Overview of Pedestrian Fatalities and Serious Injuries – Statewide 2011-2015*

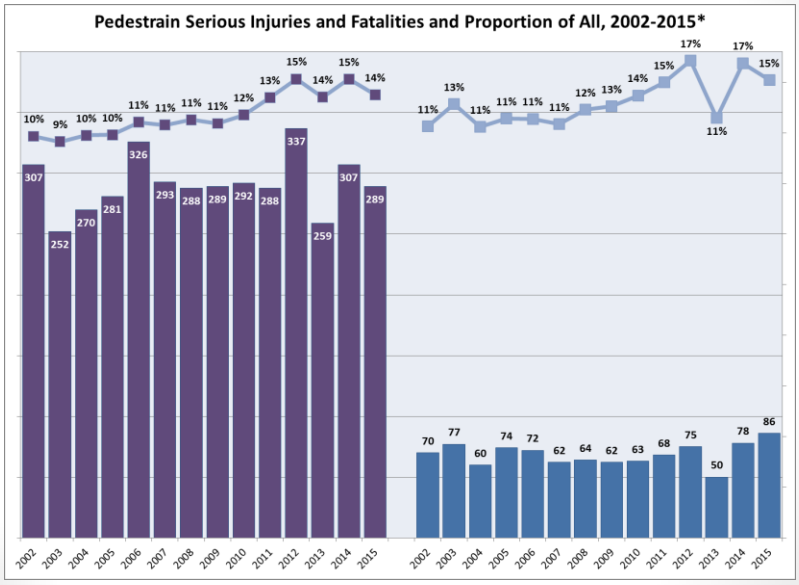
Pedestrian Safety Advisory Council (PSAC)
Staci Hoff, PhD
April 25, 2016
Revised May 2016

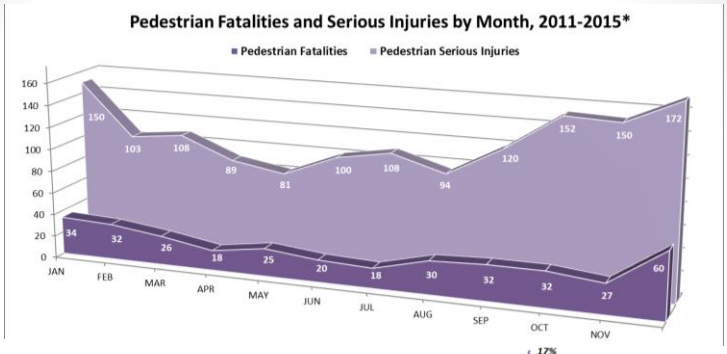
Per RCW 43.59.155 documents prepared by or for the PSAC are inadmissible and may not be used in a civil or administrative proceeding.

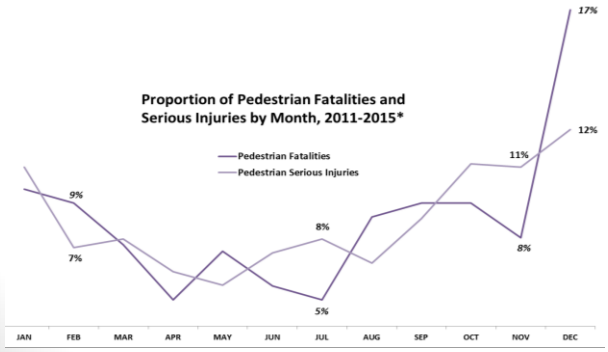
Overview

- Statewide Information
  - History
  - Month, Day of Week, Time of Day
  - Investigating Agencies, Road Types, Location
  - Pedestrian Demographics
  - Drivers Striking Pedestrians Demographics
  - Contributing Circumstances
- Case Studies (2015 case sampling)
  - Driver Error
  - High Alcohol BAC Pedestrians
  - Driverless Vehicles
  - Children

