

FATAL PEDESTRIAN CRASH REPORT

SUMMARY AND RECOMMENDATIONS

PORTLAND, 2017-2019





Image: Oregon Walks

Oregon Walks is a 501 (c)(3) non-profit membership organization dedicated to promoting walking and making the conditions for walking and rolling safe, convenient and attractive throughout the Portland metropolitan region and statewide.

The goal of the Oregon Walks Fatal Pedestrian Crash Report is to provide facts to focus and guide transportation safety, equity and pedestrian advocacy efforts in Portland.

Summary

Oregon Walks, supported by experts and volunteers, reviewed all 48 fatal pedestrian crashes in Portland from 2017 to 2019. The authors examined police reports, roadway design characteristics, driver and pedestrian behavior, media reports, and other available records for every crash.

Data from fatal pedestrian crashes in Portland from 2017-2019 brings transportation equity and infrastructure issues into sharp focus. Transportation planning cannot be successful in the absence of examining, understanding, and addressing systems of oppression as those most impacted by the policies that allow traffic fatalities to happen are those who are marginalized. Policymakers, transportation agencies and community members alike must not only recognize the symptoms of infrastructure inadequacies, but must also acknowledge that the root cause of traffic crashes and pedestrian fatalities are highly influenced by systemic racism, poverty, inequality, systems of oppression, public policy, and unequal distribution of government resources.

Significant findings include:

- Pedestrian deaths in Portland disproportionately harm **underserved groups** including Black Portlanders (3.0x), older adults (3.2x), persons with disabilities (3.3x) and people experiencing homelessness (9.1x).
- Pedestrian deaths occur disproportionately in **East Portland** (2.5x), where PBOT and ODOT operate numerous high-speed arterials, there is not a complete grid of side-streets, and PBOT and ODOT fail to provide sidewalks, adequate street lighting and safe crossings on many streets.
- All 48 fatal pedestrian crashes in the 3-year dataset (100%) occurred in poorer-than-average areas (i.e., census tracts with a **median income** lower than the citywide median).
- **Inadequate streetlighting** emerges as a major issue. 79% of fatal pedestrian crashes occurred when it was dark. All crashes reviewed in which the police report identified the person killed as Black occurred when it was dark. Reviewers identified potentially inadequate street lighting in all but one of these crashes. It appears many areas do not meet engineering standards. Comprehensive engineering review and response are needed.

- **Speed** emerges as a major factor. Deadly crashes occur most frequently on streets posted in the 30 to 35 mph range.

- **Street design** matters. The most frequently occurring deadly crashes are on long, wide straightaways with multiple lanes, and no traffic calming. These are conducive to high speed and dangerous driving behaviors. For 28 of the 48 crashes, the posted speed was set higher than the statutory speed. For 4 of the 48 crashes, the speed was posted higher than the speed directed by Portland Ordinance # 188774. PBOT is not utilizing its full ability to obtain statutory speeds, and has failed to implement the ordinance on most “collector” streets.

- Driver **intoxication** above the current legal BAC was identified in 4 of the 48 crashes. Pedestrian intoxication was identified in 5 of the 48 crashes. While significant, intoxication is not a dominant crash factor, and is only one of several. “Dangerous by design” roadways appear to be a far more prevalent factor.

- The PPB Major Crash Team attempts to determine electronic **distraction** (driver or pedestrian) in every crash. In some cases (e.g., hit and run) this is impossible. Of the 26 crashes for which police were able to make a determination, driver distraction was identified in 0 crashes. Pedestrian distraction (based on cell phone location or observed or suspected cell phone use etc.) was identified in 0 crashes. Electronic distraction cases are known outside this dataset. However, our evidence here does not support widely-shared belief that electronic distraction causes many pedestrian crashes. People may be inclined to believe that a person’s violation of a social norm explains their death. Or, people may try to identify ways that our own behavior is different from that of the person who died. These strategies may help us to avoid the unsettling fact that a bad crash could happen to us or our loved ones. They should not be the basis for policy.

