

**SOUTH JERSEY
TRANSPORTATION
PLANNING ORGANIZATION**

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SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION

**SAFETY TRENDS REPORT:
PEDESTRIANS**

2003-2009

Produced April 2011



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SAFETY TRENDS REPORT: PEDESTRIANS

INTRODUCTION

Traffic safety is a long-time mission for SJTPO. One of the steps in transportation safety planning is to obtain and analyze data that will assist in the safety issue prioritization process. This report presents statistics for pedestrians in crashes for the South Jersey region (**Atlantic, Cape May, Cumberland, and Salem Counties**), for the seven-year period from 2003 through 2009. This section is entitled, Pedestrians; it summarizes statistics about pedestrians in crashes, such as location information, physical condition, gender, etc. Other sections focus on crashes, occupants, drivers, vehicles.

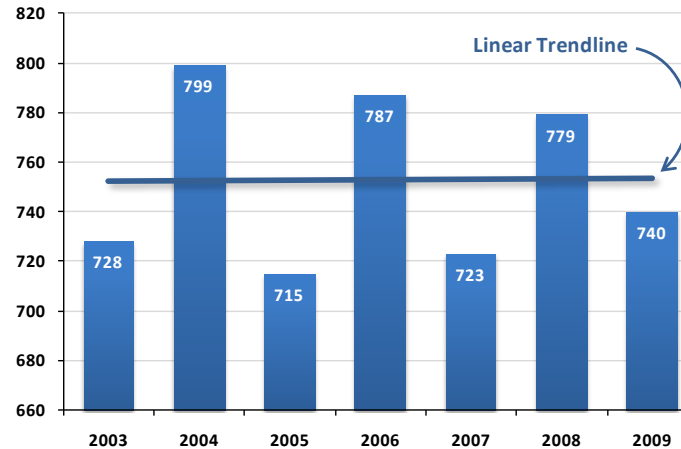


SUMMARY

The age and gender of pedestrians involved in crashes are not evenly distributed. Younger age groups and Males are over-represented. Overall, crashes have trended even (see Figure 1) but have been very volatile year by year.

For the South Jersey region, Atlantic County had the most pedestrians involved in crashes, while Cape May and Cumberland County came in second and third place, with Salem a distant fourth. Over the seven-year period, each county has displayed a mostly steady level of pedestrian crashes, however numbers have declined slightly in Cumberland County and increased slightly in Cape May County.

Figure 1 - Crashes, by Year



The physical condition of pedestrians is a reflection of the crash severity. Over the seven-year period, pedestrians in crashes complaining of pain decreased somewhat.

Almost all pedestrian crashes occur in clear weather conditions. In addition, most pedestrian crashes occur in daylight conditions; however, a significant number of pedestrian crashes do occur in conditions other than daylight. Pedestrian crashes are distributed evenly among the days of the week. There are peak times for pedestrian. For weekdays, the peak hour for pedestrian crashes was at 8:00 pm. For weekends, pedestrian crashes peaked at 12:00 noon and from 10:00 pm to 11:00 pm.

Contributing Circumstances is a field in the crash form that is used by the attending officer. This field provides some evidence that indicates which party is at fault, even though the officer does not make a determination. The contributing circumstances field is not

utilized in most (71 percent) pedestrian crashes. However, when this field is used (29 percent of the time) the circumstances are more often attributed to the pedestrian, as opposed to the driver.

Another field is the Pre-Crash Action. This is what the pedestrian is doing at the time of the crash. And although two of the top three pre-crash actions that are attributed to pedestrians should not contribute to a crash (simply going straight with traffic, or correctly crossing at a marked crosswalk), one of the largest pedestrian crash Pre-Crash Action category for pedestrians in crashes is jaywalking, which most certainly would.

PEDESTRIANS: 2003-2009

Demographics:

Pedestrian crashes are most common in the 10-24 age groups from 2003 to 2009, with another smaller spike at the 45-49 age group. Totals for age groups over 50 decrease rapidly (Figure 2).

