

# Factors in Washington Pedestrian Fatalities, 2008-2012

Research & Data Division April 2014

#### **Summary**

Between 2008 and 2012, 332 pedestrians died in Washington traffic crashes. Pedestrian fatalities represented 14% of all traffic fatalities during that interval.

- Males accounted for 66.3% of pedestrian deaths.
- Over one-third of pedestrians killed were between the ages of 45-65. Nearly one quarter of drivers involved in pedestrian fatalities were between the ages of 18-25.
- Sixty-one percent of pedestrian fatalities arose from crashes between October and March.
- More than two-thirds (68.7%) of pedestrians were killed in crashes during dark hours.
- Over half (58%) of pedestrian deaths occurred at non-intersections where the pedestrian was on the road and not in a crosswalk.
- Two-thirds (66.7%) of all pedestrians were killed in crashes on urban roads.
- Over 45% percent of all pedestrian fatalities resulted from crashes on roads with speed limits between 35 and 50 MPH. More than 30% of pedestrian deaths happened on roads with posted speeds between 15-30 MPH.
- Native Americans are disportionately killed in pedestrian crashes; representing 8.4% of pedestrian deaths but less than 2% of the total population.
- More than half (51.5%) of pedestrians killed were impaired by alcohol or drugs when they were fatally injured 56.8% of males and 41.1% of females. Impaired pedestrians were more likely to not be visible to the vehicle driver and more likely to fail to yeild right of way.
- Among pedestrians killed in crashes, 85.5% had contributing circumstances reported, compared to only 42.3% of drivers with contributing circumstances reported.
- The driver hit-and-run percent in pedestrian fatal crashes is over nine times higher than for all other types of fatal crashes.

#### 60 FEMALE (N=112) MALE (N=220) 51 15.4% 40 35 10.5% 30 27 27 9.0% 23 8.1% 8.1% 20 21 19 6.9% 18 6.3% 16 15 5.7% 5.4% 4.8% 12 4.5% 11 11 8 3.6% 8 3.3% 3.3% 2.4% 2.4% 0 0-15 16-25 26-35 36-45 46-55 56-65 66-75 76+

**Pedestrian Fatalities by Gender and Age** Source: Fatality Analysis Reporting System (FARS), 2008-2012

Two-thirds of the 332 pedestrian fatalities between 2008 and 2012 (220, 66.3%) were male. Pedestrians between the ages of 46 and 65 accounted for 35.8% of pedestrian deaths (119) during this interval. Among male pedestrian fatalities, 51 (15.4%) were between the ages of 46 and 55 when they were killed, more than in any other age group. Among female pedestrian fatalities, ages 76 and above represented the greatest number in any age group.

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16.6%

15.4%

12.1%

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21

25

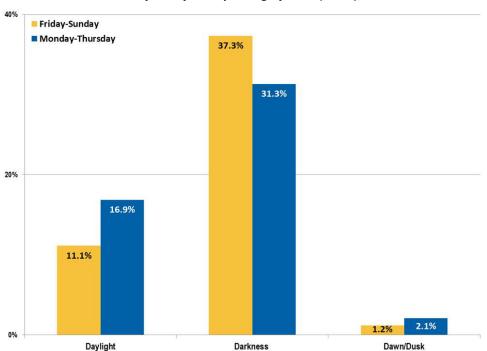
26

7.9%

0

12

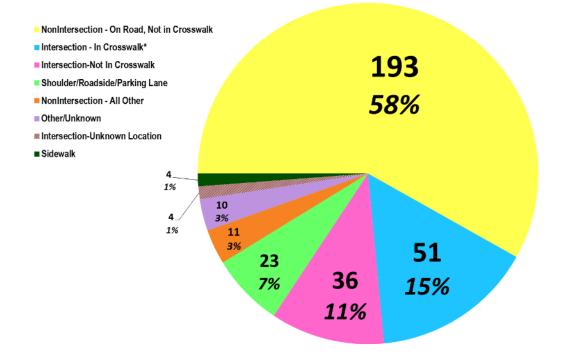
3.6%



#### Pedestrian Fatalities by Day of Week and Light Conditions Source: Fatality Analysis Reporting System (FARS), 2008-2012