- Current **crash response practices and communication** with the general public are flawed. Police are generally focused on law enforcement, not engineering. Police reports generally provide little evaluation of infrastructure-related crash factors. Post-crash media releases by police typically frame crashes based on user behaviors (sometimes blaming victims) and fail to include infrastructure issues. They do not enable people to understand what happened. Media reporting typically focuses on the traffic effects of temporary post-crash road closures, or on “click bait” aspects of user behavior. Safety advocates and neighborhoods lack the information they need to advocate for change.

- Current **data collection and information sharing** is flawed. ODOT compiles data from police report checkboxes and releases aggregate annual data 2 years later. Valuable information in the report narratives, such as what witnesses said about how the crash occurred, or whether a person was experiencing homelessness, is often lost. Police reports are widely inaccessible to safety advocates and community members who want to understand crashes.

Recommendations

Eliminating serious crashes will require significant changes to how we operate streets, and a collaborative, sustained effort by all. The following pages provide a list of targeted actions for agencies, policymakers, advocates and neighbors. Working together, we can achieve the common goal of zero traffic fatalities in Portland.

01.

**Recommendations for
PBOT**

PBOT

Prioritize East Portland

Review of fatal pedestrian crashes from 2017-2019 shows people walking in low-income communities, particularly in East Portland, who are part of traditionally underserved groups including those who identify as Black are disproportionately more likely to be killed in a crash. Funding allocation and priority for all current and future projects should accordingly be devoted to East Portland, east of 82nd Ave.

Reestablish a dedicated Traffic Calming Division

Reviews show that speed is a nearly universal factor in crashes (typically excluding only those involving right turn movements). Moreover, traffic calming was identifiably inadequate at nearly half of fatal pedestrian crash locations surveyed. PBOT disbanded the Traffic Calming Division in the 1990s with budget cuts. This Division must be brought back. Traffic calming is more effective and equitable than enforcement to achieve safety (and livability) outcomes.

Follow Existing Laws to Lower speeds on Collectors, School Zones and Narrow Residential Roadways

Portland Ordinance 188774 designates a “speed that is five miles per hour lower than statutory speed on non-arterial streets under the jurisdiction of the City of Portland in residence districts.” Collectors are “non-arterial” streets. The statutory speed for Collectors in a residence district is 25 mph. Collectors in residence districts must accordingly be lowered to 20 mph in Portland. The Statutory Speed in school zones is 20 mph. Portland Ordinance 188774 directs a 5 mph speed reduction to 15 mph. “Narrow residential roadways” are streets in a residence district where the portion of the street “that is improved, designed or ordinarily used for vehicular travel, exclusive of the shoulder” is not more than 18 feet wide (ORS801.368). All Portland streets in residence districts that are 18 feet or narrower — not including shoulders or parking — must be posted 10 mph.

Lowering posted speed and making engineering changes are like chicken and egg. Engineers are likely to reject calming measures when the posted speed is high. The need for speed limit reductions and engineering measures to calm speed should not be used as an excuse to do neither.

PBOT, cont.

Prioritize streetlight upgrades and installation, particularly on Arterials and Collectors in East Portland

Data shows that 79% of crashes occurred while it was dark. 21 out of 48 total crash locations currently have unresolved possible lighting deficiencies or issues. Ensure all Arterials and Collectors, particularly in East Portland, meet or exceed PBOT Appendix K guidelines for foot-candle illuminance and uniformity ratio.

(Re)Establish a Fatal Pedestrian Crash Rapid Response Task Force

The 2016 Vision Zero Action Plan SD3 directed PBOT to “Deploy a multi-agency fatal rapid response team to fatal crash locations to evaluate the site for safety enhancements.” PBOT participated in response to one crash, and then quietly abandoned this directive. Even if training or hiring is required, this team should exist, and should review the crash location at the time of the crash and collect data to improve PBOT’s safe systems approach.

