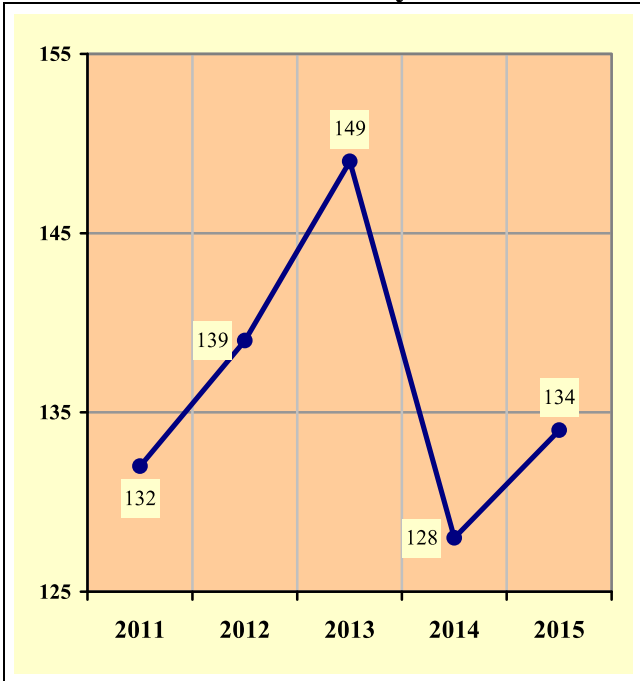
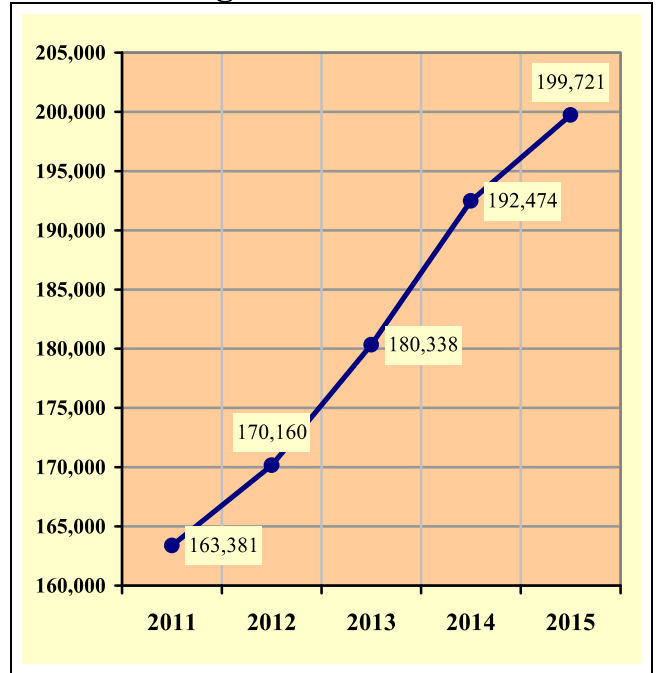