Figure 2 - Pedestrians in Crashes by Age Group, Total

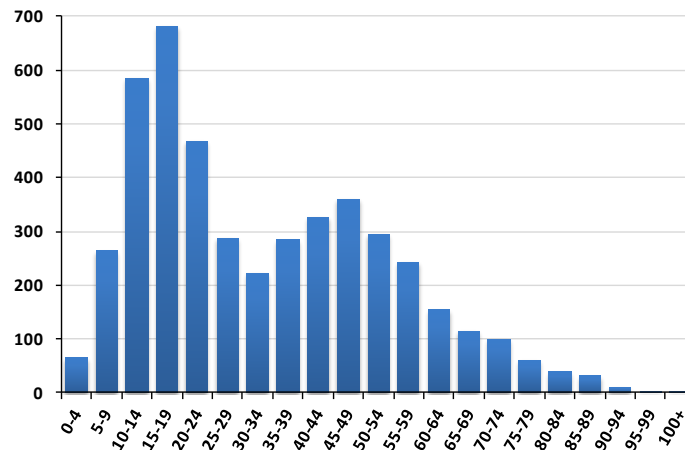


Figure 3 and Figure 4 show the breakdown of pedestrians in crashes by gender during the seven-year period. Figure 3 shows the annual yearly totals. Figure 4 shows the total for all males and

females during the seven-year period, which shows that males made up nearly two-thirds of pedestrians in crashes.

Figure 3 - Pedestrian in Crashes by Gender, by Year

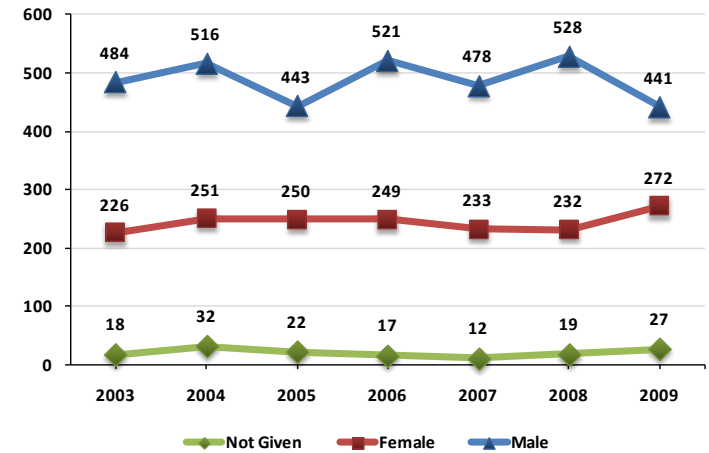
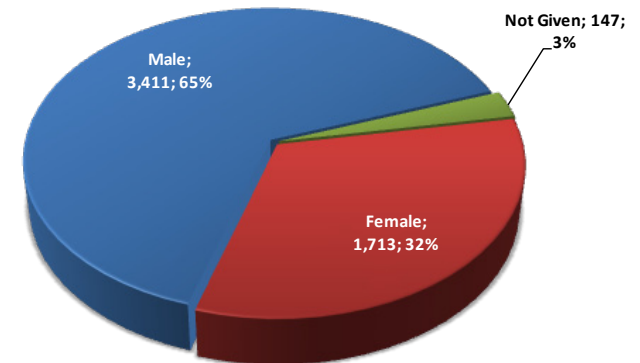


Figure 4 - Pedestrian in Crashes by Gender, Total



Crash Location:

Pedestrians in crashes totaled 740 for 2009. This level has been somewhat steady for the seven-year period. Of those involved in pedestrian crashes, teens and young adults appear to be over-represented. It is difficult to say whether this is simply an issue of exposure or whether it represents a need to educate certain cohorts of people on pedestrian-driver interactions. The county totals have remained mostly consistent, with most pedestrian crashes in Atlantic County, followed by Cape May County, Cumberland County, and then Salem County, however numbers have declined slightly in Cumberland County and increased slightly in Cape May County, causing it to edge out Cumberland County overall, see Figure 5.