Release Vision Zero fatal pedestrian crash media briefs

Shortly after each fatality crash, PBOT should release a Vision Zero crash media brief using media best practices for language and preliminary data from the rapid response task force location assessment to present a pedestrian focused, thematic-framed perspective of the crash.

Analyze Crashes and Provide Information to Communities

PBOT should develop templates and protocols to perform and publish reviews of every fatal and serious crash in Portland. These should be posted on PBOT’s Vision Zero Crash Map, along with the public record copy of the police report for each crash. Driver and victim last names and addresses may be redacted, consistent with PBOT’s currently-adopted “first name last initial” compromise between humanizing crashes and respecting families’ privacy (which has typically already been lost due to media reporting).

Incorporate data for People Experiencing Homelessness into the existing Equity Matrix

PBOT must develop a methodology for assessing homelessness/houselessness (taking into account encampments, services, crash history and more) within census tracts to incorporate into the existing Equity Matrix. This data should be used to guide implementation of infrastructure improvements and safety plans as well as funds allocation prioritization.

PBOT, cont.

Address pedestrian safety infrastructure for Older Adults

Older Adults (65+) are disproportionately killed in pedestrian crashes in Portland. PBOT must survey crash history and specifics at locations where Older Adults were killed to determine how infrastructure may have contributed to crashes. Assessment should be made of where nearby assisted living homes and other services are located, as well as signal timing, lighting and proximity to crosswalks for those with slower walking pace or mobility issues. PBOT should establish a data collection methodology, identify actionable steps and fund upgrades.

Make changes based on Oregon Walks Crash Reviews

The Oregon Walks Crash Reviews report lists known and possible infrastructure issues for every crash location. PBOT should use these reports to inform upgrades at the crash location *and every other place where similar conditions exist*.

Expand Leading Pedestrian Interval (LPI) and protected left turn installation

A 2019 directive by PBOT Director Chris Warner called for the installation of 10 or more LPIs and 3 or more protected left turns in 2020. This program should be expanded with an assessment of intersections citywide with particular attention to pedestrian crash history data involving right turn and left turn right of way conflicts. Although LPIs can reduce the opportunity to make eye contact between people walking and people driving, and can place people walking directly in the path of turning vehicles if the signal timing is poor, there is some evidence suggesting LPIs can modestly improve safety. LPIs and, especially, protected left turns must be installed at all locations with a measurable history of pedestrian crashes and in future intersection designs. It appears left turning movements (and left hook collisions) are more dangerous to pedestrians than right hooks, particularly at large intersections. This is likely because drivers have more distance to gain speed, and because there is no opportunity (for anyone) to make eye contact before starting to cross. Separating these movements in time, or slowing left turns by channeling drivers into narrower lanes or smaller radius turns can help.

PBOT, cont.

Words Matter: Accidents, Crashes and Traffic Violence

Most journalists, professionals and policymakers now refer to “crashes” not “accidents.” Oregon Walks recommends a still-jarring term: “traffic violence.” This term reflects the fact that when a person driving a car strikes another person, the person(s) injured or killed have experienced a violent trauma. Violence (such as a “violent” volcanic eruption) does not require intent. The focus is on how the event affects people, regardless of the intent of any of the people involved. Introducing this term is sometimes more productive at the end, not the beginning, of a conversation about crashes. There is an informative article about the term traffic violence here: https://laist.com/2020/01/03/car_crash_accident_traffic_violence_language.php

Words Matter: Trauma Impacted Communities

PBOT has done excellent work mapping race, income, and areas where Portland has neglected basic pedestrian infrastructure. Oregon Walks supports PBOT’s work to understand “Communities of Concern,” but suggests instead the term Trauma Impacted Communities. A “concern” is typically a back-burner issue, not a priority. When did these communities become a “concern”? The term Trauma Impacted Communities shifts the narrative in two ways. First, it acknowledges that the effects of traffic violence on individuals and communities is additive. It piles on top of traumas which include economic instability, housing exclusion, a current unprecedented increase in gun violence, limited access to education and healthcare, and others. Second, the policy response to trauma is healing, not “us-vs-them.” Ending pedestrian fatalities is preventing and healing traumas.