## Section 8: – Motorcycle (MC) Crashes

**Chart 8 – 1  
MC Fatalities by Year**

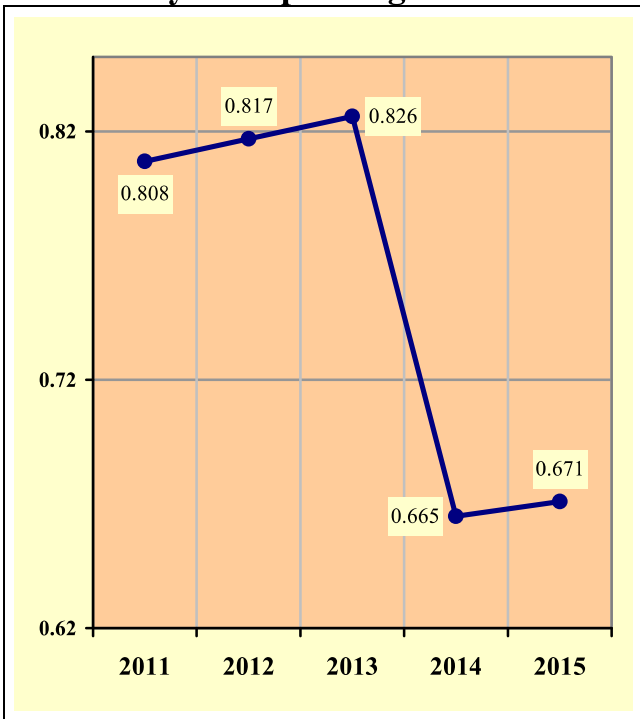


**Chart 8 – 2  
MC Registrations in Arizona**

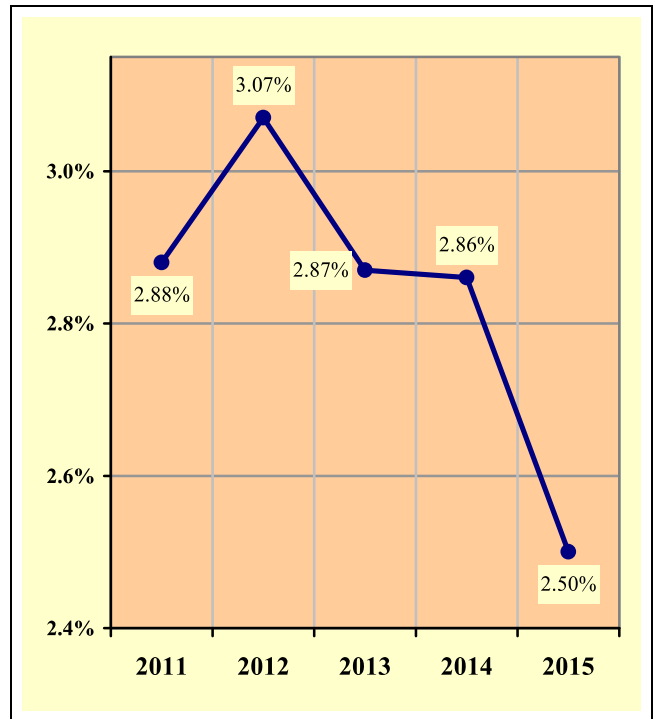


Total Point-in-Time of Registered Motorcycles at the end of Calendar year 2015.  
(Source: MVD - MV988 MV630419 Currently Registered Vehicles by County Listing (motorcycle sub category), reports dated 12/31/15.)

**Chart 8 – 3  
Fatality Rate per Registered MC**



**Chart 8 – 4  
Percent of MC Crashes to All Crashes**



## Section 8: – Motorcycle (MC) Crashes

**Table 8 – 1  
MC Crashes by First Harmful Event**

First Harmful Event Type	Number of Crashes			
	Total	Fatal	Injury	PDO
Collision with Motor Vehicle in Transport	1,428	74	1,075	279
Overturning	615	26	540	49
Collision with Pedestrian	7	1	5	1
Collision with Pedalcyclist	6	0	6	0
Collision with Animal	35	0	28	7
Collision with Fixed Object	312	27	267	18
Collision with Non-fixed Object*	69	1	39	29
Vehicle Fire or Explosion	0	0	0	0
Other Non-collision**	61	0	53	8
Unknown	378	3	316	59
<b>TOTAL</b>	<b>2,911</b>	<b>132</b>	<b>2,329</b>	<b>450</b>
*Includes Collision with Parked Vehicles, Trains, Railway Vehicles, and Work Zone Equipment				
**Includes Vehicle Immersion, Jackknife, and Cargo Loss or Shift				

**Table 8 – 2  
Lighting Conditions in MC Crashes**

Type of Lighting Conditions	Number of Crashes			
	Total	Fatal	Injury	PDO
Daylight	2,002	78	1,617	307
Dawn	54	1	41	12
Dusk	83	2	68	13
Dark - Lighted	601	27	482	92
Dark - Not Lighted	156	15	117	24
Dark - Unknown Lighting	15	9	4	2
<b>TOTAL</b>	<b>2,911</b>	<b>132</b>	<b>2,329</b>	<b>450</b>

**Table 8 – 3  
Road Surface Conditions in MC Crashes**

Type of Road Surface Condition	Number of Operators			
	Total	In Fatal Crashes	In Injury Crashes	In PDO Crashes
Dry	2,827	115	2,282	430
Wet	86	1	70	15
Snow	3	0	3	0
Slush	1	0	1	0
Ice/Frost	2	0	1	1
Water (standing or moving)	0	0	0	0
Sand	1	0	1	0
Mud, Dirt, Gravel	27	0	24	3
Oil	7	0	6	1
Other	0	0	0	0
Unknown	34	21	5	8
<b>TOTAL</b>	<b>2,988</b>	<b>137</b>	<b>2,393</b>	<b>458</b>

## Section 8: – Motorcycle (MC) Crashes

Table 8 – 4

### MC Crashes by Geographic Location

Category	Total	Urban	Percent of Total	Rural	Percent of Total
<b>Total Crashes</b>	2,911	2,174	74.68%	737	25.32%
<b>Fatal Crashes</b>	132	84	63.64%	48	36.36%
<b>Injury Crashes</b>	2,329	1,732	74.37%	597	25.63%
<b>PDO Crashes</b>	450	358	79.56%	92	20.44%
<b>Persons Killed</b>	134	85	63.43%	49	36.57%
<b>Persons Injured</b>	2,497	1,829	73.25%	668	26.75%