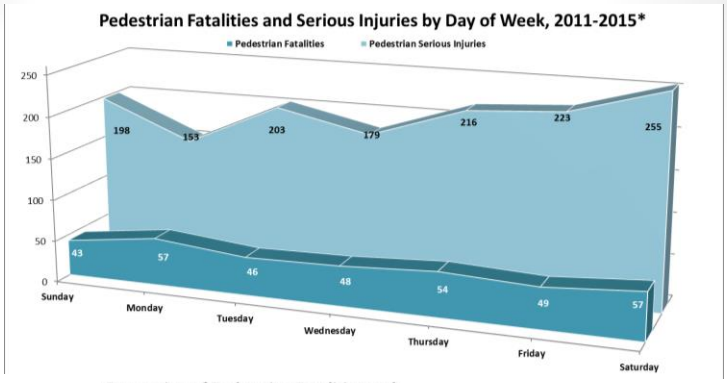
History

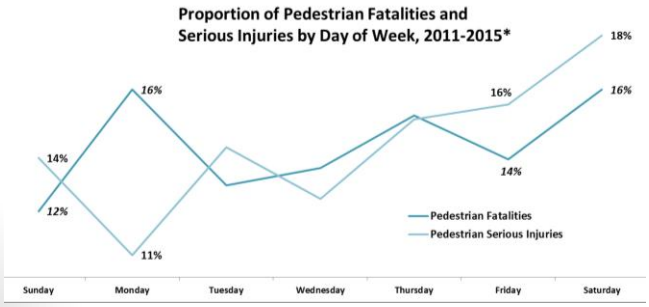




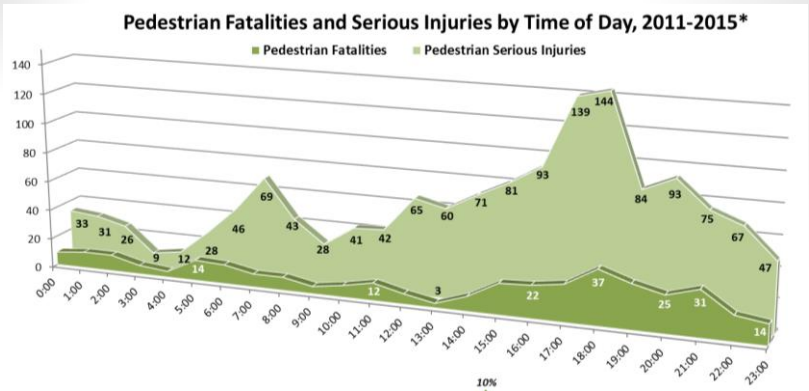


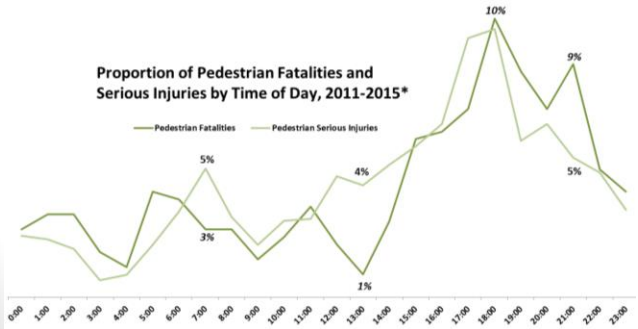
Month





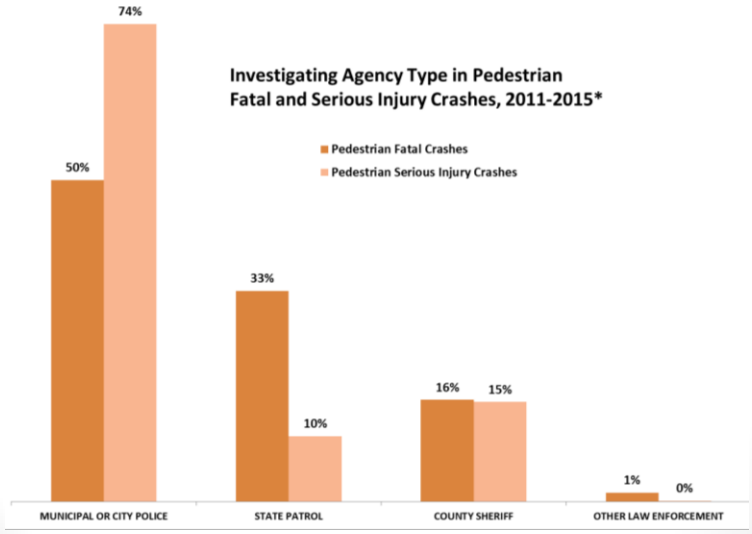
Day of Week



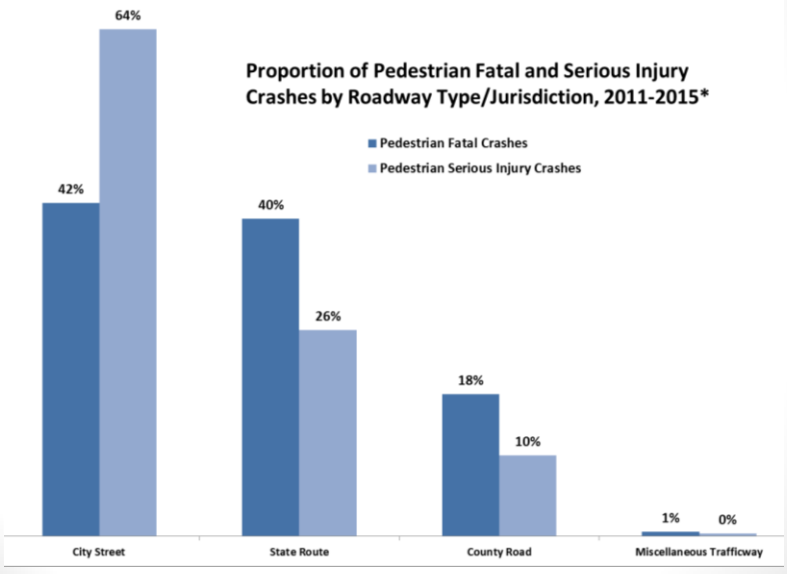


Time of Day

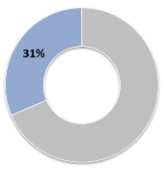
Investigating Agencies



Road Type

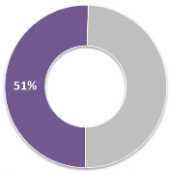


Pedestrian Location at Crash

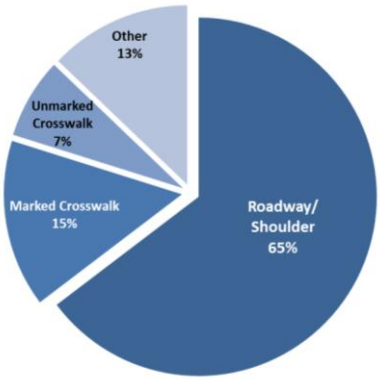


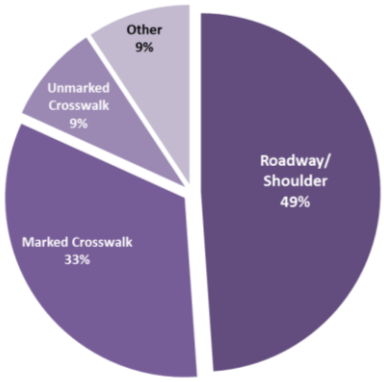
Pedestrian Location - Fatalities

At or Related to Intersections

