

Purpose

The purpose of the Cooper Jones Active Transportation Safety Council (CJATSC) Study Team is to review and discuss observations made from detailed case materials of fatal crashes involving bicyclists, walkers or people using other forms of active transportation to identify modifiable risks and protective factors that if present or absent could prevent future fatalities.

Review and discussion of case materials are organized around modifiable risk factors within the [Safe System Approach](#). Within each Safe System Element, modifiable risk and protective factors are identified across the [Spectrum of Prevention](#) framework.

The observations reported by the Fatality Case Review Study Team are not the official recommendations of the CJATSC or the Washington Traffic Safety Commission (WTSC). The Study Team submits a summary of their observations to the CJATSC for consideration when developing actionable recommendations. The official recommendations of the CJATSC are published in their Annual Report and are found at <https://wtsc.wa.gov/programs-priorities/active-transportation-safety-council/>.

Scope of Review

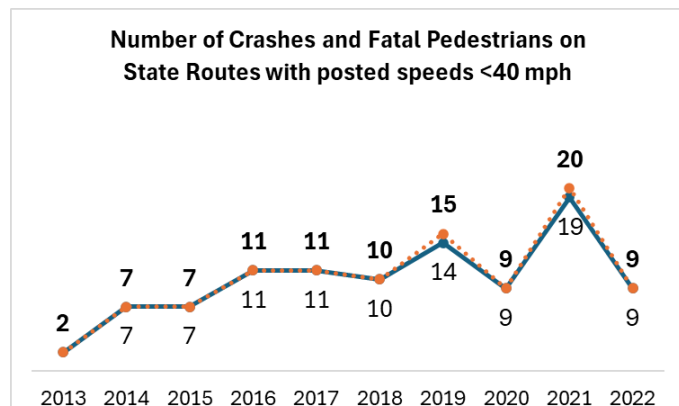
Meeting Date:	Monday, May 20, 2024
Case Selection Topic for Review:	Pedestrian Fatalities that Occur on State Routes with Posted Speeds 35mph or Less (less than 40 mph)
Case Selection Criteria:	2022 Pedestrian Fatalities meeting criteria (9 total in 2022, 8 selected for review (excluded one on US-2))

Data Source

Data regarding pedestrian fatalities that occurred on State Routes with posted speeds of 35mph or less (less than 40 mph) were extracted April 19, 2024, from the WTSC Coded Fatal Crash Files (CFC). A custom analysis was conducted by Dr. Staci Hoff. For additional details, contact Dr. Hoff at shoff@wtsc.wa.gov.

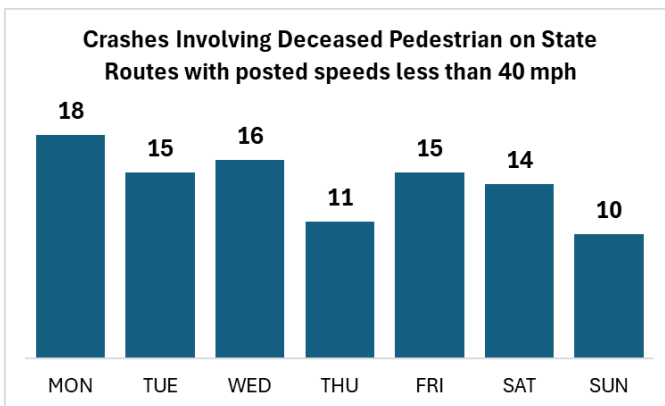
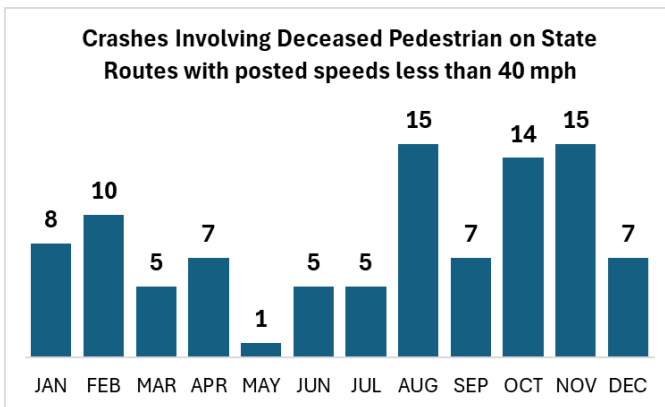
Data Summary

- Between 2013-2022, there were 101 total pedestrian fatalities that met the review criteria out of 1,012 total pedestrian fatalities.
- There were 99 fatal crashes resulting in 101 pedestrian fatalities that occurred on roads designated State Routes by WSDOT with a posted speed <40 mph.



