Legislation and Policy

Introduction

Policy plays a significant role in increasing positive traffic safety behaviors. Fortunately, Washington has a history of passing good legislative policy. Since 1990, we have had an all-rider motorcycle helmet law, which saves lives and reduces costs. The National Highway Traffic Safety Administration (NHTSA) estimated that, in 2016, our all-rider motorcycle helmet law saved 46 lives and more than $500 million in economic costs. (NHTSA Traffic Safety Facts, Lives and Costs Saved by Motorcycle Helmets, 2016, DOT HS 812 518). In 2002, Washington passed the primary seat belt law. Since then, our seat belt use rate has been consistently among the best in the United States. Most recently, in 2017, we passed the Driving Under the Influence of Electronics law to reduce distracted driving. This law prohibits the use of personal electronic devices behind the wheel. A 2018 observational survey showed a decrease in the number of drivers who were holding their cell phones.

Despite these successful policies, Washington's traffic fatalities and serious injuries are increasing. Traffic safety professionals and advocates agree that this requires the state to take bold steps to change this trend.

This chapter explores key researched-based best practices that have been proven effective at saving lives, but are not currently being used in Washington. Two of these strategies were discussed at the 2018 Target Zero Partners Meeting, which helped to gather input for the 2019 Target Zero Plan: expanding the use of automatic traffic safety cameras for speed, and allowing the use of sobriety checkpoints to discourage impaired driving. An additional policy change strategy discussed is a proposal designed to reduce death and serious injuries among novice—often young—drivers.

Expand the Use of Automatic Traffic Safety Cameras

As traffic deaths increase, traffic enforcement has been down across the state. This decreasing trend since 2007 may have been caused by the recession when law enforcement agencies were unable to run at full staff. Court rulings that have lengthened the time it takes an officer to make a DUI arrest may also play a role. What we know for sure is that traffic infractions have decreased 30%, from over 1 million in 2007 to about 700,000 in 2017. DUI arrests have decreased 38%, from over 40,000 in 2007 to just over 25,000 in 2017. Other types of criminal traffic arrests decreased by half from 140,000 in 2007 to 70,000 in 2017.

Washington already uses automated traffic safety cameras: 28 jurisdictions in Washington have adopted an ordinance for their use. Current Washington law allows automated traffic safety cameras to detect the following violations: running a stoplight, speeding in a school zone, and crossing a railroad against the warning signs. Additionally, the City of Tacoma is authorized by statute to use a single automated speed camera in an area that is not a school zone.

The use of automated traffic safety cameras is regulated. All locations where an automated traffic safety camera is used must be clearly marked at least 30 days prior to activation of the camera by placing signs at the camera locations. The camera can only take pictures of the vehicle and vehicle license plate, and only while the infraction is occurring. The picture must not reveal the faces of the driver or any passengers in the vehicle.

Then, within 14 days of the violation, the jurisdiction must mail a notice of infraction to the registered owner of the vehicle. The registered owner is responsible for the infraction, unless the owner provides a written statement to the court claiming to not be the

driver who committed the infraction. Infractions detected through the use of automated traffic safety cameras are not part of a registered owner's driving record and therefore do not get reported to insurance companies.

At the Partners Meeting, a strong majority of attendees (81%) supported expanding the use of automated traffic safety cameras to include speed enforcement in more places than school zones.

Expanding the use of automated traffic safety cameras has been shown to reduce crashes by 20–25% if placed at conspicuous, fixed locations. According to the Centers for Disease Control and Prevention, allowing wider use of speed cameras in Washington would annually save about 21 lives, prevent about 1,700 injuries, and save nearly $68 million in avoided crashes.

In studying roadway deaths and serious injuries of people who walk, Washington's Pedestrian Safety Advisory Council (PSAC) noted research findings that vehicle operating speed determines the severity of injuries when a vehicle strikes a person who is walking. The more vehicles and the more people, the slower the appropriate operation speeds should be to maximize safety. Getting drivers to slow down in these areas, however, is not easy. Automated traffic safety cameras provide a constant and consistent enforcement of speed limits, and produce real reductions in traveling speeds. For more information on speeding and non-motorists, see the Safe Systems chapter on page 192 and Pedestrians and Bicyclists chapter on page 120.

Because of this, in their 2018 Annual Report, PSAC recommends a change to RCW 46.63.170 to allow placement of automated speed enforcement cameras on any roadway identified in a school walk area (RCW 28A.160.160).

Next Steps for Automated Speed Enforcement

Automated speed enforcement is an emergent, quickly-changing technology. New solutions or applications may provide better alternatives to capturing speeding drivers' license plates than the current fixed-speed cameras.

In addition, Washington should follow a best practice for the use of proceeds from automated traffic safety cameras: restrict that funding to traffic safety programs, instead of directing it to general fund expenditures.

The Washington Traffic Safety Commission (WTSC), the Washington State Patrol (WSP), and the Washington State Department of Transportation (WSDOT) will explore these new technologies, their potential in Washington State, and effects on privacy concerns. Any further application of automated speed enforcement would need to be developed into proposed legislation and brought to the Legislature for approval.
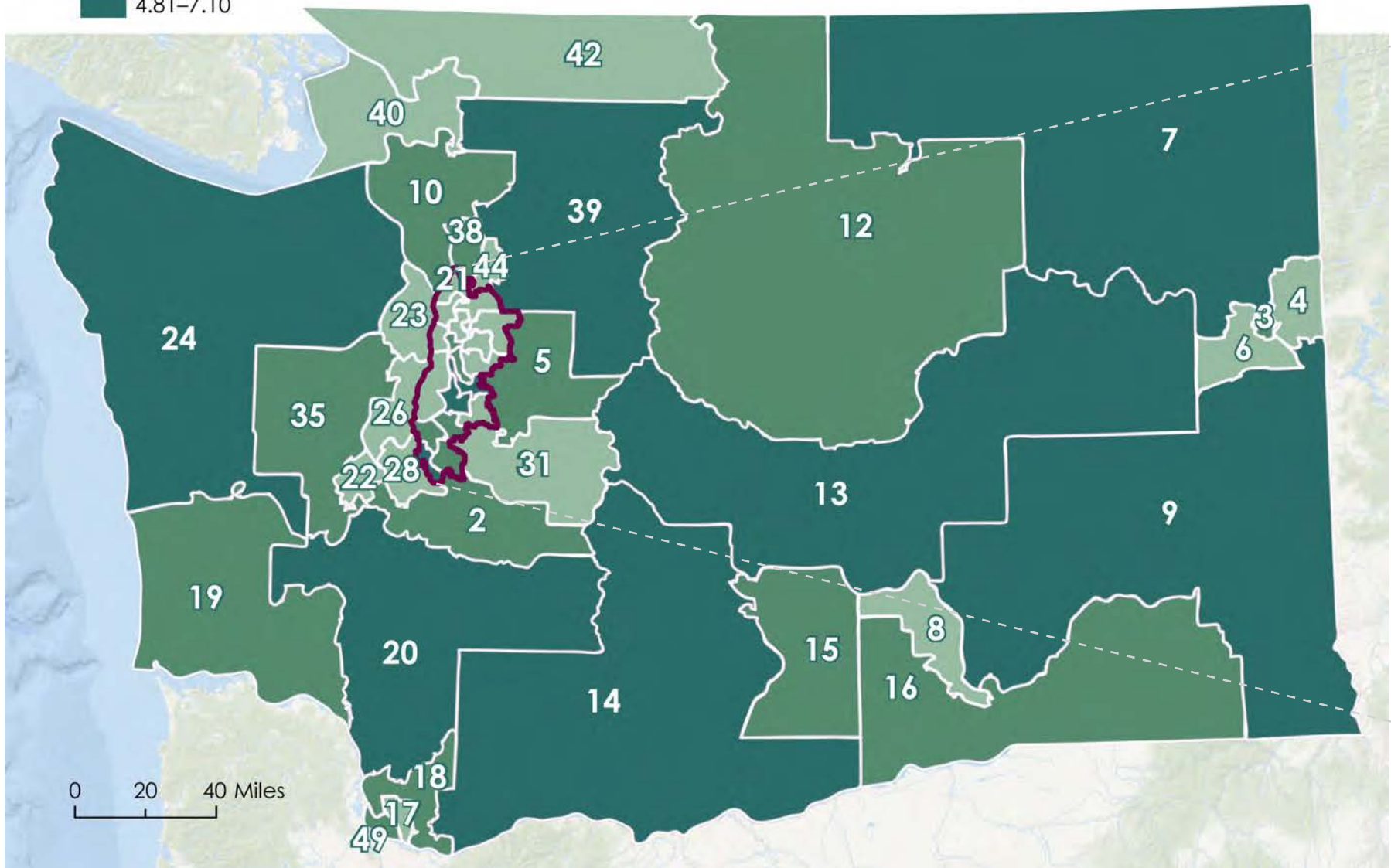
Serious Injury and Fatality Rate by Washington State Legislative District
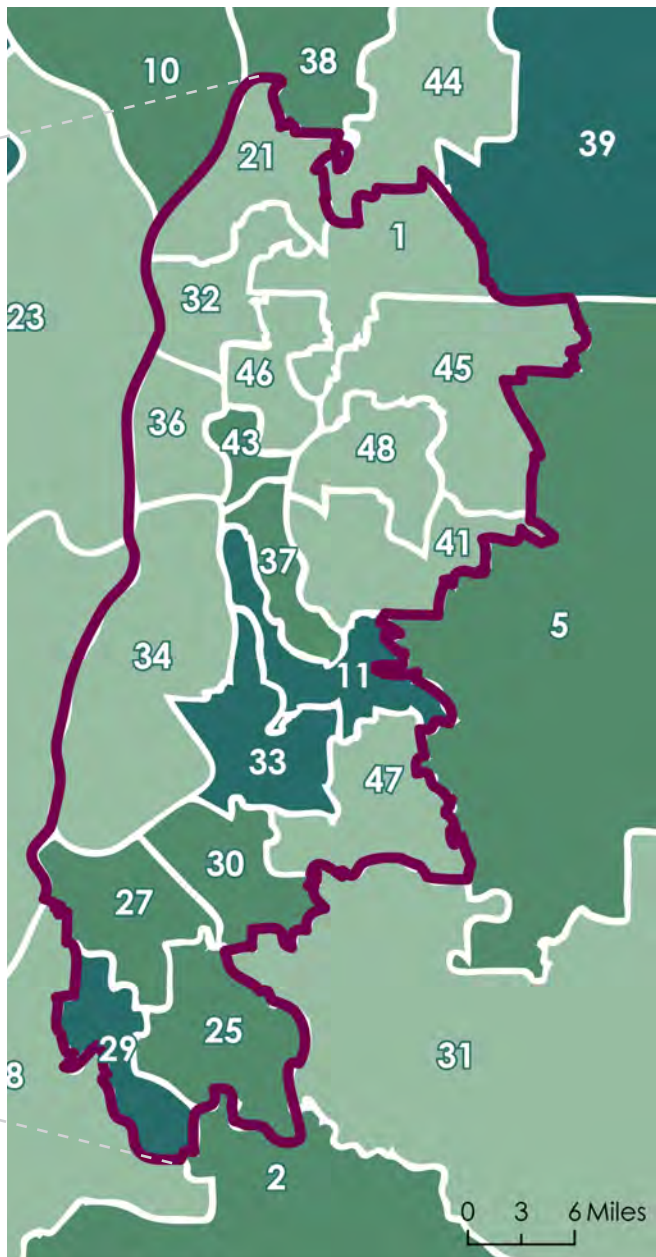## Per 10,000 People, 2015-2017