02.

**Recommendations for
ODOT**

ODOT

Reorganize, Restructure and Refocus

ODOT has developed into a highway-building agency. Its structure, funding priorities, and staff capabilities must re-orient from “business as usual” to implementing safety best practices even when they cost money or reduce motor vehicle speed or capacity; and to funding complete infrastructure for people walking on all facilities.

Stop Expanding Freeways

Freeways promote sprawling, car-based development that is typically inhospitable to pedestrians, and brings cars into urban areas where additional crashes occur.

Freeways also absorb huge amounts of taxpayers’ transportation dollars. We cannot spend nearly \$1 Billion to expand 1.6 miles of I-5 through central Portland, and defer basic safety improvements and infrastructure investments that have been so long denied to areas including East Portland.

Revise new speed zoning guidelines with an equity lens

The current speed zoning rules (OAR) that took effect in 2020 fail to address transportation equity considerations and may actually entrench existing inequities.

The concentric zoning system provides lower speeds in the more white, affluent central neighborhoods where fewer fatal pedestrian crashes occur. Underserved neighborhoods in East and North Portland with higher populations of people of color and lower median income with more fatal pedestrian crashes are left with higher speed limits. Community engagement is necessary.

Transfer ownership of Arterials in Portland to PBOT

PBOT has begun to make significant progress in reshaping its formerly deadly-by-design arterials so that they support high-capacity transit and all modes, including people walking and rolling. ODOT has not. ODOT’s streets within Portland used to be farm-to-market rural routes. Now they cut through neighborhoods with schools, parks, businesses and homes. ODOT continues to operate these streets as high-speed, high-capacity automobile routes. This is true even for streets that run closely parallel to freeways. Unlike freeways, these surface streets are not suitable for operating at high speeds in the neighborhood context. ODOT and PBOT need to reach agreement on who will fund the deferred investments these streets require and transfer jurisdiction.

03.

**Recommendations for
Portland City Councilors**

Portland City Councilors

Reestablish a dedicated Traffic Calming Division

Review shows that traffic calming was inadequate at nearly half of fatal pedestrian crash locations surveyed. The Traffic Calming Division at PBOT was disbanded in the nineties with budget cuts. Portland City Council must bring this Division back and with a robust budget. Traffic calming focus should be on Local Service streets and Collectors in underserved communities.

Replace officer enforcement with cameras in locations that cannot be adequately engineered for calm or safety

Rotate dummy cameras from place to place, like Sweden does. That way drivers are mostly seeing cameras and slowing down, as opposed to mostly not seeing cameras and getting tickets.

Establish an income based fine system for traffic offenses

The current flat rate fee system is inequitable. A person with a high income can afford to pay fines without economic burden whereas those with a lower income paying the same fine may be impacted more heavily. As a prerequisite to replacing officer enforcement with cameras, the existing fee schedule should be amended so that fines are on a sliding scale with income.

Change after-hours parking enforcement from police to PBOT

Having police respond to calls of improperly parked vehicles on evenings and weekends is expensive, diverts police resources and is a setup for racially-charged interactions which have occurred in Portland. PBOT parking enforcement personnel do it during business hours and this service should be expanded to after hours.

Reassign primary response for non-felony crashes to PBOT

Only a small fraction of the crashes in Portland each year require involvement by sworn law enforcement officers. Police response to crashes is costly, diverts scarce resources, and results in an estimated 4,000 police-public interactions each year. After a crash, trained PBOT staff should provide temporary traffic control, facilitate exchange of insurance information, and identify infrastructure problems that need to be fixed to prevent future crashes. ORS 153.058 authorizes PBOT to issue citations for traffic violations. Police are only needed when a crash involves more serious criminal behavior.

Portland City Councilors, cont.

Get rid of petty pedestrian offenses

City Code makes it an offense to fail to cross at right angles. The offenses that are susceptible to being misapplied disproportionately against people who are Black and Brown are the same offenses that were created as part of the early 20th Century transfer of rights from pedestrians to drivers. Nothing in our crash reviews supports the conclusion that having petty offenses on the books improves pedestrian safety.

