TRAFFIC SAFETY COMMISSION

REPORT TO THE GOVERNOR AND LEGISLATURE

Cooper Jones Active Transportation SafetyCouncil

Document Title: Annual Report for Cooper Jones Active Transportation SafetyCouncil (ATSC)

Report Date: **12/22/2023**

Authors: Cooper Jones Active Transportation Safety Council membership (Identified in Appendix G of document)

Abstract:

This report is being presented by the Cooper Jones Active Transportation Safety Council (ATSC) to satisfy annual reporting requirements described in RCW 43.59.156.

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On Behalf of the Council, Submitted By:

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Date	December 22, 2023

Disclaimer:
This document presents recommendations for improving safety for active transportation users and represents the views and opinions of the Cooper Jones Active Transportation Safety Council (ATSC), RCW 43.59.155. It is not intended to represent or imply the endorsement or support from state agencies or other entities with an interest in active transportation.

2023 Annual Report

Cooper Jones ActiveTransportation Safety Council (ATSC)

Prepared by

Cooper Jones Active Transportation Safety Council (ATSC)
for
Washington State Legislature

December 22, 2023

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Executive Summary

This report is presented by the Cooper Jones Active Transportation Safety Council (ATSC) to satisfy annual reporting requirements described in RCW 43.59.156.

Reducing fatalities and serious injuries to people walking, biking, and rolling is a top priority. The 160 deaths of active transportation users (ATU) in 2021 were the most reported in a single year since at least the early 1990's and possibly the most in Washington's recorded history. While 2022 ATU fatalities were lower than the number of ATU fatalities in 2021, it marks the second highest year in history.

Against this backdrop, ATSC pursued its mission to review and analyze fatality and injury data, identify points at which the transportation system can be improved, and identify patterns in fatalities and injuries involving people who walk, ride bicycles, and use other forms of active transportation.

ATSC brings together a wide range of individuals from different disciplines and perspectives, all with an interest in active transportation, to support and enhance existing and pending transportation safety efforts such as The Washington State Strategic Highway Safety Plan (Target Zero Plan) and Active Transportation Plan.

Significantly in 2023, ATSC did the following:

- Continued the 2022 study on the impact of lighting and illumination on active transportation safety.
- Initiated a study into human factors that contribute to active transportation incidents.
- Initiated a study on Mode Shift, Vehicle Miles Traveled and Land Use.
- Conducted four Fatal Case Reviews:
    - February 2023: Unhoused Populations
    - July 2023: Interstate Pedestrian Fatalities – In Roadway Improper
    - August 2023: 2022 Bicyclist Fatalities
    - November 2023: Pedestrian Fatalities in Yakima
- Heard from seven experts on issues related to active transportation safety.
- Shifted the timing of White Papers to better align with the Legislative schedule.

A. ATSC 2023 Study Team Recommendations

ATSC consists of a dedicated team of diverse members who bring a multi-disciplinary approach to research and analysis. ATSC is committed to bringing unique perspective, commitment, and well-researched recommendations to the work of active transportation safety. ATSC Study Teams completed two new white papers in 2023 (summarized below; full versions are in the Appendices).

1. Street Lighting - Vulnerable Road User Implications: Observations and Recommendations

Traffic safety experts know that improving roadway lighting plays a significant role in reducing the

number of vehicle crashes and importantly this includes active transportation. Nationwide, the nighttime fatality rate from crashes is three times higher than in the daytime, with 76% of pedestrian fatalities occurring at night. Despite the overwhelming evidence that better lighting promotes traffic safety, there are no widely accepted standards for roadway lighting, leaving regulation up to individual jurisdictions.

The ATSC has identified a gap in the available data concerning lighting levels at the locations and times of these serious and fatal crashes. In the 2023 session, the legislature provided funding for a study on current lighting conditions. Further, the ATSC notes a specific concern related to equity in street lighting maintenance in communities that utilize a complaint-based approach to lighting replacement rather than a more systematic approach. Analysis of over 10 years of data in the State Active Transportation Plan found that serious and fatal crashes involving people walking or rolling occur at higher rates in neighborhoods that have higher rates of poverty or a higher proportion of residents who are Black, Indigenous, or people of color.

We have compiled this initial scan concerning use of light meters for future consideration of a research project to better understand this data gap, which in turn may serve as a basis for future recommendations.

Recommendations:

- **WTSC:** Determine interest and requirements for law enforcement use of light meters to measure lighting conditions at fatal crash scenes that involve a walker or roller.
- **WTSC and ATSC:** Based on results, determine interest and capacity to using light meters at crash scenes. Consider additional recommendations concerning equipment and training development.
- **ATSC and WTSC:** Consider results of the lighting study research project and identify potential next steps.

2. Mode Shift, Vehicle Miles Traveled and Land Use: Observations and Recommendations

There is a direct relationship between increases in VMT and fatalities. Local and regional governments are increasingly committing to Vision Zero strategies to eliminate all deaths and serious injuries due to motor vehicles and increase options to get around. This means expanding our safety focus to include transportation options that reduce the need to drive and pursuing strategies like traffic calming and other engineering approaches to encourage a mode shift to active transportation, lower speeds, and improved safety, while also continuing to enforce traffic laws.

The ATSC makes several recommendations to the Legislature to benefit the safety of those who choose active transportation.

Land use:

- Concurrency and Highways of Statewide Significance: Amend RCW 36.70A.070(6)(a)(iii)(C) to remove the highway of statewide significance exemption and require that concurrency requirements apply to transportation facilities and services of statewide significance with a focus on multimodal capacity.
- **Leapfrog Developments Across Highways and Active Transportation Infrastructure:** Require local jurisdictions and developers to construct facilities for walking and bicycling

that meet Active Transportation Plan guidance for level of traffic stress one if they construct greenfield development on the opposite side of a state highway from existing development.

- **School Siting:** Add a new section to Title 28A RCW —Common School Provision that makes proximity to students' homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions. In addition, amend WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.
- **Street Network Connectivity:** Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps for all modes.
- **Transportation-Efficient Communities:** Require the Growth Management Act comprehensive planning, as well as the local zoning and development regulation process to clearly identify transportation corridors where additional development would be expected to bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, rolling, and using transit. Consistency between City and Transit agency plans must be required.

Transportation options:

- **Access Control Classification:** Revise the highway classification system to respond to context and be grounded in the Safe System Approach. (WAC action for WSDOT). In addition, Amend RCW 46.61.405 to permit establishment of lower speed limits on arterials as a matter of policy without requiring an engineering traffic study, as a context-based action that contributes to safety through injury minimization and that encourages use of active transportation and transit.[1]
- **Biking Regulations:** Revise definitions in RCW 47.04.010 (public highways) to include bicycles, and RCW 46.61.184 (Bicycle, moped, or street legal motorcycle at intersection with inoperative vehicle detection device) related to bicycle, signal length, users, costs, and planning. Adopt an explicit statute stating that active transportation facilities are deemed to serve highway, road, and street purposes and that the safety of all users of the transportation system must be considered in deciding uses of public right-of-way and amend Chapter 47.30 RCW (trails statute) to align with this. Modify provisions concerning private development connections to shared-use paths, trails, and sidewalks on state ROW to provide that such connections provided by the developer serve a public purpose when they serve to complete or expand the active transportation network and do not expand vehicular access.
- **Sidewalk Infrastructure:** Require the reconstruction and maintenance of sidewalks (not vegetation or snow removal) to be a jurisdiction's responsibility rather than the abutting property owner's responsibility and provide funding for this purpose.

[1] Washington State Injury Minimization and Speed Management Policy Elements and Implementation Recommendation. Retrieved from Injury Minimization and Speed Management Policy Elements and Recommendations (wa.gov) on September 14, 2023.

Transportation demand management:

- **Car Free Lifestyle:** Provide a financial incentive to low-to-moderate income workers and families who do not own a personal vehicle.

3. Impact of Human Factors on Transportation Safety: Observations and Recommendations

People are neither predictable nor perfect, but that doesn't mean safety considerations related to human factors are hit or miss. In 2023, the ATSC set out to identify, evaluate, and recommend actions to address human factors related to severe injury and fatal auto collisions with nonmotorized roadway users. Human factors are thought to be root causes behind roadway incidents. Design and infrastructure to mitigate mistakes from roadway users requires understanding of the types of mistakes as well as the reasons why. The ATSC established the Human Factors Study Team (HFST) to take on this effort.

Recommendations:

- HFST recommends ATSC continue the HFST in 2024 with the goal of narrowing the scope to interventions that will have the greatest impact on traffic fatalities in WA state. The frameworks referenced in the White Paper will guide the choice of interventions toward those that will more effectively use limited resources.

- Identify and work with sectors outside of transportation to address overarching issues such as impairment. Connecting to the ongoing work, aligning efforts increases likelihood of success in legislative efforts and reduced duplication of efforts.

- Human factors and their impact on transportation safety reflect social and health disparities. Equity must be a consideration for all interventions and for engaging those most affected at all levels of the process.

4. Fatality Case Review: Observations

The ATSC conducted case file reviews on topics including pedestrian fatalities among individuals experiencing houselessness, pedestrian fatalities on interstates, all 2022 bicyclist fatalities, and pedestrian fatalities in Yakima County. Observations are summarized in Appendix B, Fatal Case Reviews.

B. Cooper Jones Active Transportation Safety Council Membership 2023

Alex Alston, Washington Bikes	David Jones, Activist and father of Cooper Jones
Shelly Baldwin, WTSC Director	Cara Jockumsen, Traffic Safety Specialist, DOL
Walt Bowen, WA Senior Citizen Lobby	Venu Nemami, City of Seattle Traffic Engineering
Max Cantu, Snohomish County Medical Examiner's Office	Sgt. Matthew Newton, Kennewick Police Dept.
Barb Chamberlain, WSDOT/Active	Jon Pascal, Kirkland City Council / Association

Transportation Division	of Washington Cities
Charlotte Claybrooke, WSDOT/Active Transportation Division	Weston Perkins-Clark, EMT & Safe Kids Coordinator, Clark and Cowlitz Counties
Chris Comeau, City of Bellingham Planning Department / Transpo Group, Inc.	Dr. Amy Person, WA State Department of Health
Jennifer Dieguez, WA Department of Health	Bob Scarfo, WA Senior Citizen Lobby
Eric Edwards, Richland Police Department	Tanisha Sepulveda, Empower Movement Washington
Teresa Fuller, Traffic Unit, Spokane PD	Portia Shields, Yakama Nation
Tony Gomez, Target Zero Region 7 & 8	Harold Taniguchi, Commission on Asian-Pacific American Affairs
Reuben Hernandez, Target Zero Region 17	Kerri Wilson, Intercity Transit

C. Guest Speakers in 2023

March	Sgt. David Obermiller, Collision Reconstructionist at Puyallup Police Department • Topic: “The Nature of Law Enforcement Investigations”
May	John L. Campbell, PhD, CHFP, PMP Senior Managing Scientist | Exponent, • Topic: “Understanding Human Factors in Making Legislative Recommendations” John Milton, WSDOT State Safety Engineer • Topic: “Vulnerable Road User Safety Assessment”
July	Dr. Yinhai Wang, professor in transportation engineering and founding director of Smart Transportation Applications and Research Laboratory (UW STAR Lab) • Topic: “Applying Intelligent Transportation Systems to Pedestrian and Bicyclist Safety” Frank Markowitz, retired, former Principal Planner, San Francisco MTA • Topic: "Improving Lighting for Pedestrian Safety & Walkability: Planning & Policy Strategies" - Nick Mesler, PE, Director of Operations at Evari GIS Consulting, Portland, OR • Topic: "A Tale of Two Industries: Shedding Light on the Mismatch of Perspectives in Streetlighting and Transportation Safety"
November	Shelly Baldwin, Director, Washington Traffic Safety Commission • Topic: “2024 Target Zero Plan Update”

D. Operations

ATSC held meetings every other month starting in January 2023. These meetings were open to the public. Meeting agendas and meeting materials are published to the Washington Traffic Safety

Commission's Active Transportation Safety Council web page. Each agenda provides time for the Council to receive comments from the public. Instructions for public comment or written comment are also provided at the Active Transportation Safety Council web page. The in-between months were used by Study Teams to move their projects forward.

E. Charter Amendments

Page 6: Council Funding Decision Making Process
As the Council has opportunities to recommend use of funds from safety camera and other revenue sources, it will use the following criteria to determine where and how to spend those funds. Funding will:

- Fit the stated purpose of ATSC
- Fit within the critical criteria as adopted by ATSC in January 2020
- Fit the equity approach as adopted by ATSC in January 2020
- Have a statewide benefit
- Build on past ATSC recommendations
- Process: ATSC as a whole will consider and recommend potential funding uses, then a small team will develop a proposal to bring to the whole committee for discussion and vote

F. Document Submission Process

This Annual Report was collated by ATSC Facilitator with significant input from ATSC members and oversight from the WTSC staff. It was reviewed by the ATSC at the November 2023 meeting and submitted to the Governor's Office and the Office of Financial Management for high level review. Once approved by the Governor's Office, per legislation, the report will be posted on the WTSC website, and WTSC will provide the work products to the necessary legislative committees and caucuses. In addition, members of the ATSC are encouraged to share the report with their individual agencies and departments.

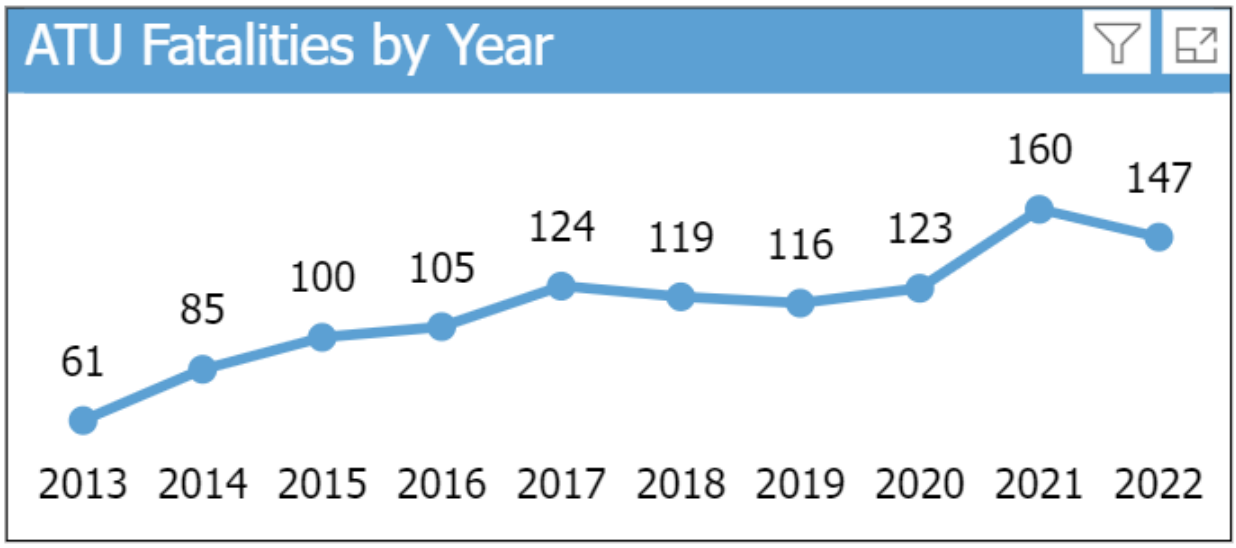
Legal protections for the Cooper Jones Active Transportation Safety Council (ATSC)

Per RCW 43.59.155(6)(a) information and documents prepared by or for the council are inadmissible and may not be used in a civil or administrative proceeding. Confidential information is not disclosable. No person in attendance at meetings of the Cooper Jones Active Transportation Safety Council (ATSC) or any sub-grouping of the ATSC, nor persons who participated in the compiling of information or documents specifically for the ATSC, shall be permitted to testify in any civil action as to the content of such meetings, information, or documents specific to the activities of the council.