Population Rate
- 1.80–3.30
- 3.31–4.80
- 4.81–7.10

Legislative District

Puget Sound Area
(see map on opposite page)

42
40
7
10
39
38
12
44
21
3 4
23
24
5 6
35 26
22 28 31
2
13 9
19
20
8
15
14 16
18
17
49

0 20 40 Miles

Legislative District	Average Annual Fatalities + Serious Injuries 2015–2017	Average Annual Population 2015–2017*	Rate per 10,000 population	Legislative District	Average Annual Fatalities + Serious Injuries 2015–2017	Average Annual Population 2015–2017*	Rate per 10,000 population
1	34	155,651	2.2	26	48	146,146	3.3
2	57	149,470	3.8	27	66	142,221	4.6
3	62	139,141	4.5	28	43	143,255	3.0
4	39	146,945	2.7	29	72	144,834	5.0
5	56	150,859	3.7	30	60	144,479	4.2
6	40	144,994	2.8	31	50	148,813	3.3
7	73	141,431	5.1	32	38	142,583	2.6
8	28	150,503	1.8	33	73	143,152	5.1
9	86	151,293	5.7	34	40	147,946	2.7
10	58	144,657	4.0	35	62	142,563	4.4
11	76	146,610	5.2	36	49	160,369	3.1
12	69	143,689	4.8	37	62	152,303	4.0
13	104	145,739	7.1	38	59	144,379	4.1
14	86	141,878	6.1	39	83	144,346	5.8
15	59	142,417	4.1	40	42	142,667	2.9
16	63	143,016	4.4	41	32	148,208	2.2
17	41	148,461	2.7	42	45	146,955	3.1
18	56	151,032	3.7	43	62	164,493	3.8
19	60	138,421	4.3	44	43	150,452	2.9
20	99	142,231	7.0	45	29	147,794	1.9
21	38	151,587	2.5	46	36	146,338	2.5
22	40	150,241	2.7	47	41	146,167	2.8
23	40	142,263	2.8	48	30	148,780	2.0
24	82	140,847	5.8	49	51	146,905	3.5
25	65	145,612	4.5				

*Source: Office of Financial Management Population Unit, Legislative district population estimates

Allow for Sobriety Checkpoints

Sobriety checkpoints are traffic stops, or checkpoints, where officers are set up on a roadway to stop vehicles to check for impaired drivers. Law enforcement officers operate sobriety checkpoints at times and places where data show impaired driving is common, such as cities and towns after bars and restaurants close, or heavily-traveled holiday weekend routes. These checkpoints are publicized in advance to give drivers who might be at risk of driving impaired a chance to plan ahead to find safe ways to travel. Target Zero considers sobriety checkpoints a proven strategy, based on Countermeasures That Work.

Sobriety checkpoints are one of the most effective countermeasures to combat impaired driving, and the sole remaining proven impaired driving measure not currently deployed in Washington. Allowing sobriety checkpoints in Washington would save about 15 lives, prevent 1,350 injuries, and reduce taxpayer crash costs by about $47 million each year.

In 1988, the Washington State Supreme Court heard the case of the City of Seattle v. Mesiani. The Court held that the checkpoints conducted without authority of law were unconstitutional. However, some opinions suggested that sobriety checkpoints could be executed constitutionally in Washington when conducted under authority of law and appropriately structured conditions.

Shortly afterwards, at the federal level, in Michigan Department of State Police v. Sitz in 1990, the U.S. Supreme Court found sobriety checkpoints to be constitutionally permissible under the special needs exception, in which law enforcement officers may directly conduct searches and seizures without individualized suspicion for the purpose of minimizing risk of harm to the public. The U.S. Supreme Court held that the removal of impaired drivers pursuant to a sobriety checkpoint program did not violate the Fourth Amendment.

However, the sobriety checkpoint policy does not have a clear path for adoption. In 2008 and 2011, Washington Legislators introduced bills that would provide necessary authority of law to conduct sobriety checkpoints. No committee action was taken on either bill. In addition, Washington's constitutional privacy protections may require seeking a constitutional amendment that specifically allows sobriety checkpoints in Washington.

At the Partners Meeting breakout session, most attendees indicated that they support sobriety checkpoints (89%). A majority reported they would support a constitutional amendment to allow sobriety checkpoints (68%). The attendees also indicated, however, that they would place a higher priority on increasing the use of automated traffic safety enforcement cameras (66%) over sobriety checkpoints (34%).

Next Steps for Sobriety Checkpoints

In the next three years, WTSC will gather an exploratory committee to examine sobriety checkpoints in Washington, including developing specific recommendations on possible ways to balance Washington's constitutional privacy protections with the goals of checkpoints. The group may use the developed recommendations to determine public acceptance for checkpoints that could meet Washington's constitutional standard. The group may also explore alternatives to checkpoints that could provide similar benefits without the privacy protection concerns.

Improve Safety for Novice Drivers

While 16- to 25-year old young drivers make up just 13.5% of the driving population, they accounted for 31% of all fatalities and 34% of all serious injuries in 2015–2017. There are a series of policy changes that Washington State could adopt that would work collectively to reduce crashes involving young and novice drivers (see Young Drivers chapter on page 110 for more information).

Require driver training for novice drivers. Young drivers who complete driver training prior to obtaining their license are less likely to be involved in a crash resulting in serious injury or death. The current requirement to complete this type of course does not apply to anyone 18 or older, even if they are applying to drive for the first time. It is important to consider the effectiveness of the policies already in place as young people are waiting longer than previous generations to obtain a license.

Make driver training available online. Traditional classroom instruction is a component of today's driver education courses, and must be completed in-person through a licensed driver training school or school district. Accessibility to driver education courses is a concern in the more remote, rural areas of the state. By providing an online driver education course, Washington would address an equity issue, and allow more people to have greater access to a tool that research shows is a significant factor in reducing fatality crashes among novice drivers.

Increase behind-the-wheel practice time from 50 to 100 hours. Drivers under age 18 must currently log 50 behind-the-wheel practice hours with a parent or other licensed adult. Behind-the-wheel practice is recognized as an effective way to help inexperienced drivers become familiar with the skills necessary to safely operate a motor vehicle. The Insurance Institute for Highway Safety reports that increasing practice time from 50 to only 70 hours would reduce crash claims by 5% and fatal crashes by 1%. NHTSA recommends increasing behind-the-wheel practice time to 80–120 hours as a best practice.

Next Steps for Novice Driver Safety

Target Zero partners will consider whether to apply Graduated Driver License (GDL)-type restrictions to all novice drivers, and will also pursue best-practice-related changes to the GDL as described on page 215, and changes to driver education and testing as described on page 216.

Funding for Traffic Safety

It is estimated that there is more that an $8 billion societal cost due to traffic crashes each year. Funding for safety-related investments come from a variety of sources. Safety-related funding is used to provide education, enforcement, emergency response, roadway infrastructure and support for Courts. Funding for all these efforts come from a variety of sources that includes city, county, state, tribal, and federal sources. Private sources also support traffic safety efforts in Washington. One of the key questions that needs further evaluation is what amount of funding is needed to address traffic safety in Washington State.

Licensing and Regulation

All new drivers in Washington must pass a knowledge test and a skills test to obtain their license. Washington also provides licensing endorsements for motorcyclists and commercial vehicle drivers. There are a few who are exempted from taking these tests: those who move to Washington holding a valid license from another state, or from some countries with reciprocity agreements, do not need to pass this test.

This chapter will look at the role that licensing plays in traffic safety in our state, and discuss some variations on the traditional licensing practice.

Washington's Driver Licensing and Endorsement Requirements

License Requirements for Teens

Teen drivers have certain additional restrictions when they begin driving. Young drivers are at an increased crash risk due to inexperience and an inability to reliably predict hazards (see page 110 for more information on Young Drivers). Graduated Driver Licensing (GDL) is a tiered licensing system that attempts to reduce this risk. It operates by gradually exposing young drivers to higher risk driving conditions after they gain experience under less risky driving conditions. GDL systems have been identified as the most effective way to date to reduce young driver fatalities and serious injuries.

The requirements for Washington's instruction permit and intermediate license stages, which apply to all drivers age 16 and 17, are as follows:

The learner stage (instruction permit):

- Must be at least 15 years old to obtain an instruction permit if signed up for a driver training course. If not signed up for a driver training course, must be 15½ and pass a knowledge test.
- Must have consent from a parent or guardian.
- Must hold instruction permit for at least six months.
- Complete a minimum of 50 hours (at least 10 at night) of driving with a supervising driver who has been licensed for at least five years
- No traffic violations within six months of applying for license, or alcohol or drug offenses while holding an instruction permit
- Complete an approved driver training course and pass the knowledge and driving skills tests

296,733 new drivers were licensed in Washington in 2017. Of these:

- 155,074 (52%) were transferring from another state where they were already licensed.
- 141,659 (48%) were getting a license for the first time; 53,225 (38%) of the newly licensed drivers in 2017 were 16-17 years old 24,806 (18%) were 18-20 years old.