04.

**Recommendations for
Governor and State Legislators**

Governor and State Legislators

Reclaim Freeway Dollars

Freeways promote sprawling, car-based development that is inhospitable to walking and rolling, and that brings additional cars into urban areas where crashes predictably occur. Freeways also absorb huge amounts of taxpayers' transportation dollars. The Governor and Legislature should reclaim the nearly \$1 Billion currently allocated to expanding 1.6 miles of I-5 through central Portland. If the 7 NB and 7 SB freeway lanes we have (on I-5, I-405 and I-205) indeed prove inadequate as transportation needs and technologies evolve ODOT should refocus on basic safety improvements and infrastructure investments that have been so long denied to Oregonians in their own neighborhoods.

Fund Basic Infrastructure

Completing basic infrastructure for people walking, rolling and using other non-motorized modes should receive funding priority ahead of motor vehicle projects until that infrastructure is completed for all communities statewide.

Establish an income-based fine system for traffic offenses

The current flat rate fines system is inequitable. A person with a high income can afford to pay fines without economic burden whereas those with a lower income paying the same fine may be impacted more heavily. As a prerequisite to replacing officer enforcement with cameras, the existing fines schedule should be amended so that fines are on a sliding scale with income. The curriculum for safety courses offered as an alternative to paying a fine should be updated.

Allow pedestrians to walk in two directions on one side of the street

ORS 814.070 requires pedestrians to walk facing traffic. This makes sense some places, but is a problem in others. For example, it may require a person walking or rolling to cross a major highway, twice, without a marked crosswalk in order to proceed a short distance from a bus stop to their home. For another example, many streets without sidewalks are wide enough for a decent walking shoulder on one side only. Restriping to provide a two-way walking shoulder on one side is a highly desirable configuration on many lower-speed neighborhood streets without sidewalks. This section should be amended to enable safe choices, and exciting new design options.

Governor and State Legislators, cont.

Clarify ORS 801.220 re marking a crosswalk does not close others

ORS 801.220 should be amended to make clear that striping one crosswalk at an intersection does not make it illegal for people walking and rolling to cross at other (unmarked) crossings at that intersection (unless they are posted as “closed”). One victim in our data set was faulted, unfairly, for doing so.

Create a Strong Framework for Speed Cameras and Equity

Communities should have the option to shift from officer enforcement to speed camera enforcement on streets where engineering solutions to excessive speed are not immediately practical. Legislation enabling community-led expanded use of speed cameras should accompany income-based fines, and non-fine alternatives. Dummy cameras should be encouraged so people are more likely to slow down and less likely to receive many tickets.

Change “Accident” to Crash in ORS and Agency Documents

Words matter. Change references to “accident” to “crash” throughout the Oregon Revised Statutes and in state agency documents.

Increase Driver Education

Currently, Oregon DMV is supporting legislation to eliminate testing for out-of-state drivers who move to Oregon. This would save DMV some work. We should be doing the opposite. Drivers need to stay up-to-date on traffic laws, need explicit information about the driving behaviors that most commonly cause crashes, and need to re-affirm their commitment to follow traffic laws. Periodic online courses and testing are needed.

Decrease Speeds 5 MPH at Night

79% of fatal pedestrian crashes occur at night. This is consistent with national data for all modes: driving at night is three times deadlier than during daylight. State law should provide that drivers shall reduce their speed to (not faster than) 5 MPH less than the posted speed during nighttime conditions.

Reduce BAC to 0.05

Oregon should follow the lead of Utah and the recommendation of the NTSB to reduce the legal blood alcohol limit for drivers from 0.08 to 0.05. The current 0.08 limit means drivers can potentially avoid consequences for driving after consuming approximately 4 beers in a short timeframe. Contrary to liquor lobby assertions, NTSB estimates 500 to 800 lives could be saved each year if states adopt this change.