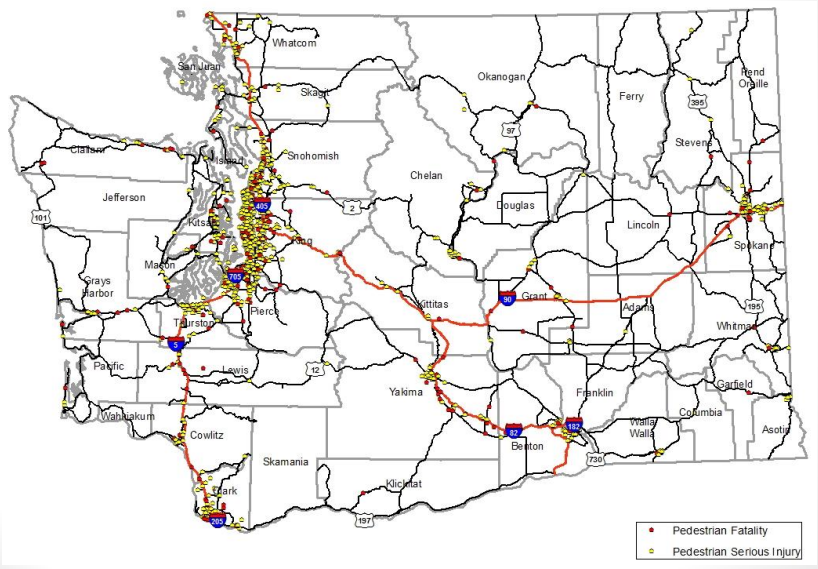


Pedestrian Location - Serious Injuries

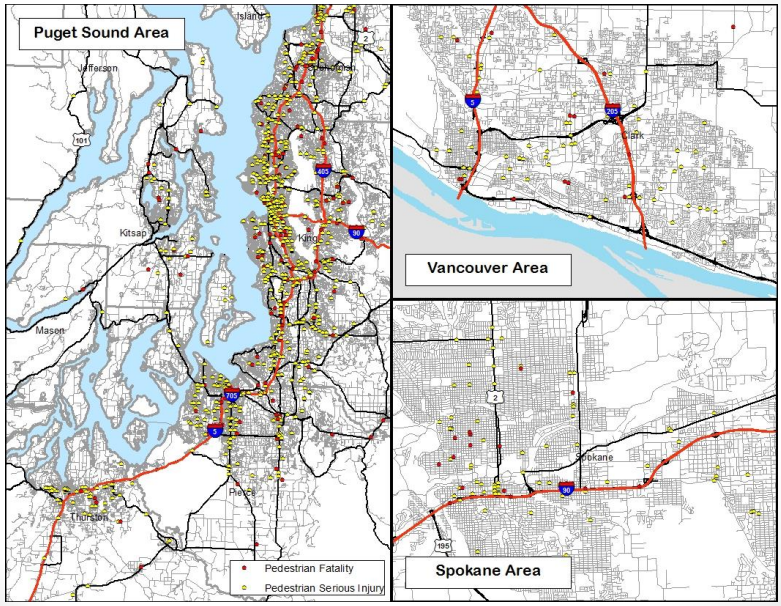




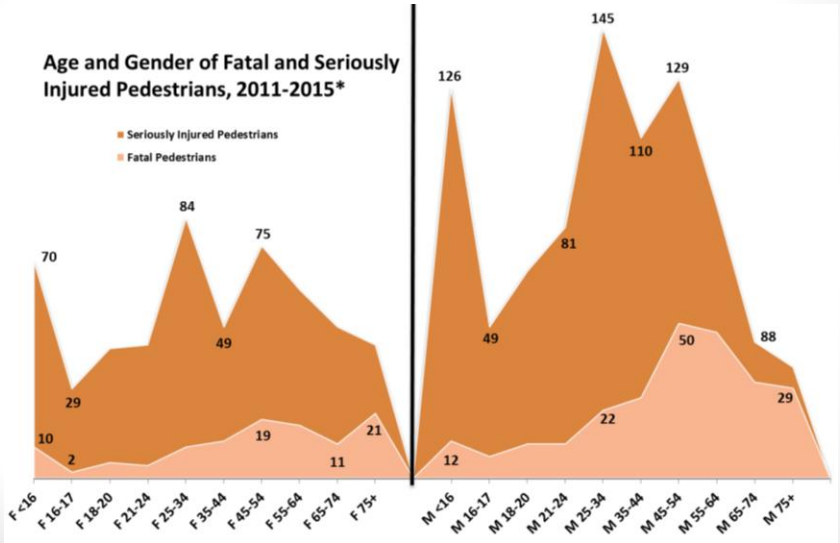
Statewide View



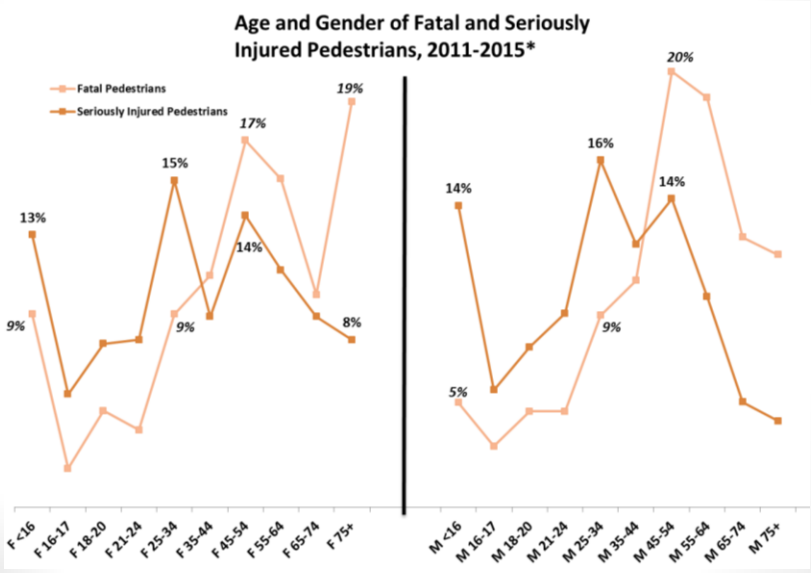
Urban View



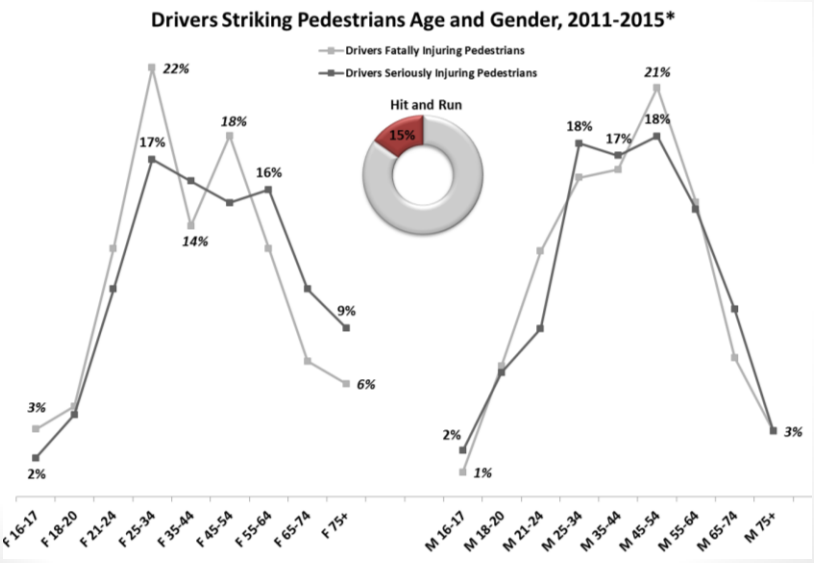
Pedestrian Age/Gender



Pedestrian Age/Gender



Striking Driver Age/Gender



Contributing Circumstances (CC)

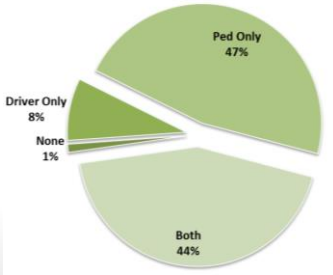
Top Five CC of Fatal Pedestrians		
Under the Influence	158	44%
Disregard Sign/Signal	111	31%
Jaywalking	55	15%
Fail to grant Right of Way to MV	45	13%