The intermediate stage (graduated licensing probation period):

○ Must be at least 16 years old to take the driving skills test and qualify for an intermediate driver license

○ No non-family teenage passengers during the first six months of solo driving, and no more than three teen passengers during the second six months

○ No driving from 1 a.m. to 5 a.m. during the first year of solo driving, unless accompanied by a licensed driver who is at least 25 years old

○ No using wireless devices (this includes hands-free devices)

○ The passenger and nighttime driving restrictions are lifted after 12 months if the driver has no violations.

○ Penalties for violations and crashes for 16- and 17-year-old drivers:

- **First violation.** Passenger and nighttime restrictions apply until the driver is 18, and a warning letter is sent to the parent/guardian of the driver

- **Second violation.** License is suspended for six months or until the driver is 18, whichever comes first

- **Third violation.** License is suspended until the driver is 18

Intermediate license restrictions are immediately lifted once the driver turns 18, regardless of how long they have been licensed.

License Requirements for 18 and Over

Drivers age 18 and older are not subject to the intermediate license restrictions that are outlined above. Once potential drivers are 18 years or older, they have several different options for how to obtain a driver license. They can opt to get an instruction permit and take a driver training course, or learn from a licensed driver with at least five years of experience. However, they can also just take the knowledge and skills tests without previously having a permit or training.

This presents a challenge when young people delay getting their license until age 18 or later—they are no longer subject to the intermediate license restrictions that are designed to help new drivers become gradually exposed to riskier driving conditions while they gain experience. Refer to the Young Driver chapter on page 110 for more information about age of licensure trends.

Motorcycle and Commercial Driver License (CDL) Endorsements

To operate a motorcycle or commercial vehicle on Washington roadways, individuals who already have a valid Washington State drivers license can apply for an endorsement to be added to their license.

Motorcycle endorsement. Drivers can apply for a motorcycle endorsement by passing the knowledge and riding skills tests. Drivers younger than 18 must also successfully complete an approved rider course prior to applying for an endorsement, but this is not required for riders 18 and older. A prospective rider may take the motorcycle training and testing prior to receiving their driver license and have the endorsement added at the time the initial license is issued, provided that the endorsement test is taken no more than 180 days prior to licensing. Individuals who want to practice riding on public roads prior to taking the motorcycle skills test must obtain a motorcycle instruction permit, which is issued after the rider passes the motorcycle operation knowledge test.

CDL endorsement. Individuals age 18 or older can take a knowledge test to obtain a Commercial License Permit. When applying for a permit, drivers must self-certify the type of operation they will be conducting and provide the Department of Licensing with medical documentation if required. Prior to taking the skills test for the CDL, drivers must complete training. While someone can qualify for a CDL at age 18 years old to operate commercial vehicles for interstate travel, a driver must be at least 21 years old. For more information please see www.dol.wa.gov/driverslicense/cdltypes.html.

Overview of the Licensing Landscape in Washington State as of June 2019:

- 5,704,650 licensed drivers in Washington State
- 79,903 (1.4%) are under 18 and subject to Intermediate License restrictions
- 87,483 people with instruction permits
- 427,276 drivers with motorcycle endorsements
- 182,613 drivers with commercial driver license endorsements
- 294,528 drivers with a suspended, revoked, or canceled driver license

License Suspensions and Restrictions

Individuals can have their driving privileges suspended, revoked, or disqualified if they are convicted of certain offenses, including driving under the influence, vehicular assault, or reckless or negligent driving.

Some drivers with a suspended license may be able to apply for a restricted license:

- Individuals with a drug or alcohol-related offense can apply for an Ignition Interlock License (IIL) so that they can drive after getting an ignition interlock device installed in their vehicle. For more on ignition interlock devices, please see page 53 of the Impairment chapter.
- Individuals with offenses such as negligent driving or reckless driving can apply for an occupational restricted license, which allows them to drive for specific purposes such as work, school, or court-ordered community service.

The Role of Licensing in Traffic Safety Culture in Washington

A major challenge in driver licensing is the common belief that driving is a right instead of a privilege. For most Washingtonians, the ability to drive is intrinsically linked to their ability to work, care for their family, and participate in their community. For many people, especially those who live in more remote areas with limited alternative transportation options, driving and car ownership are strongly linked to their independence and life satisfaction. Getting a instruction permit at 15 and a driver license at 16 have long been rites of passage for young people, and a major step into adulthood.

While it is true that being a productive member of society often requires access to a vehicle and the ability to drive, this consideration must be balanced with the safety of that same society. The Department of Licensing has sought to improve the safety culture of commercial and motorcycle licensing:

- In 2018, the Legislature passed a bill that requires CDL and commercial instruction permit holders to submit medical certifications electronically through the National Registry of Certified Medical Examiners, which should reduce the potential for fraud.
- Agency-proposed legislation focused on motorcyclist safety, passed during the 2019–2020 session, will:
  - Eliminate the maximum hours of instruction requirement so that the emphasis is on teaching to meet the standard rather than teaching for a specified amount of time.
  - Require a skills test to obtain a motorcycle instruction permit.
  - Increase the penalty for riding unendorsed.

Each of these law changes attempts to protect all road users by ensuring that unsafe, unskilled drivers are not licensed or endorsed.

Traffic Safety Culture: Licensing

Target Zero advocates a cultural shift in which a driver license is viewed as a privilege that is only earned after rigorous training, education, and testing. Perhaps most importantly, this cultural shift needs to include individuals feeling a personal responsibility for safety when walking, riding a bike or driving: for themselves, their loved ones, and all other people who use our roads.

Best Practices and Areas for Improvement in Driver Licensing Regulations

A major challenge to licensing agencies throughout the country is that more teens are delaying licensure until age 18 or later compared to previous generations. According to national survey data from the American Automobile Association (AAA) Foundation, most young adults who delay getting their license until age 18 or older cite reasons related to opportunity or financial cost—fewer than 25% of surveyed young people said that they delayed licensure to avoid GDL requirements.

A potential strategy for this issue is to extend the GDL restrictions to age 18 and older: apply them to all "novice" drivers, not just teen drivers. For example, GDL restrictions (such as limiting passengers, nighttime driving, and electronic device use) could be imposed on all drivers during their first year after receiving their license, not just 16- and 17-year-olds. While extending GDL requirements to new drivers 18 years and older is not the norm in the United States (only three jurisdictions apply full GDL restrictions to novice drivers through age 20), it is done in several other countries, including Canada, Australia, and New Zealand.

In addition, young people from low-income households delay getting licensed far more often than young people from high income households. Since the cost of driver training can pose a significant obstacle to low-income families, making training more accessible and reducing the cost could encourage more young people to get a license prior to turning 18. Some strategies to address this equity issue include:

- ○ Provide subsidies to low-income students or allowing online driver training as a lower-cost option.
- ○ Online driver training could also improve access to young people living in more remote, rural areas, where there are limited training options.
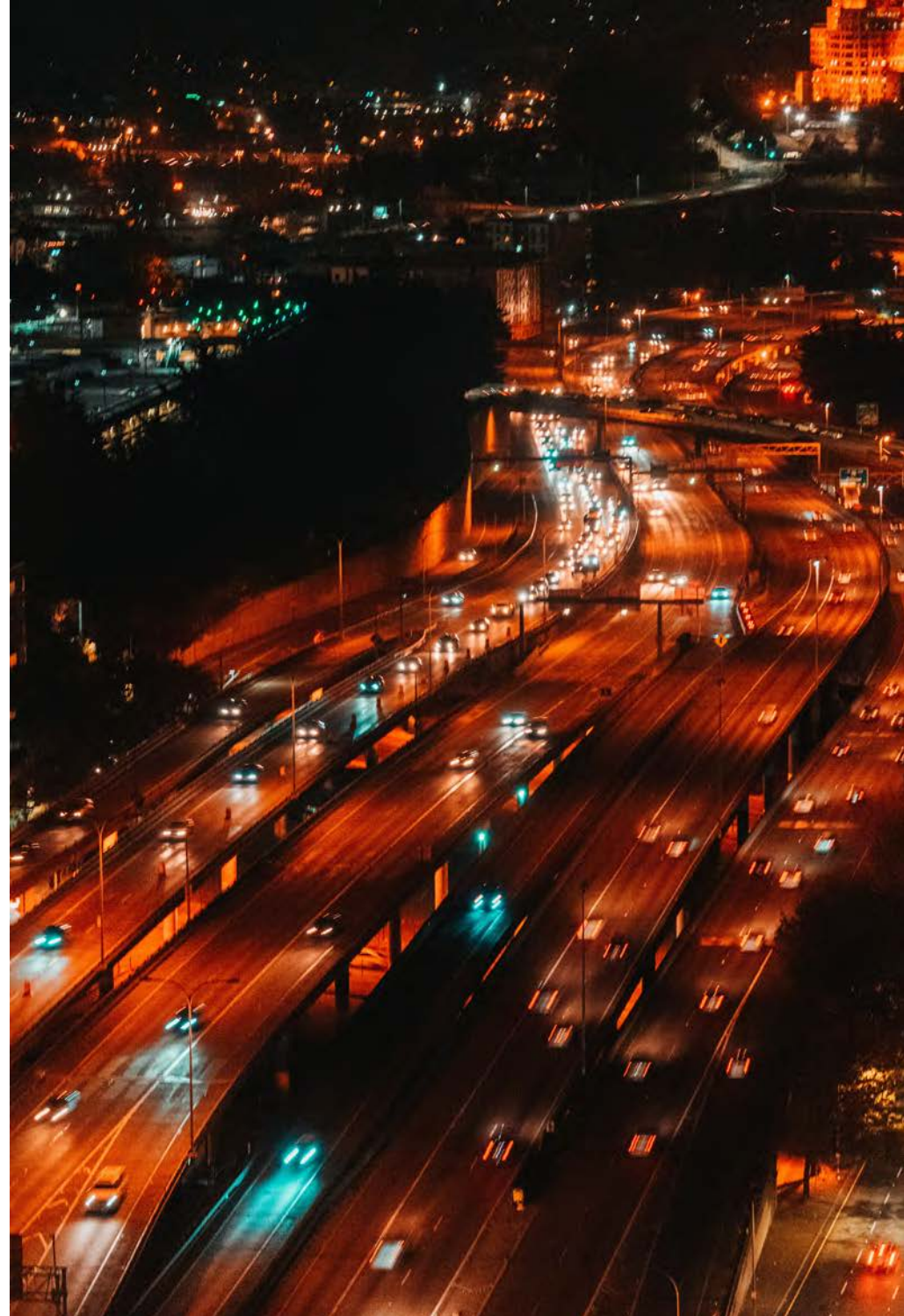
In addition to extending GDL requirements to all novice drivers, there are several notable changes that Washington could make to our current licensing system to align with national best practices and ensure new drivers are gaining adequate experience under lower-risk driving conditions. These strategies include:

- ○ Require a one-year holding period for an instruction permit prior to obtaining an intermediate license.
- ○ Increase the number of supervised hours of practice to more than the currently-required 50, ideally to 80–100 hours.
- ○ Require log books of practice hours to be submitted when applying for a driver license, and requiring a parent to attest that the log book hours are accurate.
- ○ Expand the nighttime driving restriction to start at 9 or 10 p.m.; the restriction currently begins at 1 a.m. (This would not apply if the intermediate license holder was driving after these hours for educational, religious, or employment purposes.)
- ○ Strengthen the passenger restriction so that the new driver can have no more than one teen passenger during the intermediate license phase.

Research findings that demonstrate the effectiveness of each of the above listed proposals can be accessed through the GDL Framework Safety Center (gdlframework.tirf.ca). Developed by the Traffic Injury Research Foundation, this web-based resource offers a comprehensive approach to best practices in young driver safety.

In addition to expanding and strengthening the GDL system, there are potential improvements to be made to driver education and testing:

- A greater emphasis on hazard perception and judgment in education and testing, not just vehicle maneuvers.

- The scoring of the test could be revised to account for high risk danger potentials.

- Greater involvement of parents, who provide the majority of instruction to young drivers. This could be accomplished by requiring parents to attend the orientation that all driver training schools in Washington already offer. See page 115 for more information on parental involvement.

Transportation and Health Equity

Equity is the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically. Health inequities relate to health determinants, and access to the resources necessary to improve and maintain health or health outcomes.

The Centers for Disease Control and Prevention explain that health equity is achieved when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances." Health and equity are inextricably linked as you can't have one without the other, and transportation safety, mobility, and access play an important role in both.

Relationship to Public Health

Traffic-related injuries accounted for approximately 2.5% of all emergency department visits reported to the Rapid Health Information Network in 2017–2018. Traffic-related injuries also accounted for 11% of all hospital inpatient admissions related to injury in 2016–2017.

Data show the need to direct prevention efforts to communities with poverty rates higher than the state average as well as vulnerable and marginalized populations, such as older adults, individuals with disabilities, people of color, and youth. This will help us improve safety and public health, and decrease the burden on individuals, communities, and the state's economy.

Traffic crashes are a serious public health problem, especially in communities with poverty rates higher than the state average, and were the 11th leading cause of death for Washington residents. Serious injury and fatal crashes are more likely for people living in poverty, which includes an overrepresentation of people of color, the elderly, and people with disabilities. Additional vulnerable populations include young people, people with limited English proficiency, and people living in rural areas.

In response to this, Target Zero highlights health equity as it relates to traffic safety in the following chapters:

- **Tribes and Target Zero.** American Indian and Alaska Natives had the highest rate of death due to traffic crashes (28.5 per 100,000) of all other race categories.

- **Young Drivers (16–25 Years Old).** Young adults ages 15 to 24 have highest age-adjusted traffic death rate of all ages (13 in 100,000).

- **Pedestrians and Bicyclists.** According to analysis conducted by the Washington State Department of Transportation (WSDOT), from 2013–2017 about 59% of pedestrian and bicycle fatal and serious crashes in Washington occurred in communities with a rate of poverty higher than the state average, despite these areas only accounting for 43% of the population.

- **Older Drivers (70+ Years Old).** According to the National Highway Traffic Safety Administration (NHTSA), drivers ages 75 to 79 are 3.5 times more likely to be killed in an automobile crash than drivers 30 to 65 years old. This ratio jumps to 9.5 after age 80.

- **State, Regional, and Local Implementation: Rural roads.** Response and transport times are longer in rural geographic areas and can be associated with greater risk for time sensitive conditions such as trauma, cardiac events, and stroke.

In each of the chapters above you will find additional information regarding the health equity issues for these groups and how they are affected. Highlighting these inequities and disparities within the system allows for strategies and countermeasures to be targeted towards areas and populations where they will have the greatest impact.

Key Issues in Traffic Safety and Health Equity

Lack of Transportation Infrastructure

Communities with poverty rates higher than the state average also have the highest numbers of households that lack access to a personal vehicle and are therefore more likely to rely on walking, bicycling, and transit for their transportation needs. However, studies show a long pattern of investment inequity in lower-income neighborhoods. Echoing a pattern found across the United States, policies (such as redlining) restricted areas where people of color were allowed to live, and those same areas have suffered from a lack of investment in public safety infrastructure. Lack of sidewalks, crosswalks, lighting, and bicycling paths can increase crash exposure for road users who are walking and bicycling as a primary mode of transportation. These roads often have higher vehicle speeds, wider roads, and higher traffic volumes when compared with more affluent neighborhoods with lower crash rates.

Transportation and Housing

The cost of transportation and housing are inextricably linked and play an important role in traffic safety performance and health equity. For example, housing within walking or bicycling distance of a main street or neighborhood shopping district can allow for the reduction of daily car trips. Expanding public transportation can also provide an alternative to driving that is safer and less expensive. However, it is important to note that areas with these types of options can often be priced out of range in a region with high housing costs.

Case Study: White Center Traffic Playground

White Center is one of the most diverse areas in King County, with 60% communities of color and speaking dozens of languages. It is a historically underserved area in regards to transportation infrastructure including a lack of sidewalks, lighting, bike lanes, and other traffic safety needs. In 2016, Cascade Bicycle Club in cooperation with Alta Planning and King County, transformed an underutilized set of tennis courts into a "traffic playground," where people could learn to be safe and comfortable with walking and bicycling. Designed for teaching road safety awareness, the playground provides a miniature version of a roadway that can be used to practice bike handling and braking practice, familiarity with roadway marking and signing, and skills related to operating a bicycle in and adjacent to traffic.
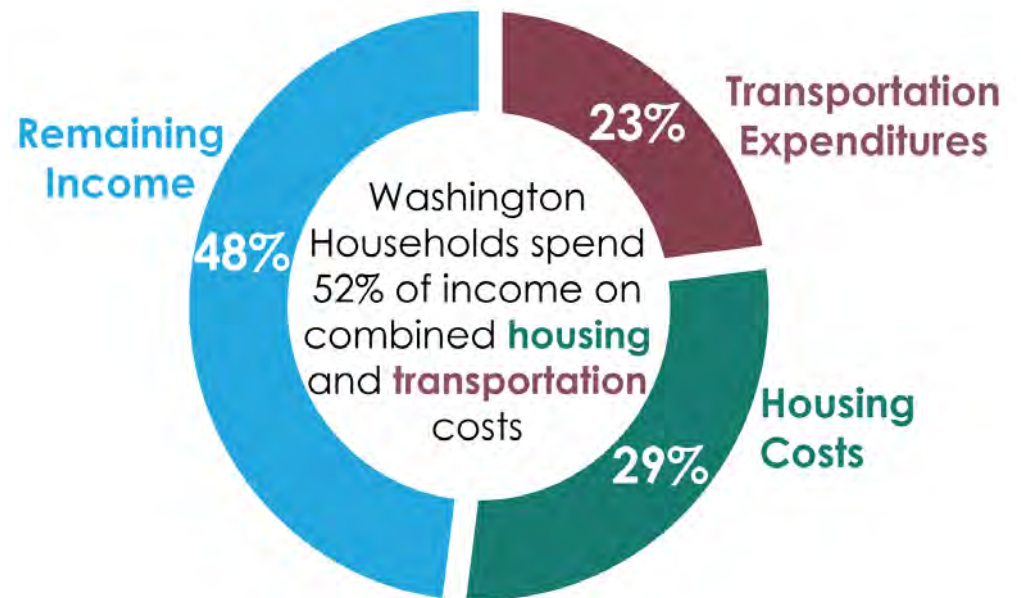

Photo courtesy of King County Parks

Case Study: State Route 7

Recently a Federal Highway Administration (FHWA) pilot project, constructed by WSDOT, was built on State Route 7 in Spanaway to improve conditions for older road users in an area with a high proportion of older adults. This project included traffic calming, larger font signage, striping improvements, and lighting near transit services.

For households with fewer transportation options, the growing cost burden of housing and transportation cuts into income needed for expenses such as food, other goods and services, education, health care, and savings. During the period ending in 2015, Washington residents spent 52% of their monthly income on housing and transportation combined, and transportation costs alone were 23% of median income.

Disproportionate Transportation Burden

Households below moderate income have higher combined transportation and housing costs relative to their incomes, 63% of average monthly income. Medical costs resulting from crashes—as well as lost productivity, property damage, and higher insurance premiums—affect individuals, their families, their communities, and society as a whole. Transportation systems, open space, healthcare, and food access challenges and inadequacies are connected to neighborhood and residential segregation that can be traced to long-standing government policies and decision-making rooted in prejudice and bias based on race, class, and disability. Dismantling these historic inequities, including within our transportation systems, must be prioritized to improve health equity.

Notes: Percentages based on average median income. Data set contains data from sources with various publication dates, updated in 2017. Adapted from WSDOT 2018 Attainment Report. Data Source: Center for Neighborhood Technology.

The Washington Tracking Network (WTN)

WTN is a web application that provides public access to data about environmental hazards, population characteristics, and health outcomes—all in one place. WTN offers information and resources to help analyze environmental, health, and community impacts. Data are available in tables, charts, and maps at the state, county and community levels. The Information by Location (IBL) mapping tool within WTN displays community rankings from 1 to 10 to show disparities (differences) in health, environmental, and demographic characteristics between locations.