Figure 5 - Crashes, by County, by Year

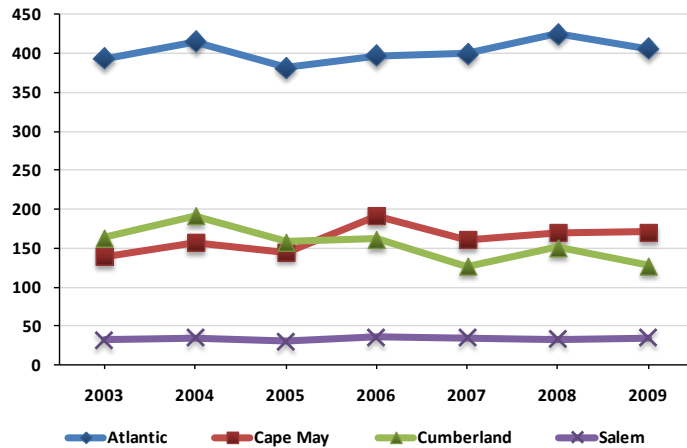
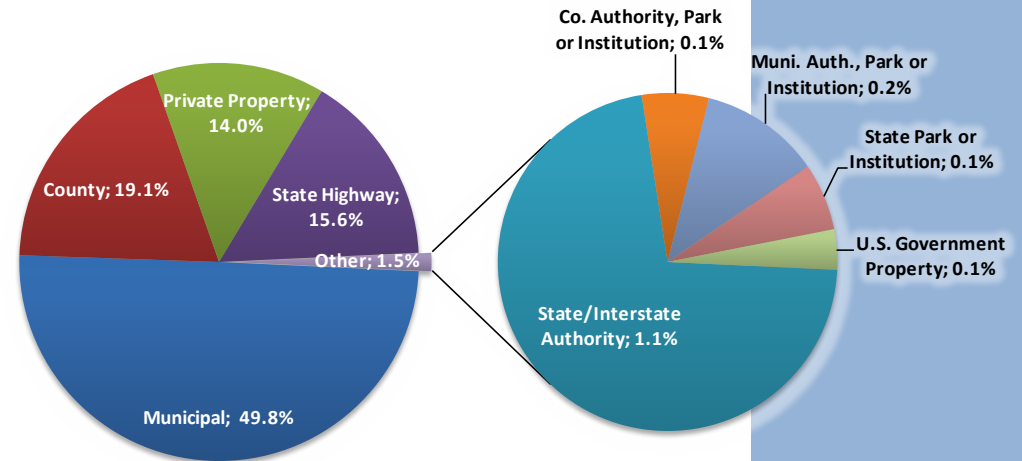


Figure 6 shows the portion of the crashes that were on the different roadway jurisdictions over the seven-year period. Half of pedestrian crashes were on municipal roadways, with 19 percent on county roadways and nearly 16 percent on state highways. Figures were roughly steady on each system during this period.

Figure 6 - Roadway Jurisdiction, Total



Severity:

Recent years saw decreases in the number of pedestrians injured or complaining of pain (Figure 7). The remainder of injuries (killed and incapacitated) remained mostly constant. Although it would be preferably to see these more severe injuries decline, with all injury types steady or decreasing, these trends are favorable.