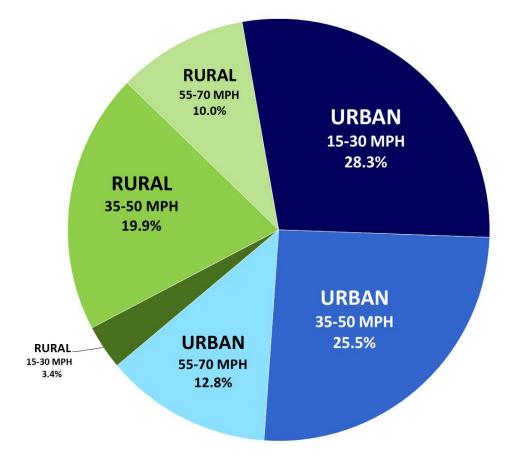
More than two-thirds of pedestrians (228, 68.7%) were fatally injured in crashes occurring during dark hours, when drivers had a more difficult time seeing them. Almost 43% of pedestrian fatalities (141) occurred in crashes between 3 PM and 9 PM, which are typically a lower-visibility period of the day between the months of October and March.

#### **Pedestrian Location at Time of Fatal Crash** Source: Fatality Analysis Reporting System (FARS), 2008-2012



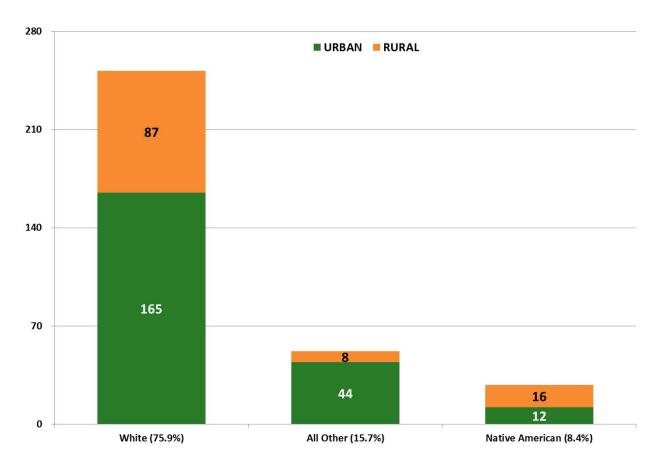
Nearly 60% (58.1%) of pedestrians killed in crashes between 2008 and 2012 were struck while they were on the roadway but not in a crosswalk. At the time they were struck, nearly 28% of deceased pedestrians were improperly crossing the roadway; nearly 24% were lying, walking, working, or playing in the roadway; 21% failed to yield the right-of-way to a driver; 18% were distracted; and 15% had darted or dashed into the road. Another 15% of pedestrians were struck in crosswalks at intersections, and an additional 11% were also killed at intersections but not in crosswalks. Twenty three pedestrians (7%) were struck while on the shoulder, parking lane, or roadside, and four (1%) were hit while on the sidewalk.

#### Urban-Rural Classification and Posted Speed Limit in Pedestrian Fatal Crashes Source: Fatality Analysis Reporting System (FARS), 2008-2012



More pedestrians were fatally injured on roads with posted speed limits of between 35 and 50 MPH (146, 44.0%) than for roads in any other speed-limit range. Over half of all deaths (173, 53.8%) resulted from crashes on urban roads posted for 50 MPH or less. Even though urban pedestrian fatalities outnumbered rural pedestrian fatalities by about two-to-one between 2008 and 2012, annual urban vehicle miles traveled (VMT) estimates have averaged between 2.3 and 2.5 times more than rural VMT estimates (since 2006). This results in the pedestrian fatality rate (per 100 million VMT) being higher in rural areas than in urban areas.