Distracted	42	12%

Top Five CC of Seriously Injured Pedestrians		
Fail to grant Right of Way to MV	307	21%
Distracted	173	12%
Under Influence	116	8%
Failure to Use Xwalk	84	6%
Disregard Sign/Signal	58	4%

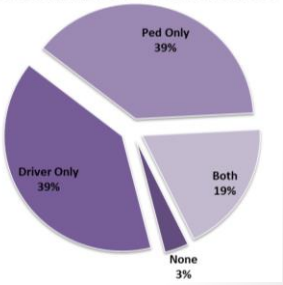
Top Five CC of Drivers (Fatal Pedestrians)		
Distracted	101	29%
Impaired	54	15%
Fail to grant Right of Way to Ped	42	12%
Speed	19	5%
Lane Deviation	7	2%

Top Five CC of Drivers (Seriously Injured Pedestrians)		
Fail to grant Right of Way to Ped	416	29%
Distracted	267	18%
Under Influence	73	5%
Speeding	55	4%
Disregard Sign/Sig	21	1%

Fatally Injured Pedestrian Crashes



Seriously Injured Pedestrian Crashes



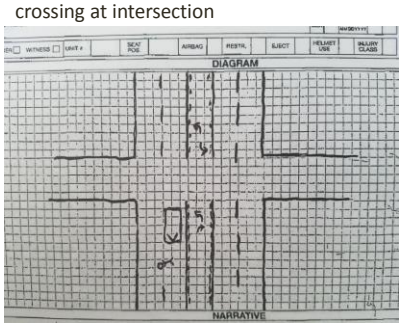
What else should we prepare?

Case Studies

2015 Fatal Pedestrian Crash Types	Count	Percent
Ped Failed to Yield	20	23.3%
Motorist Failed to Yield	8	9.3%
Walking/Running Trafficway-From Behind	7	8.1%
Motorist Right Turn	7	8.1%
Dash	6	7.0%
Disabled-Vehicle Related	5	5.8%
Not at Intersection-Oth/Unk	5	5.8%
At Intersection-Oth/Unk	5	5.8%
Lying in Roadway	4	4.7%
Walking/Running Trafficway-From Front	4	4.7%
Backing Vehicle - Driveway	3	3.5%
Crossing Expressway	2	2.3%
Other	10	11.6%