Improving Health Equity Through Transportation Systems

Many of the approaches that transportation agencies can take to increase active transportation, reduce crash potential, and improve connectivity can also advance health equity if improvements are prioritized to specific communities, including low-income, the elderly, rural residents, workers, students, and youth.

The following strategies listed throughout Target Zero would help advance health equity in Washington State. When implementing strategies in these areas, it is important to proactively and meaningfully engage residents, including leaders within these communities in thoughtful planning and decision-making so that their voices and ideas drive strategies and solutions. Other programs such as reduced public transportation fares, targeted demand response, housing affordability, and anti-displacement campaigns are encouraged and could reduce the potential for crashes for vulnerable people.

A note about health equity and diversity, equity and inclusion (DEI) in Target Zero. This is the first time in the Target Zero plan that equity is included as a factor in how we plan to achieve zero deaths and serious injuries in Washington State. As we work with our traffic safety partners in implementation of this plan and in development of the next iteration of the plan, we plan to expand this discussion and the strategies associated with health equity and DEI as they relate to transportation safety.

Section of Target Zero	Strategies Related to Health Equity
Multicultural Communications	MCC.1.1 Engage in open deliberate dialogue about inclusion to turn intention into action. (U)
	MCC.1.2 Provide training opportunities for traffic safety agencies and partners on cultural competence, multicultural engagement, and multicultural communications. (U)
	MCC.2.1 Transcreate traffic safety educational materials. (R, GSA)
	MCC.3.1 Include comprehensive demographic questions in surveys. (U)
	MCC.3.2 Examine the relationship between traffic safety outcomes and sociodemographic characteristics, such as income. (U)
	MCC.3.3 Explore methods for measuring equity, such as comparing transportation systems in lower-income communities and communities of color to those systems in adjacent neighborhoods or to regional averages. Identify areas of vulnerability for targeting traffic safety resources. (U)
	MCC.4.1 Implement traffic safety projects in tribal and rural areas. (R, FHWA)
	MCC.4.2 Understand project focus areas and develop ways to ensure traffic safety countermeasures reach everyone in those communities. (U)
	MCC.4.3 Identify and recruit ambassadors who represent their communities and can assist with language/cultural barriers. (U)
	MCC.4.4 Ensure grantees and project managers have knowledge of the populations in the project area they serve and solutions to include them. (U)

Section of Target Zero	Strategies Related to Health Equity
Pedestrians and Bicyclists	PAB.3.1 Invest in and construct separated pedestrian facilities (sidewalks and multi-use paths), especially in urban areas and adjacent to schools, bus stops, and school walk areas. (P, NCHRP)
	PAB.3.3 Invest in and construct more buffered bike lanes, protected separated bicycle lanes, and separated bicycle facilities or shared-use paths, especially in urban areas and adjacent to schools, bus stops, and school walk areas. (U)
	AB.3.4 Increase infrastructure investments in underserved areas. (U)
	PAB.4 Improve safety for children walking and bicycling to school (including all sub-strategies).
	PAB.6.6 Strengthen the vulnerable user law. (U)
	PAB.7.1 Implement pedestrian and bicyclist safety zones, targeting geographic locations and audiences with pedestrian/bicyclist crash concerns. (R, CTW)
	PAB.7.2 Expand the use of high visibility crosswalk enforcement of motorists who fail to yield to pedestrians combined with culturally appropriate campaigns designed to take into account equity issues in underserved high-need communities with high crash rates. (R, CTW)
	PAB.7.3 Improve training on pedestrian and bicyclist laws for law enforcement officers at state, tribal, and local levels, including training on equity issues for enforcement. (R, CTW)
Older Drivers	ODI.1.6 Conduct research on how to better identify older drivers most at risk for a fatal or serious injury crash, and develop strategies for early intervention with at-risk senior drivers. (U)
	ODI.3.2 Promote safe mobility options for seniors by providing guidance and assistance on identifying safe transportation options within the community, and incentivizing transportation options. (R, NCHRP)
	ODI.3.4 Improve the roadway to better accommodate the special needs of older drivers. This could include providing advance warning and guide signs, improving pavement markings, improving the readability of roadway signs, providing more protected left-turn signals and offset left-turn lanes at intersections, reducing speed limits, and improving the lighting at intersections and in curves. (R, NCHRP)
Young Driver	YDI.3.9 Seek legislation to allow for financial assistance to underserved populations for some portion of the driver training curriculum. (U)
Safe Systems	SYS.2.1 Conduct demographic analysis to identify communities of concern. (R, Lit)
	SYS.2.2 Increase investment in infrastructure in historically underserved areas where crash rates and severity are disproportionate to local and regional rates. (R, Lit)
	SYS.2.3 Support and report on development of city and county road safety plans based in principles of systematic safety. (R, WSDOT)

State, Regional, and Local Implementation

Target Zero is only effective when all of our partners are at the table. State-level policies cannot be implemented only at the state level; they must be taken to the local level for implementation as well. To bring our policies from ideas to successfully-implemented programs and projects, we must involve partners at all levels of government, from all sectors and fields. They must be the right people, involved in the right activities, at the right times.

By themselves, none of the Five Es—Education and Outreach, Enforcement, Engineering, Emergency Medical Services (EMS), and Evaluation, plus Leadership—can get us to zero deaths and zero serious injuries by 2030. At both the state and local levels, each agency must use existing partnerships, or help foster partnership coalitions where none yet exist. This involves bringing the right group of partners together to identify problems, develop a list of potential strategies, and implement the most effective set of strategies. To help implement broad multimodal traffic safety strategies at the local agency level, Washington State must provide the necessary coordination, support, best practices, and training.

State and Local Implementation of the Five Es

Education and Outreach

At the state level, agencies such as the Washington Traffic Safety Commission (WTSC) and Department of Licensing (DOL) are able to address traffic safety directly.

WTSC helps research policy, supports data and analysis, and crafts educational campaigns for traffic safety issues such as culture change and distracted driving. WTSC also works closely with partner agencies on education campaigns. For instance, the Department of Health (DOH) and WTSC share educational campaigns for traffic safety in local

communities through partnerships with community Safe Kids Coalitions and Certified Child Passenger Safety Technicians. WTSC also supports the locally-based Target Zero Managers (TZMs) (see page 228).

Current WTSC education and outreach initiatives include:

Proactive traffic safety campaign. WTSC is developing an overarching concept for a proactive traffic safety campaign based on research conducted by the Center for Health and Safety Culture (CHSC). It is expected that this campaign will complement DOL's new driving curriculum and address general road behaviors that affect the culture of roadway users.

Parents of young drivers. CHSC has experience developing tools for parents to support their use of best practices to reduce underage drinking. WTSC will explore adapting these tools to bolster the skills of parents to improve driving behaviors among their children as they learn to drive. These tools are based on framework that develops the social and emotional skills of children, as well as adults.

Bystander engagement. Often, individuals are present when others engage in risky behaviors like driving after drinking or using drugs or not wearing a seat belt. While others often recognize the potential danger, research has shown they often don't have the comfort and confidence to speak up and take any action to prevent the individual from engaging in a potentially dangerous act. WTSC will work with CHSC to develop a comprehensive plan for designing, implementing, and evaluating tools to grow bystander engagement.

Moving forward, the WTSC is interested in addressing cultural change and in improving communications approaches by exploring the root of traffic safety behavioral problems. This work will continue to broaden messaging beyond the threat of enforcement to knowing more about the values that feed the most troubling behaviors and how to change

them. See the Traffic Safety Culture chapter on page 28 for more information.

DOL licenses drivers, sets basic standards, conducts research and analysis, and runs the Graduated Driver License (GDL) program for drivers under age 18. In addition, DOL develops driver education curriculum with a particular emphasis on situational and self-awareness so that every novice driver actively contributes to our responsible driving community, now and in the future. DOL also works with public and private driver training schools and other stakeholders to respond to emerging developments in the industry.

Multifaceted and targeted communication and outreach has been the most effective way to address specific behaviors and change perceptions about the motorist's role in the larger transportation ecosystem. DOL's efforts to engage with motorists about high risk behaviors and impacts of poor decision-making have successfully reduced violations and recidivism in some targeted areas. Most recently, these communication efforts have included raising awareness about how a motorist's attitudes and beliefs affect decision-making.

This emphasis on "how we feel behind the wheel" is a core component in the new curriculum Washington State began implementing in 2018.