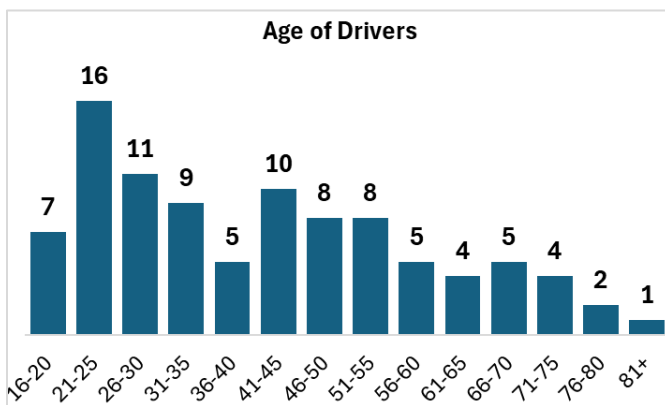
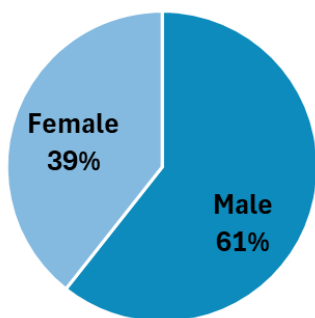
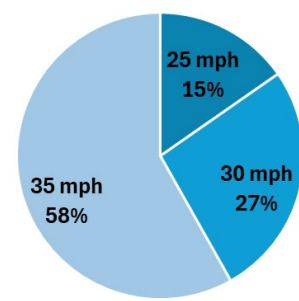
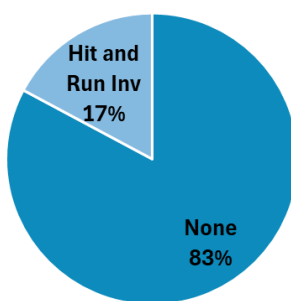
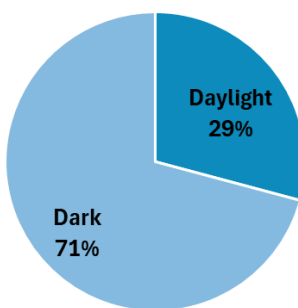
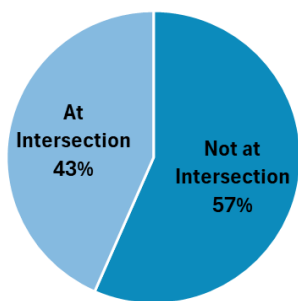
Of those 99 crashes:

- 44% occurred in the months of August, October, and November.
- 76% occurred on weekdays (Monday – Friday).
- Most (58%) occurred on roads with posted speeds of 35 mph.
- Nearly three-fourths of these crashes occurred in hours of darkness and 83% of crashes occurring in darkness had street lighting.
- 43% occurred at intersections and 17% involved a hit and run driver.



Among drivers involved in these crashes:

- 14% were impaired.
- 20% were distracted.
- 3% were speeding.
- 14% failed to yield to the pedestrian.
- 9% were unlicensed.

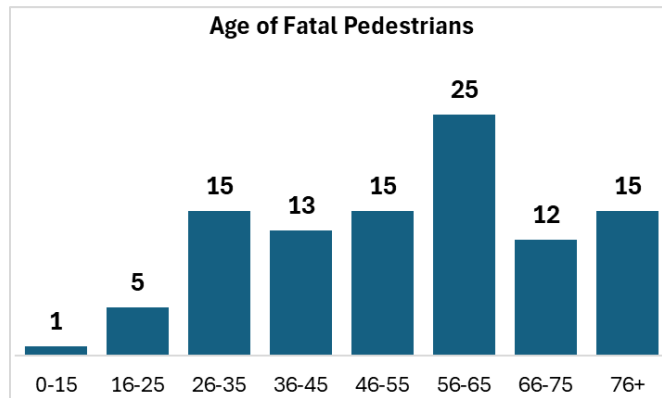


Primary Trafficway	Number of Ped Fatalities 2013-2022
SR-99	11
SR-7	9
SR-161	5
US-2	5
US-101	4
SR-164	3
SR-20	3
SR-513	3
SR-515	3
SR-522	3
SR-900	3
SR-167	2
SR-27	2
SR-410	2
SR-507	2
SR-524	2
SR-529	2
Total Fatalities	65% of 101 Fatalities