Appendix A: Traffic Safety Data

Data reviewed in this appendix are from WTSC data publications including preliminary 2022 fatality estimates as of May 2023. To view updates to the data presented in this appendix, visit the WTSC Active Transportation User (ATU) Fatalities Dashboard (https://wtsc.wa.gov/dashboards/active-transportation-user-fatalities/) and the WTSC "State of the State: Washington Traffic Fatalities" data brief (https://wtsc.wa.gov/traffic-safety-reports/#general).

ATU fatalities steadily increased from a low of 61 fatalities in 2013 doubling to 124 deaths in 2017. ATU fatalities remained relatively stable from 2017 to 2020. However, from 2020 to 2021, ATU fatalities increased 30 percent in a single year, from 123 to 160. The 160 ATU deaths in 2021 were the most reported in a single year since at least the early 1990's and possibly the most in Washington's recorded history. While 2022 ATU fatalities were lower than the number of ATU fatalities in 2021, it marks the second highest year in history. Compared to the same time period in 2022, the ATU fatalities in 2023 are on pace to match or exceed the number of deaths in 2022.



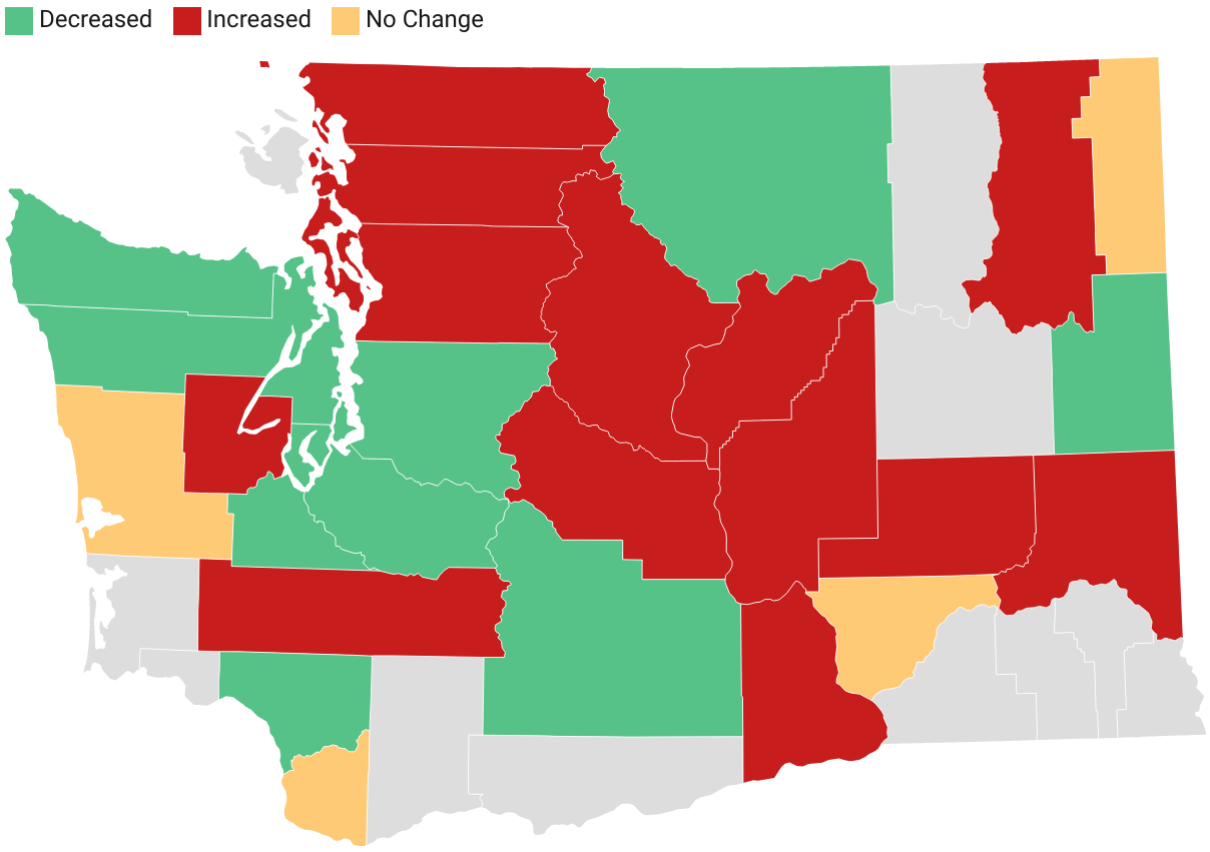
Among ATU fatalities that occurred 2020-2022:

- The majority occurred during hours of darkness (68 percent), however 63 percent of the fatalities occurring during hours of darkness were in locations with lighting.
- One in five deaths involved a hit-and-run driver.
- The majority (70 percent) of ATU deaths occurred on the roadway or on the shoulder/roadside (not at a marked crosswalk or at an intersection).
- Nearly half (45 percent) of ATU fatal crashes occur on roads with posted speeds of 45 mph or greater.
- Nearly half (43 percent) of ATU fatal crashes occurred during one-third of the year, in the months October, November, December, and January.
- Half of ATU fatal crashes occurred on Friday, Saturday, or Sunday.
- Half (52 percent) and ATU fatalities occurred when the ATU was crossing the roadway, either at marked or unmarked crosswalk locations.

When looking at county-level data, we see that:

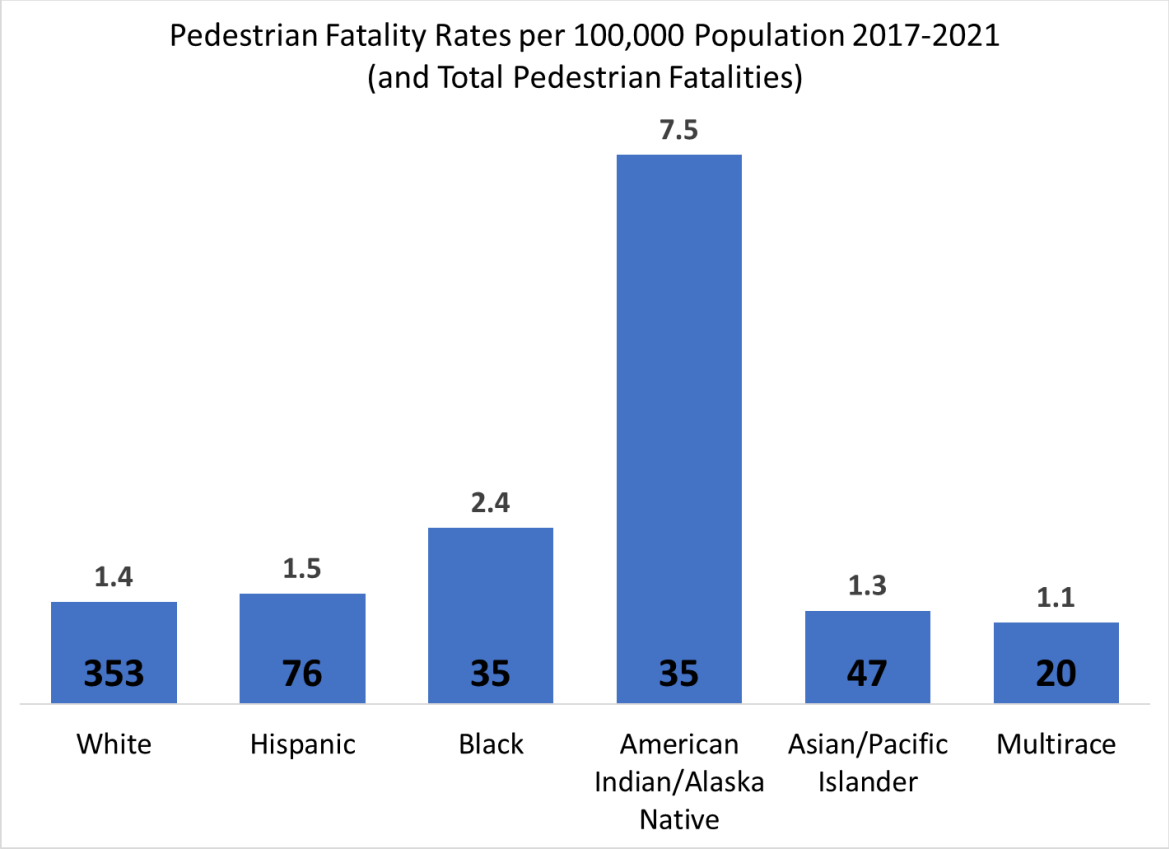
- Nearly 60 percent of ATU fatalities in 2022 occurred in just three counties: King, Pierce, and Spokane.
- Seven counties experienced ATU fatalities in 2022 after having zero ATU fatalities 2020-2021.
- Eleven counties had zero ATU fatalities in 2022, and nine of those counties also had zero ATU fatalities 2020-2021.

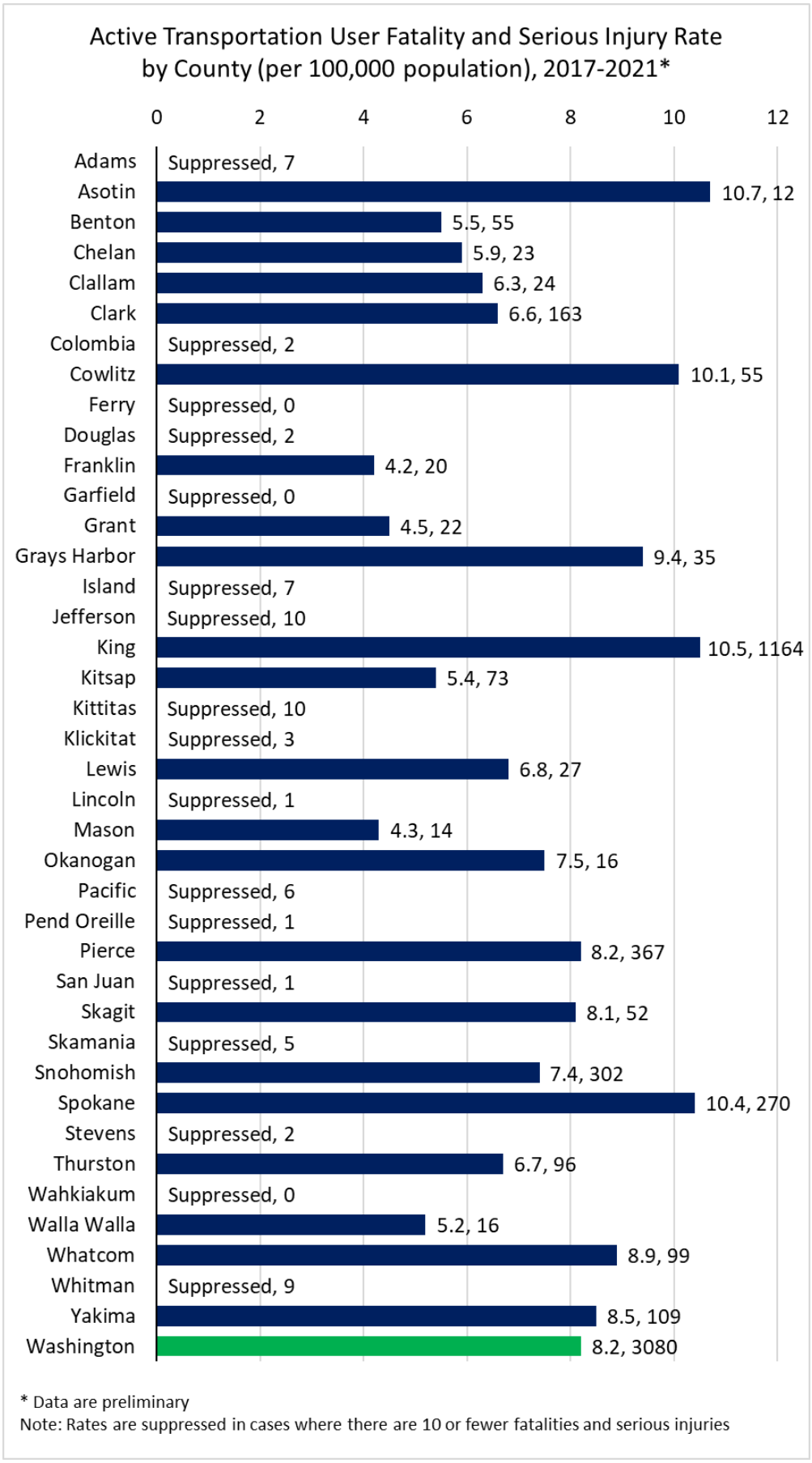
Walker/Roller Fatalities by County in 2022



When considering fatality rates, we see that:

- From 2017 to 2021, there were 3,080 fatalities and serious injuries among active transportation users in Washington, which represented an average rate of 8.2 fatalities and serious injuries per 100,000 population.
- At the county-level, the highest fatality and serious injury rate was 10.7 per 100,000 population in Asotin County, where there were 12 fatalities and serious injuries among active transportation users from 2017 to 2021.
- King County had the second highest fatality and serious injury rate at 10.5 per 100,000 population, with 1,164 fatalities and serious injuries from 2017 to 2021.
- Spokane County had 270 fatalities and serious injuries from 2017 to 2021, which lead to a rate of 10.4 fatalities and serious injuries per 100,000 population, which was the third highest in the state.
- The American Indian/Alaska Native (AIAN) ATU death rate per 100,000 population is approximately five times higher than the rate for all other races. Considering AIAN ATU deaths 2017-2021, the death rate was 7.9 per 100,000 AIAN population.





* Data are preliminary
Note: Rates are suppressed in cases where there are 10 or fewer fatalities and serious injuries

Appendix B: ATSC Fatal Case Reviews

Purpose

The purpose of the Fatality Case Review Team is to review and discuss case materials for fatal crashes involving bicyclists, walkers, or people using other forms of active transportation to identify patterns and points at which the transportation system can be improved. Following a fatality case review, the team develops a summary of findings to be considered by the ATSC in identifying study teams, white papers, and legislative recommendations.

Process

The CJATSC and Team members determine focus topics for quarterly fatality case reviews. These topics are based on trending factors or circumstances involved in active transportation user traffic deaths. Once a topic is identified, a brief overview of the topical aggregate data is reviewed for problem context and frequency.

Six to eight cases are then randomly selected, and all investigative records and reports are gathered by WTSC staff. Records are provided via a secure Managed File Protocol to the team approximately two weeks before a scheduled review, so team members have time to review the materials. During the review, the team discusses the individual cases with a specific focus of identifying potential modifiable risk factors that are both case-specific and recurring themes among several cases.

The observations and discussions of the team are then summarized within the context of the Safe System Approach (https://www.transportation.gov/NRSS/SafeSystem) and the Spectrum of Prevention (https://www.preventioninstitute.org/tools/spectrum-prevention-0), a systematic model to promote a range of activities for effective prevention. The summary is provided to the CJATSC for discussion and identification of further action and formal recommendations to be included in the Annual Report.

2023 Fatal Case Review Topics

February – Pedestrian fatalities among individuals experiencing houselessness. Six cases were selected from 2021 where the Police Traffic Collision Report (PTCR) indicated the decedent was "TRANSIENT" or the address listed was "NONE". This data is not tracked at the aggregate level, so prevalence analysis was not possible. In response to this review, beginning in 2023, TRANSIENT, when noted on the PTCR, is now being tracked in the WTSC Coded Fatal Crash (CFC) files for future analysis.

"The WTSC began tracking fatalities involving transient or houseless pedestrians in 2023."

May – Pedestrian fatalities occurring on Interstates and coded the pedestrian as being "in the roadway improperly". Seven 2021 cases were selected that occurred on Interstates where the pedestrian was coded "In Roadway Improperly (Standing, Lying, Working, Playing, etc.)". "In Roadway Improperly" is used when a person was indicated to have been in the roadway improperly other than making an improper crossing (such as jaywalking) or walking in the roadway. Examples include playing in the road (other than dart/dash), working in the road other than because of job requirement, in the street voluntarily, attempting to hail a cab or flag assistance at a non-designated stop, and sitting, getting up, asleep/unconscious, kneeling, etc. In 2021, there were 12 pedestrian fatalities that occurred on Interstates that also involved "In Roadway Improperly". An additional 12 pedestrian fatalities occurred on Interstates that did not involve "In Roadway Improperly". This review revealed that the majority of these deaths involve disabled vehicles or previous minor crashes, and some involve pedestrians walking along the shoulder, in the travel lanes, or crossing the interstate.