Other state agencies are able to implement state-level policies at the local level to support traffic safety efforts. The Office of Superintendent of Public Instruction (OSPI), for instance, sets rules and regulations for school bus drivers, and imparts that information to districts through trainings. The Health Care Authority (HCA) is able to address local implementation through setting rehabilitation treatment protocols, managing Medicare/Medicaid reimbursements, and contract language. HCA also implements statewide policy through primary prevention activities like communications and media campaigns.
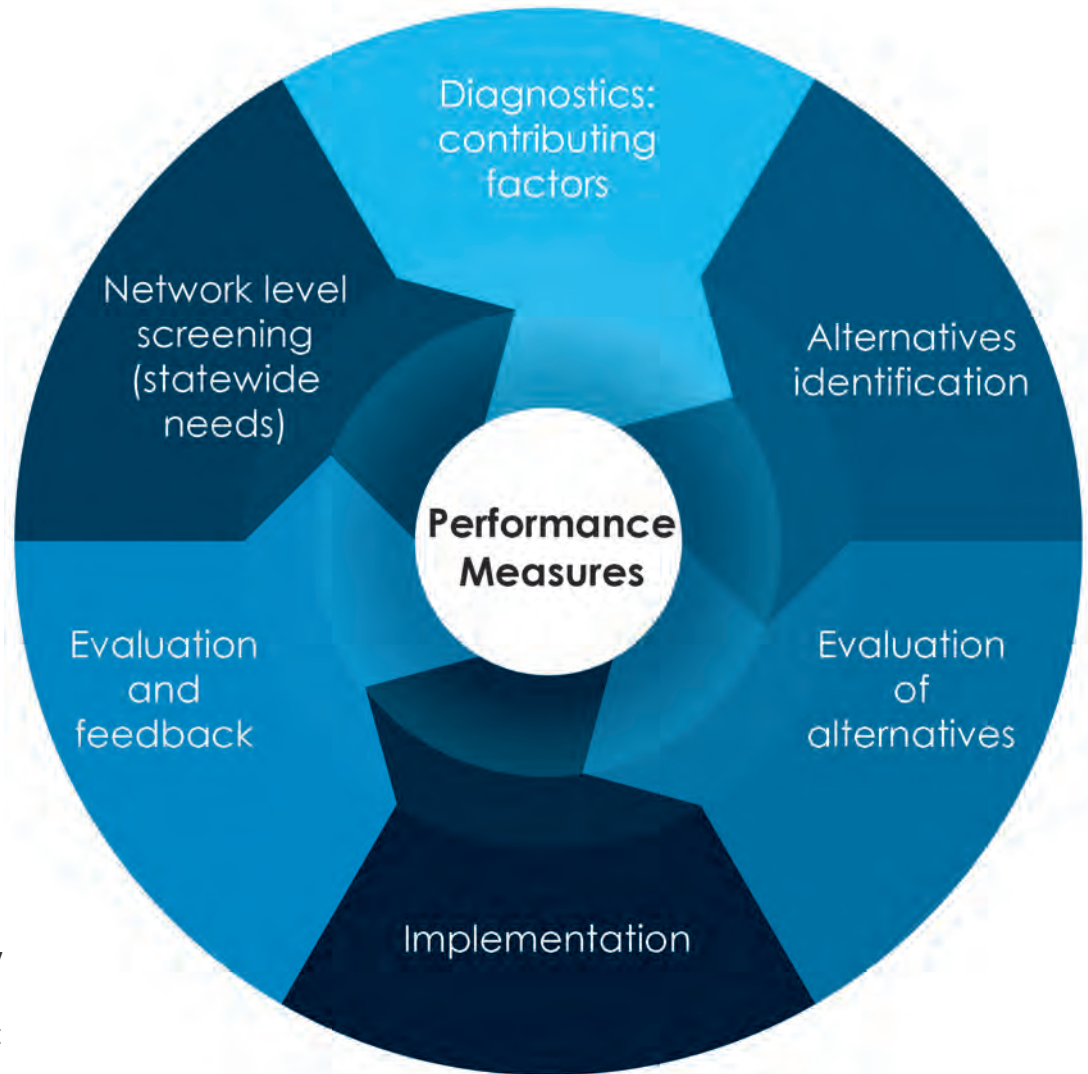
Types of Partners

Target Zero Partners come from a wide variety of backgrounds beyond just the five Es. This reflects the multi-faceted nature of the issues underlying traffic safety. Partners include:

- Federal, state, and local agencies.
- Tribes.
- MPOs/RTPOs.
- Law enforcement.
- EMS providers.
- Prosecutors offices.
- School districts and universities.
- Courts.
- Rehabilitation experts.
- Driving schools.
- Transit agencies.
- Hospitals.
- Probation officers.
- The Washington State Legislature.
- Advocacy groups.
- Insurance industry groups.
- Industry businesses and organizations in traffic safety technology.

Enforcement

Currently, law enforcement (LE) is responsible for implementing traffic safety by traditional enforcement, education and outreach, and coordinating with local partners. Strategies include:

- **Enforcing** to deter people from risky driving behaviors.

- **Education and outreach**, such as safety talks with the public. This includes presentations to military organizations, schools/universities, and other community partnerships.

- **Assisting local law enforcement.** Washington State can provide direct assistance to local law enforcement. For instance, during a Driving Under the Influence (DUI) high visibility enforcement (HVE) campaign, WSP provides evidence collection processing through a mobile DUI unit, bringing the breath test tools to the location of arrests. This allows local LE to focus on arrests and leave the processing to WSP, making it easier for local LE to be proactive. The state also funds training for officers and deputies in a variety of disciplines, and provides grants to for enforcement supplies, such as Radar and Lidar, to local agencies.

- **Coordinating with local TZMs.** TZMs convene Traffic Safety Task Forces around the state to focus community resources on traffic safety strategies like emphasis patrols. This is one of the ways that LE helps implement impairment policy at the local level. LE organizes and executes emphasis patrols and gives input to prioritize their individual agency efforts on traffic safety enforcement.

- **Ensuring media coverage** for events such as HVEs for impairment.

- **Supporting law changes** that make a behavior illegal, such as texting and driving.

Performance Measures cycle: Diagnostics: contributing factors, Alternatives identification, Evaluation of alternatives, Implementation, Evaluation and feedback, Network level screening (statewide needs)

In many places, tribal police departments work with local and state agencies to enforce state traffic safety laws in their jurisdictions. These are cooperative efforts that recognize the autonomy of the tribe.

A focus for the future would be improving evaluation to provide more evidence based results or models and examples.

Engineering

At the state level, The Washington State Department of Transportation (WSDOT) currently uses the Target Zero emphasis areas to determine the structure for implementation of both the federal and state components of its programs. This includes crash types, such as lane departure and intersection-related, that have a high potential to lead to fatal and serious injury. WSDOT reviews and updates its 10-year program on a yearly basis. Determinations are made based on the most current traffic safety information.

The state safety program for local agencies engineering is funded with Highway Safety Improvement Program (HSIP) funds and is administered through WSDOT's Local Programs office. The program methodology is developed with Target Zero goals, emphasis areas, and strategies in mind. The primary safety funding programs for local agencies are the County Safety Program and the City Safety Program. Both cities and counties address fatal and serious injury crash risk through the development of Local Road Safety Plans (LRSPs). Cities also address fatal and serious injury crash history in a statewide, competitive program. For more on the LRSPs, please see page 96.

Individual local agencies, through these programs, are encouraged to analyze their own data to determine fatal and serious injury crash priorities to address. Specific locations are identified either by risk or by crash history. Local agencies then determine which strategies to implement to address these locations, starting with the strategies identified and recommended in Target Zero for their target crash types.

To work towards zero deaths and serious injuries by 2030, WSDOT's safety program headquarters and region staff work through Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Organization (RTPOs), local programs, the Transportation Improvement Board (TIB), and the County Road Administration Board (CRAB). WSDOT is finding new and better ways to dialogue with its regions and other parts of the agency to implement Target Zero strategies. This work is driven and supported by the

agency's vision, mission, values, and strategic plan goals. WSDOT is increasingly going on the road to support and partner with WSDOT's regional and Local Programs staff in order to build enhanced awareness and understanding, then provide support on the implementation efforts.

Additionally, the Safe Systems approach described on page 192 discusses engineering countermeasures that will reduce the likelihood of a crash between vehicles, people walking, and people biking. These engineering changes will support better outcomes not just for these vulnerable road users, but for all users.

EMS and Trauma Care System

Getting the right patient to the right facility in the right amount of time is the guiding principle for the EMS and Trauma Care System in Washington. Injury and medical emergencies are time-critical events. They require quick and appropriate medical care. The time it takes to get the patient to the hospital after a roadway crash can make the difference between life and death. It can also determine whether the patient will suffer long-term disability, or return to a healthy and productive life.

Washington is a recognized leader in meeting these demands through its EMS and Trauma Care System. This reputation is a result of the leadership and collaboration of physicians, nurses, EMS leaders, committees, commissions, and communities who work together to ensure a quality system.

Washington's system provides a continuum of care from prevention to trauma rehabilitation. A strategic plan serves as a guiding document that directly influences how emergency and trauma care are provided in each community in Washington state. It is a dynamic plan that is led by the Department of Health's Office of EMS and Trauma, in collaboration with the Washington State EMS and Trauma Care Steering Committee (see page 173 for more information), its technical advisory committees, and eight EMS and Trauma Care Regions. The plan's objectives, strategies, and action plans are updated continuously.

The components of the plan are:

- Injury and Violence Prevention
- Pre-hospital
- Hospital
  - Quality improvement/patient outcomes
  - Rehabilitation
- Cost reimbursement/finance

The State EMS and Trauma Strategic Plan serves as a blueprint for the eight EMS and Trauma Regions to develop and implement their regional plans. EMS and Trauma systems planning is a grass roots process that begins at the local level and proceeds through counties and regions to the state office—an approach designed to build consensus along the way.

Regional plans form the foundation for emergency care and help operationalize the planning and implementation of guidelines for emergency transport and care of patients at the local level. For example, each county in Washington develops patient care procedures for transporting patients from the field or site of a traffic crash to an appropriate level hospital.

Evaluation

Evaluation—the Fifth E—is critical to the effort to reduce fatality and serious injury crashes. It provides the basis for decision-making and the selection of emphasis areas, strategies, and locations to reduce crashes and their severity. A successful Target Zero effort requires the ability to improve the quality of our safety programs, to refocus and refine our strategic efforts, and to stop doing those things that are not beneficial. This requires that Target Zero partners quantitatively assess the data to address quality and reduce crashes.

Currently, a Data Analyst Group (DAG) supports the Target Zero effort. It includes representatives from many contributing Target Zero agencies. This group works to collaboratively analyze data, determine rules for data quality and usage, collaborate on data sharing, and promote initiatives to increase the quantity and quality of available traffic data. For more information on DAG, please see Appendix J: Target Zero Plan Development.

The Five Es and Leadership

The Target Zero strategies focus on the Five Es, with the addition of Leadership strategies.

Education and Outreach. Give road users the information to make good choices, such as driving unimpaired, wearing a seat belt, and avoiding distractions.

Enforcement. Use data-driven analysis to help law enforcement officers pinpoint and address locations with a high number of behavior-driven fatal and serious-injury crashes, such as speeding and impairment.

Engineering. Design roads and roadsides using practical solutions to reduce crashes, or to reduce the severity of crashes if they do occur.

Emergency Medical Services (EMS). Provide high-quality and rapid medical response to injury crashes.

Evaluation. Determine how Washington is doing in meeting goals, understanding what is contributing to crash occurrences, and selecting appropriate countermeasures to reduce those crashes using the approaches listed above.

Leadership. Bring together key state and local agencies, traffic safety advocates, partners, and stakeholders to set the vision and direction for traffic safety and support the necessary collaboration needed to achieve zero fatality and serious injury crashes by 2030.