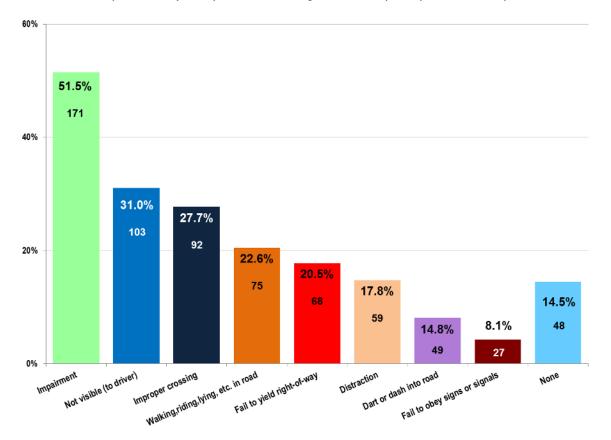
#### Heritage and Urban-Rural Classification in Fatal Pedestrian Crashes Source: Fatality Analysis Reporting System (FARS), 2008-2012



More than three-fourths of pedestrian fatalities (252, 75.9%) were classified as 'White', while 8.4% were classed as American Indian and Alaska Native (i.e., Native American). More than 82% of Washington residents are 'White', and fewer than 2% are Native American. Therefore, Native Americans are highly *over*-represented in pedestrian fatalities. Furthermore, more Native Americans were fatally injured in crashes on rural roads than on urban roads, a pattern running counter to that seen with other heritages.

#### Pedestrian Contributing Factors in Fatal Crashes

Source: Fatality Analysis Reporting System (FARS), 2008-2012 Each pedestrian may have up to three contributing circumstance reported, percents will not equal 100%.

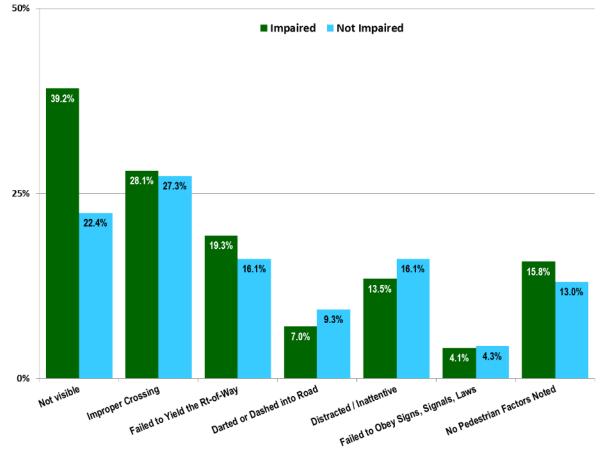


Impairment by drugs or alcohol was the number-one pedestrian contributing factor in these fatal crashes (51.5%). Impairment was followed by a lack of visibility to drivers (31.0%); crossing the road improperly (27.7%); walking, riding, or lying in the road (22.6%); failing to yield the right-of-way to motorists (20.5%); distraction or inattention (17.8%); darting or dashing into the road – frequently in mid-block areas and from between parked cars (14.8%); and failing to obey traffic signs or signals (8.1%). Forty-eight pedestrians (14.5%) were identified by police investigators as having committed no errors that contributed to their fatal injuries.

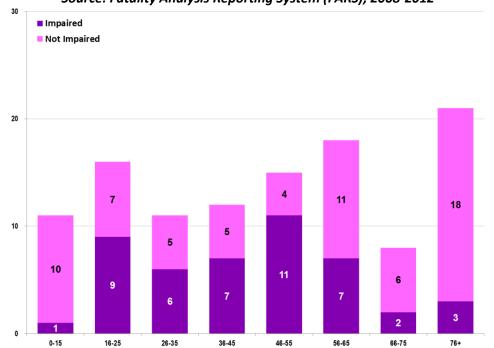
#### Impairment and Other Pedestrian Factors in Fatal Crashes

#### Source: Fatality Analysis Reporting System (FARS), 2008-2012

Each pedestrian may have up to three contributing circumstance reported, percents will not equal 100%.

