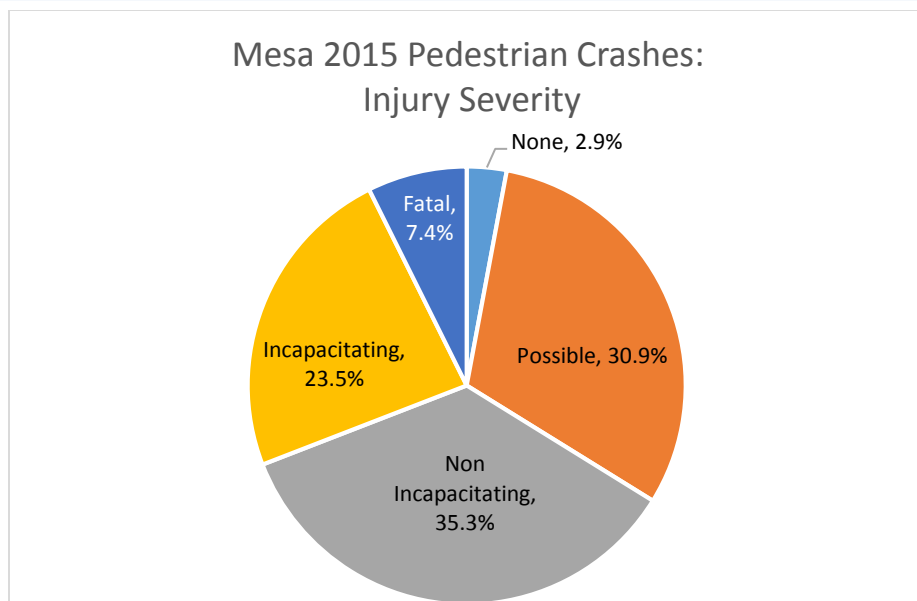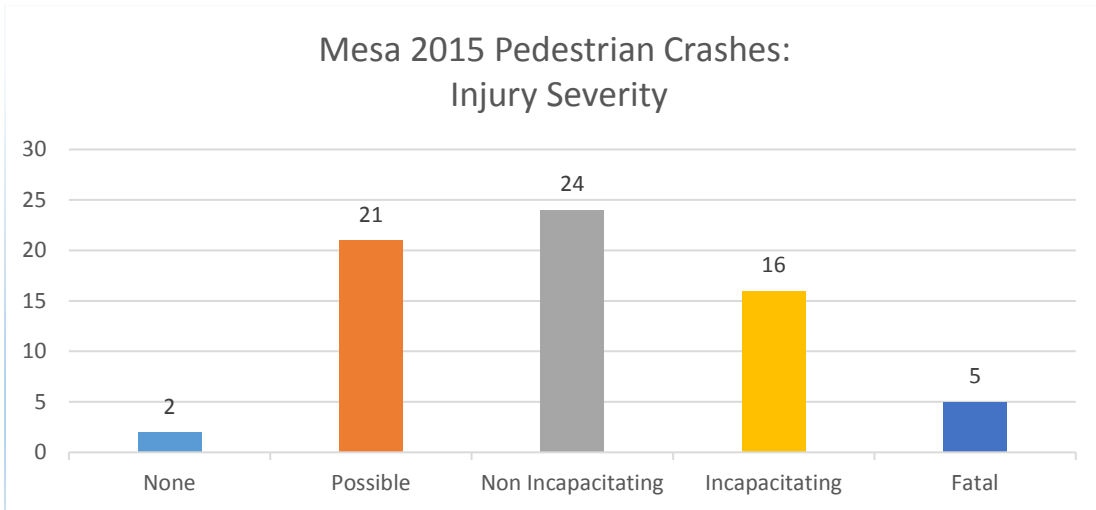
There were five fatal pedestrian crashes and 16 serious injuries in 2014, totaling 30.9% of all pedestrian crashes.