August – 2022 Bicyclist fatalities. In 2022 there were eleven bicyclist deaths, and all were selected for review. During the fatal case review, the team realized that 8 out of 11 bicyclist deaths in 2022 were riders over the age of 60. In addition, three of those fatalities were people over the age of 70, and two of those riders were on electric bicycles. In response, data was reviewed for the last ten years for WA and U.S. to determine if older bicycle riders were trending to overrepresentation in bicyclist deaths. Indeed, the proportion of WA bicyclist fatalities over the age of 60 has increased from less than 20% of deaths in 2013 to 55% of deaths in 2022. The numbers are small, so this trend was also compared to the U.S. trend. The U.S. proportion has also increased over time, but not at the same magnitude as the WA trend.

November – Pedestrian fatalities in Yakima County: Yakima County has been identified as a traffic fatality "hotspot" based on multiple measures of analysis. From 2021-2022 there were eleven pedestrian fatalities, five of which occurred on the Yakama Indian Reservation, and four of those deaths were American Indians (out of 19 total American Indian pedestrian deaths statewide). Seven of these eleven deaths occurred on roads with posted speeds equal to or greater than 45 mph.

Expanding the Review Program

In 2023, HB 1125 included the budget proviso "Within existing resources, the commission, through the Cooper Jones active transportation safety council, must prioritize the review of pedestrian, bicyclist, or non-motorist fatality and serious injury review when the victim is a member of a federally recognized tribe. Consistent with RCW 43.59.156(5), the commission may recommend any policy or legislative changes to improve traffic safety for tribes through such review."

The WTSC has engaged additional tribal representation for participation in the November 2023 fatal case review to discuss the five deaths occurring on Yakama tribal land. In future topical reviews, if a pedestrian/bicyclist death is a member of a federally recognized tribe, the WTSC will conduct additional outreach to engage tribal representation in that case review. The WTSC continues to engage with the CJATSC members to identify additional approaches for improving traffic safety with tribes.

Appendix C: Light Meter Research and Use for Traffic Safety Active Transportation Improvements

Purpose and Background

Traffic safety experts know that improving roadway lighting plays a significant role in reducing the number of vehicle crashes and importantly this includes active transportation. Nationwide, the nighttime fatality rate from crashes is three times higher than in the daytime, with 76% of pedestrian fatalities occurring at night (1). Studies have shown a statistically significant dose-response relationship between roadway lighting and nighttime crashes (2) and a crash analysis reported a 2.9% reduction in the night-to-day crash ratio for each 1-lux increase in roadway lighting (4). Despite the overwhelming evidence that better lighting promotes traffic safety, there are no widely accepted standards for roadway lighting, leaving regulation up to individual jurisdictions (1).

In Washington State, the number of fatal crashes involving someone walking, rolling, or bicycling has more than doubled, increasing 129% since 2013 (6). The number of serious injury crashes over the same decade has increased by 49% (9). The ATSC has identified a gap in the available data concerning lighting levels at the locations and times of these serious and fatal crashes. We have compiled this initial scan concerning use of light meters for future consideration of a research project to better understand this data gap, which in turn may serve as a basis for future recommendations. This paper will also provide information that may be of use to law enforcement agencies considering enhancement of their post-crash investigation capabilities.

In the 2023 session, the legislature provided funding for a study on current lighting conditions, agencies responsible for street illumination, community needs, and policy recommendations (HB 1125, Sec. 201(2)). This will provide broad and useful information. As the ATSC further examined lighting issues, we identified the need for more specific measurement of light levels associated with crash data, which is beyond the scope of that study.

The ATSC notes a specific concern related to equity in street lighting maintenance in communities that utilize a complaint-based approach to lighting replacement rather than a more systematic approach (10). Analysis of over 10 years of data in the State Active Transportation Plan (11) found that serious and fatal crashes involving people walking or rolling occur at higher rates in neighborhoods that have higher rates of poverty or a higher proportion of residents who are Black, Indigenous, or people of color.

Handheld light meters are one option for tracking light levels at crash sites to build the case for a stronger roadway lighting program, for uniform standards and better/safer lighting in specific places. This research memo will explore how light meters have been used for traffic safety, other uses related to light level measures, and several cost-effective options that the Active Transportation Safety Council can consider and agencies could use statewide.

Recommendations:

- **WTSC:** Determine interest and requirements for law enforcement use of light meters to measure lighting conditions at fatal crash scenes that involve a walker or roller.
- **WTSC and ATSC:** Based on results, determine interest and capacity to using light meters are crash scene Consider additional recommendations concerning equipment and training development.
- **ATSC and WTSC:** Consider results of the lighting study research project and identify potential next steps.

Using Light Meters for Traffic Safety

Light meters measure light in varying ways. Lumens, the most common measurement, measures visible light from a light source. The higher the lumens the brighter the source of light will look (7). Lux is another unit that measures the light falling on a surface. One Lux equals one Lumen per square meter (7). A foot candle measures the amount of light on a surface, or the intensity of light as opposed to the flow of light (8). A single foot candle is the amount of light that falls on a surface one foot away from the single candle. One foot candle equals one lumen per square foot. One foot candle equals 10 lux (7).

Most light meters are designed for photography, but they may also be used for traffic safety. However, there have been surprisingly few documented examples of law enforcement or public works/roads departments using meters for real-time data collection. In India, police have used light meters to detect headlights that had been modified to be too bright and unsafe (5). One study identified faulty street lights by attaching light meters to car roofs and driving around to compare light levels on different streets (3). No examples were found of using light meters at a crash site for investigation or safety improvement scoping.

Based on existing research, light meters have been primarily used in cross-sectional studies to explore the relationship between the presence/quality of roadway lighting and crash rates, but not to measure light levels at specific crash sites. Nevertheless, they hold promise as a tool to capture real-time data and identify specific places where better lighting could prevent crashes.

Lighting Standard Gaps and Examples

The FHWA Roadway Lighting Handbook does not provide specific lighting level recommendations and is not a detailed design guide. The handbook refers users to documents such as the American Association of State Highway and Transportation Officials (AASHTO), the Illuminating Engineering Society (IES), and the Transportation Association for Canada (TAC). As an educational and policy-oriented reference, it does not provide specific warrants or standards for lighting on arterial, collector, local streets, intersections, walkways, shared-use paths or trails.

These other sources do not establish specific lighting warrants to meet that prioritize pedestrian/bicyclist visibility and safety. The Federal Highway Administration has identified Nighttime Visibility for Safety as one of its priority areas for the Every Day Counts program in 2023 (12).

A study of trail lighting standards conducted for the Portland Metro Council found only limited examples, most pointing to key points such as bridges, tunnels, and roadway crossings but not necessarily treating trails as key commute routes or considering safety and security concerns (13).

Seattle has a 2012 citywide lighting master plan that is pointed to as an example of one that focused on pedestrian needs. It also prioritized historically underserved areas (14).

Lighting Standards Across Fields

Further research found the following two examples in considering lighting standards for safety. The NCAA largely addresses safety considerations for having lighting standards across stadiums. Lighting standards for swimming pools exist to prevent drowning and take into account other injury considerations.

The National College Athletic Association (NCAA) assesses lighting standards for different types of stadiums. Lighting standards are set using formulas that include varying factors such as grid spacing, stadium size and height (horizontal & vertical levels), glare zones, etc. For new or

renovated stadiums, they recommend consulting with a lighting professional. Lighting standards are set using footcandles. The NCAA Lighting Summary 2017 with NCAA Counter Changes.xlsx displays the best lighting practices across the spectrum of sports and stadiums.

In WA State, state law requires minimum lighting standards for public use pools (all facilities with greater than 15 dwelling units or operated for more than non-private use for members or non-members) for safety. Owners shall design and maintain pool facility lighting to a minimum level as described in Table 031.7 below. Sufficient overhead and underwater lighting shall be maintained to clearly see the bottom of the pool at all times pool is in use. Owners shall provide protective shielding for all lighting fixtures above walking surfaces and pool areas.

Table 031.7*
Minimum Lighting Level Required at Water Recreation Facilities.

Location	Minimum Lighting Level
Indoor pool surface	30 foot candles
Outdoor pool surface*	10 foot candles
Pool Decks	10 foot candles
Locker rooms and mechanical rooms	20 foot candles

* Outdoor pool facilities, which are used in daylight hours only (before dusk) are not required to meet this standard.

One foot candle =about 10 lux

Use of Light Meters in Crash Investigations

We originally researched the National Law Enforcement Academy to learn whether lighting was part of crash assessment. We learned that it is not. However, we learned that Oklahoma City Police Department uses light meter to assist with post-crash assessment (see below). Ultimately, more research is needed on training curriculum to pilot test the use of light meters in Washington State.

Oklahoma Police Department-Signal 30 Squad

The Oklahoma City Police Department (OKCPD) uses light meters on an as-needed basis in their Signal 30 Squad, a team of highly trained post-crash investigation officers. Light meters are not part of the initial police academy training. Captain Paul Fredrickson leads the Signal 30 squad and shared that light meters are kept at the office and not part of the equipment taken to the crash site. This squad responds to death or near-death events. Light meters are only used as needed generally when lighting may be a factor as determined by the investigating officer and usually the following day post-crash when recreating the incident scene (15).

Use of Light Meters in Washington's Transportation Planning

WSDOT

WSDOT use light meters to measure lighting for specific projects, i.e. in rural settings, at trails (look at flora/fauna and adjust lighting), and to ensure emergency responders have enough lighting to provide service in tunnels. It should be noted that field measurements present some challenges. Although spot checks may be easy to do with portable light meters, formal site evaluation can be a cumbersome task due to area size and points measured, as facility closures may be required to access all necessary points. There may be a need for formal procedures to determine the number of points measured and location of such points in an evaluation area. Lighting analysis software is

fairly accurate and is typically relied on for site evaluations unless field measurements are specifically required.

WSDOT's highway/roadway lighting manual was updated 2022 and can be found here. (https://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/1040.pdf).

Light Meter Options and Costs

Light meters come in a variety of calibers and prices for different photography needs. Because the ATSC is interested in detecting potentially low levels of light at night, it is important to select a meter that functions well in low light. The Federal Highway Administration recommends at least 20 lux at midblock crosswalks (1), but many crash sites of interest will likely have poorer lighting than the recommendation. Most light meters read as low as 0 lux, but it's a good idea to check the accuracy of low light measurements in an outdoor nighttime setting.

WSDOT is currently using the Tektronix J17 Lumacolor light meter with the J1811 Illuminance Head. This model is no longer manufactured; WSDOT is exploring 2 options for light meters.

The light meters listed below have good user reviews, are reasonable in price, and focus on simple features. Very high-end meters have fancy features for photography that would not be necessary for traffic safety purposes.

Handheld light meters

Updated version: Dr. Meter LED Light Meter
- $39 on Amazon
- 4.3 stars, 612 ratings
- Measures LED lights
- Measures in lux & foot candles
- Lightweight

Greater accuracy: Sekonic L-308X-U digital meter
- $285 on Amazon
- 4.7 stars, 883 ratings
- Potentially more accurate than budget meters
- Works from 32-104 degrees F
- Measures LED lights
- Measures in lux & foot candles
- Sekonic is one of the most reliable brands for light meters on the market

Industrial: Extech HD450 Datalogging Heavy Duty Light Meter

- $315 on Amazon
- 4.4 stars, 216 reviews
- Product is recommended by Teledyne FLIR, perception & awareness enhancing technology company that works with government, industrial & commercial markets
- Data storage capability
- Measures in lux & footcandles

Industrial/Scientific: Extech LT300 Light Meter
- $206 on Amazon
- Currently used by Oklahoma Signal 30 Squad, OKC Police Department
- 4.4 stars, 219 reviews
- Measures in lux & footcandles

Transportation analysis and planning: Kinoca Minolta T-10MA
- Portable, lightweight, compact and battery powered
- Measures in lux & footcandles
- Approximate price is $2,000

Transportation analysis and planning: Konica Minolta LS-160 Luminance Meter
- Specifically for use in tunnels; a ranged meter which allows readings to be taken at a distance
- Portable, lightweight, compact and battery powered
- Measures in lumens & footcandles
- $5,476 through Konica Minolta website

Smartphone app meters*

Joe Breda, PhD student at the Paul G. Allen School of Computer Science and Engineering, University of Washington, is working on a user study on light meter apps this summer and will be submitting a research paper in September that may provide additional information.

Android

Light Meter – Lite (free)
- 4.5 stars, 500K+ downloads
- Tested to be as accurate as Sekonic and Gossen digital meters

Lux Meter (free)
- 4.2 stars, 1M+ downloads

Apple

myLightMeter PRO ($3.99)
- 4.7 stars, seems by far the best Apple app
- Verified against other digital meters

*Newer phones with better quality cameras will have better light detection on any of these apps

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15. Cpt. Paul Fredrickson, Oklahoma City Police Department. Interviewed on August 8th, 2023. paul.fredrickson@okc.gov, 405-316-5210.

Appendix D: Land Use, Mode Shift and Vehicle Miles Traveled

Contents

Introduction—Purpose of the discussion paper

The Cooper Jones Active Transportation Safety Council (ATSC) purpose is to increase safety for those who utilize active transportation and decrease death and serious injury among walkers, bicyclists, and users of other mostly people powered modes of transportation. In 2023 the work of the council has been conducted by study groups. The Mode Shift, Vehicle Miles Traveled (VMT) and Land Use study group was charged with identifying and recommending strategies to achieve the purpose of the council as it relates to mode shift, VMT and land use.

Background

There is a direct relationship between increases in VMT and fatalities.[2] The National Highway Traffic Safety Administration 2020 annual traffic crash data showed that 38,824 lives were lost that year, the highest number since 2007 despite the country being largely shut down due to the COVID-19 pandemic.[3] Fewer people on the road correlated to increased vehicle speeds resulting in 11,258 of the almost 39,000 speed related traffic deaths.[4]

Crashes have been attributed to risk factors such as impaired driving, speeding, or distracted driving. However, there is a direct relationship between increases in VMT and fatalities as shown in Exhibit 1. Local and regional governments are increasingly committing to Vision Zero strategies to eliminate all deaths and serious injuries due to motor vehicles and increase options to get around.[5] This means expanding our safety focus to include transportation options that reduce the need to drive and pursuing strategies like traffic calming and other engineering approaches to encourage a mode shift to active transportation, lower speeds and improved safety, while also continuing to enforce traffic laws.

Exhibit 1 illustrates the correlation between all traffic fatalities and mileage across different states in the U.S. The horizontal axis represents annual VMT per 10,000 population, ranging from 4,000 to 18,000. The vertical axis represents the number of deaths per 100,000 population, ranging from 5 to 25. The data indicates that the concentration of traffic fatalities is within the range of 8,000 to 12,000 annual VMT per 10,000 population and 10 to 20 deaths per 100,000 population. However, deaths below 8,000 annual VMT per 10,000 population are still observed. Put simply, actions that increase VMT also increase traffic fatalities.