Table 8 – 5

### Operator Involvement by Age in MC Crashes

Operator Age Group	Number of Operators							
	Total	Percent of Total	In Fatal Crashes	Percent of Fatal	In Injury Crashes	Percent of Injury	In PDO Crashes	Percent of PDO
<b>15 &amp; Under</b>	7	0.23%	0	0.00%	6	0.25%	1	0.22%
<b>16</b>	9	0.30%	0	0.00%	9	0.38%	0	0.00%
<b>17</b>	16	0.54%	0	0.00%	14	0.59%	2	0.44%
<b>18</b>	46	1.54%	1	0.73%	36	1.50%	9	1.97%
<b>19</b>	80	2.68%	3	2.19%	72	3.01%	5	1.09%
<b>20</b>	93	3.11%	2	1.46%	78	3.26%	13	2.84%
<b>21</b>	93	3.11%	2	1.46%	76	3.18%	15	3.28%
<b>22</b>	88	2.95%	9	6.57%	67	2.80%	12	2.62%
<b>23</b>	99	3.31%	3	2.19%	82	3.43%	14	3.06%
<b>24</b>	102	3.41%	4	2.92%	83	3.47%	15	3.28%
<b>25-34</b>	673	22.52%	19	13.87%	567	23.69%	87	19.00%
<b>35-44</b>	462	15.46%	25	18.25%	373	15.59%	64	13.97%
<b>45-54</b>	557	18.64%	33	24.09%	440	18.39%	84	18.34%
<b>55-64</b>	367	12.28%	18	13.14%	290	12.12%	59	12.88%
<b>65-74</b>	197	6.59%	14	10.22%	160	6.69%	23	5.02%
<b>75 &amp; Older</b>	35	1.17%	3	2.19%	26	1.09%	6	1.31%
<b>Unknown</b>	64	2.14%	1	0.73%	14	0.59%	49	10.70%
<b>TOTAL</b>	<b>2,988</b>	<b>100.00%</b>	<b>137</b>	<b>100.00%</b>	<b>2,393</b>	<b>100.00%</b>	<b>458</b>	<b>100.00%</b>

Table 8 – 6

### MC Operator Physical Condition

Type of Condition	Number of Operators							
	Total	Percent of Total	In Fatal Crashes	Percent of Fatal	In Injury Crashes	Percent of Injury	In PDO Crashes	Percent of PDO
<b>No Apparent Influence</b>	2,559	85.64%	45	32.85%	2,118	88.51%	396	86.46%
<b>Had Been Drinking</b>	150	5.02%	31	22.63%	111	4.64%	8	1.75%
<b>Appeared to be Under the Influence of Drugs*</b>	16	0.54%	8	5.84%	7	0.29%	1	0.22%
<b>Medications</b>	1	0.03%	0	0.00%	1	0.04%	0	0.00%
<b>Illness</b>	10	0.33%	0	0.00%	8	0.33%	2	0.44%
<b>Physical Impairment</b>	3	0.10%	0	0.00%	3	0.13%	0	0.00%
<b>Fell Asleep or Fatigued</b>	2	0.07%	0	0.00%	2	0.08%	0	0.00%
<b>Other</b>	11	0.37%	1	0.73%	5	0.21%	5	1.09%
<b>Unknown</b>	236	7.90%	52	37.96%	138	5.77%	46	10.04%
<b>TOTAL</b>	<b>2,988</b>	<b>100.00%</b>	<b>137</b>	<b>100.00%</b>	<b>2,393</b>	<b>100.00%</b>	<b>458</b>	<b>100.00%</b>

\*Illegal drugs or narcotics

## Section 8: – Motorcycle (MC) Crashes

Table 8 – 7

### MC Operators Involved in Fatal Crashes by License Status

License Status	2013		2014		2015	
	Number of Operators	Percent of Total	Number of Operators	Percent of Total	Number of Operators	Percent of Total
No license	5	3.38%	2	1.55%	3	2.22%
Invalid	26	17.57%	22	17.05%	25	18.52%
Valid	112	75.68%	101	78.29%	102	75.56%
Unknown	5	3.38%	4	3.10%	5	3.70%
<b>TOTALS</b>	<b>148</b>	<b>100.00%</b>	<b>129</b>	<b>100.00%</b>	<b>135</b>	<b>100.00%</b>
<b>Note:</b> Includes only motorcycle operators involved in fatal crashes						
<b>Source:</b> FARS Data Queries ( <a href="http://www-fars.nhtsa.dot.gov">http://www-fars.nhtsa.dot.gov</a> )						

Table 8 – 8

### MC Operator's Helmet Use

Severity of Injury	Helmet Used	Percent of Total	Helmet Not Used	Percent of Total	Unknown	Percent of Total	Total	Percent of Total
No Injury	224	14.88%	83	12.12%	185	23.18%	492	16.47%
Unknown Injury	10	0.66%	0	0.00%	29	3.63%	39	1.31%
Possible Injury	243	16.15%	94	13.72%	154	19.30%	491	16.43%
Non-Incapacitating Injury	690	45.85%	273	39.85%	289	36.22%	1,252	41.90%
Incapacitating Injury	284	18.87%	176	25.69%	124	15.54%	584	19.54%
Fatal Injury	54	3.59%	59	8.61%	17	2.13%	130	4.35%
<b>TOTALS</b>	<b>1,505</b>	<b>100.00%</b>	<b>685</b>	<b>100.00%</b>	<b>798</b>	<b>100.00%</b>	<b>2,988</b>	<b>100.00%</b>