Mesa 2015 Pedestrian Crashes by Day vs 5-Year Average

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
2015	2	9	11	14	16	11	5
2011-2015 AVG	9.2	15.2	15.2	15.6	15.8	12.8	8.4
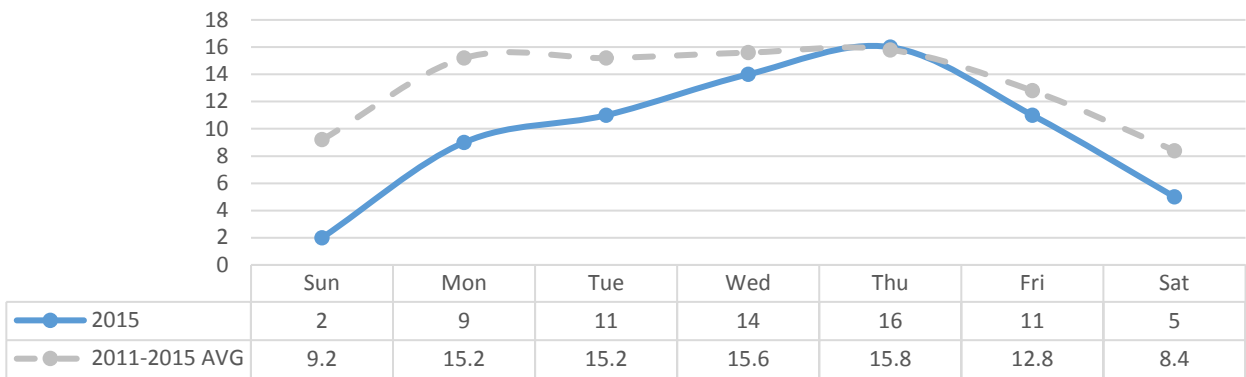
By day, almost all pedestrian crashes in 2015 were below the 5-year average. Thursday was slightly above the average with 16 pedestrian-related crashes.

Mesa 2015 Pedestrian Crashes by Month vs 5-Year Average

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2015	4	4	3	1	3	3	7	5	9	9	10	10
2011-2015 AVG	7.8	8	8.2	7	7.2	5.8	4.4	7	7.2	10.4	11.2	8
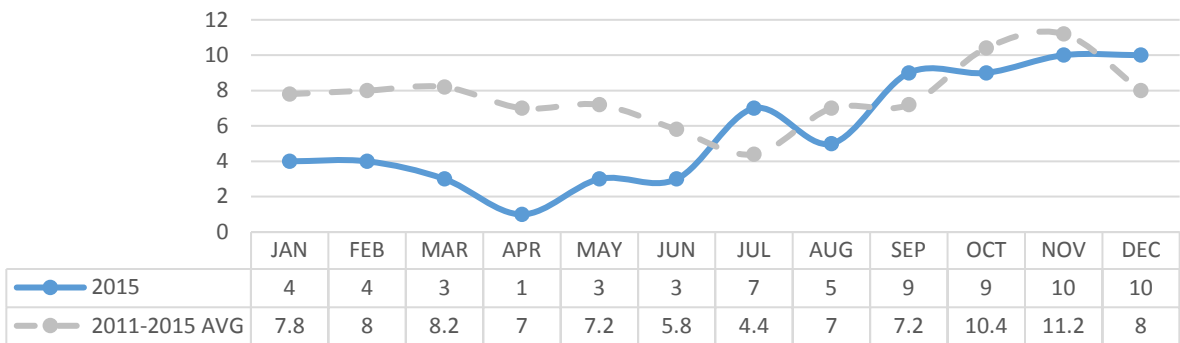
There were rises in pedestrian crashes during the months of September and October. Comparable to the bicycle crashes, January through June remained under the 5-year trend, then trended upward.

		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Mesa 2015 Pedestrian Crashes by Time and Day of Week									
12:00:00 AM	1:00:00 AM	0	0	0	0	0	0	0	0
1:00:00 AM	2:00:00 AM	0	0	0	0	0	0	0	0
2:00:00 AM	3:00:00 AM	0	0	0	0	0	0	0	0
3:00:00 AM	4:00:00 AM	0	0	0	0	0	0	0	0
4:00:00 AM	5:00:00 AM	0	0	0	0	0	0	0	0
5:00:00 AM	6:00:00 AM	0	0	0	0	0	0	0	0
6:00:00 AM	7:00:00 AM	0	0	0	1	2	1	0	4
7:00:00 AM	8:00:00 AM	0	0	2	1	2	0	1	6
8:00:00 AM	9:00:00 AM	0	0	0	0	0	0	0	0
9:00:00 AM	10:00:00 AM	0	2	0	3	1	0	0	6
10:00:00 AM	11:00:00 AM	0	0	0	0	1	0	0	1
11:00:00 AM	12:00:00 PM	0	0	1	0	0	0	0	1
12:00:00 PM	1:00:00 PM	0	1	0	0	1	0	0	2
1:00:00 PM	2:00:00 PM	0	0	0	1	0	0	0	1
2:00:00 PM	3:00:00 PM	1	0	1	3	0	2	0	7
3:00:00 PM	4:00:00 PM	0	1	1	0	1	0	0	3
4:00:00 PM	5:00:00 PM	0	0	1	1	2	0	1	5
5:00:00 PM	6:00:00 PM	0	1	0	2	2	1	0	6
6:00:00 PM	7:00:00 PM	1	2	0	0	2	3	1	9
7:00:00 PM	8:00:00 PM	0	1	1	0	0	1	0	3
8:00:00 PM	9:00:00 PM	0	0	0	0	1	1	1	3
9:00:00 PM	10:00:00 PM	0	0	1	2	0	1	0	4
10:00:00 PM	11:00:00 PM	0	1	3	0	1	0	0	5
11:00:00 PM	12:00:00 AM	0	0	0	0	0	1	1	2
	Total	2	9	11	14	16	11	5	68