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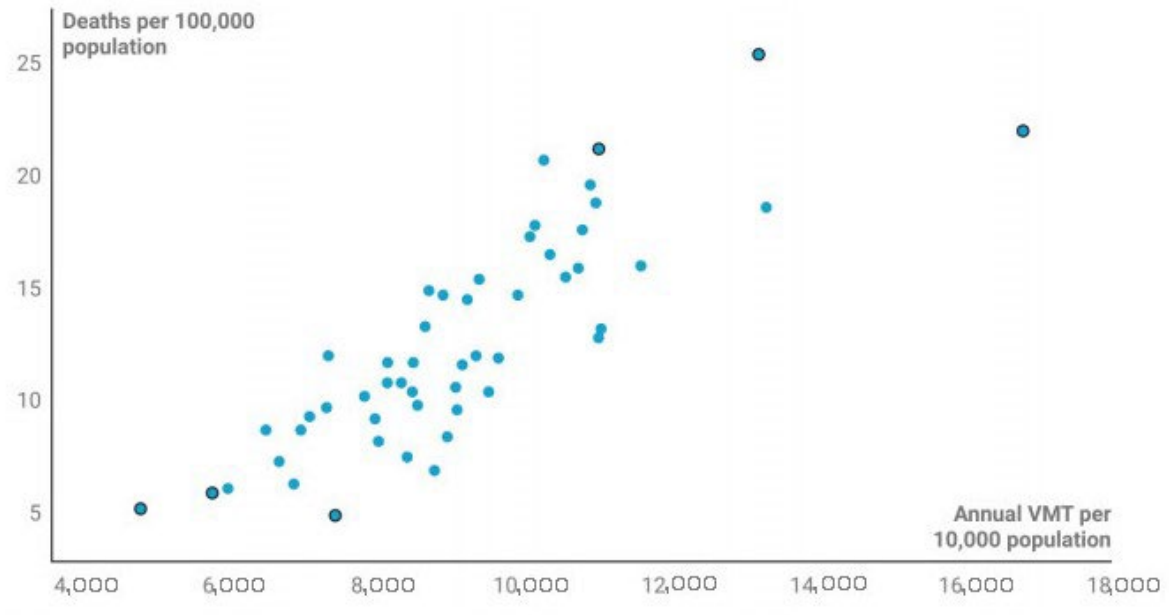
[2] Farmer, C. (2017). A Projection of United States Traffic Fatality Counts in 2024. Retrieved from https://www.iihs.org/topics/bibliography/ref/2137 on August 29, 2023.

[3] National Highway Traffic Safety Administration. (2022). *Overview of Motor Vehicle Crashes in 2020.* Washington, DC: USDOT. Retrieved from https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813266

[4] National Highway Traffic Safety Association. (2023). *Speeding*. Retrieved from National Highway Traffic Safety Association: https://www.nhtsa.gov/risky-driving/speeding

[5] *Vision Zero Network*. (2023). Retrieved from Vision Zero Network: https://visionzeronetwork.org/about/vision-zero-network/

Exhibit 1: Traffic Fatalities Versus Mileage for US States



Note: Chart created with Datawrapper.

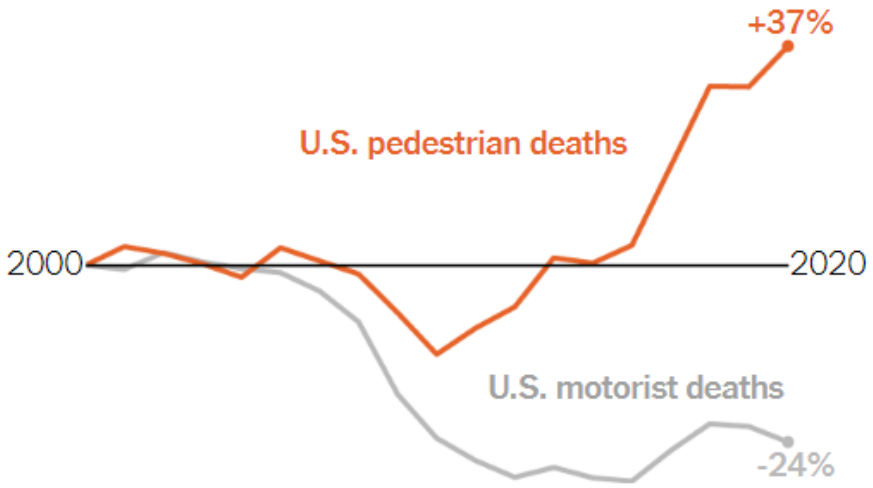
Sources: Litman, T. (2022a, October 19). A New Traffic Safety Paradigm. Victoria: Victoria Transport Policy Institute. Retrieved from Streetsblog NYC: https://www.vtpi.org/ntsp.pdf; Insurance Institute for Highway Safety, 2020.

As shown in Exhibit 2, in the early 2000s pedestrian and motorist deaths were both trending downward, however, more recently, pedestrian deaths have increased rapidly to where 19 pedestrians were killed each day in 2022.[6]

Exhibit 2 shows the pedestrian and motorist deaths in the U.S. from 2000 to 2020. Since the start of the century, pedestrian deaths have increased by 37 percent. Although pedestrian deaths saw a reduction in 2010, they have sharply increased since then. Motorist deaths, on the other hand, have decreased by 24 percent since 2000.

[6] Susaneck, Adam Paul. (2023) American Road Deaths Show and Alarming Racial Gap. The New York Times, April 26, 2023. Retrieved from NYTimes: https://www.nytimes.com/interactive/2023/04/26/opinion/road-deaths-racial-gap.html

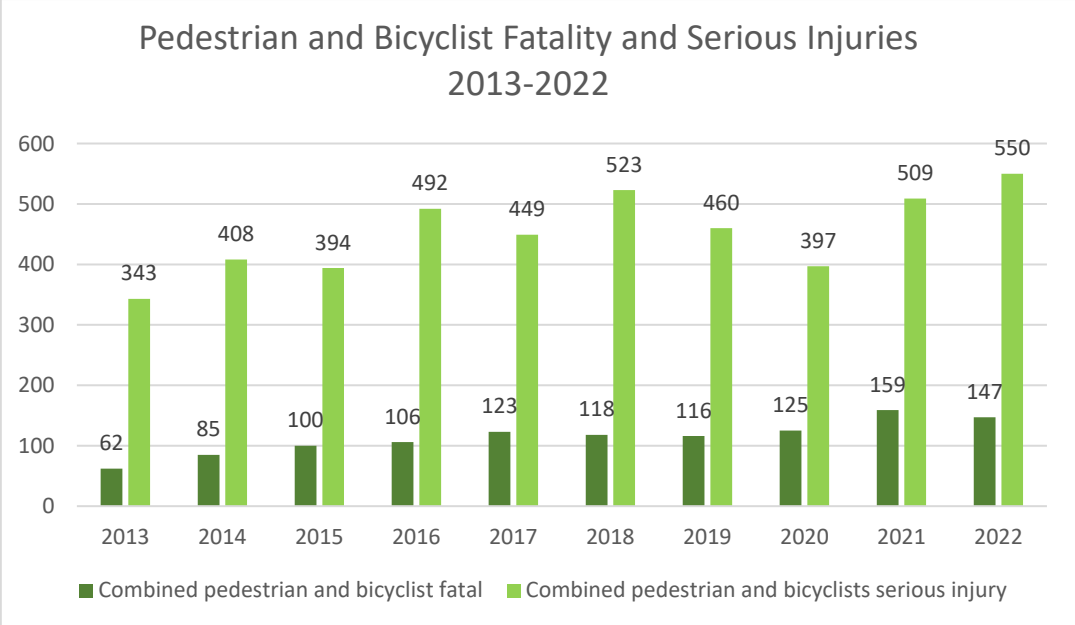
Exhibit 2. Pedestrian and Motorist Deaths in the US



Source: National Highway Traffic Safety Administration, 2023; The New York Times, 2023.

In our state, Washington State Department of Transportation data show that fatalities for pedestrians and bicyclists increased 27%, from 116 deaths in 2019 to 147 deaths in 2022 (See Exhibit 3). The 147 deaths represent a 137% increase in pedestrian and bicyclist fatal crashes compared to the 10-year low of 62 pedestrian and bicyclist fatal crashes that occurred in 2013. Serious injuries to people walking and bicycling increased 60.34% from the 10-year low of 343 in 2013 to 550 in 2022.

Exhibit 3. Pedestrian and Bicyclist Fatality and Serious Injuries in Washington



WSDOT recently published a report on vehicle miles traveled reductions.[7] The report details multiple potential changes to laws and rules that could help to reduce VMT. This included strategies that would increase mode shift to active transportation and address land use issues related to VMT. While all VMT reduction strategies also potentially improve safety, some have a more direct primary impact while others are secondary, indirect, or tangential. This paper provides support for the following potential actions listed in the VMT report as having direct benefit to the safety of those who choose active transportation. They are listed below with additional information about each to follow later in the text.

Land use:

1. Concurrency and Highways of Statewide Significance: Amend RCW 36.70A.070(6)(a)(iii)(C) to remove the highway of statewide significance exemption and require that concurrency requirements apply to transportation facilities and services of statewide significance with a focus on multimodal capacity.
2. Leapfrog Developments Across Highways and Active Transportation Infrastructure: Require local jurisdictions and developers to construct facilities for walking and bicycling that meet Active Transportation Plan guidance for level of traffic stress 1 if they construct greenfield development on the opposite side of a state highway from existing development.
3. School Siting: Add a new section to Title 28A RCW —Common School Provision that makes proximity to students' homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions. In addition, amend WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.
4. Street Network Connectivity: Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps for all modes.
5. Transportation-Efficient Communities: Require the GMA comprehensive planning, as well as the local zoning and development regulation process to clearly identify transportation corridors where additional development would be expected to bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, rolling, and using transit. Consistency between City and Transit agency plans must be required.

Transportation options:

6. Access Control Classification: Revise the highway classification system to respond to context and be grounded in the Safe System Approach. (WAC action for WSDOT). In addition, Amend RCW 46.61.405 to permit establishment of lower speed limits on arterials as a matter of policy without requiring an engineering traffic

[7] Washington State Department of Transportation. (2023). Vehicle Miles Traveled (VMT) Targets—Final Report. Retrieved from https://wsdot.wa.gov/sites/default/files/2023-06/VMT-Targets-Final-Report-June2023.pdf on August 7, 2023.

study, as a context-based action that contributes to safety through injury minimization and that encourages use of active transportation and transit.[8]

7. Biking Regulations: Revise definitions in RCW 47.04.010 (public highways) to include bicycles, and RCW 46.61.184 (Bicycle, moped, or street legal motorcycle at intersection with inoperative vehicle detection device) related to bicycle, signal length, users, costs, and planning. Adopt an explicit statute stating that active transportation facilities are deemed to serve highway, road, and street purposes and that the safety of all users of the transportation system must be considered in deciding uses of public right-of-way and amend Chapter 47.30 RCW (trails statute) to align with this. Modify provisions concerning private development connections to shared-use paths, trails, and sidewalks on state ROW to provide that such connections provided by the developer serve a public purpose when they serve to complete or expand the active transportation network and do not expand vehicular access.
8. Sidewalk Infrastructure: Require the reconstruction and maintenance of sidewalks (not vegetation or snow removal) to be a jurisdiction's responsibility rather than the abutting property owner's responsibility and provide funding for this purpose.

Transportation demand management:

9. Car Free Lifestyle: Provide a financial incentive to low-to-moderate income workers and families who do not own a personal vehicle.

VMT reduction strategies

1) Concurrency and Highways of Statewide Significance

Current Issue
RCW 36.70A.070(6)(a)(iii)(C) states that, "...the concurrency requirements of (b) of this subsection do not apply to transportation facilities and services of statewide significance."[9] Section (b) provides that "After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW 36.70A.040, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development."[10]

By excluding highways of statewide significance from concurrency requirements, this provides a perverse incentive for approaches to development that generate a high number

[8] Washington State Injury Minimization and Speed Management Policy Elements and Implementation Recommendation. Retrieved from Injury Minimization and Speed Management Policy Elements and Recommendations (wa.gov) on September 14, 2023.

[9] Revised Code of Washington. (2022). RCW 36.70A.070(6)(a)(iii)(C). Comprehensive plans—Mandatory elements. Retrieved from https://app.leg.wa.gov/rcw/default.aspx?cite=36.70a.070 on June 25, 2023.

[10] Revised Code of Washington. (2022). RCW 36.70A.070(6)(b). Comprehensive plans—Mandatory elements. Retrieved from https://apps.leg.wa.gov/rcw/default.aspx?cite=36.70a.070 on June 25, 2023.

of vehicle trips and rely directly on the state highway system to absorb those trips without providing for local multimodal networks.

Example

Bellevue[11] and Bellingham[12] are two cities that have implemented multimodal concurrency requirements. Bellingham "provides a unique but very transferable method of integrating land use context and densities with multimodal transportation facilities and services, both to comply with GMA Concurrency requirements and to implement Bellingham's infill land use strategy and multimodal transportation policies in the comprehensive plan."[13] In Bellevue the concurrency system uses mobility units (MU) to determine if the supply of transportation system improvements is sufficient to meet the demand of MUs from development projects. Mobility units consider all travel modes, not simply driving.[14] Conversely, the City of Spokane annexed rural land in 1981 but did not install arterial streets. After development and more housing were proposed, nearly $500 million in safety improvements on SR 195 were requested. Partnering with land use groups created a reasonable build-out plan. However, the problems—including multiple serious and fatal crashes—could have been avoided and the public cost much lower if a local network had been constructed instead of triggering costly changes on the state highway with no path to fund them.[15]

Potential change

Remove the highway of statewide significance exemption and require that concurrency requirements apply to transportation facilities and services of statewide significance with a focus on multimodal capacity. Implementation should be carefully constructed to ensure continued promotion of infill development near transit.

As an example, if the law is amended, development along Highway 101 in Aberdeen would no longer be exempt from concurrency and would be required to ensure that all users of the road have adequate access to the multiple Grays Harbor transit routes along highway 101, and safe biking access, along with appropriate walking/rolling infrastructure.

[11] City of Bellevue. (2022). Bellevue Municipal Code Ch. 14.10. Multimodal Concurrency Code. Retrieved from https://bellevue.municipal.codes/BCC/14.10.005 on June 25, 2023.

[12] City of Bellingham. (2009). Bellingham Municipal Code Ch. 13.70. Multimodal Transportation Concurrency Management. Retrieved from https://bellingham.municipal.codes/BMC/13.70 on June 25, 2023.

[13] Municipal Research and Services Center. (2023). Concurrency. Retrieved from https://mrsc.org/explore-topics/planning/general-planning-and-growth-management/concurrency on June 25, 2023.

[14] City of Bellevue Development Services. (2023). Concurrency, Transportation Codes and Guidelines. Retrieved from https://bellevuewa.gov/city-government/departments/development/codes-and-guidelines/transportation-codes-and-guidelines/concurrency on April 7, 2023.

[15] Millar, R. (2023). State of Transportation: Maintaining a resilient transportation system in a rapidly changing world. Retrieved from https://wsdot.wa.gov/sites/default/files/2023-01/2023-state-of-transportation.pdf on May 3, 2023.

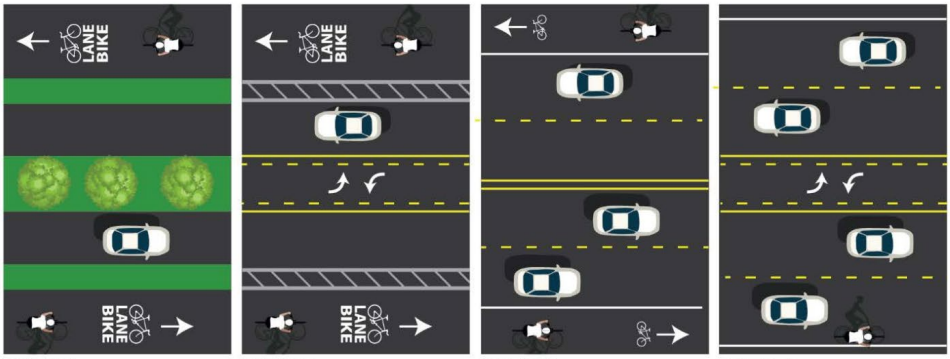
2) Leapfrog Developments Across Highways and Active Transportation Infrastructure

Current issue
When land is developed across a highway and is isolated from existing developed areas, currently the development does not need to address the new demand for active transportation facilities necessary to connect communities on each side of the highway. This is a related issue to highways of statewide significance being exempt from concurrency requirements, (discussed on page 59). Below is an example of a town that has developed away from the highway. Adding development on the other side of the highway creates disconnected communities that are reliant on cars.