Figure 7 - Physical Condition, by Year

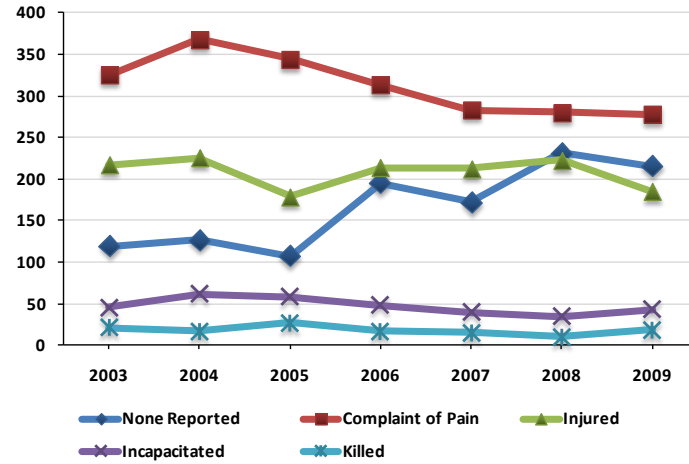
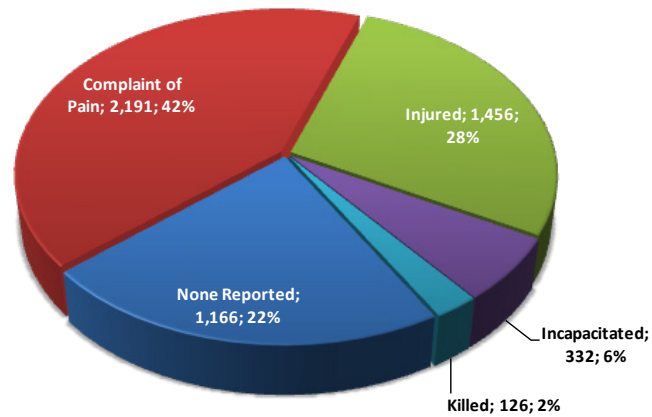


Figure 8 - Physical Condition, Total



Conditions During the Crash:

The light condition recorded for 65 percent of the pedestrians was daylight. This leaves a significant portion (35 percent) recorded in light conditions other than daylight. This could be dawn, dusk, or at night with or without operating streetlights (Figure 10). This is perhaps an over-representation of crashes, given the number of pedestrians that are present in these circumstances.

Figure 9 - Daylight vs. Other, by Year

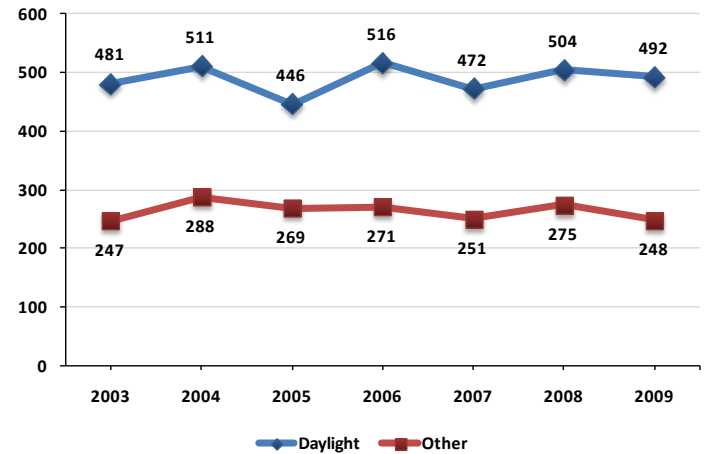
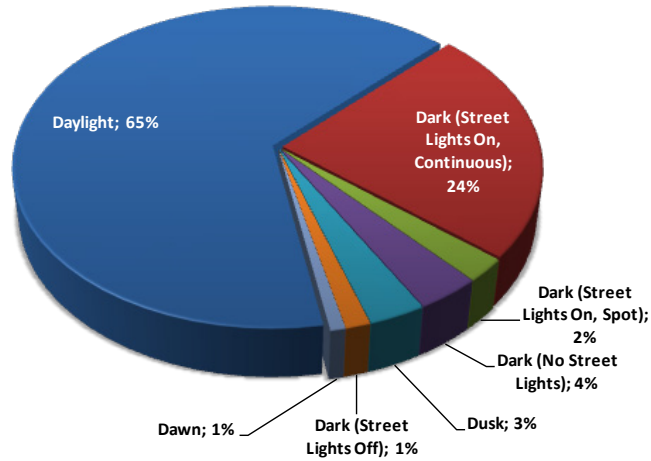