Case Study: Distracted Drivers

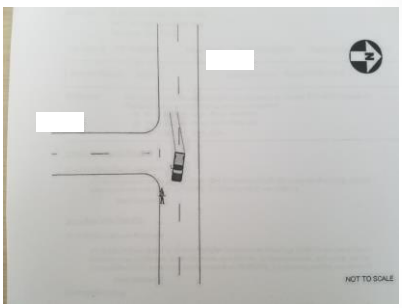
2/20 @ 18:11, Overcast and wet, dark with street lights on, unmarked crosswalk, ped crossing at intersection



V1 was traveling SB. Driver stated he was looking at the signs. As V1 crossed street, he struck a pedestrian who was crossing the street. The pedestrian appeared to be crossing the street EB.

Driver CC – 23 (Inattention)
Ped CC – None

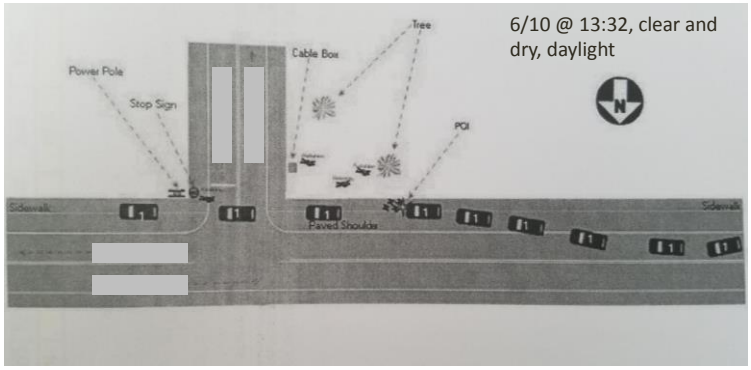
3/13 @ 5:35, clear and dry, dark without street lights, ped walking in roadway



Unit 1 was traveling EB. Unit 1 hit the victim at the intersection. Victim died at the scene.

Driver CC – 51 (Unk Driver Distraction)
Ped CC – 18 (None)

Case Study: Drowsy Driver

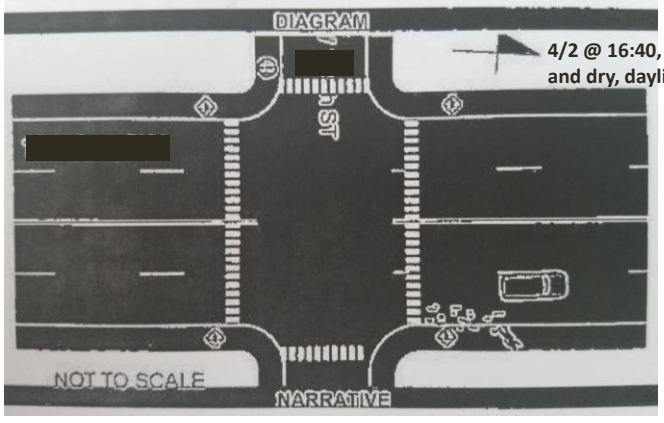


6/10 @ 13:32, clear and dry, daylight

"…Unit 1 drifted to the right, striking the concrete curbing and traveling onto the concrete sidewalk. Unit 1 struck all four male pedestrians and continued east. Unit 1 came to a rest partially on the sidewalk, just east of Rd." (Two pedestrian fatalities, two pedestrian serious injuries)

Driver CC – 14 (Apparently Asleep) [8.1 ng carboxy-THC]
Pedestrian CC – 18 (None) [No Drugs]

Case Study: Impaired Driver

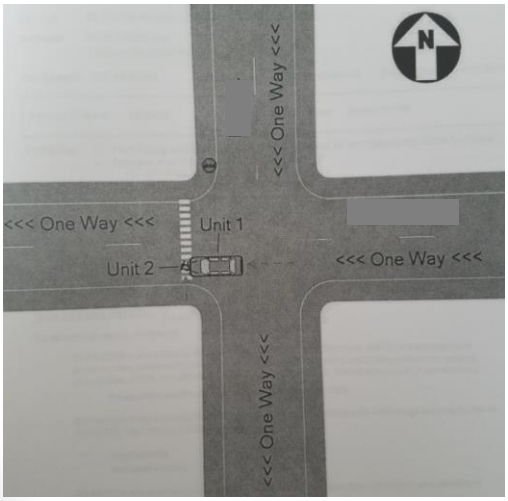


4/2 @ 16:40, clear and dry, daylight

"…pedestrian was crossing…in the crosswalk and had active/flashing yellow pedestrian crossing warning lights. [W1 stopped in NB left lane, not shown on diagram]. Unit 1 drove past the stopped vehicle striking pedestrian. Driver was processed for DUI and blew a .32 on a PBT."