Example
To avoid leapfrog development in the first place and comply with land use and other GMA goals directing growth to areas with existing infrastructure, Jefferson County designates development tiers in their comprehensive plan.[16] The tiers involve encouraging development in urban cores first, and then in areas with planned services during the lifecycle of the 20-year plan. Communities such as Sequim have championed the construction of highway by-passes to move high-speed traffic out of the core of their communities and create a more compact community that makes it easier to walk or bike for short local trips.

Potential change
Require local jurisdictions and developers to fund and construct facilities for walking and bicycling that meet state standards for level of traffic stress 1 if they construct greenfield development on the opposite side of a state highway from existing development. Level of traffic stress is explained in WSDOTs Active Transportation plan. The exhibit on the following page visually illustrates that facilities with a level of traffic stress one would be suitable for all users while those at level four are not likely to be used by anyone other than the most confident and experienced riders.

[16] Jefferson County. (2018). Jefferson County Comprehensive Plan. Retrieved from https://test.co.jefferson.wa.us/WeblinkExternal/0/edoc/1924551/Jefferson%20CP%202018_12.pdf on April 11, 2023.



Development changes the context of land. A high-speed highway that bypasses a community is an appropriate facility for its context. If development changes the context of that highway, it should also be responsible for changing the highway or providing a grade separated crossing. Options could include construction of a protected intersection or roundabout, reallocation of existing space to active transportation modes, expanding the cross section to accommodate active transportation modes, and measures to reduce driving speeds or increase separation to achieve the target level of traffic stress and consistency with the Safe System approach. Require local jurisdictions and developers to submit Multimodal Transportation Impact Analysis (MTIA) to WSDOT if greenfield development on the opposite side of a state highway from existing development generates trips to or across state highways. WSDOT can use SEPA to the maximum extent of its authority to require local jurisdictions and developers to provide proportionate share funding mitigation toward multimodal transportation system improvements. Where necessary WSDOT should develop local agency agreements to utilize this ability to its full extent.

3) School Siting

Current issue

School location constrains daily travel patterns for families, forms children's perception of normal travel, and often contributes significantly to local congestion, particularly during peak travel times. Depending on the school district, anywhere from 10 to 30 percent of traffic congestion during morning and afternoon peak periods comes from parents dropping off and picking up their children at school.[17] Current rules for land needed by schools make infill development unattractive and unfeasible pushing new construction to transportation inefficient locations that place a high travel burden on families and school districts—e.g., within proximity to highways or locations where land is cheaper. The state Active Transportation Plan reported results of the 2019 statewide student travel survey, which found fewer schoolchildren walking and bicycling to school (11%) than has been the case in the past; in 1969 50% of all children in the US walked or biked to school.

Example

California law requires separation of schools from heavy traffic for safety and pollution exposure reasons. The law states that "The site shall not be adjacent to a road or freeway

[17] Washington State Department of Transportation (2021). Active Transportation Plan 2020 and Beyond. Retrieved from https://wsdot.wa.gov/construction-planning/statewide-plans/active-transportation-plan on June 6, 2023.

that any site-related traffic and sound level studies have determined will have safety problems" and that "The site shall not be on major arterial streets with a heavy traffic pattern as determined by site-related traffic studies."[18]

Potential change
Add a new section to Title 28A RCW —Common School Provision that makes proximity to students' homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions.[19] Make sure that issues associated with tribal lands and checkerboard land ownership are taken into account when considering these changes. School siting considerations should also be part of annexation changes. In addition, amend the WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.[20] Relax parking requirements for schools encouraging siting in infill areas. Ensure that impact analysis and requires development to provide more than minimum or cursory active transportation facilities. Explicitly require cities or counties to construct complete active transportation connections from housing to schools when schools are constructed, beyond robust expectation for development of those facilities from the projects themselves.

4) Street Network Connectivity

Current Issue
Disconnected street networks increase distances traveled by car, prevent mobility independence for non-drivers, create delays for emergency response, and raise transportation expenses by making fewer trips feasible by transit, walking, and bicycling. A disconnected network can take the shape of long blocks, dead ends, and cul-de-sacs. The state Active Transportation Plan and a special report prepared for FHWA both noted the importance of route directness for pedestrians in particular; long out-of-direction trips impose costs in time and exertion, may be impossible for some people with disabilities to undertake, and affect the ability to use transit where service is infrequent and missing a bus adds a long wait.[21]

Example
The City of Pasco is working to prevent further building of disconnected transportation networks. "A technical review of Pasco's existing transportation system highlighted many arterial or collector corridors and areas without convenient access for pedestrians, drivers, transit riders, and bicyclists."[22] The transportation master plan recognized, "Walking and

[18] Title 5, California Code of Regulations. Division 1, Chapter 13, Subchapter 1—School Facilities Construction—Article 1. General Standards. Retrieved from https://www.cde.ca.gov/ls/fa/sf/title5regs.asp on April 12, 2023.

[19] Revised Code of Washington. Section 28A—Common School Provision. Retrieved from https://apps.leg.wa.gov/rcw/default.aspx?Cite=28A on April 12, 2023.

[20] Washington Administrative Code. (2010). Section 392-342-020—Public Instruction, Superintendent Of—State Assistance In Providing School Plant Facilities—Educational Specifications And Site Selection—Site Review and Evaluation. Retrieved from https://app.leg.wa.gov/WAC/default.aspx?cite=392-342-020 on April 12, 2023.

[21] Washington State Department of Transportation. (2021). Multimodal Permeability Pilot. Retrieved from https://wsdot.wa.gov/sites/default/files/2021-11/MultimodalPermeabilityPilotReport-Aug2021.pdf on June 8, 2023.

[22] City of Pasco. (2021). Transportation System Master Plan. Retrieved from https://www.pasco-wa.gov/DocumentCenter/View/63139/Pasco_TSMP_Draft_10262021 on 3/30/2023.

biking and access to transit are significantly benefited by constructing neighborhoods with greater connectivity through better street and walkway spacing, and more direct routes to key destinations, such as schools, parks and transit stops."[23] The City examined its current land use policies and "recommended to apply new guidelines for the maximum block length, block size, block perimeter and access spacing... Under this new guidance for most zoning designations, block lengths shall not exceed 660 feet and the block perimeter shall not exceed 1,760 feet."[24]

The City of Olympia, in the transportation section of its comprehensive plan, states "Connect streets in a grid-like pattern of smaller blocks. Block sizes should range from 250 feet to 350 feet in residential areas and up to a maximum of 500 feet along arterials."[25] This aerial image from Battle Ground, Washington highlights how disconnected the road network can be with only a few throughfares with limited access to such roads. The satellite image is outdated, and as shown in the map view Rasmussen Blvd. now connects to SW 10th Ave, creating easier access for active transportation users.[26]

In addition to shorter block length, pedestrian, and bicycle connections from dead-end cul-de-sacs to trail systems or other street connections shorten travel distances by those modes and create low-stress opportunities that promote active transportation. In the photo below, a cyclist in East Lansing, Michigan makes their way to a newly constructed bridge over a drain that connects to a trail system.[27]

[23] Id. at 51.

[24] Id. at 52.

[25] City of Olympia. (2021). Olympia Comprehensive Plan. Retrieved from https://www.codepublishing.com/WA/Olympia/?compplan/OlympiaCPNT.html on 3/30/2023.

[26] Google Maps satellite and map view images of Battle Ground, Washington centered on the intersection of SW 10th Ave and SW Rasmussen Boulevard. Retrieved from https://www.google.com/maps/@45.777694,-122.5438806,1250m/data=!3m1!1e3 on April 10, 2023.

[27] City of East Lansing Michigan. (2019). Parks & Recreation Advisory Commission-- March 20, 2019-- Meeting Notice. Retrieved from https://cityofeastlansing.com/AgendaCenter/ViewFile/Agenda/_03202019-2155 on April 18, 2023. Photo credit of WSDOT staff.

Potential change

Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps and provide associated additional funding.

For example, the Access Control Classification regulation, WAC 468-52-040(2)(b)(i), says, "It is the intent that the design of class two highways be generally capable of achieving a posted speed limit of thirty-five to fifty mph in *urbanized* areas and forty-five to fifty-five mph in rural areas. Spacing of intersecting streets, roads, and highways shall be planned with a minimum spacing of *one-half mile*," (emphasis added).[28] Speeds of up to 50 mph and half mile intersections are not welcoming to pedestrians and bicyclists. Travel to the nearest crossing adds a mile to a trip just across the road if that intersection is a half-mile away. Access Control Classification is separately discussed on page 54.

Block lengths should be appropriate given the context of the land use. An urban setting would have a shorter block length while an industrial or agricultural setting would have a longer block length.

This topic could be addressed in multiple places in the RCW beyond the above-mentioned WAC. Connectivity is already addressed in RCW 47.24.060, Street access—Principles of complete streets—Requirements. The topic could be made more explicit within that section. Additional areas to consider include RCW 47.04.280, Transportation system policy goals, and RCW 36.70A.020, Planning goals in the GMA.

[28] Washington Administrative Code. (1999). WAC 468-52-040(2)(b)(i). Access Control Classification. Retrieved from https://app.leg.wa.gov/WAC/default.aspx?cite=468-52-040 on June 25, 2023.

5) Transportation-Efficient Communities

Current Issue
Currently there is no clear and consistent way to identify transportation-efficient communities and apply differential regulations and fees to encourage development in these locations. Transportation-efficient communities provide affordable housing near jobs and transportation options, and transportation choices for all residents and visitors. Transportation options are available because 1) activities are close, making active transportation and transit more attractive to a user and 2) because there is a higher population, it makes sense to invest in transportation infrastructure that yields higher return on investment—e.g., high-capacity transit, complete streets, etc. Transportation-efficient communities are places where population and jobs should be added.

Example
WSDOT, in collaboration with the departments of Commerce, Ecology, and Health publishes the transportation-efficient communities website.[29] It provides best practice tools on healthy and safe communities, land use, and transportation.

Since 2007, WAC 468-63-060 has had a provision for Growth and Transportation Efficiency Centers (GTECs).[30] The purpose of GTECs is to establish demand management programs to connect employment and housing centers in support of existing commute trip reduction plans.

In the central Puget Sound, the Puget Sound Regional Council has a Regional Growth Center policy in place.[31] Centers can be designated based on a city's intent to pursue dense transit development through their planning and criteria for minimum thresholds, which include development density, mix of uses, and high-capacity transit. The VISION 2050 PSRC Regional Transportation Plan requires jurisdictions to develop goals and policies to implement the Regional Growth Strategy, which focuses density on centers (GTECs) and multimodal transportation connectivity within and between communities. The City of Seattle includes an Urban Village element as part of its comprehensive plan.[32] There are four types of villages to account for different types of neighborhoods across the city, but all are intended to bring activities closer together to reduce reliance on driving trips. The City of Bellingham also has a nodes and corridors strategy with six urban villages.[33]

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[28] Transportation Efficient Communities. (2023). Transportation Efficient Communities. Retrieved from https://www.transportationefficient.org/ on May 3, 2023.

[28] Transportation Efficient Communities. (2023). Transportation Efficient Communities. Retrieved from https://www.transportationefficient.org/ on May 3, 2023.

[30] Washington Administrative Code. (2007). Growth and transportation efficiency centers. Retrieved from https://app.leg.wa.gov/wac/default.aspx?cite=468-63-060 on April 10, 2023.

[31] Puget Sound Regional Council. (2023). Centers. Retrieved from https://www.psrc.org/our-work/centers on April 11, 2023.

[32] City of Seattle. (2005). Urban Village Element. Retrieved from https://www.seattle.gov/documents/departments/opcd/ongoinginitiatives/seattlescomprehensiveplan/urbanvillageelement.pdf on April 11, 2023.

[33] City of Bellingham. (2023). Urban Villages. Retrieved from https://cob.org/services/planning/urban-villages on June 8, 2023.

In 2011, San José, California adopted a new general plan that, "aims to transform San José from a city built around personal motorized vehicles to one that prioritizes people and the public spaces where they live, work, and connect."[34] This plan provides a framework to move away from a scattered land use practice to where the things that people need are more integrated in the City's Planned Growth Areas (PGAs).[35] "PGAs include Downtown, Specific Plan Areas, Urban Villages, and Employment Priority Areas. PGAs are largely clustered around existing and planned transit."[36] Ultimately the city aims for 60% of commute trips to be done by walking, biking, transit, or carpool.[37]

In Oregon, the Department of Land Conservation and Development is implementing a Climate Friendly and Equitable Community program. "A climate-friendly area is an area where residents, workers, and visitors can meet most of their daily needs without having to drive. They are urban mixed-use areas that contain, or are planned to contain, a greater mix and supply of housing, jobs, businesses, and services."[38] The new rules require cities with a population greater than 5,000 in metropolitan areas to adopt regulations allowing walkable mixed-use development. Local governments will determine where these areas will be located, and associated requirements will ensure that high quality pedestrian, bicycle, and transit infrastructure is available within these areas to provide convenient transportation options.[39]

Potential change

Require the GMA comprehensive planning and the local zoning and development regulation process to clearly identify the areas where additional development would be expected to help bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, and using transit. Incorporate anti-displacement policies in these requirements to ensure that these changes meet the needs of people most likely to rely on these modes.

Amend the GMA to require comprehensive plans to include performance measures in the categories listed below (from Oregon's Transportation Planning Rules)[40] and/or develop new criteria based on processes already developed through GTECs, Regional Growth Centers, and Urban Villages.

- Compact Mixed-use Development
- Active Transportation
- Transportation Options
- Transit Option
- Parking Costs and Management

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[34] City of San Jose. (2020). Transportation Analysis Handbook. Retrieved from https://www.sanjoseca.gov/home/showdocument?id=28461 on 3/31/2023

[35] Id.

[36] Id.

[37] Id. at 3.

[38] Oregon Department of Land Conservation and Development. (2022). Designation of Climate-Friendly Areas. Retrieved from https://www.oregon.gov/lcd/CL/Documents/Designation_of_Climate_Friendly_Areas_Overview.pdf on 3/31/2023.

[39] Oregon Department of Land Conservation and Development. (2022) Climate-Friendly Areas. Retrieved from https://www.oregon.gov/lcd/CL/Documents/OnePagerCFAs.pdf on 3/31/2023

[40] Oregon Administrative Rule (OAR) 660-012-0905: Transportation Planning, Land Use and Transportation Performance Measures, Retrieved from https://www.oregon.gov/lcd/CL/Documents/TPR_2022.pdf on 3/31/2023.

- State of the Transportation System

6) Access Control Classification

Current issue
The current managed access control classification system and standards as defined under Chapter 468-52 WAC are not responsive to the context of state highways and are often at odds with providing a safe environment for users of all forms of transportation.[41] Most of the classes require revision to ensure consistency with best traffic safety practices. For example, class three facilities are meant to have "moderate travel speeds and moderate traffic volumes for medium and short travel distances" yet allow for travel speeds up to 40 miles per hour.

Example
WSDOT already informs engineering decisions with a Safe System Approach and aims to reduce crash forces to proactively address safety.[42] WSDOT is also working to implement Complete Streets under RCW 47.24.060.[43] Furthermore, the Transportation Research Board recently released a guidebook on Roadway Cross-Section Reallocation intended to assist decision makers in making streets successful for livability, health, safety, economic development, and other community purposes, and not just for vehicle movements.[44]

Potential change
Revise the highway classification system to respond to context and be grounded in the Safe System Approach and the Transportation Research Board guidebook on Roadway Cross-Section Reallocation. The classification should include fewer classes. In addition, the distinction of urban and rural areas is antiquated and should be replaced with "population centers" (cities, towns, census designated places, and locations within urban growth boundaries) as defined within the Active Transportation Plan and Move Ahead Washington.[45] The enabling statute, RCW 47.50.090, does not need additional change.[46]

7) Biking Regulations

Current Issue
The legal landscape for bicycling is disjointed and unclear, creating multiple barriers to the cohesive construction, operations, and maintenance of safe and inviting bicycling

[41] Washington Administrative Code. (1999). WAC 468-52-040—Access Control Classification System and Standards. Retrieved from https://app.leg.wa.gov/WAC/default.aspx?cite=468-52-040 on April 18, 2023.