		Mesa 5-Year Trend: Pedestrian Crashes by Time of Day								
		2011	2012	2013	2014	2015	5-Year Total	5-Year Percent	6- HR TOTAL	
12:00:00 AM	1:00:00 AM	1	1	0	0	0	2	0.4%	7pm-1am	116
1:00:00 AM	2:00:00 AM	0	0	0	1	0	1	0.2%	8pm-2am	85
2:00:00 AM	3:00:00 AM	1	1	1	0	0	3	0.7%	9pm-3am	62
3:00:00 AM	4:00:00 AM	0	0	0	0	0	0	0.0%	10pm-4am	35
4:00:00 AM	5:00:00 AM	0	0	1	1	0	2	0.4%	11pm-5am	15
5:00:00 AM	6:00:00 AM	0	0	1	2	0	3	0.7%	12am-6am	11
6:00:00 AM	7:00:00 AM	0	3	3	2	4	12	2.6%	1am-7am	21
7:00:00 AM	8:00:00 AM	7	7	6	5	6	31	6.7%	2am-8am	51
8:00:00 AM	9:00:00 AM	5	4	7	3	0	19	4.1%	3am-9am	67
9:00:00 AM	10:00:00 AM	5	5	7	0	6	23	5.0%	4am-10am	90
10:00:00 AM	11:00:00 AM	7	4	4	0	1	16	3.5%	5am-11am	104
11:00:00 AM	12:00:00 PM	2	8	3	4	1	18	3.9%	6am-12pm	119
12:00:00 PM	1:00:00 PM	4	6	6	0	2	18	3.9%	7am-1pm	125
1:00:00 PM	2:00:00 PM	5	7	5	3	1	21	4.6%	8am-2pm	115
2:00:00 PM	3:00:00 PM	3	9	4	5	7	28	6.1%	9am-3pm	124
3:00:00 PM	4:00:00 PM	11	7	6	8	3	35	7.6%	10am-4pm	136
4:00:00 PM	5:00:00 PM	11	9	7	6	5	38	8.2%	11am-5pm	158
5:00:00 PM	6:00:00 PM	6	11	8	9	6	40	8.7%	12pm-6pm	180
6:00:00 PM	7:00:00 PM	6	10	8	4	9	37	8.0%	1pm-7pm	199
7:00:00 PM	8:00:00 PM	6	4	12	7	3	32	6.9%	2pm-8pm	210
8:00:00 PM	9:00:00 PM	8	7	2	6	3	26	5.6%	3pm-9pm	208
9:00:00 PM	10:00:00 PM	4	11	6	2	4	27	5.9%	4pm-10pm	200
10:00:00 PM	11:00:00 PM	5	6	3	3	5	22	4.8%	5pm-11pm	184
11:00:00 PM	12:00:00 AM	1	0	3	1	2	7	1.5%	6pm-12am	151
	Total	98	120	103	72	68	461			

Most pedestrian crashes occurred in the six-hour period between 2:00PM and 8:00PM. The highest concentration in 2015 was from 5:00PM to 6:00PM.