05.

**Recommendations for
National Policy**

National Policy

NHTSA: Include pedestrian safety tests and ratings in the New Car Assessment Program (NCAP)

The NHTSA lacks complete data on the relationship between vehicle characteristics and pedestrian injuries and has not committed to expand its pilot program to improve its data collection protocol for pedestrian injuries. The NHTSA must put in place a pedestrian safety testing and rating system like that of EuroNCAP.

In 2008, the United Nations Global Technical Regulation No. 9 was established and agreed to by the United States. This regulation seeks to improve pedestrian safety by requiring vehicle hoods and bumpers to absorb energy efficiently when impacted in a vehicle-to-pedestrian crash by setting two performance criteria for pedestrian head impact on hoods and leg impact on bumpers. To date, the NHTSA has failed to initiate the rulemaking process and guidelines for United Nations Global Technical Regulation No. 9.

NHTSA: Link crash data and vehicle information to medical and hospital records

Federal funding for this program was ended in 2013. Researchers are not able to effectively understand or study the relationship between vehicle characteristics and pedestrian injuries with the current police report injury rating/description system and lack of medical data. The program to link the data on a national level must be reestablished in the interest of forwarding safety research and inform future testing and regulations to vehicle design.

NHTSA: Make front facing cameras mandatory in new vehicles

High hood leading edge height on SUVs and light trucks in particular can make forward facing blind spots as long as 15 feet. The NHTSA must make front facing cameras mandatory by law in new vehicles.

06.

**Recommendations for
Community Advocates and Neighbors**

Community Advocates and Neighbors

Complain

Portland has adopted a complaint-driven system for responding to many infrastructure needs, ranging from traffic calming and speed limit reductions to lack of safe space for walking on or crossing particular street(s). The complaint-driven system is inadequate because many safety problems are not apparent to the public, and inequitable because white, affluent Portlanders are more likely to complain. Until the complaint-driven system is discontinued, however, all traffic safety concerns should be emailed to safe@portlandoregon.gov or call 503-823-SAFE. Hazards such as a stop sign knocked down go to 503-823-1700 or pdxroads@portlandoregon.gov

Ask for Speed Reductions

Citizens should email safe@portlandoregon.gov to ask PBOT to reduce speeds on their street, or other streets where speed creates danger. Researching the legally correct posted speed can be complex and should not be necessary. However, a number of speed-related resources are available online. Google “Portland speed limits map” for an interactive GIS map of speed limit postings. Google “ODOT speed zone orders” to see Speed Zone Orders Online (setting speeds faster than statutory). Google “ODOT functional classifications” for maps of roadway classifications that are part of the determination of what the posted speed should be. Google “Portland traffic counts” to view data for the (surprisingly numerous) locations where observed speeds have been recorded.

Unless you live in NW, chances are there is a collector-classified street near you that should be posted slower than it is. Throughout Portland, school zones should be posted 15 MPH, and streets in neighborhoods that have a vehicle thru-travel width that is 18 feet or narrower should be posted 10 MPH. Email safe@portlandoregon.gov and ask PBOT to provide these speeds on streets in your community. You may wish to reference City Ordinance 188774.

Organize to implement the non-officer enforcement statute, ORS 153.058

If your community is interested in seeing enforcement of particular traffic safety rules without the use of police officers, the citizen-initiated citation process may provide an option. It means you don't need police officers to enforce most of the laws that involve traffic safety. Advocacy and community organizations may wish to explore what kind of community-led enforcement aligns with community values, and to set up a process for implementation of this statute. PBOT staff have the same ability, however the agency has declined to exercise its non-officer enforcement powers.

Community Advocates and Neighbors, cont.

Join an Organization

People who have lost a loved one in a traffic crash may wish to learn about and join Families for Safe Streets: <https://www.facebook.com/ORSafeStreets/>

Membership in our organization, Oregon Walks, is sliding-scale (contact us at info@oregonwalks.org), and open to everyone. Every member counts: <https://oregonwalks.org/>



Thank You