[42] Federal Highway Administration. (2022). The Safe System Approach: How States and Cities Are Saving Lives. Retrieved from https://highways.dot.gov/public-roads/winter-2022/06 on April 18, 2023.

[43] Revised Code of Washington. (2022). RCW 47.24.060—Street Access—Principles of complete streets—Requirements. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=47.24.060 on April 18, 2023.

[44] National Academies of Sciences, Engineering, and Medicine. (2022). Roadway Cross-Section Reallocation: A Guide. Washington, DC: The National Academies Press. https://doi.org/10.17226/26788. Retrieved from https://www.trb.org/Publications/Blurbs/182870.aspx on April 18, 2023.

[45] Washington State Department of Transportation. (2020). Active Transportation Plan, 2020 and Beyond. Retrieved from https://wsdot.wa.gov/sites/default/files/2021-12/ATP-2020-and-Beyond.pdf on April 18, 2023.

[46] Revised Code of Washington. (1995). RCW 47.50.090—Access management standards. Retrieved from https://app.leg.wa.gov/rcw/default.aspx?cite=47.50.090 on April 27, 2023.

infrastructure. Consistent regulation on bicycling is needed to support cycling as a form of transportation.

Example
In 2021, the Cooper Jones Active Transportation Safety Council (ATSC) highlighted that driver speed is directly linked to the severity of a crash. Speed is the primary variable in the energy transferred in a crash, and for those walking and rolling, even a small increase in speed significantly increases the risk of serious injury and death. Wide, fast, busy roads discourage shifts to active transportation for those who have multiple options and create the potential for increased injury and death of nondrivers who do not have all modes available. The ATSC made several recommendations to change existing law regarding speed and clarifying pedestrian use of public roadways. In 2022, Senate Bill 5687 acted on the recommendation and local authorities are now permitted to establish a 20-mph speed limit on nonarterial highways without first conducting an engineering and traffic investigation.[47]

Potential change
Comprehensively revise all bicycling related statutes to provide clear and consistent regulation of bicycling, encouraging it as a form of transportation. In 2023, the legislature passed Engrossed Substitute House Bill 1853[48] and defines “Active Transportation” as:

> *Forms of pedestrian mobility including walking or running, the use of a mobility assistive device such as a wheelchair, bicycling and cycling irrespective of the number of wheels, and the use of small personal devices such as foot scooters or skateboards. Active transportation includes both traditional and electric assist bicycles and other devices. Planning for active transportation must consider and address accommodation pursuant to the Americans with Disabilities Act and the distinct needs of each form of active transportation.*

The same legislation also defines and clarifies shared-use paths:

> *"Shared-use path," also known as a "multiuse path," means a facility designed for active transportation use and physically separated from motorized vehicular traffic within the highway right of-way or on an exclusive right-of-way with minimal crossflow by motor vehicles. Shared-use paths are primarily used by pedestrians and people using bicycles or micromobility devices, including those who use nonmotorized or motorized wheeled mobility or assistive devices. With appropriate design considerations, equestrians may also be accommodated by a shared-use path facility.*

[47] Cooper Jones Active Transportation Safety Council. (2022). 2022 Annual Report for Cooper Jones Active Transportation Safety Council. Retrieved from http://wtsc.wa.gov/wp-content/uploads/dlm_uploads/2022/12/Cooper-Jones-Active-Transportation-Safety-Council-Report-to-Legislature_Dec-2022.pdf on June 25, 2023.

[48] Washington State Legislature. (2023). Engrossed Substitute House Bill 1853. Retrieved from https://app.leg.wa.gov/billsummary?BillNumber=1853&Initiative=false&Year=2023 on April 27, 2023.

In addition to these recent changes, the following definitions should also be revised:

- Definitions
  - Add to definitions in RCW 47.04.010 (Definitions within the Public Highways and Transportation chapter):[49]
    - Bicycle: Should be cross-referenced to existing code in 46.04.071 (Motor Vehicles title).[50]
      - "Bicycle" means every device propelled solely by human power, or an electric-assisted bicycle as defined in RCW 46.04.169, upon which a person or persons may ride, having two tandem wheels either of which is sixteen inches or more in diameter, or three wheels, any one of which is twenty inches or more in diameter.
    - Signal cycle length
      - Clarify "dead-red" rule (RCW 46.61.184) to define signal cycle length to address scenarios in which a person operating a bicycle would not be able to determine if a complete cycle has passed due to the absence of other vehicles in the intersection and to address a signal with multiple phases when some may not occur.[51]

- Trails Statute – Chapter 47.30 RCW[52]
  - Under RCW 47.30.030 remove the restriction to consider only "motor vehicle safety" and adopt "safety of all travelers." Additionally, include a statement that active transportation traffic materially increases safety and efficiency for all modes.
  - Add an authorization for construction of a shared-use path or other active transportation facility if requested by a local agency or included in a local, regional, or tribal plan.
  - Under RCW 47.30.040, delete "(2) The cost of such paths and trails as compared to the need or probable use."
  - Under RCW 47.30.040, remove (3), which has been interpreted as requiring a path or trail to be included in a "plan for a comprehensive trail system" before it can be considered.
  - Under RCW 46.04, define "intersection" to include the intersection of a trail or shared-use path and a street, road, or highway.

[49] Revised Code of Washington. (2023). RCW 47.04.010. Public Highways and Transportation, General Provisions, Definitions. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=47.04.010 on June 25, 2023.

[50] Revised Code of Washington. (2019). RCW 46.04.071. Bicycle. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.071 on June 25, 2023.

[51] Revised Code of Washington. (2015). RCW 46.61.184-- Bicycle, moped, or street legal motorcycle at intersection with inoperative vehicle detection device. Retrieved from https://apps.leg.wa.gov/rcw/default.aspx?cite=46.61.184 on April 18, 2023.

[52] Revised Code of Washington. (1979). RCW 47.30. Trails and Paths. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=47.30 on June 25, 2023.

- Reconsider who has the right-of-way in the definition of an alley in RCW 46.04.020[53] and intersection area in RCW 46.04.220.[54]
- Allow context-based speed limit establishment as a matter of policy without requiring a study, following the recommendations in the injury minimization policy framework.

8) Sidewalk Infrastructure

Current Issue
Many people with disabilities, older adults, and parents with children struggle to get around when sidewalks are missing, too narrow, or in bad condition. Policies that force adjacent property owners to shoulder the full cost of sidewalk construction and repair can be a financial burden, especially in low-income neighborhoods.
Although jurisdictions are not responsible for maintaining the sidewalk, they cannot absolve themselves of liability. The court in *Rivett v. Tacoma* invalidated Tacoma's ordinance provisions that imposed liability upon abutting property owners for damages caused by defective sidewalks, regardless of fault.[55]

Abutting property owners are responsible for the physical maintenance of sidewalks. The Seattle Department of Transportation explains that "Streets and sidewalks are for everyone's use.... What some property owners do not realize is that they are responsible for maintaining part of the right-of-way next to their property, including the sidewalk and planting strip, or the roadway shoulder if unimproved... Property owners are responsible for maintaining the sidewalks adjacent to their property. They must make sure snow and ice does not pose a hazard to pedestrians. They must also repair cracks and other damage."[56] No other form of transportation depends on individual property owners for construction and maintenance.

RCW 35.68.010; sidewalks, gutters, curbs, and driveways—all cities and towns; allows any city to require the abutting property owner to construct the improvement at the owner's own cost or expense, or to assess all or any portion of the costs thereof against the abutting property owner.[57] RCW 35.69.020 confers the same responsibility to first and

[53] Revised Code of Washington. (1961). RCW 46.04.020. Alley. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.020 on June 25, 2023.

[54] Revised Code of Washington. (1975). RCW 46.04.220. Intersection area. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.220 on June 25, 2023.

[55] *Rivett v. City of Tacoma*, 123 Wn.2d 573, 870 P.2d 299 (1994), abrogated by *Yim v. City of Seattle*, 194 Wn. 2d 682, 451 P.3d 694 (2019).

[56] City of Seattle. (2023). Property Owners' Responsibilities. Retrieved from https://www.seattle.gov/transportation/projects-and-programs/programs/maintenance-and-paving/property-owners-responsibilities on April 7, 2023.

[57] Revised Code of Washington (1996). RCW 35.68.010. Sidewalks, gutters, curbs, and driveways—all cities and towns, Authority conferred. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=35.68.010 on June 25, 2023.

second class cities.[58] RCW 35A.47.020 confers the same provisions to code cities.[59]

MRSC explains that "city and town governments in Washington are classified according to their population at the time of organization (usually incorporation) or reorganization. There are four classification types: first class city, second class city, code city, and towns, all of which have different powers under state law." [60]

Example
In 2022, Denver voters approved a ballot initiative to amend the city's code shifting responsibility for sidewalk maintenance and repair from property owners to the city.[61] The program aims to: remove the responsibility for repairs from adjacent property owners and place this responsibility on the city, fund the construction and repair of sidewalks through an annual fee charged to property owners, enable the construction of the sidewalk network, and provide ongoing funding for sidewalk repairs.[62]

Potential change
Provide local public agencies the appropriate funding and support mechanisms to maintain sidewalks and address workforce needs. Once complete, under RCW 35.68.010 remove the ability for any city to require the abutting property owner to reconstruct or improve the sidewalk at the owner's own cost or expense. Under RCW 35.69.020 remove the same ability for first and second class cities.[63] Additionally in RCW 35A.47.020 remove the same provisions for code cities. **This is for the reconstruction and maintenance of sidewalks, not vegetation and snow removal.**

Ensure that such responsibility is only for maintenance and replacement. New construction projects should still be required to build sidewalks.

9) Car Free and Car-Light Lifestyle

Current Issue
Vehicles cost thousands of dollars to purchase, require ongoing maintenance expenditures, and can be costly to park, leaving many people unable to afford a car. Many users of the transportation network cannot drive due to various factors including disabilities

[58] Revised Code of Washington (1996). RCW 35.69.020. Sidewalks—construction, reconstruction in first and second-class cities, Resolution of necessity—Liability of abutting property—Reconstruction. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=35.69.020 on June 25, 2023.

[59] Revised Code of Washington (1983). RCW 35A.47.020. Streets—Acquisition, standards of design, use, vacation and abandonment—Funds. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=35A.47.020 on June 25, 2023.

[60] Municipal Research and Services Center. (2022). City and Town Classification. Retrieved from https://mrsc.org/explore-topics/governance/classification-of-washington-cities/city-town-classification on April 7, 2023.

[61] Minor, D. (2022). Denver sidewalk initiative backers have declared victory. Here's what may come next. *Denverite*. Retrieved from https://denverite.com/2022/11/14/initiated-ordinance-307-results-denver-deserves-sidewalks/ on April 7, 2023.

[62] Denver Deserves Sidewalks Campaign Committee. (2023). Denver Deserves Sidewalks. Retrieved from https://denverdeservessidewalks.wordpress.com/ on April 7, 2023.

[63] Revised Code of Washington. (1996). RCW 35.69.020. Sidewalks—construction, reconstruction in first and second-class cities, Resolution of necessity—Liability of abutting property—Reconstruction. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=35.69.020 on June 25, 2023.

and require other means to get to where they need and want to go. Transit fares and bicycle equipment can also be difficult for people with low incomes to afford. Consider how a financial incentive could be offered to households with only 1 vehicle, as well as low- to moderate-income workers who do not own a personal vehicle.

Example

California considered legislation in 2022 that would have created a $1,000 refundable tax credit for low-income Californians who do not own vehicles.[64] Single filers making up to $40,000 per year and joint filers making up to $60,000 per year were eligible for the refundable tax credit.[65] The policy was aimed to help people use other forms of transportation on a network designed primarily for single-occupancy vehicles.[66]

Potential change

Provide a tax credit / rebate to low-to-moderate income workers and families who do not own a personal vehicle. Under RCW 82.08.0206, allow people who are eligible for the working families' tax credit to declare the number of registered vehicles with the Department of Licensing.[67] Those that declare zero vehicles would be eligible for an additional $1,000 tax credit / rebate to promote the use of other forms of transportation, alleviate financial challenges, and support multimodal travel for social and economic opportunity.

[64] California Legislature. (2021). Senate Bill-457: Personal income taxes: credit: reduction in vehicles, 2021-2022. Retrieved from https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB457 on June 25, 2023.

[65] Osaka, S. (2022). Why California Wants to Give Residents $1,000 not to have a car. *Washington Post*. Retrieved from https://www.washingtonpost.com/climate-environment/2022/09/01/why-california-wants-give-residents-1000-not-have-car/ on April 7, 2023.

[66] California State Senator Anthony Portantino. (2022). Portantino Bill Implementing Car Free Incentive Program Headed to Governor's Desk. Retrieved from https://sd25.senate.ca.gov/news/2022-08-31/portantino-bill-implementing-car-free-incentive-program-headed-governor%E2%80%99s-desk on April 7, 2023.

[67] Revised Code of Washington. (2022). RCW 82.08.0206. Credits—Working families—Eligible low-income persons—Penalties. Retrieved from https://app.leg.wa.gov/RCW/default.aspx?cite=82.08.0206 on June 25, 2023.

Future work

Local land use regulations and actions have the biggest influence on the built environment and, therefore, the biggest potential impact on reducing VMT. By bringing people closer to the activities they wish to participate in, VMT is reduced and the likelihood of a person choosing active modes is increased. Beyond the proposed changes to land use practices articulated in the paper, this ATSAC study recommends further consideration of land use regulations and transportation analysis practices with respect to safety for different types of uses including residential, commercial, industrial, institutional, and mixed-use with recommendations for each category.

Historically, local land uses expected to generate higher volumes of vehicle traffic have been required to complete a Traffic Impact Analysis (TIA) to measure impacts to the surrounding street network and, where necessary, recommend mitigating measures. Unfortunately, TIAs typically only measure vehicle impacts and, therefore, recommended mitigation is vehicle capacity oriented (widening streets and intersections). The state of TIAs has been evolving from this vehicle-centric focus to an evaluation of safety, mobility, and access for all modes, hence shifting toward multimodal TIA. Several factors have influenced this evolution, including nationwide environmental, safety, fiscal, and equity concerns, as well as the acknowledgement that not everyone owns an automobile or has a driver's license. Furthermore, there is a realization that urban areas have finite space; even communities of lower densities can't continue expanding road capacity indefinitely. Traveler behavior is influenced by system changes, so impact mitigation choices can be used to help achieve broader transportation system goals. Multimodal communities are more affordable, healthy, sustainable, resilient, and equitable, and this Recommended Practice will assist in the analysis and planning of multimodal networks.

In 2018, the Institute of Transportation Engineers (ITE) convened a Technical Committee comprised of transportation professionals across the U.S. with applied experience in multimodal performance metrics to update the 2010 ITE TIA Recommended Practice. Work began and was progressing until the global COVID-19 pandemic struck and slowed work down significantly. Finally, in January 2023, after four full years of work and completing the arduous ITE process for approval, ITE adopted and published a new Recommended Practice titled Multimodal Transportation Impact Analysis for Site Development (MTIA), to replace the outdated 2010 TIA Recommended Practice for Site Development.

In 2024, ATSC should assemble a working group to develop recommendations for best practices for application of the new ITE MTIA and the local land use level to reduce VMT, to increase safety for people walking and riding bicycles, to support and promote transit-oriented development and transportation-efficient communities, and to help achieve the goals of Washington's Target Zero Highway Safety Plan.

