2014 Comprehensive Traffic Collision Summary

City of Phoenix
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SERVICES DIVISION
OCTOBER 2015
2014 Facts-at-a-Glance

• This is a detailed analysis of the raw data from collisions in the City of Phoenix during 2014
• Totals of 25,952 collisions with 13,682 injuries, and 160 fatalities
• Seventy-eight percent of all crashes were either rear end, angle, left turn, or single vehicle
• Run-red and run-STOP sign increased slightly this year however alcohol related crashes continue to decline
Annual Collision Trends 2005-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Collisions (x1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>33.7</td>
</tr>
<tr>
<td>2006</td>
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<tr>
<td>2007</td>
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<tr>
<td>2008</td>
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<tr>
<td>2013</td>
<td>22.7</td>
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<tr>
<td>2014</td>
<td>25.9</td>
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Trend Line: Decrease from 2005 to 2014, ending at 25,952 Collisions.
Injury Collision Trends 2005-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Injuries (x1000)</th>
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<tbody>
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<tr>
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<td>2007</td>
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<tr>
<td>2010</td>
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<tr>
<td>2011</td>
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</tr>
<tr>
<td>2012</td>
<td>7.6</td>
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<tr>
<td>2013</td>
<td>7.7</td>
</tr>
<tr>
<td>2014</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Trend Line
Note: Some collisions result in multiple fatalities.
Collision Trends Per Thousand Residents
2005-2014

23.9 24.6 22.7 18.0 15.6 15.2 15.6 14.8 15.3 17.2

Trend Line

Speed cushion in use on 24th Street between Shea Boulevard and Cactus Road

Traffic calming measures being installed on Hearn Road between 12th and 13th Streets
Traffic calming measures on 24th Street north of Shea Boulevard
Phoenix vs. Arizona Total Collisions
2010-2014

*Arizona data comes from the 2014 Arizona Crash Facts Summary
Phoenix vs. Arizona Total Injury Collisions 2010-2014

*Arizona data comes from the 2014 Arizona Crash Facts Summary
Phoenix vs. Arizona Total Fatal Collisions 2010-2014

*Arizona data comes from the 2014 Arizona Crash Facts Summary
Locations with the Highest Number of Collisions 2014

- **67th Av & Indian School Rd**
  - 61 Crashes (35 Inj – 0 Fat)

- **59th Av & Indian School Rd**
  - 51 Crashes (28 Inj – 3 Fat)

- **43rd Av & Northern Av**
  - 52 Crashes (41 Inj – 0 Fat)

- **35th Av & Dunlap Av**
  - 44 Crashes (31 Inj – 0 Fat)

- **27th Av & Camelback Rd**
  - 58 Crashes (35 Inj – 0 Fat)

- **43rd Av & McDowell Rd**
  - 56 Crashes (32 Inj – 0 Fat)

- **75th Av & Thomas Rd**
  - 49 Crashes (31 Inj – 0 Fat)

- **12th St & Indian School Rd**
  - 46 Crashes (28 Inj – 0 Fat)

- **43rd Av & Thomas Rd**
  - 49 Crashes (22 Inj – 0 Fat)

- **43rd Av & McDowell Rd**
  - 56 Crashes (24 Inj – 0 Fat)

- **67th Av & McDowell Rd**
  - 56 Crashes (31 Inj – 0 Fat)
Collisions by Month 2014

<table>
<thead>
<tr>
<th>Month</th>
<th>Property Damage Only</th>
<th>Injuries</th>
<th>Fatal</th>
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<td>MAR</td>
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<td>APR</td>
<td>1531</td>
<td>13</td>
<td>0</td>
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<tr>
<td>MAY</td>
<td>1419</td>
<td>19</td>
<td>0</td>
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<td>JUN</td>
<td>1165</td>
<td>10</td>
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<td>AUG</td>
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<td>14</td>
<td>0</td>
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<tr>
<td>SEP</td>
<td>1521</td>
<td>11</td>
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<td>0</td>
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<td>NOV</td>
<td>1512</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>DEC</td>
<td>1489</td>
<td>16</td>
<td>0</td>
</tr>
</tbody>
</table>
Collisions by Day of Week 2014

- **SUN**: 2250 collisions, 1161 Injuries, 22 Fatalities
- **MON**: 3802 collisions, 1973 Injuries, 15 Fatalities
- **TUE**: 4134 collisions, 2190 Injuries, 23 Fatalities
- **WED**: 4089 collisions, 2270 Injuries, 21 Fatalities
- **THU**: 4089 collisions, 2262 Injuries, 25 Fatalities
- **FRI**: 4511 collisions, 2345 Injuries, 27 Fatalities
- **SAT**: 3077 collisions, 1481 Injuries, 27 Fatalities