PEDESTRIAN CRASH LOCATIONS
2015
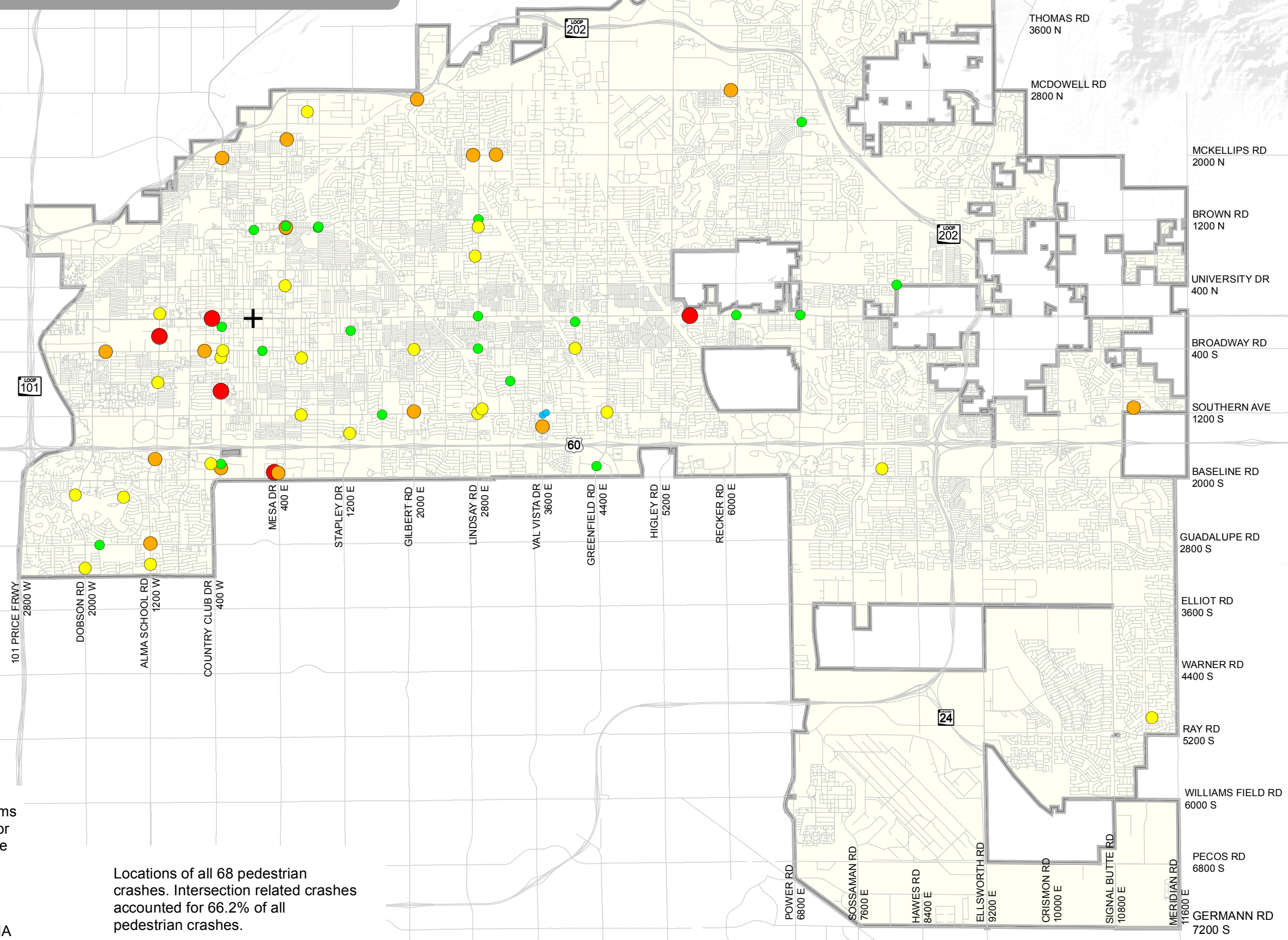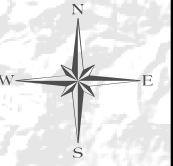
mesa·az

THOMAS RD
3600 N

MCDOWELL RD
2800 N

MCKELLIPS RD
2000 N

BROWN RD
1200 N

UNIVERSITY DR
400 N

BROADWAY RD
400 S

SOUTHERN AVE
1200 S

BASELINE RD
2000 S

GUADALUPE RD
2800 S

ELLIOT RD
3600 S

WARNER RD
4400 S

RAY RD
5200 S

WILLIAMS FIELD RD
6000 S

PECOS RD
6800 S

GERMANN RD
7200 S

101 PRICE FRWY
2800 W

DOBSON RD
2000 W

ALMA SCHOOL RD
1200 W

COUNTRY CLUB DR
400 W

MESA DR
400 E

STAPLEY DR
1200 E

GILBERT RD
2000 E

LINDSAY RD
2800 E

VAL VISTA DR
3600 E

GREENFIELD RD
4400 E

HIGLEY RD
5200 E

RECKER RD
6000 E

POWER RD
6800 E

SOSSAMAN RD
7600 E

HAWES RD
8400 E

ELLSWORTH RD
9200 E

CRISMON RD
10000 E

SIGNAL BUTTE RD
10800 E

MERIDIAN RD
11600 E

Legend

Injury Severity

- 🔴 Fatal
- 🟠 Incapacitating
- 🟡 Non-Incapacitating
- 🟢 Possible
- 🔵 None
- ✛ Center of Downtown Mesa
- ▭ City of Mesa Boundary

0 0.5 1   2
Miles

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Locations of all 68 pedestrian crashes. Intersection related crashes accounted for 66.2% of all pedestrian crashes.