The ATSC work would complement the Department of Commerce 2024 work for the updated GMA comprehensive plan transportation element update guidebook and ATSC recommendations could be included in that statewide guidance document.

Appendix E: Impact of Human Factors on Transportation Safety

Overview: Impact of Human Factors on Transportation Safety
People are neither predictable nor perfect, but that doesn't mean safety considerations related to human factors is hit or miss. In 2023, the Washington State Active Transportation Safety Council set out to identify, evaluate and recommend actions to address human factors related to severe injury and fatal auto collisions with nonmotorized roadway users. Human factors are thought to be root causes behind roadway incidents. Design and infrastructure to mitigate mistakes from roadway users requires understanding of the types of mistakes as well as the reasons why. The Safety Council established the Human Factors Study Team (HFST) to take on this effort.

Consistent with the "guidelines of future work" of the Safety Council, the HFST focused on identifying recommendations that (a) leverage actions taken by the Safety Council, (b) build upon work and studies developed by the Safety Council and others, and (c) result in legislative or administrative actions with measurable progress.

In the second edition of Human Factors Guidelines for Road Systems (2012), the National Academy of Sciences defines human factors as "a scientific discipline that tries to enhance the relationship between devices and systems and the people who are meant to use them through the application of extensive, well-documented, and fully appropriate behavioral data that describe and analyze the capabilities and limitations of human beings". Human factors include physiologic characteristics, individual behavior patterns that are both conscious and unconscious as well as social drivers of behavior. The HFST focused on human factors defined as the state of mind and actions of participants on the roadway.

Multiple human factors were immediately identified, including impairment (under the influence for both drivers and pedestrians), distractions and inattention (cell phone use), physical limitations (slow reaction time, poor vision), and inadequate driver's education. Target Zero includes distraction and impairment as high-risk behaviors. According to the WA Traffic Safety Commission Target Zero Performance dashboard, distraction and impairment involved fatalities made up 63% of fatalities in 2022 and impairment involved was the highest proportion of fatalities over the last decade.

To apply some structure to the large array of relevant human factors, the HFST identified categories including geography – areas based on high incident rates, social-economic disparity; age – young drivers, older pedestrians; industry type – automobile makers, telecommunication, and liquor companies; and societal – substance abuse.

Geography
Various data is available on incidents by location. Multiple transportation agencies are making capital project improvements in these same high-incident locations, but with a facility-focus solution to make them safer. The correlation between human factors as it relates to geography requires additional review. For example, in a cursory review it is noted the incident rates of traffic accidents in the United Kingdom is much lower than in the United States – and that a key contributing factor is the level of driver education. Exploring additional details behind driver education is of interest to the HFST.

Age
Targeting age cohorts to address human factors merits further review. Given similarities by age groups, programming and marketing efforts to influence behavior have some economies of scale. For example, the HFST can contact youth group organizations, and others such as the American Association of Retired Persons (AARP) to place or reinforce their respective messaging on safe (or

unsafe) human factors as it relates to transportation safety.

Industry
The automobile, telecommunication and liquor industries have varying interests in trying to (a) design automobiles to address blind spot issues, (b) limit cell phone use during the operation of a vehicle, and (c) restrict unsafe alcohol sales, respectively. Nevertheless, incremental efforts might be worth further review. For example, the industries can be approached with an appeal to increase public messaging on safer behavior.

Societal
The distracted driver is a key human factor attributed to active transportation fatalities. Driving while intoxicated, fear of missing out and being glued to the cell phone while driving, and peer pressure to drive the biggest and fastest vehicle are all here to stay in society. Efforts to gradually reduce these same factors, however, cannot be ignored – to do nothing is not a responsible option.

Frameworks
The HFST reviewed frameworks that addressed human factors to identify ones that would organize and analyze the complex and multiple influences into actionable information. Models that were considered included Safe States Alliance behavior change strategies, Safe System Approach, spectrum of prevention approach to injury prevention and public health impact pyramid.

Safe States Alliance
During a canvas of related work studies on the topic, the work group identified the Safe States Alliance, a national non-profit whose mission is to strengthen the practice of injury and violence prevention.

The Safe States Alliance members are comprised predominantly of health care organizations and professional associations and has targeted driving behaviors. In September 2019, the alliance produced a resource document entitled Strategies to Address Shared Risk and Protective Factors for Driver Safety.

Upon initial review, the work group finds the information relevant and will continue its review of the materials. The resource document identifies six topic areas related to risky driving: aggressive driving and speeding, alcohol impaired driving, other drug impaired driving, distracted driving, drowsy and fatigued driving, and seat belt nonuse by adults. These topic areas roughly match the initial thoughts of the working group.

The 2019 Strategies resource document identifies risk factors (those attributes, characteristics or influences that increase the likelihood of individuals engaging in risky driving behaviors), and protective factors that decrease this same likelihood. Further, it reflects these factors along a social ecological model of individual, relationship (family, peers), community (neighborhood, workplace) and societal (policy, social and cultural norms). This social ecological model is like the Safety Council's work on the perception of safety.
nhtsa_bhwg_table_5_behavior_.pdf (ymaws.com)

Safe Systems approach
Safe Systems approach uses redundancy and shared responsibilities to achieve the goal of eliminating crash fatalities or serious injury. Human vulnerability and error are acknowledged but that does not mean the inevitability of injury or death. The framework is designed with multiple layers and redundancy to ensure that mistakes do not lead to fatalities or serious injury.
What Is a Safe System Approach? | US Department of Transportation

(Graphic depicting the safe system approach taken from U.S. Department of Transportation.)

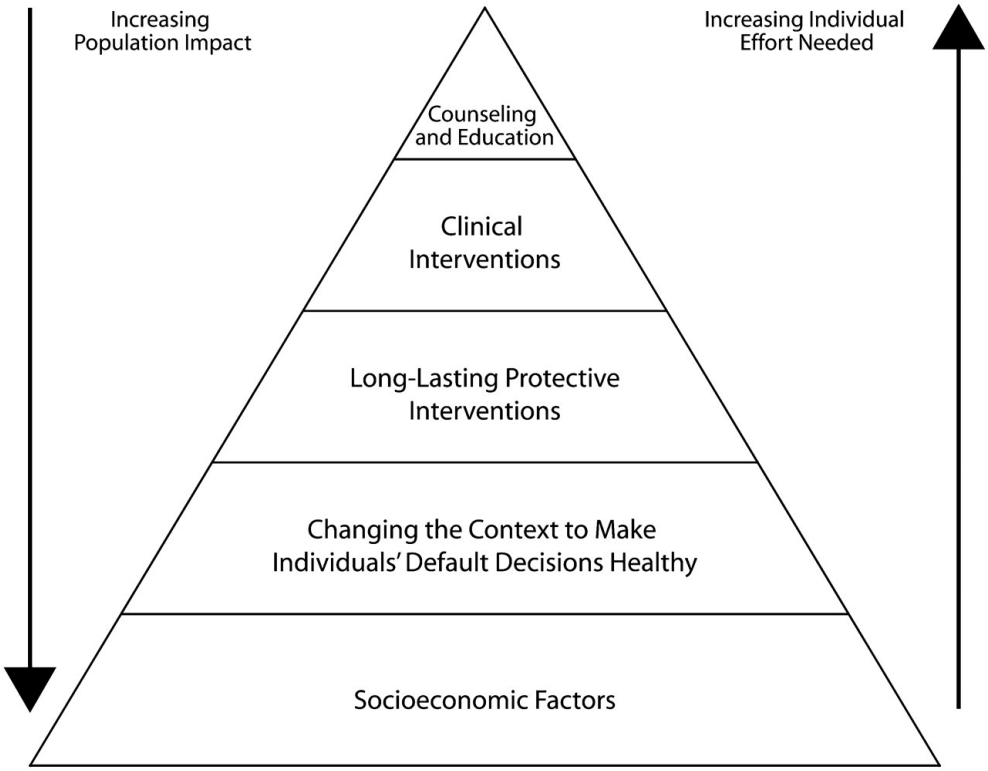
Spectrum of Prevention

This framework is useful for building layers of intervention that move beyond just education of individuals. The ATSC Fatality Case Review Action Team also uses this framework to organize recommendations and findings. Human factors are broader than the transportation sector and the spectrum of prevention can be useful in identifying and aligning other sectors that are impacted. Impairment is an obvious example of a human factor that impacts multiple areas beyond transportation safety, such as health care, behavioral health, family and community safety. [Prevention Institute]

(Graphic of spectrum of prevention levels taken from Prevention Institute website.)

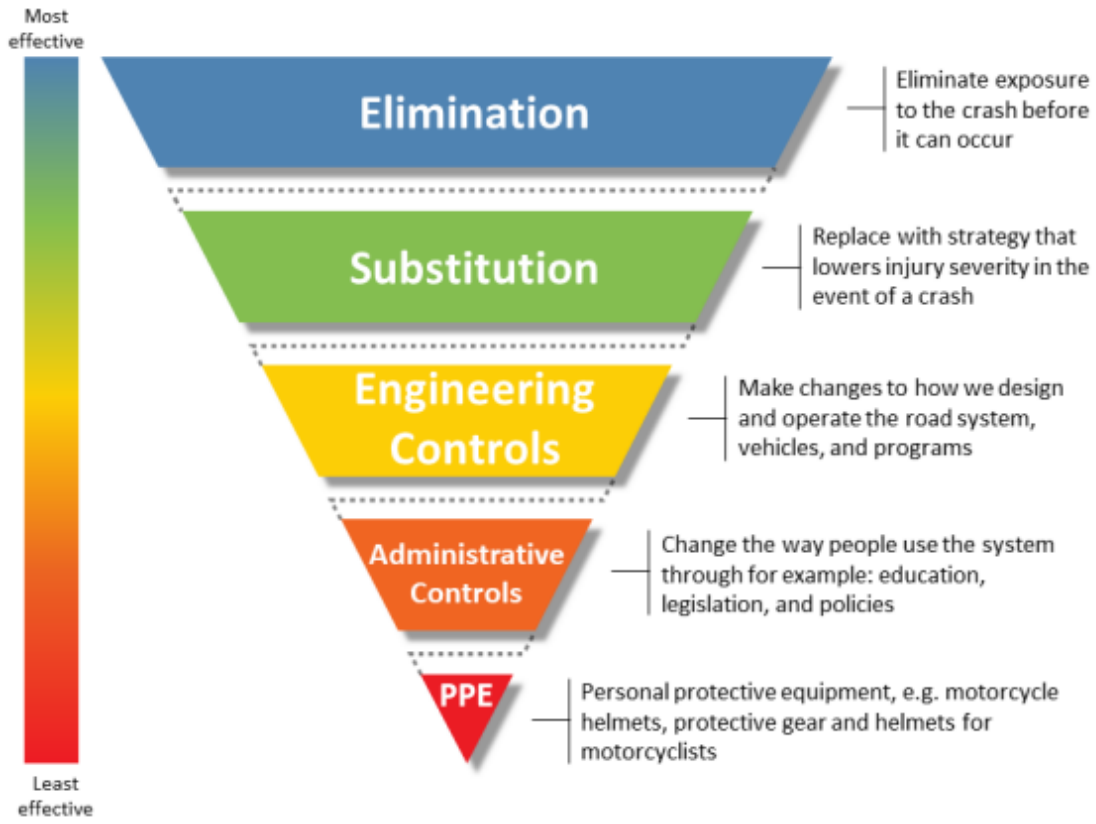
Health Impact Pyramid
The health impact pyramid is a framework for public health interventions and includes consideration of the potential impact as a method for prioritizing or allocating scarce resources. This approach is useful for ranking interventions and could augment transportation safety models which treat all interventions from education to infrastructure change as equal. The health impact pyramid also highlights that the highest impact is seen with prevention rather than intervention.

A Framework for Public Health Action: The Health Impact Pyramid | AJPH | Vol. 100 Issue 4 (aphapublications.org)



(Graphic depicting the health impact pyramid. Image source: Frieden, T. A Framework for Public Heath Action: The Health Impact Pyramid. Am J Public Health. 2010; April; 100(4): 590–595.)

Hierarchy of Controls
Washington's Active Transportation Plan and Target Zero include a hierarchy of controls framework initially developed by the National Institute for Occupational Safety and Health (NIOSH) to address worker safety. Like the health impact pyramid, it ranks the levels of intervention by effectiveness; this is important when considering how to allocate limited resources or when looking at interventions that will have the broadest impact.



(Graphic of hierarchy of controls for traffic safety taken from WA State Strategic Highway Safety Plan: Target Zero 2019)

Impairment
Impairment is a recurrent factor in traffic fatalities. Increasing numbers of individuals on roadways are impaired by drugs and or alcohol. Beneath this broader picture are still unknowns. Is the increasing number merely a reflection of increasing rates of substance misuse and abuse or do they represent a higher-than-expected impact on traffic fatalities and serious injuries. Are all drugs equivalent or do some represent a greater risk? Polysubstance use is increasingly seen in overall overdose fatalities, is this also representative of fatalities and serious injuries associated with traffic fatalities and serious injuries. Data collection and analysis is needed to better understand the impacts. CDC identifies as priority for transportation research (Transportation Safety Research Priorities (cdc.gov)

Why should transportation policy/advocacy groups concern themselves with impairment? Planners and traffic control are not able to treat substance use disorder (SUD), but transportation sector support for interventions/prevention to reduce rates of SUD underscores the broader impact of SUD. Support across multiple sectors lends truth to the broader reality that impairment affects society as a whole and contradicts the belief that SUD is not a concern for those who don't drink or use drugs. Reducing SUD rates can reduce traffic fatalities and serious injuries.
Recognizing the significance of impairment is also important for traffic safety design. Infrastructure that relies on predictions of human behavior at crossings may need to accommodate for changes in expected behavior under impairment.

Scope Management
With so many human factors related to unsafe roadway use, narrowing the scope of the work group into a manageable effort proved to be challenging. The HFST members set out to search for applicable work on transportation safety behavior done by others. Further, the HFST recognized

that examples outside of transportation safety, such as worker safety in factories, might provide some insight into recurring incidents and related training.

Although the scope associated with efforts to move the active transportation fatality meter backward is daunting, there are efforts underway to attack the problem thoughtfully – work and ideas that might reinvigorate the discussion of transportation safety in the state of Washington.

Recommendations

- Human factors and the impact on transportation safety are complex, but it is necessary to include them in the consideration of transportation legislation or infrastructure to improve the success of those efforts in mitigating traffic fatalities or injuries. HFST recommends ATSC continue the HFST with the goal of narrowing the scope to interventions that will have the greatest impact on traffic fatalities in WA state. The frameworks referenced above will guide the choice of interventions toward those that will more effectively use limited resources.

- Identify and work with sectors outside of transportation to address overarching issues such as impairment. Connecting to the ongoing work, aligning efforts increases likelihood of success in legislative efforts and reduced duplication of efforts.

- Human factors and their impact on transportation safety reflect social and health disparities. Equity must be a consideration for all interventions and for engaging those most affected at all levels of the process.

Additional links

https://www.cdc.gov/transportationsafety/impaired_driving/impaired-drv_factsheet.html
https://www.cdc.gov/transportationsafety/pdf/Drug-Impaired-Driving-Summary-Sheet-LD-508.pdf
https://one.nhtsa.gov/people/outreach/traftech/1995/TT094.htm
https://fkmalaw.com/why-drive-drunk-impaired/

Appendix F: Progress on Past Years' ATSC Recommendations

2022 Recommendations on Street Lighting

- Consider improvements to smart street lighting in policy, funding, and installing at multiple levels of government.
- Elevate the importance of street lighting in transportation planning and decision making at all levels of government.
- Examine the structure of funding for smart street lighting on county roads. Take steps to improve fragmented finance structures.
- Address barriers to prioritizing safety planning in safety infrastructure improvements.
- Conduct additional research pertaining to the issue of street lighting and safety. This should include a public input component as well as further learning from counties, cities, and the state, and other impacted entities.
- Solicit information from communities with poor street illumination and lighting to gather input as to whether this is an issue the community would like to see improved.
- Expand examination of equity implications, including differences in maintenance schedules across locations; how lighting affects visibility of people with darker skin tones; policies concerning lighting on trails and shared-use paths; and other topics.
- Contract with an expert in lighting to help guide the group's future recommendations.