Leadership

Traffic safety champions use partnerships and collaboration to provide a strong basis to effectively deliver strategies in support of Target Zero. Washington has a long history of traffic safety leaders who bring together key state and local agencies, traffic safety advocates, partners, and stakeholders to collaborate across organizational boundaries. These coalitions create a united front and support firm commitment to the ultimate achievement of our Target Zero goal.

Since 1967, Washington State agencies and organizations have shared traffic safety responsibility with the establishment in code of the WTSC. The Commission has provided a high level of visibility through its chair, the Governor, and the following members: the Secretary of the Department of Transportation, the Chief of the Washington State Patrol, the Secretary of the Department of Licensing, the Secretary of the Department of Health, the Secretary of the Health Care Authority, the Superintendent of Public Instruction, and representatives from cities, counties, and the judiciary.

WTSC has provided leadership and accountability across state, local, and tribal boundaries to create a culture of traffic safety. This leadership is built on broad-based representation at the state and local level, close working relationships, and a commitment to a clearly communicated and aggressive safety goal.

Across counties in Washington, similar coalitions have brought partners together to plan traffic safety activities at the county level. Led by TZMs, this coalitions are critical to implementing projects designed to increase education and enforcement. Some cities have also formed coalitions to address traffic safety, becoming Vision Zero Cities to focus funding and activities on the most critical concerns within their jurisdiction.

Washington's Target Zero community will continue to invest in leadership by building collaboration, providing technical assistance, embracing the principles of traffic safety culture, and exploring innovation to support processes and partnerships needed to achieve zero traffic deaths and serious injuries by 2030.

Traffic Safety Culture: Leadership

This leadership has allowed a strong traffic safety culture to flourish. For example, a 2018 survey of Washingtonians showed that most adults (81%) are concerned about safety on roadways. And most (74%) agree that the only acceptable number of deaths and serious injuries on our roadway should be zero. The overall support voiced by the public for strong traffic safety policies and programs is significant.

Implementing Target Zero

This chapter, and the Tribes and Target Zero chapter, contain several examples of locally- and regionally-led, inclusive efforts to prevent fatal and serious injury crashes on local roads. To support efforts to reduce these crashes at the local level, Target Zero partners, stakeholders, and traffic safety leadership will:

- Get more local projects initiated, sustained, and replicated.
- Emphasize development of best practices for implementing traffic safety projects at the local level.
- Promote successful local efforts statewide, through websites and conferences.

To implement the plan most effectively, in the years covered by the 2019 plan, Target Zero partners, stakeholders, and traffic safety leadership will:

- Be oriented toward all modes of transportation, recognizing traffic safety as a universal issue for all road users.
- Focus on fatal and serious injury crashes, rather than the frequency of all crashes.
- Design traffic systems to be more accessible for enforcement and EMS access.
- Continue to prioritize and pursue evaluation, analysis and the diagnosis of crashes as a critical component of traffic safety.

○ Bring the updates on the implementation of the plan, and examples of best practices, regularly before the Washington Traffic Safety Commission for their quarterly meetings.

Target Zero Implementation at the Local Level

Target Zero Managers

TZMs operate on the local level, in a network that covers the entire state. They are funded and supported by the WTSC. The TZMs build regional coalitions of partners who implement solutions to local traffic safety issues. For more information on the TZMs, please see page 229.

Regional Transportation Planning Organizations and Metropolitan Planning Organizations

As coalitions at the local government level, RTPOs/MPOs are good places to share implementation ideas. They include local partners who are less directly connected with state government, such as tribes and ports. RTPOs and MPOS can serve as distribution networks for funding and information. For more information on RTPOs and MPOs, please see page 232.
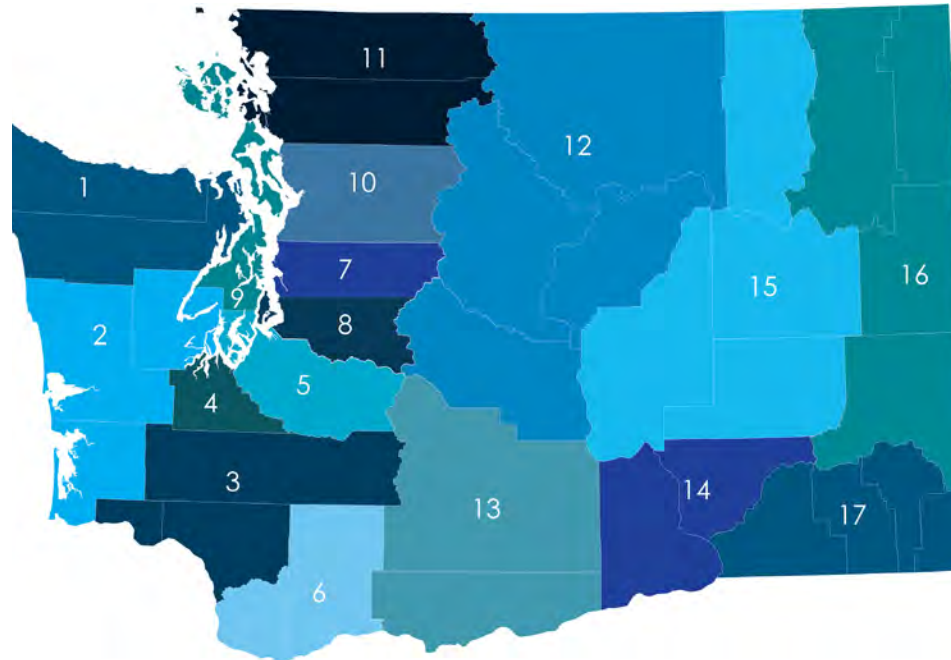
Local Implementation

Approximately two of out three traffic fatalities and serious injuries in Washington occur on local roadways. Therefore, Washington's progress toward Target Zero relies on the critical work being done by local agencies and traffic safety stakeholders. This section details some of the issues and challenges specific to local agencies, as well as the tools available to local traffic safety professionals to identify needs specific to their communities to take action.

Local Data Guides Local Investments

Local partners' work on Target Zero is most effective when it is guided by robust data sources. The data presented in the Target Zero plan is shown at the statewide level, but it can also be broken down by county, city, or smaller levels. This data can be very useful for prioritizing resources and programs, using the same data-driven approach as with statewide programs.

Regions with an Assigned Target Zero Manager (TZM)

An important component of the Target Zero plan is that the information highlights which factors are contributing locally to the most fatalities and serious injuries. The most common factors in one county or city might be very different from another, requiring different strategies. Traffic safety professionals should use data specific to their locale to determine which strategies are best suited for local conditions.

Target Zero analysts update this information regularly on the Research and Data section of the Washington Traffic Safety Commission website and it can also be found at the WSDOT Crash Portal (remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/). This community-specific data helps local and regional agencies prioritize their traffic safety projects and programs, and also assists in developing localized Target Zero plans. A data-driven approach to problem identification and prioritization can provide local-level justification for allocating funds and resources. Further, local emphasis area priorities can vary significantly from statewide priorities, based on the data, local road conditions and political considerations.
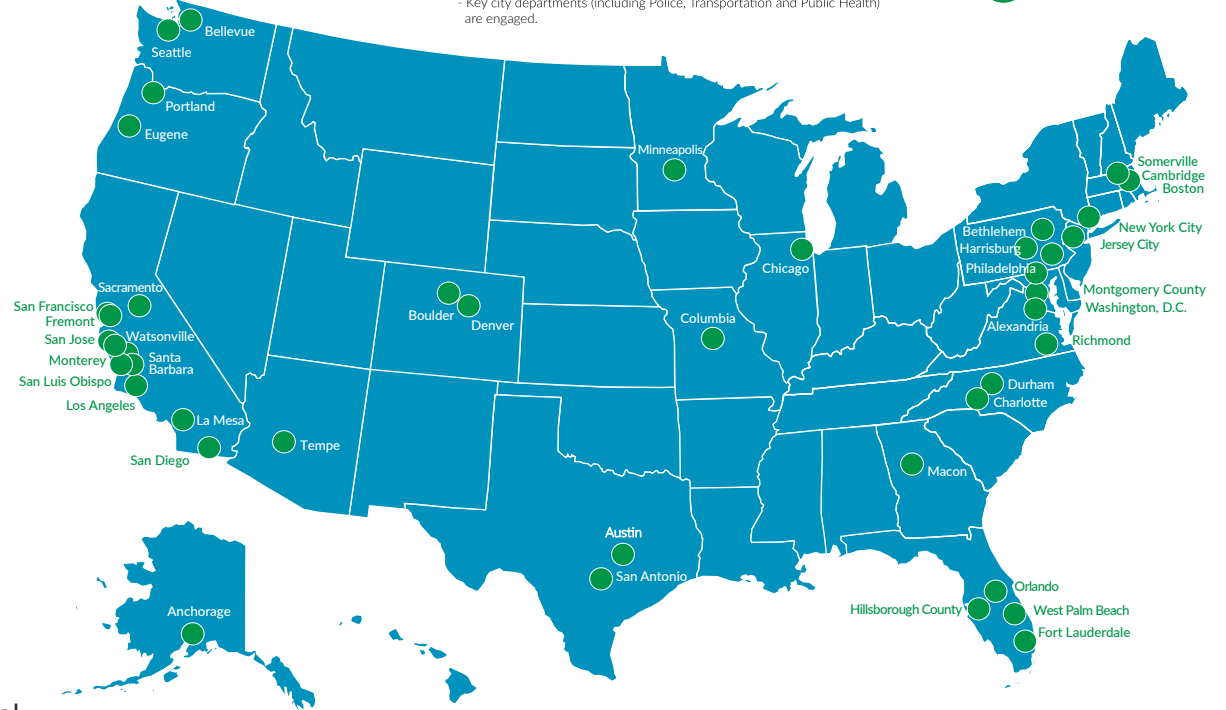
Target Zero Managers Guide Local Efforts

Washington State is known for strong state and local partnerships in traffic safety efforts. For over 30 years, our state has invested in a coordinated network of local traffic safety professionals. This network has evolved over time as the traffic safety picture has changed at the local, state, and national levels.