Table 8 – 9

### MC Passenger's Helmet Use

Severity of Injury	Helmet Used	Percent of Total	Helmet Not Used	Percent of Total	Unknown	Percent of Total	Total	Percent of Total
No Injury	17	17.17%	7	12.07%	12	21.43%	36	16.90%
Unknown Injury	1	1.01%	0	0.00%	2	3.57%	3	1.41%
Possible Injury	18	18.18%	7	12.07%	12	21.43%	37	17.37%
Non-Incapacitating Injury	41	41.41%	23	39.66%	20	35.71%	84	39.44%
Incapacitating Injury	21	21.21%	19	32.76%	9	16.07%	49	23.00%
Fatal Injury	1	1.01%	2	3.45%	1	1.79%	4	1.88%
<b>TOTALS</b>	<b>99</b>	<b>100.00%</b>	<b>58</b>	<b>100.00%</b>	<b>56</b>	<b>100.00%</b>	<b>213</b>	<b>100.00%</b>

## Section 8: – Motorcycle (MC) Crashes

Table 8 – 10

### MC Operators and Passengers Killed and Injured

Age of Victim	Persons Killed			Persons Injured			
	Total	Male	Female	Total	Male	Female	Gender Unknown
0-4	0	0	0	0	0	0	0
5-9	0	0	0	0	0	0	0
10-14	0	0	0	6	5	1	0
15-19	4	4	0	147	126	21	0
20-24	17	16	1	404	373	31	0
25-34	19	17	2	590	526	64	0
35-44	26	23	3	396	344	52	0
45-54	34	30	4	448	378	70	0
55-64	17	16	1	302	266	36	0
65-74	14	14	0	163	145	18	0
75 & Older	3	2	1	28	25	3	0
Unknown	0	0	0	13	8	4	1
<b>TOTAL</b>	<b>134</b>	<b>122</b>	<b>12</b>	<b>2,497</b>	<b>2,196</b>	<b>300</b>	<b>1</b>

Table 8 – 11

### MC Operator Violations

Type of Violation or Behavior	Number of Operators							
	Total	Percent of Total	In Fatal Crashes	Percent of Fatal	In Injury Crashes	Percent of Injury	In PDO Crashes	Percent of PDO
No Improper Action	1,395	46.69%	33	24.09%	1,127	47.10%	235	51.31%
Speed too Fast for Conditions	785	26.27%	44	32.12%	651	27.20%	90	19.65%
Exceeded Lawful Speed	61	2.04%	8	5.84%	50	2.09%	3	0.66%
Failed to Yield Right-Of-Way	61	2.04%	0	0.00%	50	2.09%	11	2.40%
Followed Too Closely	99	3.31%	3	2.19%	69	2.88%	27	5.90%
Ran Stop Sign	11	0.37%	1	0.73%	8	0.33%	2	0.44%
Disregarded Traffic Signal	51	1.71%	5	3.65%	40	1.67%	6	1.31%
Made Improper Turn	28	0.94%	0	0.00%	22	0.92%	6	1.31%
Drove in Opposing Lane	25	0.84%	4	2.92%	18	0.75%	3	0.66%
Knowingly Operated with Faulty or Missing Equipment	7	0.23%	0	0.00%	7	0.29%	0	0.00%
Required Motorcycle Safety Equipment Not Used	8	0.27%	0	0.00%	7	0.29%	1	0.22%
Passed in No-Passing Zone	8	0.27%	0	0.00%	8	0.33%	0	0.00%
Unsafe Lane Change	42	1.41%	1	0.73%	29	1.21%	12	2.62%
Failed to Keep in Proper Lane	63	2.11%	8	5.84%	51	2.13%	4	0.87%
Disregarded Pavement Markings	4	0.13%	0	0.00%	4	0.17%	0	0.00%
Other Unsafe Passing	22	0.74%	1	0.73%	17	0.71%	4	0.87%
Inattention/Distracted	16	0.54%	0	0.00%	15	0.63%	1	0.22%
Electronic Communications Device	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other	93	3.11%	5	3.65%	72	3.01%	16	3.49%
Unknown	209	6.99%	24	17.52%	148	6.18%	37	8.08%
<b>TOTAL</b>	<b>2,988</b>	<b>100.00%</b>	<b>137</b>	<b>100.00%</b>	<b>2,393</b>	<b>100.00%</b>	<b>458</b>	<b>100.00%</b>