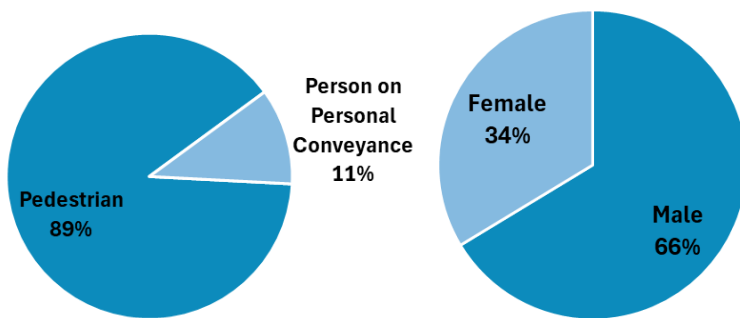
City	Number of Ped Fatalities 2013-2022
SEATTLE	18
TACOMA	9
KENT	7
Unincorporated	7
PUYALLUP	5
RENTON	5
SPOKANE	5
EVERETT	4
AUBURN	3
ANACORTES	2
BREMERTON	2
CLARKSTON	2
EPHRATA	2
LONGVIEW	2
LYNNWOOD	2
MARYSVILLE	2
PORT ANGELES	2
SPOKANE VALLEY	2
Total Fatalities	82% of 101 Fatalities

Among the pedestrian fatalities in these 99 crashes:

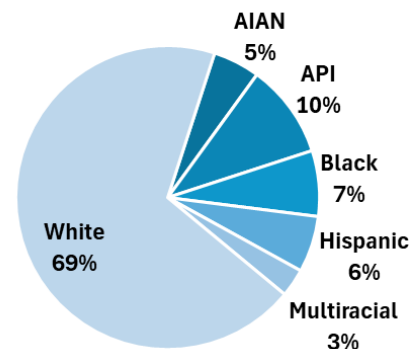
- Most were persons on foot (89%) and 69% were white, followed by Asian/Pacific Islander (10%), Black (7%), and Hispanic (6%).
- 51% were impaired.
- 8% were distracted.
- 49% failed to yield to the driver.
- 42% were either improperly crossing or in the roadway improperly.
- Half were not at an intersection or in a marked crosswalk and one-quarter were at an intersection and in a marked crosswalk.
- Three-fourths were crossing the roadway at the time of the crash.



Fatal Pedestrians 2013-2022



Race of Deceased Pedestrians



Observations

The observations and findings from case reviews presented in this report are based on the discussion of the factors involved in the individual cases selected for review by the team.

Safe Road Users

1. The study team observed cases in which two drivers are at an intersection and reported they were focused on who should proceed first. When this happens, is a driver paying more attention to other cars and then pedestrians? Additionally, lighting continues to impact the safety of pedestrians – especially when a pedestrian is crossing the road. Consider the following:
 - a. Provide educational campaigns that encourage active transportation users to BE SEEN by waving at a driver and making eye contact to ensure the driver sees them before crossing - wear bright colors, wear reflective gear, etc.
 - i. The council at-large has previously discussed that promoting wearing clothes for visibility has an equity impact to consider.
 - b. Research and test feasibility of using flashing night-time crossing flags for pedestrians to carry across the crosswalk (similar concept to the bright orange flags currently used in some location).
 - c. Provide educational campaigns that encourage drivers to look twice – specifically for vulnerable road users – before entering an intersection.
2. Multiple cases included police reports and witness statements noting people “darting” out in front of a vehicle at the last minute, not utilizing crosswalks, and crossing against the crosswalk signal. How do we build a system to expect the unexpected?
3. One case involved a driver “passing a slow-moving vehicle” and colliding with a pedestrian in the roadway. Consider the following:
 - a. Research on how often this scenario occurs. If that research shows this is a pattern, then develop public safety campaigns encouraging drivers to proceed with caution when passing – prioritize publishing these in communities with arterials.
4. One fatality involved a person on a motorized skateboard, using a headlamp and a light on their board, and not wearing a helmet. The police report noted the rider suffered a head injury.
5. One case involved a driver using a bus-only lane as turn lane. This is legal in many municipalities if the vehicle is within a certain amount of feet of a right turn. Additionally, drivers may use the bus-only lane to pass slow moving vehicles. Consider educational campaigns educating drivers on the proper use of bus lanes and the need to take extra precautions to avoid collision with active transportation users.

Safe Vehicles

1. Multiple cases involved a driver entering an intersection at the same time as a pedestrian. Consider funding and supporting programs or projects that improve passive detection systems in vehicles that activate an audible alarm (in the vehicle and outside vehicle) to alert both the driver and vulnerable road user of an impending collision.

Safe Speeds

1. Speed was a contributing factor in multiple cases. Some drivers had a history of speeding on their driving record. Consider partnering with DOL and conducting a study of driving records to determine if they are a predictor of serious injury or death.