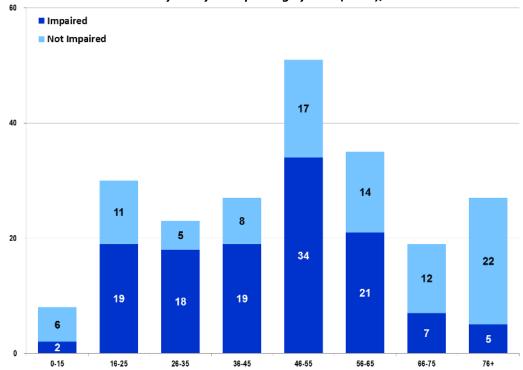


While pedestrian impairment itself is not a proximate cause of crashes (such as speeding or passing improperly), it is a mediating factor which increases the risk that such proximate causes will occur. For instance, an impaired pedestrian will be more likely to underestimate the size of a gap between vehicles and assume that it is safe to cross the road when it really is not. Impaired pedestrians were somewhat more likely to fail to yield the right-of-way to a vehicle driver than non-impaired pedestrians, and significantly more likely to not be visible to the vehicle driver.



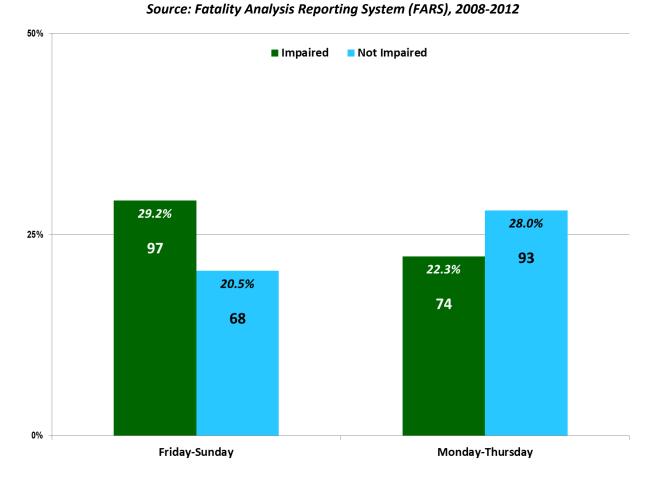
#### Female Pedestrian Fatalities by Age and Impairment Source: Fatality Analysis Reporting System (FARS), 2008-2012

Male Pedestrian Fatalities by Age and Impairment Source: Fatality Analysis Reporting System (FARS), 2008-2012

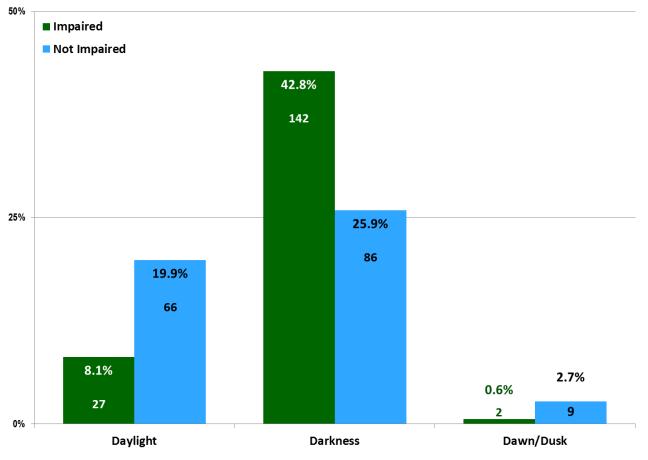


Nearly two-thirds (73, 61.3%) of the 119 deceased pedestrians between the ages of 46 and 65 were impaired by drugs or alcohol when they were fatally injured. Male and female 46-55 year-olds showed the highest numbers of impaired fatalities, 34 and 11, respectively. Fifty-seven percent of all males and 41% of all females were impaired at the time they were fatally injured. In all, 51.5% of pedestrians killed were impaired by either alcohol or drugs.

## Pedestrian Fatalities by Day of Week and Impairment

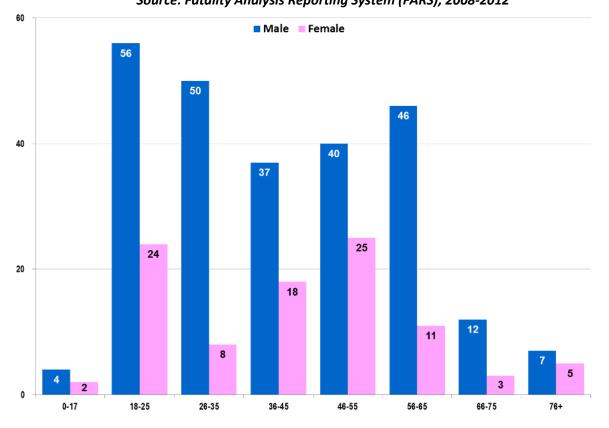


Overall fatalities were evenly split between Monday-Thursday (167, 50.3%) and Friday-Sunday (165, 49.7%). However, more *impaired* pedestrians were killed between Friday and Sunday (97) than between Monday and Thursday (74). This pattern was reversed for *non-impaired* pedestrians, however, with more killed from Monday through Thursday (93) than from Friday through Monday (68).