## Section 8: – Motorcycle (MC) Crashes

Chart 8 – 5

**All MC Crashes vs. Fatal MC Crashes by Time of Day - Weekdays**

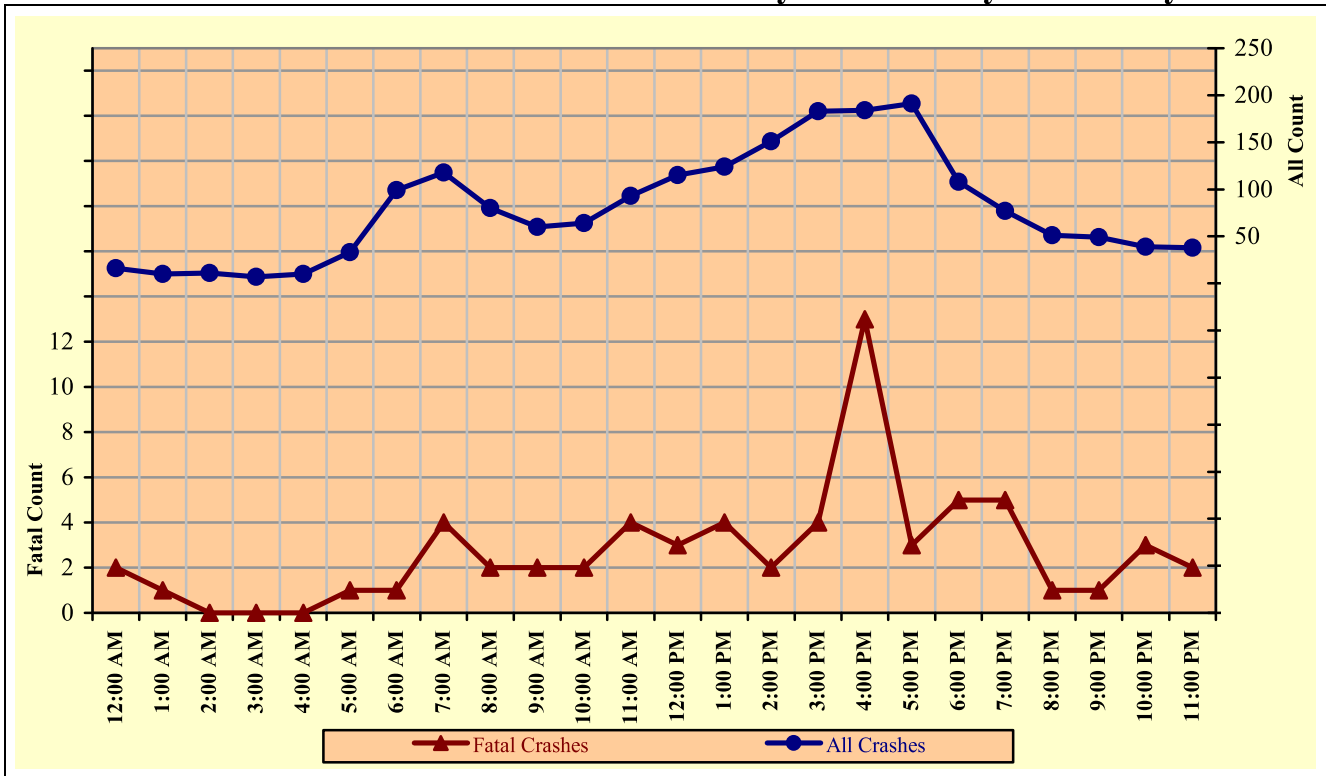
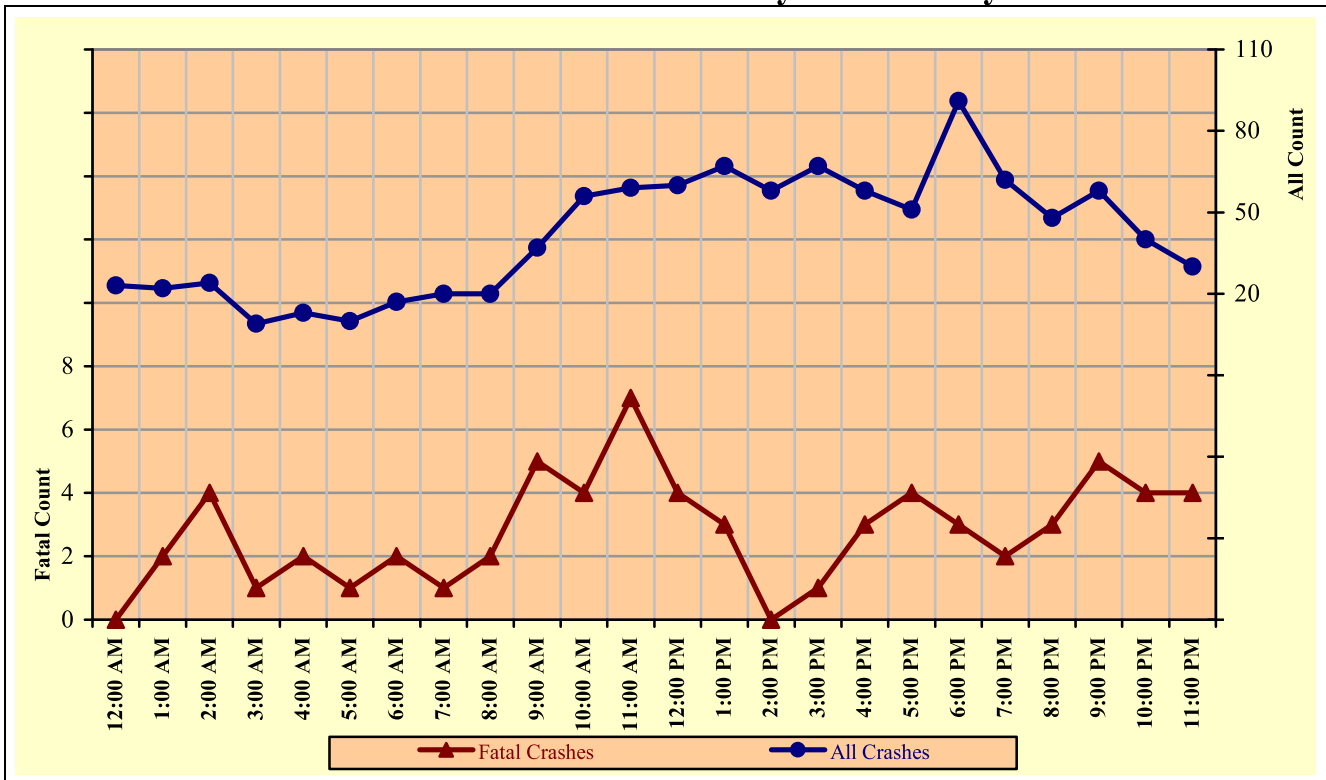