Safe Roads

1. As noted under safer vehicles, multiple cases involved a vehicle entering an intersection at the same time as a vulnerable road user (i.e., left turns on green or right-on-red). Consider the following:
 - a. Support policies that do not allow vehicles and people in intersections at the same time – research similar laws in other countries.
 - b. Fund signage for intersections that remind drivers to yield to pedestrians.
 - i. For example see signs at intersections in Everett on SR99 (by airport).
 - c. Determine if overhead pedestrian bridges are feasible and support funding opportunities to build them.
2. Multiple cases involved pick-up trucks and SUVs. The study team discussed that roads today have more large-sized vehicles driving on them. Larger vehicles may cause more damage to a pedestrian due to their size, shape, and weight. Consider researching what planners and engineers are doing to update infrastructure to reflect this change.
3. One case involved a driver making a left-hand turn and cutting into an adjacent lane. Consider funding projects that install a lane barrier between the edge of a turn lane and oncoming traffic to prevent drivers from turning into opposite lanes of traffic.
4. As noted under safer road users, the study team observed a driver using bus-only lane as turn lane. Consider making is a best practice to keep turn lanes and bus-only lanes separate.
5. The study team continues to observe multiple crashes occurred on arterials that connected residential areas with business areas. Consider the following:
 - a. Support funding to install roundabouts when possible, increasing stop signs/signals, and installing speed feedback signs on these roads to reduce speeding.
 - b. Support policies that prioritize updates to arterial roadways for active transportation user safety improvements – repaint faded crosswalks, trim back landscaping, adding more crosswalks/flashing crossing signage, etc.

Post-Crash Care

1. The study team observed multiple cases in which injured people are assessed by first responders as “vitals look good” but then the person dies later that day or in following days.
2. The Department of Licensing’s data collection systems or processes are not consistently capturing fatal crashes accurately. For example, people are listed as active when they are deceased and that a crash involved only an injury when it involved a fatality – even when a PTCR clearly states the driver “died at the scene”. A representative from DOL noted they are aware of this issue from previous FCR observations and are working to resolve it.
3. The study team observed vehicle damage consistent with traveling at high speeds, but the investigating agency did not consider speed as a factor. Additionally, fatal collision investigation reports do not consistently note why speed calculations are not completed – such as a lack of evidence. It was noted that short-staffed agencies cannot send officers to the training as it impacts staffing levels needed to cover patrols, that some agencies prioritize violent crimes (homicide, etc.) over traffic investigations, and that the Criminal Justice Training Center (CJTC) has a shortage of certified trainers and may have outdated speed investigation curriculum. Consider the following:
 - a. Research and verify the status of fatal collision investigation training – specifically related to speed calculations.
 - b. Support policies that fund the CJTC traffic investigation training and trainers.
 - c. Support funding law enforcement agencies traffic investigation units and training for officers in the unit.

Additional Discussion

The following captures additional ideas and observations made by the review team. Specifically, patterns observed over time and across multiple fatal case reviews with a variety of factors.

1. Fatality and serious injury prevention work often centers education as a tactic to reduce harm. Consider the following for all educational strategies:
 - a. Identify and promote funding sources that local municipalities and NGOs can secure to conduct active transportation safety education work. What opportunities exist beyond the WTSC grants and programs?
 - b. Develop statewide curriculum to pull from to ensure reliable and consistent messaging. Including a process that would update the curriculum as new recommendations are created.
2. The review team discussed that, when deciding whether to cross the street, pedestrians may underestimate how fast a car is moving. This may result in them crossing in front of

a vehicle that can't slowdown in enough time to avoid impact. The team considered how best to educate the public about assessing the speed of a vehicle from a distance and promote situational awareness.

3. People may ride skateboards and scooters on the roadway. These may or may not be motorized. Users do not always wear helmets or safety gear. As motorized skateboards, unicycles, and electric scooters users grow – how will safety be addressed? The review team was unaware of any public education targeting motorized scooter, unicycle, and skateboard riders about protective gear options.
4. People may use skateboards, scooters, or bikes to commute because it's a cheaper mode of transportation than the cost of operating and maintaining a vehicle. Consider supporting funding, infrastructure, and laws for adequate and frequent public transportation or other transportation methods to make travel equitable and attainable for various demographics.
5. The study team noted inconsistent laws and infrastructure to support the use of motorized bikes, scooters, and skateboards. Consider the following:
 - a. Researching what laws exist specific to motorized bikes, scooters, and skateboards; if law enforcement and courts are up to date with their training on these laws; and whether city and traffic engineers are considering them when designing infrastructure.
 - b. Research how fast motorized skateboards, scooters, and bicycles may travel – it was noted that some eBikes can go up to 45 MPH.
 - c. Develop policies to address safety and how these faster modes of transportation may or may not move about roadways.
6. People with limited mobility (or that use mobility devices) may not be able to cross crosswalks that span four or more lanes in the allotted time. Consider policies that require an increase in crossing times when adding and widening lanes.
7. There may be a delay between when a person pushes a crosswalk signal button and when it starts flashing, but people may start to walk as soon as they hit the button. This especially impacts intersections without a traffic signal (i.e., four-way stop sign). Consider policies that regulate manufacturers to ensure immediate response to a button being pushed.