One hundred seventy-one (51.5%) deceased pedestrians were impaired by drugs or alcohol at the time they were fatally injured. More than 80% of impaired pedestrians (142) were killed in crashes occurring during darkness.

#### Drivers in Pedestrian Fatal Crashes by Gender and Age Source: Fatality Analysis Reporting System (FARS), 2008-2012

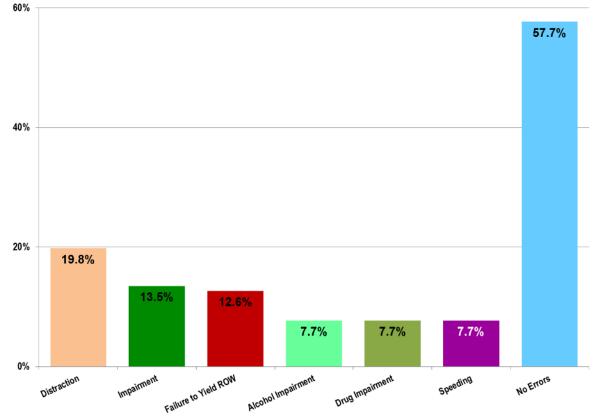


As was the case with the pedestrian fatalities themselves, males predominate in all age groups among drivers involved in fatal pedestrian crashes, amounting to nearly three-quarters of all involved drivers (248 of 364, 72.5%). Drivers age 18-25 was the most prevalent age group involved, representing 23% of driver involved in pedestrian fatal crashes.

### Driver Contributing Circumstances in Pedestrian Fatal Crashes

#### Source: Fatality Analysis Reporting System (FARS), 2008-2012

Each driver may have up to three contributing circumstance reported, percents will not equal 100%.

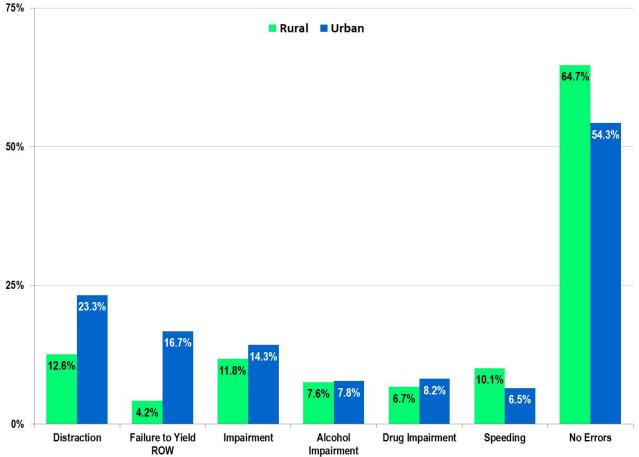


The drivers involved in pedestrian fatal crashes were far more likely not to have committed any driving errors. Police investigators did not identify any contributing factors for nearly 60% of all involved drivers (57.7%, 210). Only 13.5% of drivers were impaired (versus 51.5% of pedestrians), and 12.6% drivers were identified by investigators as having failed to yield the right-of-way to pedestrians. By comparison, roughly one-fifth (20.5%) of pedestrians were identified by investigators as having failed to yield the right-of-way to the drivers that struck and killed them.

### Driver Contributing Circumstances in Pedestrian Fatal Crashes by Urban-Rural Classification

Source: Fatality Analysis Reporting System (FARS), 2008-2012

Each pedestrian may have up to three contributing circumstance reported, percents will not equal 100%.