Chart 8 – 6

**All MC Crashes vs. Fatal MC Crashes by Time of Day - Weekends**



## Section 8: – Motorcycle (MC) Crashes

Chart 8 – 7  
All MC Crashes vs. Fatal MC Crashes by Day of Week

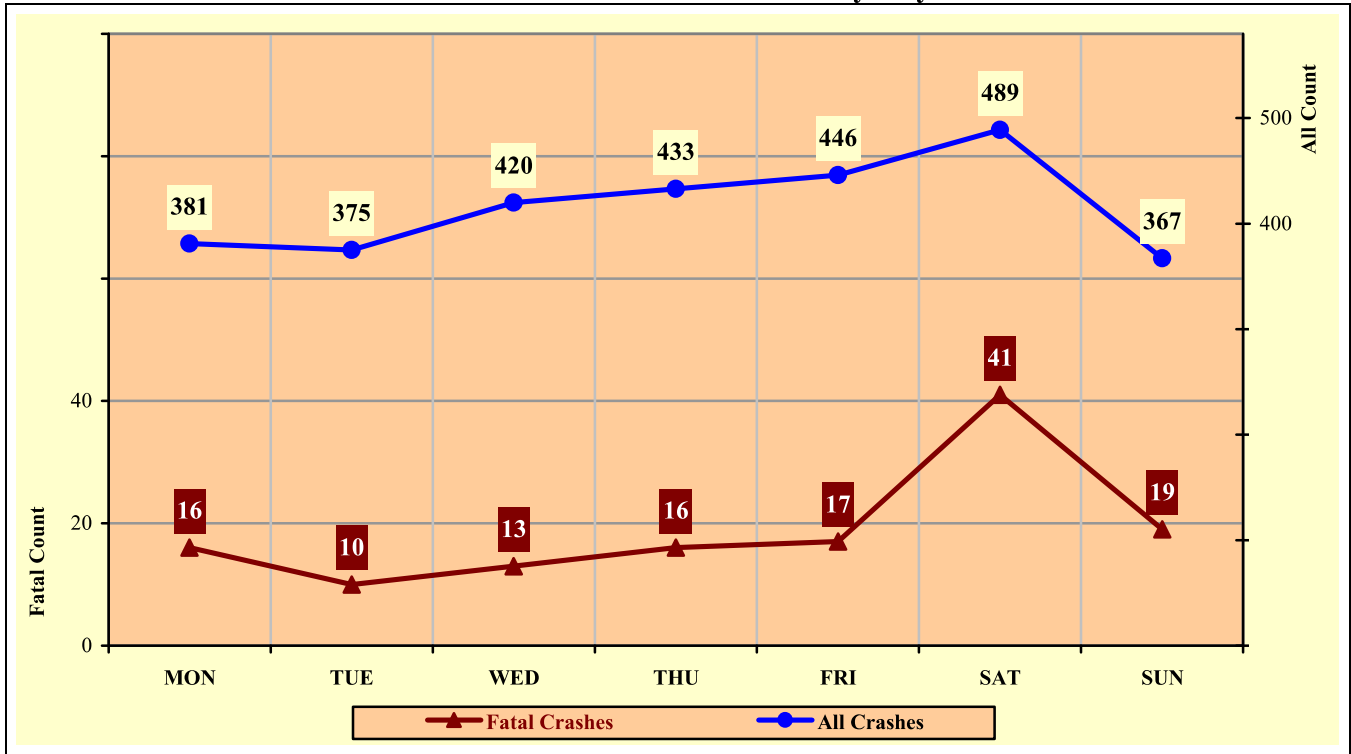
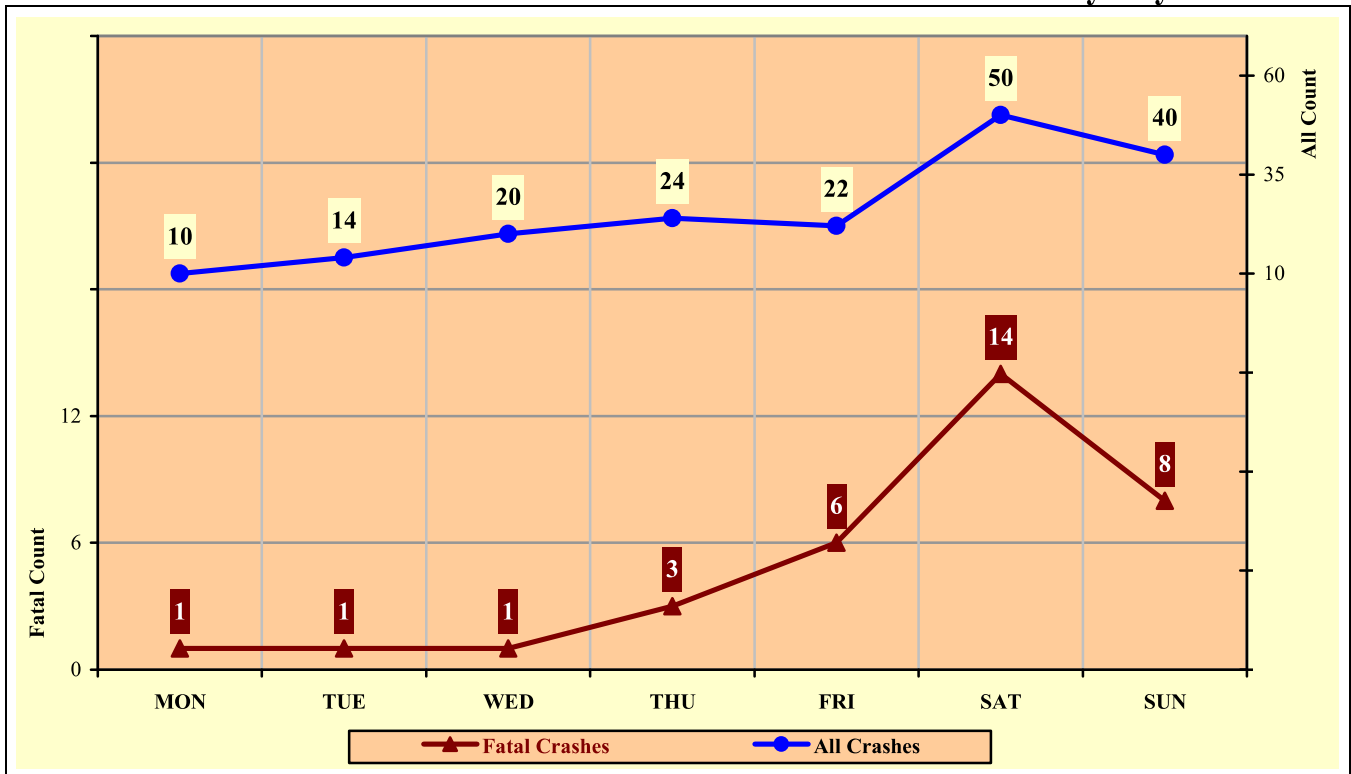


Chart 8 – 8  
Alcohol Related MC Crashes vs. Fatal Alcohol Related MC Crashes by Day of Week