Collisions by Time of Day 2014

- **12am - 3am**: 846 collisions, 436 Injuries, 24 Fatalities
- **3am - 6am**: 824 collisions, 360 Injuries, 6 Fatalities
- **6am - 9am**: 4192 collisions, 2357 Injuries, 15 Fatalities
- **9am - 12pm**: 3218 collisions, 1774 Injuries, 12 Fatalities
- **12pm - 3pm**: 4540 collisions, 2399 Injuries, 14 Fatalities
- **3pm - 6pm**: 6623 collisions, 3312 Injuries, 23 Fatalities
- **6pm - 9pm**: 3620 collisions, 1984 Injuries, 43 Fatalities
- **9pm - 12am**: 2089 collisions, 360 Injuries, 6 Fatalities
Collision Severity by Light Conditions 2014

Night
- 100 Fatal Collisions (64%)
- 2,383 Injury Collisions (27%)
- 6,964 Total Collisions (27%)

Day
- 57 Fatal Collisions (36%)
- 6,334 Injury Collisions (73%)
- 18,988 Total Collisions (73%)
Top Crash Types

Collision Type- All Collisions 2014

- Rear End: 30%
- Angle: 21%
- Left Turn: 15%
- 1 Vehicle: 12%
- Sideswipe: 14%
- Pedestrian: 2%
- Bicycle: 2%
- Other: 4%

Injury Collisions 2014

- Rear End: 29%
- Left Turn: 20%
- Angle: 23%
- 1 Vehicle: 9%
- Sideswipe: 6%
- Pedestrian: 5%
- Bicycle: 2%
- Other: 2%

Fatal Collision Types 2014

- Pedestrian: 42%
- Rear End: 30%
- Sideswipe: 14%
- Left Turn: 11%
- Angle: 11%
- Head On: 7%
- 1 Vehicle: 6%
- Other: 2%
Fatal Collisions by Mode of Transportation 2014

- Vehicle - Pedestrian: 42%
- Vehicle - Vehicle: 22%
- Single Vehicle: 13%
- Vehicle-Motorcycle: 13%
- Vehicle - Bicycle: 3%
- Single Motorcycle: 7%
Collisions by Primary Behavior/Violation 2014

1 – “Speed Too Fast” does not necessarily mean the person was exceeding the speed limit but rather the person was traveling too fast for the conditions at the time.

2 – “Unknown” includes leaving the scene, conflicting statements without witnesses, incapacitated persons.

3 – “Other” includes less common violations such as Unsafe Passing and Operating with Faulty Equipment.

4 – “None” refers to drivers involved in a crash without committing a violation. These instances are usually the result of uncontrollable forces such as falling objects, debris or animals in the roadway.
Fatal Collisions by Mode of Transportation 2010-2014

- **Pedestrian**
  - 2010: 46
  - 2011: 34
  - 2012: 36
  - 2013: 45
  - 2014: 66

- **Bicycle**
  - 2010: 36
  - 2011: 51
  - 2012: 41
  - 2013: 54
  - 2014: 55

- **Multi-Vehicle**
  - 2010: 18
  - 2011: 13
  - 2012: 23
  - 2013: 23
  - 2014: 25

- **Single Vehicle**
  - 2010: 8
  - 2011: 10
  - 2012: 5
  - 2013: 10
  - 2014: 11
Work Zone Collisions 2010-2014

- 2010: 291 Collisions, 117 Injuries, 0 Fatalities
- 2011: 256 Collisions, 112 Injuries, 1 Fatality
- 2012: 158 Collisions, 61 Injuries, 0 Fatalities
- 2013: 205 Collisions, 77 Injuries, 0 Fatalities
- 2014: 245 Collisions, 95 Injuries, 1 Fatality

Trend Line
Locations with the Highest Number of Run Red Collisions 2014

- **15th Av & Camelback Rd**
  - 7 Crashes (6 Inj – 0 Fat)

- **7th Av & Thomas Rd**
  - 8 Crashes (7 Inj – 0 Fat)

- **47th Av & Indian School Rd**
  - 7 Crashes (6 Inj – 0 Fat)

- **51st Av & Thomas Rd**
  - 7 Crashes (8 Inj – 0 Fat)

- **67th Av & McDowell Rd**
  - 8 Crashes (6 Inj – 0 Fat)

- **16th St & Thomas Rd**
  - 7 Crashes (3 Inj – 0 Fat)

- **27th Av & Thomas Rd**
  - 7 Crashes (9 Inj – 0 Fat)

- **7th St & Mohave St**
  - 9 Crashes (10 Inj – 0 Fat)

- **40th St & Broadway Rd**
  - 7 Crashes (6 Inj – 0 Fat)

- **44th St & Thomas Rd**
  - 9 Crashes (1 Inj – 0 Fat)
Run STOP Sign Collisions 2010-2014