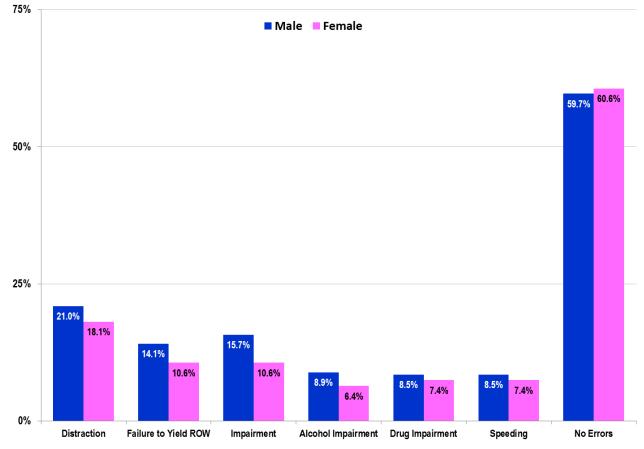


Police identified larger fractions of urban drivers as committing driving errors in pedestrian fatal crashes. For example, where 23.3% of urban drivers were identified as distracted, only 12.6% of rural drivers were. Likewise, while 16.7% of urban drivers were identified as failing to yield the right-of-way to the pedestrians they struck, only 4.2% of rural drivers were.

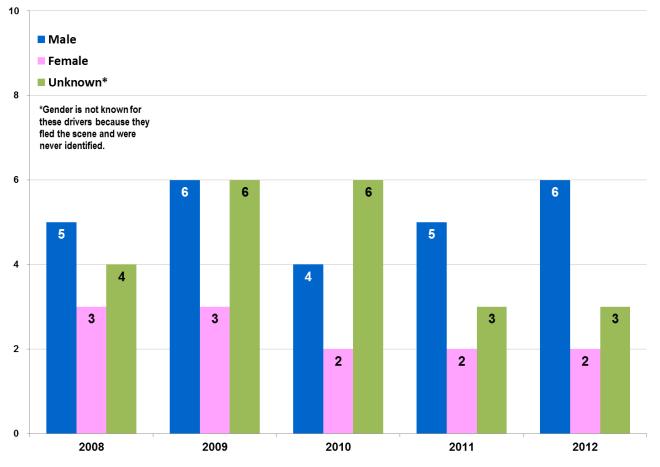
#### Driver Contributing Circumstances in Pedestrian Fatal Crashes by Gender

Source: Fatality Analysis Reporting System (FARS), 2008-2012

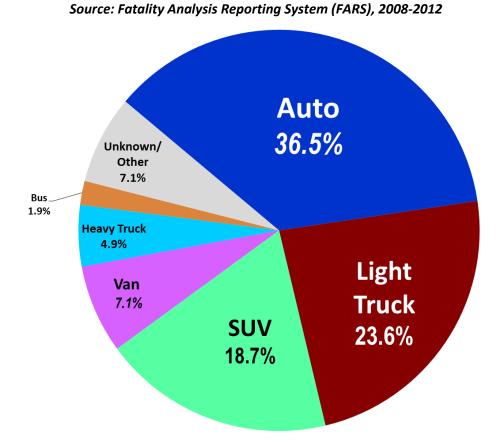
Each pedestrian may have up to three contributing circumstance reported, percents will not equal 100%.



Nearly one in every six male drivers involved in these fatal crashes (15.7%) was impaired by drugs or alcohol (or both), compared to approximately one in nine (10.6%) female drivers. Roughly one-fifth of both male (21.0%) and female (18.1%) drivers were identified by police investigators as distracted at the time of the crash.



There is a higher-than-average involvement of hit-and-run drivers in pedestrian fatal crashes than in other fatal crashes. Hit-and-run drivers amounted to 16.5% of all drivers involved in pedestrian fatal crashes. By contrast, only 49 of the other 2,794 drivers involved in other fatal crashes during the same span of years (1.8%) were hit-and-run drivers. Thus, hit-and-run percent for drivers in pedestrian fatal crashes was over nine times higher than that for all other drivers in fatal crashes.



Vehicle Types Involved in Pedestrian Fatal Crashes

Vehicle types represented in pedestrian fatal crashes were slightly disproportionate compared with the vehicle-type distribution in all other fatal crashes. For example, no motorcycles were involved in pedestrian fatal crashes.