2022 Street Lighting Actions

In response to the recommendations above, the 2022 Transportation Budget (HB 1125) included a proviso for the WTSC. It provided $235,000 of the Cooper Jones active transportation safety account for the commission to conduct research pertaining to the issue of street lighting and safety, including a public input component, and learning from counties, cities, the state, and other impacted entities. The research results are due to the legislature by June 30 and can include:

(i) Interviewing additional local and regional roads departments, water-sewer districts, and other utility services to gather a holistic data set or further input on which authority assumes primary responsibility for street illumination in various underserved areas throughout the state;
(ii) Systematically soliciting information from communities with poor street illumination and lighting to gather input as to whether this is an issue the community would like to see improved;
(iii) Conferring with regional and state-level police, fire, and emergency medical services to assess and document potential delays in emergency response times due to poor street illumination;
(iv) Further assessing the impact of using LED lights in roadway and pedestrian scale lighting in reducing carbon emissions and light pollution throughout the United States; and

(v) Subject to more in-depth findings, convening a meeting with appropriate state, regional, and local stakeholders, and community partners.

2022 Reimagine the Definition of Safety Recommendations

- Adopt an explicit statute stating that active transportation facilities and complete streets are deemed to serve highway, road, and street purposes.
- Adopt an explicit statement that it is the intent of the legislature to support a strong and safe statewide active transportation network and that the safety of all users of the transportation system must be considered in deciding uses of state right-of-way.
- Provide a statutory definition for active transportation (suggested text in white paper).
- Provide a statutory definition for Complete Streets as a standalone definition similar to how other facilities are defined in statute. The definition should be separate from the directive to WSDOT enacted in 2022 (ESSB 5974, Sec. 418) and from the existing Transportation Investment Board (TIB) grant program (RCW 47.04.430).
- Provide a statutory definition for shared-use paths serving highway, road, and street purposes and providing network connectivity for active transportation use. In formulating this definition, distinguish these facilities from recreational trails as needed and as appropriate.
- Incorporate explicit references to ADA accessibility as an essential element of active transportation facilities.

2022 Reimagine the Definition of Safety Actions

- No actions have been taken on the Reimagine the Definition of Safety recommendations.

2021 Recommendations Acted Upon

In the Cooper Jones Active Transportation Safety Council 2021 Final Report, the council found that driver speed is directly linked to the likelihood of a crash and the severity of that crash. It is the primary variable in the energy transferred in a crash. For those walking and rolling, even a small increase in speed significantly increases the risk of serious injury and death. The council made the following recommendations about speed:

• Reduce barriers for lowering speed limits by changing RCW to eliminate traffic study requirements for specific land use context.

• Expand RCW 46.61.415 so that counties will be allowed to post 20mph speed limits on roads in business districts and residential districts without the added expense of a traffic study.

• RCW 46.61.250 be rewritten so that people who walk have the same “due care” standard for avoiding crashes that drivers presently have.

• Expand automated school speed zone to school walking routes. Dedicate percentage revenue to Cooper Jones for safety grants.

• Adopt transportation policies and funding to eliminate barriers created by redlining practices that severed neighborhoods with highways and wide, fast, busy arterials.

• Provide expanded guidance in State Traffic Manual and State Design Manual for traffic calming tools, especially at intersections and crossing locations.

During 2022, the Legislature took policy and budget actions that implemented recommendations or moved in the direction of those recommendations.

SB 5687, active transportation safety improvements, reflected recommendations from the Cooper Jones Active Transportation Safety Council. The bill amended RCW 46.61.405 regarding speed limits on state highways. The Secretary of Transportation and all local authorities (including cities and counties), in their respective jurisdictions, may now establish a 20-mph speed limit on nonarterial highways without first conducting an engineering and traffic investigation, regardless of whether the highway is in a residence district or business district.

SB 5687 also amended RCW 46.61.250 regarding pedestrian uses of public roadways. The bill states "a pedestrian shall exercise due care to avoid colliding with any vehicle upon the roadway." This change is intended to place pedestrians on more equal footing with motorists and bicyclists regarding their use of public roadways by clarifying that they can cross or walk in lanes of travel absent sidewalks, shoulders, or crosswalks when they demonstrate due care. The section is also amended to reflect pedestrian use of roadways when closed to motor vehicle traffic.

SB 5974, addressing transportation resources, promotes projects that repair damage done to marginalized communities by reconnecting pedestrian, transit, and other routes that have historically been disrupted by vehicle-centered highway and other road projects. This bill also amends RCW 46.63.170 regarding the use of automatic traffic safety cameras in Washington. The law significantly expands allowed uses of automatic traffic safety cameras, including use on roadways within school walk areas, as recommended by the ATSC. SB 5974 also expanded the use of automated traffic safety cameras to public park speed zones and hospital speed zones. In addition, cities may operate at least one speed camera and one additional speed camera for each 10,000 residents in the city's population within a location identified as a priority location in a local road safety plan.

After costs are subtracted 50 percent of net revenue from speed camera fines in school walk areas or park or hospital zones, or at priority locations, will be forwarded from the local jurisdiction to the state for deposit into the Cooper Jones Active Transportation Safety Council account.
Beyond the new laws that incorporated recommendations from the Cooper Jones Active Transportation Safety Council, the 2022 Legislature took additional actions to improve active transportation safety. A review of these other law changes is contained in the June 2022, Washington State Department of Transportation Gray Notebook on page 9.

Additionally, WSDOT expanded guidance in State Traffic Manual for traffic calming tools, especially at intersections and crossing locations.

2021 Speed Recommendations Not Acted Upon

The council made additional recommendations to reduce the likelihood of speed-related deaths and injuries that are still important to act upon. Below are the recommendations in no particular order.

• Adopt traffic study techniques that give greater consideration for land use context.

• Provide guidance/standards in support of city/county wide default speed limit changes rather than requiring a case-by-case consideration of road speeds. This may include one set speed of 20mph for all residential and business district streets and a prioritized list for lowering arterial speed limits.

• Redefine the meaning and process used for conducting traffic studies. Consider a process like the one outlined in the NACTO City Limits Guide.

• Provide expanded guidance in State Traffic Manual and State Design Manual for traffic calming tools, especially at intersections and crossing locations.

• Provide examples of speed limit changes made by agencies that include project scope, administrative/legislative mechanisms used, and costs.

• Highlight 20 mph speed limit change that can be implemented on non-arterial streets and roads without engineering and traffic investigations per RCW 46.61.415 and flexibility to revert within one year. Consider gateway signing at locations entering jurisdiction boundary.

• Develop statewide access to collision, traffic volume, and speed data tools for local agencies to use. Consider using a public and private partnership to generate the information.

• Develop funding specific to speed limit changes at school/walking zones, business districts (could be matching), residential districts and high priority streets based on data. Provide support for low-cost speed counter measures such as feedback signs and channelization changes.

• Provide trainings for WSDOT staff about partnering with local agencies, responding to requests to lower speed limits, and providing speed management treatments.

• Support WTSC and other ATSC efforts in conducting public awareness campaigns that provide information about the importance of lowering speed limits and the relationship between speed limits, crashes, and injury severity.

2020 School Walk Area Recommendations Not Acted Upon

In the 2020 ATSC Final Report, the council recommended actions related to walk areas near schools that have not been implemented to date. From the ATES paper:
RCW 28A.160.170 and **WAC 392-141-340** - Determination of the walk area – could be clarified to require:

• Annual reporting on the implementation of school walk areas from all districts as a part of their annual student transportation report and charter schools;

• Publication of an annual report by the Office of Superintendent of Public Instruction regarding the district and charter information regarding school walk area implementation; and,

RCW 28A.160.160 (5) and **WAC 392-151-025** – Route Plans could be clarified to require:

• Identification and promotion of recommended walk and ride routes for all district or charter schools, rather than the current limited focus on elementary students.

• Informational materials regarding school walk routes are translated into the languages spoken in the homes of the district's students.

Appendix G: Cooper Jones Active Transportation Safety Council

Revised July 2023

Project Organization	
Executive Committee	1. Transportation: Barb Chamberlain, Washington State Dept. of Transportation (WSDOT) 2. Bicyclist Representative: Alex Alston, Washington Bikes 3. Public Health: Dr. Amy Person, Department of Health 4. Traffic Safety Planning: Chris Comeau, TranspoGroup, Inc. 5. Jessie Knudsen, Washington Traffic Safety Commission, Project Mgr. 6. Shelly Baldwin, Washington Traffic Safety Commission, Director
Staff	Jessie Knudsen - Program Manager, WTSC
Voting Members	***Legislature-identified members:*** 1. WTSC Representative 2. County Coroner employed in a location where pedestrian, bicyclist, or non-motorist deaths have occurred 3. Law enforcement members with experience investigating pedestrian, bicyclist, or non-motorist fatalities 4. Traffic engineer 5. WSDOT representative 6. Association of Washington Cities representative 7. Washington State Association of Counties representative 8. Pedestrian advocacy group representative 9. Bicycle or active transportation advocacy group representative 10. Department of Health representative 11. Victim/victim's family member ***ATSC-identified members:*** 1. Washington State Comm. on African American Affairs representative 2. Tribal representative 3. Asian/Pacific Islander representative 4. City planner 5. Disability population representative 6. Economic diversity representative 7. Senior citizen representative 8. WA State Comm. on Hispanic Affairs representative 9. Legislator or legislative staff 10. Safe Routes to School program representative 11. Target Zero Manager(s) 12. Public Transit representative 13. Unhoused Services representative 14. Emergency Medical Service representative

Facilitator	Patricia Hughes, Patricia Hughes & Associates, LLC, *dba* Trillium Leadership Consulting.
Data Analyst	Dr. Max Roberts, Research Associate, WTSC

Council Meeting Operations
Monthly council meetings are open to the public and subject to the Open Public Meetings Act (OPMA), 42.30 RCW. Regular council meetings are hosted on Zoom, the third Wednesday of each month or at such other place named by the WTSC. The meeting link, scheduling information and summary notes are accessible to the public at www.wtsc.wa.gov/programs-priorities/active-transportation-safety-council.

Council Funding Decision Making Process
As the Council has opportunities to recommend use of funds from safety camera and other revenue sources, it will use the following criteria to determine where and how to spend those funds. Funding will:

- Fit the stated purpose of ATSC
- Fit within the critical criteria as adopted by ATSC in January 2020
- Fit the equity approach as adopted by ATSC in January 2020
- Have a statewide benefit
- Build on past ATSC recommendations
- Process: ATSC as a whole will consider and recommend potential funding uses, then a small team will develop a proposal to bring to the whole committee for discussion and vote

Membership
When any number of the eleven legislature-identified council positions become vacant, the Executive Committee and Council staff will identify new members to fulfill the roles. Additional representation roles may be identified by council members to diversify perspectives.

Voting
To conduct council business (voting), a quorum is required. A quorum consists of the majority of all voting members (regardless of whether or not they are present at the meeting). All council members are voting members.

Revisions to the Charter
Changes to the charter must be reviewed by the Executive Committee prior to being made by WTSC.

Description, Timeframe, Mission, Objectives, Approaches, Roles, and Requirements	
Description	In 2019, the Washington State Legislature passed Substitute Senate Bill 5710, which required the WTSC to convene the Cooper Jones Active Transportation Safety Council (ATSC), governed by RCW 43.59.156. The council's purpose is to use data to identify patterns related to fatalities and serious injuries involving bicyclists, walkers, and all other active transportation users, with the goal of identifying transportation system improvements, including privately owned areas, such as parking lots. In addition, the council may: (a) Monitor implementation progress of ATSC recommendations. (b) Seek opportunities to expand consideration and implementation of the principles of systematic safety, including data collection improvement.
Timeframe	The Legislature placed no sunset provision in the enabling legislation.
Mission	Increase safety for bicyclists, walkers, or users of other forms of active transportation in Washington State.
Objectives	● Support and enhance efforts to reduce and eliminate fatalities and serious injuries of bicyclists, walkers, and other active transportation users, such as the Washington State Strategic Highway Safety Plan (i.e., Target Zero Plan) and the WSDOT Active Transportation Plan. ● Improve safety by providing data-driven recommendations regarding statutes, ordinances, rules, and policies.
Approach	● Use data to identify countermeasures to address and factors contributing to collisions that involve bicyclists, walkers, and other active transportation users. ● Evaluate existing data to identify and address data gaps related to bicyclist, pedestrian, and other active transportation user safety. ● Leverage existing programs and strategies, e.g., incorporation of safety for bicyclists, pedestrians and active transportation users in comprehensive planning and capital facility planning. ● Recommend operational changes to increase safety for bicyclists, pedestrians and other active transportation users through engineering, education, encouragement, enforcement, EMS, evaluation, and policy.
Roles	• **Governor's office**, provide final approval of the report. • **Washington Traffic Safety Commission**, chartering authority. The Director or their designee will chair meetings. The WTSC will provide staff and seek council input regarding how Cooper Jones Active Transportation Safety account funds are spent. • **Executive Committee**, provide operational direction to the WTSC project manager, including project scope, budget, schedule, and membership, and approve the annual report prior to finalization. • **Project Manager**, work with the Executive Committee and facilitator to implement council goals, compile agendas and summaries, identify facilitation strategies, manage the annual budget, ensure compliance with the OPMA, and produce required reports and documents. • **Data Analyst,** provide requested data to the ATSC.

	• **ATSC Members,** approve and follow the project charter, vote to take action, when necessary, make data requests, participate in discussions, draft comments, and provide council staff with recommendations. • **Stakeholders**, submit feedback and stay informed of council activities, projects, and reports. • **Facilitator,** create agendas for Executive Committee and Council meetings, compile minutes, facilitate meetings, compile reports, and provide support to sub-committees and council staff as needed.
Requirements	• **Annual Report Acceptance Criteria** • Fulfill the requirements of SB 5710. • Provide an analysis of fatalities and serious injuries involving bicyclists, pedestrians, and other active transportation users. • Make recommendations for actions to increase pedestrian, bicyclist and active transportation user safety to the WTSC, state agencies, the Governor's Office, and the Washington State Legislature. • Inform the WSTC Target Zero Plan, WSDOT Active Transportation Plan. • Demonstrate clear goals and pathways to implement recommendations. • Support other independent, agency, or jurisdiction efforts. • Develop a biennial report on budgetary and fiscal recommendations to the Office of Financial Management (OFM). • Provide the documentation necessary to continue and improve project.
	Budget: The WTSC is authorized to spend the budgeted amount in support of activities authorized by the Executive Committee. Any expenditure beyond that must be authorized by the State Legislature.
	Stakeholder Satisfaction: Although stakeholder satisfaction is critical to the success of the ATSC, it is expected that not every stakeholder will be completely satisfied with the report. Council staff will keep the Executive Committee aware of any risks associated with stakeholder dissatisfaction.
Project Scope, Acceptance Criteria, Assumptions, and Constraints	
Scope	**In:** • Produce an annual report by December 31. Ensure appropriate stakeholders are involved and informed throughout the process. • Annually report budgetary and fiscal recommendations to the OFM and the legislature by August 1. • Evaluate ATSC project process and adjust the work plan as needed. • Document council activities and reports to allow for replication and process improvement. **Out:** • Reports and actions not authorized by SSB 5710. • Expenditures beyond those authorized by the legislature for operation.
Changes	Scope changes must be approved by the Executive Committee.
Assumptions	• ATSC members will be available to help write and edit annual reports.

	• Council staff will devote adequate time to project management. • ATSC members will devote adequate time to the project. • ATSC, WTSC, partner agencies, and the Governor's Office will approve the annual report within the required timeframe. • Funding is appropriated to WTSC by the legislature to support council member travel to/from meetings when scheduled in-person.
Constraints	• Limited resources for project staff to perform project functions necessary for success.