## Section 8: – Motorcycle (MC) Crashes

Table 8 – 12

### MC Crashes by Hour and Day of Week

Hour	Total Crashes		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Weekdays		Weekends		
	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	
Beginning	39	2	3	0	1	1	4	0	4	1	7	0	12	0	8	0	16	2	23	0	
12:00 AM	32	3	2	0	2	0	3	0	3	0	2	1	16	1	4	1	10	1	22	2	
1:00 AM	35	4	3	0	3	0	3	0	1	0	4	0	9	4	12	0	11	0	24	4	
2:00 AM	16	1	1	0	1	0	3	0	1	0	2	0	4	0	4	1	7	0	9	1	
3:00 AM	23	2	3	0	2	0	3	0	3	0	2	0	7	2	3	0	10	0	13	2	
4:00 AM	43	2	5	0	9	0	11	0	7	1	6	0	3	0	2	1	33	1	10	1	
5:00 AM	116	3	21	0	23	1	19	0	23	0	13	0	10	2	7	0	99	1	17	2	
6:00 AM	138	5	32	2	25	0	19	0	18	0	24	2	14	1	6	0	118	4	20	1	
7:00 AM	100	4	13	0	16	0	14	0	24	2	13	0	13	2	7	0	80	2	20	2	
8:00 AM	97	7	14	1	10	0	9	1	11	0	16	0	23	5	14	0	60	2	37	5	
9:00 AM	120	6	20	0	9	0	10	1	15	1	10	0	30	3	26	1	64	2	56	4	
10:00 AM	152	11	27	1	14	2	19	0	11	0	22	1	33	5	26	2	93	4	59	7	
11:00 AM	175	7	14	1	18	0	21	0	31	0	31	2	33	1	27	3	115	3	60	4	
12:00 PM	191	7	23	0	18	0	25	1	29	2	29	1	38	2	29	1	124	4	67	3	
1:00 PM	209	2	24	0	38	0	37	1	24	1	28	0	30	0	28	0	151	2	58	0	
2:00 PM	250	5	31	0	31	0	35	2	41	2	45	0	37	1	30	0	183	4	67	1	
3:00 PM	242	16	38	5	39	2	34	1	38	3	35	2	27	2	31	1	184	13	58	3	
4:00 PM	242	7	29	1	31	0	51	1	50	0	30	1	27	2	24	2	191	3	51	4	
5:00 PM	199	8	31	3	24	1	24	0	29	1	37	0	31	1	23	2	108	5	91	3	
6:00 PM	139	7	14	1	16	1	24	2	23	1	27	1	23	1	12	0	77	5	62	2	
7:00 PM	99	4	12	0	17	1	12	0	10	0	16	2	16	0	16	1	51	1	48	3	
8:00 PM	107	6	7	1	7	0	15	0	20	0	15	1	24	4	19	0	49	1	58	5	
9:00 PM	79	7	5	0	11	0	15	3	8	0	19	1	14	0	7	3	39	3	40	4	
10:00 PM	68	6	9	0	10	1	10	0	9	1	13	2	15	2	2	0	38	2	30	4	
11:00 PM																					
<b>TOTAL</b>	<b>2,911</b>	<b>132</b>	<b>381</b>	<b>16</b>	<b>375</b>	<b>10</b>	<b>420</b>	<b>13</b>	<b>433</b>	<b>16</b>	<b>446</b>	<b>17</b>	<b>489</b>	<b>41</b>	<b>367</b>	<b>19</b>	<b>1,911</b>	<b>65</b>	<b>1,000</b>	<b>67</b>	

*Crashes during Weekends accounted for 34.35% of all MC crashes and 50.76% of Fatal MC Crashes.*

*Crashes during Weekdays accounted for 65.65% of all MC crashes and 49.24% of Fatal MC Crashes.*

## Section 8: – Motorcycle (MC) Crashes

Table 8 – 13

### MC Crashes by County

County	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Apache	11	1	9	1	1	10
Cochise	34	2	22	10	3	21
Coconino	64	2	52	10	2	56
Gila	47	6	36	5	6	41
Graham	17	1	12	4	1	13
Greenlee	12	0	10	2	0	11
La Paz	8	2	4	2	2	5
Maricopa	1,939	85	1,534	320	86	1,619
Mohave	116	7	93	16	7	108
Navajo	21	0	17	4	0	19
Pima	311	11	266	34	11	284
Pinal	117	4	96	17	4	107
Santa Cruz	12	0	10	2	0	11
Yavapai	132	9	109	14	9	127
Yuma	70	2	59	9	2	65
<b>TOTAL</b>	<b>2,911</b>	<b>132</b>	<b>2,329</b>	<b>450</b>	<b>134</b>	<b>2,497</b>

Table 8 – 14

### Manner of Collision in MC Crashes

Manner of Collision Type	Number of Crashes							
	Total	Percent of All Crashes	Fatal	Percent of Fatal Crashes	Injury	Percent of Injury Crashes	PDO	Percent of PDO Crashes
Angle	295	16.15%	19	22.09%	236	17.04%	40	11.24%
Left Turn	446	24.41%	26	30.23%	375	27.08%	45	12.64%
Rear End	622	34.04%	18	20.93%	440	31.77%	164	46.07%
Head-On	47	2.57%	2	2.33%	42	3.03%	3	0.84%
Sideswipe (same)	237	12.97%	5	5.81%	167	12.06%	65	18.26%
Sideswipe (opposite)	30	1.64%	1	1.16%	22	1.59%	7	1.97%
Rear to Side	8	0.44%	0	0.00%	3	0.22%	5	1.40%
Rear to Rear	2	0.11%	0	0.00%	1	0.07%	1	0.28%
Other	128	7.01%	13	15.12%	94	6.79%	21	5.90%
Unknown	12	0.66%	2	2.33%	5	0.36%	5	1.40%
<b>TOTAL</b>	<b>1,827</b>	<b>100.00%</b>	<b>86</b>	<b>100.00%</b>	<b>1,385</b>	<b>100.00%</b>	<b>356</b>	<b>100.00%</b>

Note: Includes only multi-vehicle MC crashes