Figure 10 - Light Condition, Total



Nearly all pedestrian crashes (86 percent) occurred when the weather was clear (Figure 13). This is likely because pedestrians are often not present during inclement weather. Figure 11 and Figure 12 show the annual trends, which appear to show weather playing an increasing role in crashes.

Figure 11 - Weather, Clear vs. Not Clear & Not Given, by Year

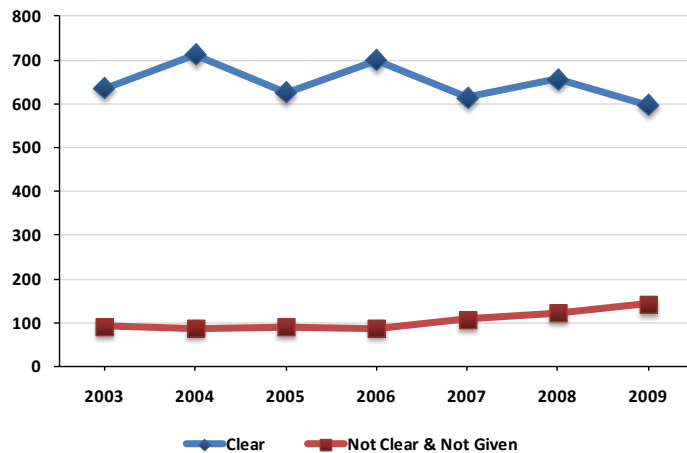


Figure 12 - Breakdown of Not Clear & Not Given, by Year

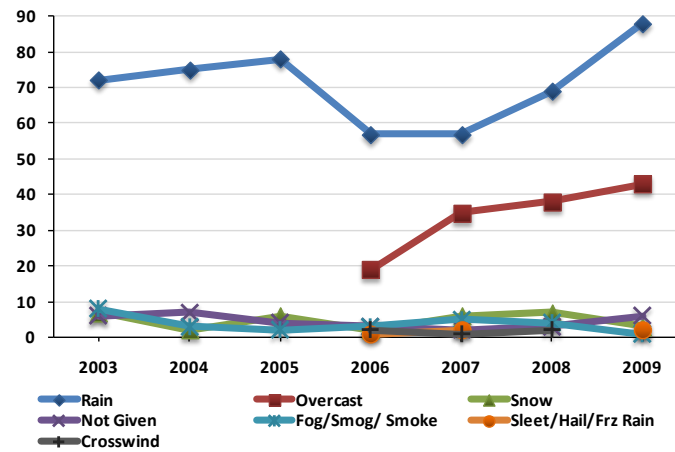
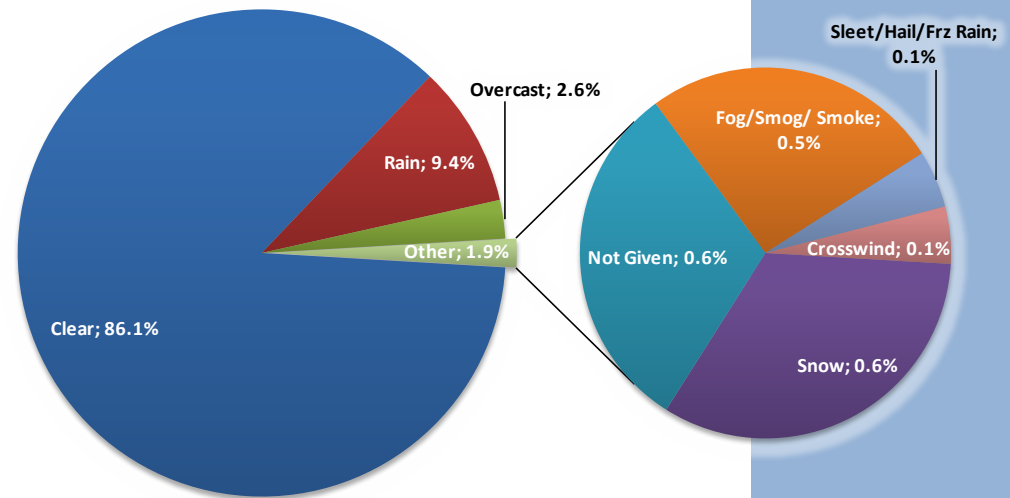