- **2010**: 215 Collisions, 152 Injuries, 1 Fatal
- **2011**: 231 Collisions, 137 Injuries, 1 Fatal
- **2012**: 224 Collisions, 195 Injuries, 0 Fatal
- **2013**: 220 Collisions, 147 Injuries, 3 Fatal
- **2014**: 277 Collisions, 211 Injuries, 4 Fatal
Total Motorcyclist Collisions, Injuries, and Fatalities 2010-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Collisions</th>
<th>Injuries</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>495</td>
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<tr>
<td>2011</td>
<td>558</td>
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<td>2012</td>
<td>587</td>
<td>478</td>
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<td>2013</td>
<td>607</td>
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<td>23</td>
</tr>
<tr>
<td>2014</td>
<td>617</td>
<td>504</td>
<td>26</td>
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</tbody>
</table>

Trend Line
Pedestrian Collisions 2010-2014

- **Collisions**
- **Injuries**
- **Fatalities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Collisions</th>
<th>Injuries</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>496</td>
<td>445</td>
<td>45</td>
</tr>
<tr>
<td>2011</td>
<td>492</td>
<td>432</td>
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</tr>
<tr>
<td>2012</td>
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<td>2013</td>
<td>516</td>
<td>473</td>
<td>45</td>
</tr>
<tr>
<td>2014</td>
<td>592</td>
<td>489</td>
<td>66</td>
</tr>
</tbody>
</table>
Two-stage crossing on 19th Avenue and Sunnyslope Drive

HAWK pedestrian crossing at Central Avenue and Colter Street
Pedestrian Collisions

Action of Motorist 2014

- Straight 56%
- Completing Right Turn 15%
- Completing Left Turn 17%
- Unknown 8%
- Exiting Driveway 1%
- Other 3%

Behavior/Violation by Motorist 2014

- None 48%
- Failed to Yield 22%
- Unknown 16%
- Inattention 4%
- Speed Too Fast 4%
- Disregarded Signal 1%
- Other 5%

Physical Condition of Motorist 2014

- Not Impaired 99%
- Drinking 1%
Children below 18 years of age account for 21% of all pedestrian crash victims.

There were 2 additional pedestrians with unreported genders not represented on this graph.

2014 COMPREHENSIVE TRAFFIC COLLISION SUMMARY

Age and Gender of Pedestrians in Collisions 2014

- Up to 5: 16 Female, 18 Male
- 6-11: 9 Female, 12 Male
- 12-17: 40 Female, 35 Male
- 18-25: 55 Female, 32 Male
- 26-35: 51 Female, 31 Male
- 36-45: 47 Female, 19 Male
- 46-55: 24 Female, 18 Male
- 56-65: 5 Female
- 66-Up Unknown: 2 Female, 3 Male

Total:
- Female: 15 Inj, 209 Injury, 17 Fatal, 45 Total
- Male: 30 Inj, 295 Injury, 49 Fatal, 374 Total
- Total: 45 Inj, 504 Injury, 66 Fatal, 615 Total
Pedestrian bridge at Isaac Middle School crossing McDowell Road east of 35th Avenue
Bicycle Collisions 2010-2014

- 2010: 455 Collisions, 407 Injuries, 8 Fatalities
- 2011: 491 Collisions, 441 Injuries, 10 Fatalities
- 2012: 527 Collisions, 461 Injuries, 5 Fatalities
- 2013: 485 Collisions, 417 Injuries, 10 Fatalities
- 2014: 447 Collisions, 387 Injuries, 11 Fatalities
Bike lane being painted on Galvin Parkway north of Van Buren Street

Green bike lane being painted on Galvin Parkway and McDowell Road
Note: Although the “Other” option was the majority of the 27%, infrequent violations such as Speed Too Fast, Faulty/Missing Equipment and Ran STOP Sign were also lumped into this category.
Bicycle Collisions

Action of Motorist 2014
- Turning Right: 44%
- Going Straight: 34%
- Turning Left: 13%
- Other: 4%
- Unknown: 4%

Behavior/Violation by Motorist 2014
- No Violation: 60%
- Failed to Yield: 16%
- Inattention: 5%
- Disregarded Signal: 1%
- Speed Too Fast: 3%
- Other: 4%

Physical Condition of Motorist 2014
- Not Impaired: 99%
- Other: 1%
Children below 18 years of age account for 14% of all bicycle crash victims

There were an additional 2 bicyclists with unknown genders not represented on this graph.
Bike lane on 15th Avenue south of Butler Drive

Shared bike lane at 5th and Fillmore Streets
One Fatal Collision Every 2 Days

One Pedestrian Hit Every 14 Hours

One Bicyclist Hit Every 20 Hours

One Traffic Injury Every 38 Minutes

One DUI-Related Collision Every 8 Hours

One Collision Every 20 Minutes
Summary

• Almost two-thirds of all collisions resulted in property damage only
• Approximately 37 people were injured every day as a result of traffic crashes
• Twenty-nine percent of pedestrian collisions involved the pedestrian not using the crosswalk
• Thirty fewer bicyclists were injured in 2014 than in 2013
Acknowledgements

This report was prepared by Richard Russ (Principal Engineering Technician), Jacob Martinez (Senior Engineering Technician), and Kerry Wilcoxon (PE, Traffic Engineer III).
Questions?

Please contact Street Transportation Department at 602-262-6284 or TTY 711