Driver CC – 1 (Alcohol), 13 (Disregard flashing yellow), 22 (Did not grant RW to ped)
Driver Tox - .30 BAC, Nordiazepam
Pedestrian CC – 18 (None)

Case Study: Driver FTY, High BAC Pedestrian



3/31 @ 00:08, raining and wet, dark with street lights on, ped crossing at intersection, no signal

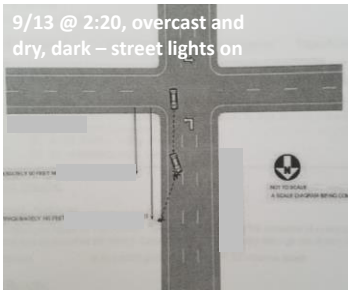
"Pedestrian crossing…either in the marked crosswalk, or just west of. The vehicle struck the pedestrian. Vehicle immediately pulls over and stops. Driver then cannot find the pedestrian. Pedestrian later found…under overpass. It appears at least one other vehicle must have carried/dragged the pedestrian to that location."

Driver CC – 22 (Did not grant RW to pedestrian)

Pedestrian CC – 18 (None)
Ped Tox - .23 BAC
THC 1.5 ng
Amphetamine, Methamphetamine

Driver Errors in Pedestrian Crashes

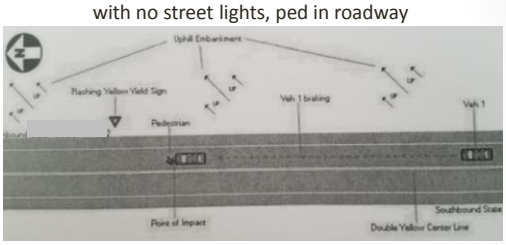
Case Study: High BAC Pedestrians in the Roadway



"…Unit 1 traveling NB during hours of darkness…suddenly observed pedestrian walking in the middle of the NB lane in front of him and swerved left but was unable to avoid hitting him. Driver received SFST, PBT, DRE. Pedestrian was wearing dark clothing."

Driver CC – 18 (None)
Pedestrian CC – 23 (Inattention)

5/17 @ 1:30, raining and wet, dark with no street lights, ped in roadway



V1 traveling NB. V1 began slowing for red light. V1 observed pedestrian standing in the NB lane. V1 attempted to stop and struck pedestrian.

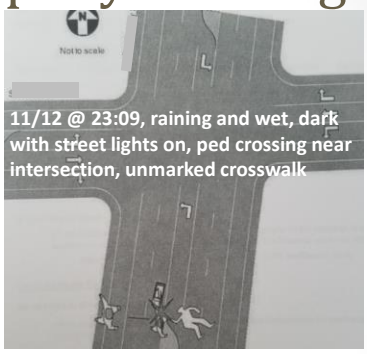
Driver CC – 52 (Driver Not Distracted)
Pedestrian CC – 1 (Alcohol), 17 (Other)
Pedestrian Action – 12 (In Roadway)
Pedestrian Tox - .33 BAC

Pedestrian Tox - .33 BAC

Case Study: High BAC Pedestrians Improperly Crossing

"…intersection not equipped with signals, street lights, minimal ambient lighting, no marked crosswalks or crossing signals. Driver did not see pedestrian in roadway until the last moment …witnesses describe the pedestrian as running across the roadway…it was dark and raining and the roadway was wet."

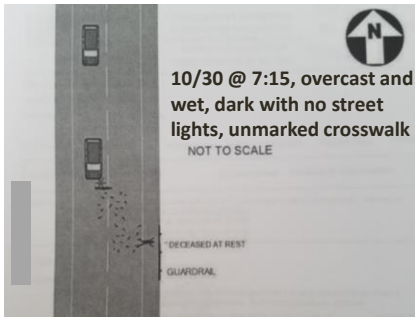
Driver CC – 18 (None), Tox showed 1.9 ng THC
Pedestrian CC – 17 (Other), 5 (Did not grant RW to vehicle) – Transient
Pedestrian TOX - .20 BAC, Lorazepam, Carboxy-THC



"…driving SB and went through the light and saw something but it was dark…tried to swerve but it was too late… "this guy just ran out in front of him"…pedestrian exited bus and run directly across the street."