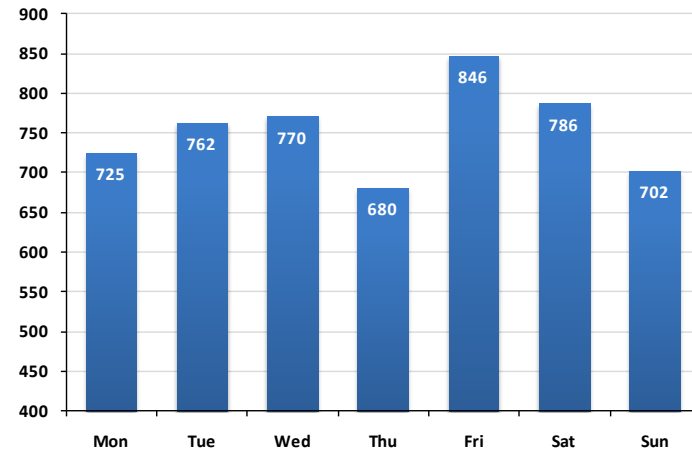
Figure 13 - Weather, Total



When Crashes Occur:

During the seven-year period, the highest number of pedestrian crashes occurred on Fridays, followed by Saturdays. The fewest crashes occurred on Thursdays, followed by Sundays. Figure 14 displays the crashes for each day of the week. In looking at the year by year trends, the peaks for most and least crashes by day are consistent with the seven-year totals.

Figure 14 - Day of Week, Total



Time of day appears to be a major factor in the number of pedestrian crashes. During the weekdays, a significant portion of pedestrian crashes occur between the hours of 2:00 pm and 7:00 pm. The weekend pedestrian crashes spike between Noon and 7:00 pm (see Figure 15).

Figure 15 - Hour of Day, Total

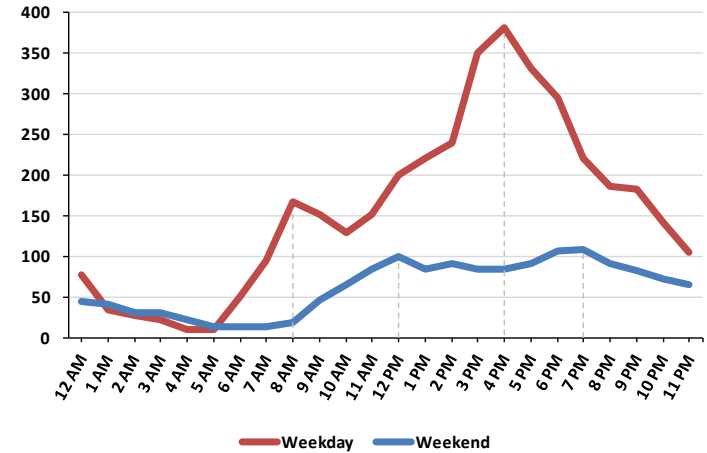


Figure 16, below shows the number and percentage of pedestrians in South Jersey crashes from New Jersey, Pennsylvania, and other states. Pedestrians from New Jersey are the vast majority of those involved in crashes, at 75 percent, with Pennsylvania contributing the second highest number, at 6 percent. Figure 17 shows that New Jersey pedestrians in crashes are down slightly over the seven-year period, with a very small increase among those from Pennsylvania. There are no notable trends among other states.

Figure 16 - State of Origin, Total

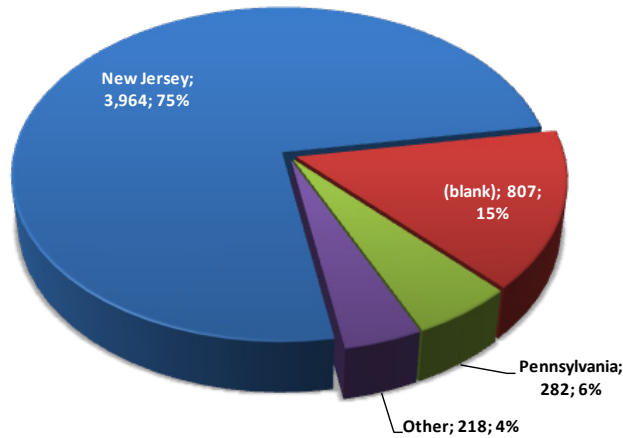
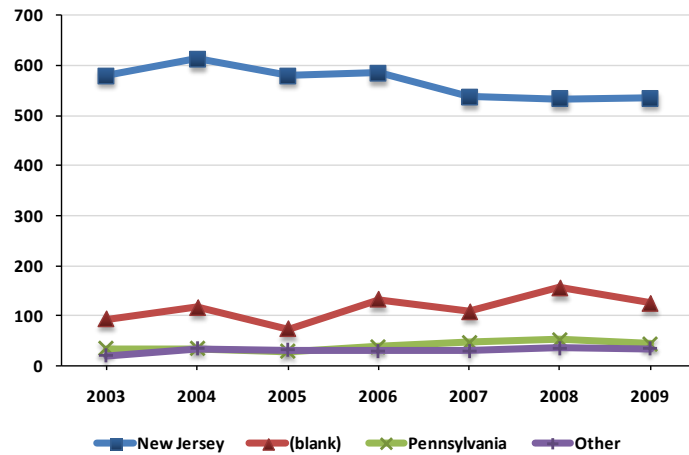
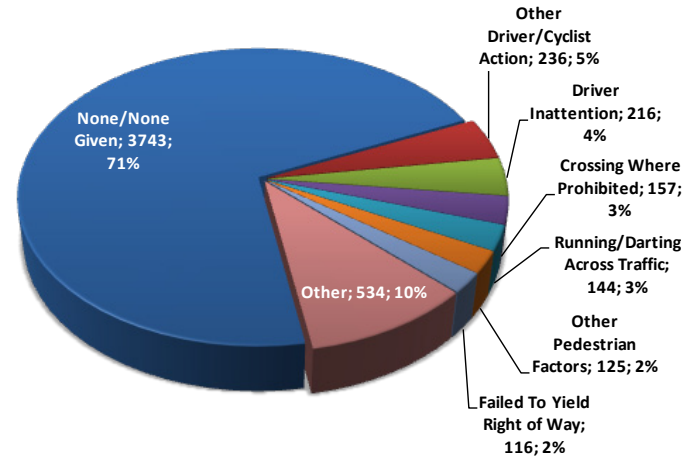


Figure 17 - State of Origin, by Year



For 71 percent of pedestrian crashes, no contributing circumstance is given. Among the remaining 29 percent, where given, Other Driver/Cyclist Action is the top at 5 percent, followed by Driver Inattention at 4 percent (see Figure 18).

Figure 18 - Contributing Circumstances in Crashes, Total



Finally, Figure 19 shows the pedestrian actions prior to crashes. Where given, the top actions include Going Straight Ahead (15 percent), Jaywalking (11 percent), and Crossing at Marked Crosswalk (10 percent).

Figure 19 - Pre-Crash Pedestrian Action, Total