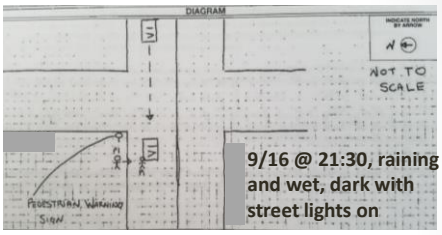
Driver CC – 18 (None), vol. PBT 000
Pedestrian CC – 17 (Did not grant RW)
Pedestrian Tox - .26 BAC, 2.6 ng THC, Nordiazepam

Case Study: High BAC Pedestrians Improperly Crossing



Pedestrian was walking in the roadway. V1 was SB. Pedestrian walked in front of V1 and was struck.

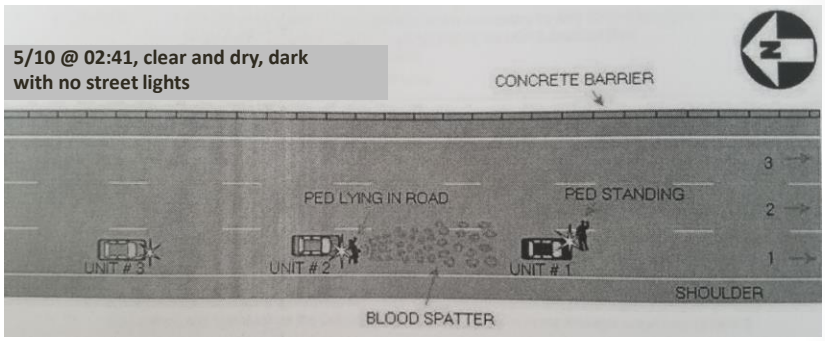
Driver CC – 18 (None)
Pedestrian CC – 1 (Alcohol),
23 (Inattention), 42 (Electronic Device)
Pedestrian TOX - .18 BAC, 1.3 ng THC



"…Driver stated he was traveling WB at ~25 mph. Driver stated as he passed intersection he saw the pedestrian crossing but was unable to stop before striking. Witness said there was nothing the driver could have done to avoid the collision…"

Driver CC – 18 (None)
Pedestrian CC – 23 (Inattention)
Pedestrian Action – 6 (Xing – Non Intersection, No crosswalk)
Pedestrian TOX - .21 BAC

Case Study: High BAC Pedestrian on the Freeway

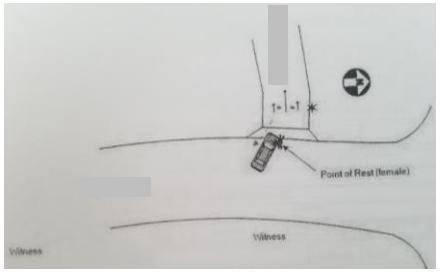


"Unit 1, 2, and 3 were traveling SB in lane 1 of 3. Unit 1 struck a pedestrian that was standing in lane 1 of 3. The pedestrian flipped over the top of unit 1. Units 2 and 3 both struck the pedestrian…it was dark and the pedestrian was wearing dark clothing. The pedestrian was standing unlawfully in the roadway…"

Driver CC – 18 (None)
Pedestrian CC – 17 (Other)
Pedestrian TOX - .24 BAC

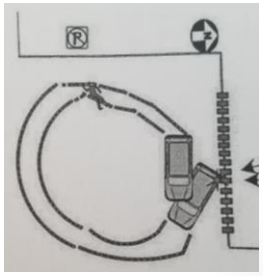
High BAC Pedestrian Crashes

Driverless Vehicles



"…elderly male and female…normal custom to stop at the bottom of the steeply angled driveway to let the wife out on a flat surface. Husband exited to get mail but did not get the car all the way into park. Man exited vehicle and cleared the door…vehicle started rolling backwards…wife had not completely exited and became trapped by door. Vehicle rolled over the wife who was now lying on the roadway…"

- Exiting vehicle for {fill in the blank} and vehicle not fully in park. Happens at least once per year.



Child Pedestrians

- In 2015, there were six child pedestrian deaths ranging in age from 22 months to 4 years old.
  - Three involved the child running into the roadway
    - One exited car and ran across the street
  - One involved a vehicle backing from a driveway
  - One involved an impaired driver striking the child in a crosswalk
  - One involved a left-turn crash that pushed a car to the sidewalk
- There were no child pedestrian fatalities in school zones between 2011-2015*