Today, we have TZMs to guide local task forces around many counties and tribal reservations in the state. These task forces are ideally composed of engineering, enforcement, education, and emergency medical services (EMS) experts, as well as other community agencies and organizations with an interest in traffic safety. The TZMs and task forces coordinate local traffic safety efforts and resources by tracking data, trends, and issues in their area. They develop and provide a variety of traffic safety programs, services, and public outreach throughout their communities by working with local partners.

Vision Zero Cities

A Vision Zero City meets the following minimum standards:
- Sets clear goal of eliminating traffic fatalities and severe injuries
- Mayor has publicly, officially committed to Vision Zero
- Vision Zero plan or strategy is in place, or Mayor has committed to doing so in clear time frame
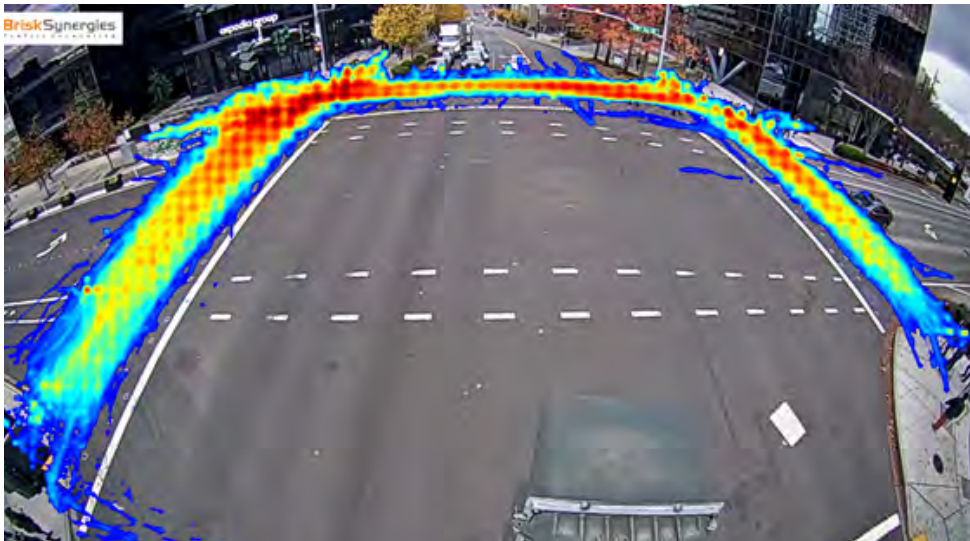- Key city departments (including Police, Transportation and Public Health) are engaged.

Vision Zero City

VISION ZERO	VS	TRADITIONAL APPROACH
Traffic Deaths are PREVENTABLE		Traffic Deaths are INEVITABLE
Integrate HUMAN FAILING in approach		PERFECT human behavior
Prevent FATAL AND SEVERE CRASHES		Prevent COLLISONS
SYSTEMS approach		INDIVIDUAL responsibility
Saving lives is NOT EXPENSIVE		Saving lives is EXPENSIVE

Vision Zero

Vision Zero is a national traffic safety initiative. Like Target Zero, Vision Zero also has a goal of zero deaths and serious injuries from traffic crashes. While Vision Zero and Target Zero have the same goal of reducing traffic safety deaths and serious injuries to zero, they are implemented differently. Vision Zero is typically implemented at the local level and focuses heavily on design and traffic safety systems.

In recognition of the mutual goal of zero traffic fatalities and injuries, staff from both Target Zero and Vision Zero have been working together to promote traffic safety, especially at the local level. TZMs in King County have been part of the Seattle and Bellevue initiatives. Also, city staff for Seattle, Bellevue, and Tacoma all attended the 2018 Target Zero Partner meeting. Seattle and Bellevue have also contributed to this chapter of Target Zero.

The Video Analytics Towards Vision Zero Partnership between City of Bellevue and Brisk Synergies leverages Bellevue traffic cameras and machine learning to classify traffic conflicts—near-miss almost-crashes—so that the city can undertake proactive safety countermeasures before someone gets seriously injured.

Vision Zero in Seattle

Seattle adopted Vision Zero in 2015. The city's multifaceted program approaches safety from the engineering, enforcement, education, and evaluation perspectives, with an emphasis on safe systems (see Safe Systems Approach on page 192).

Since adopting Vision Zero, Seattle has used engineering techniques to reduce persistent crash patterns on the most crash-prone corridors in the city. The city focuses on decreasing speeding as well as enhancing infrastructure for all modes of travel, including pedestrians, bicyclists, and other non-motorized traffic.
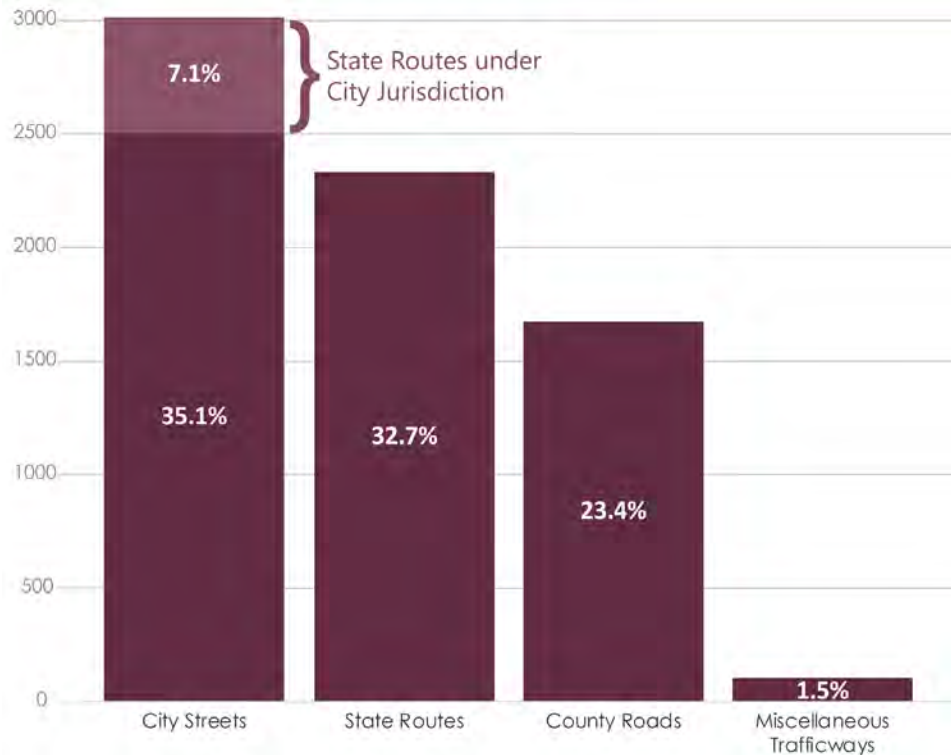
Since excessive speed—or speed too fast for conditions—is the critical factor in crash severity, the Seattle Department of Transportation (SDOT) has thoroughly reviewed and adjusted speed limits throughout the city. In 2016, SDOT reduced the speed limit on all 2,400 miles of non-arterial streets to 20 mph, and reduced the speed limit on 75 miles of center city arterial streets to 25 mph. Since then, SDOT has focused speed limit evaluations on the City's Urban Villages (neighborhood business districts) where 80% of pedestrian crashes occur. Seattle is on-track to complete that work by 2020.

Over the next three years, Seattle will focus new efforts on pedestrians, who are overrepresented in Seattle's fatality and serious injury data.

Seattle has compiled a robust plan to address pedestrian safety issues, including:

- Continue the speed limit evaluation program.
- Install leading pedestrian intervals at 50+ intersections per year.
- Deliver more than 12 safety corridor projects to change street design on the most crash-prone streets.
- Launch pedestrian safety emphasis patrols and pedestrian safety communications.
- Use technology to help drivers track their habits and change behaviors.

Fatal and Serious Injury Crashes by Jurisdiction
Washington State, 2015–2017

State Routes under City Jurisdiction — 7.1%

- City Streets — 35.1%
- State Routes — 32.7%
- County Roads — 23.4%
- Miscellaneous Trafficways — 1.5%

Seattle's Vision Zero Team meets regularly with the local King County TZMs to review recent crashes, data, and enforcement efforts. The two groups coordinate messaging and enforcement patrols, support legislative and policy initiatives, collaborate on research, and help each other understand emerging issues in traffic safety.

Vision Zero in Bellevue

Bellevue's Vision Zero effort reflects the city's commitment to reduce traffic deaths and serious injury crashes on city streets to zero by the year 2030. In 2015, the City Council passed a resolution providing a framework to achieve this goal. Then in 2016, the City Council passed an ordinance adopting Vision Zero amendments into the city's Comprehensive Plan.

Bellevue hosted a Vision Zero Summit in February 2019 that invited industry leaders to join Bellevue staff and partner agencies. This event promoted an exchange of ideas to collectively work towards zero deaths and serious injuries from traffic crashes. Bellevue is also developing its Vision Zero Action Plan with a Safe Systems approach, which the Bellevue Transportation Commission has endorsed.

Bellevue has developed a crash map that allows for interactive searching of fatal and serious injury crashes on Bellevue streets over a 10-year period. Knowing where, when, and what type of crashes occur is critical to the city's goal of eliminating them.

Over the next three years, Bellevue's Vision Zero program will focus on:

- Implementing projects identified in Bellevue's Pedestrian and Bicycle Implementation Initiative to improve safety for people walking and biking on city streets.
- Coordinating Bellevue's Vision Zero initiative with other organizations through partnership agreements, including:
  - Business partner Volpe, on a Bellevue case study in support of the U.S. Department of Transportation's (USDOT's) Safety Data Initiative.
  - Business partner Brisk Synergies, to use Bellevue traffic cameras to detect near-miss street conflicts to proactively identify corrective measures.
  - The Bellevue School District and Washington DECA to raise awareness about distracted driving among teenagers and reduce crashes caused by it.
- Completing a Vision Zero Action Plan to promote coordinated solutions in engineering, education, encouragement, evaluation, equity, and enforcement based on best practices that are successful elsewhere and applicable to Bellevue.

The City of Bellevue is coordinating with Target Zero partners on the 2019 Target Zero plan update. Bellevue's Vision Zero program and Target Zero have a mutual goal to link local safety priorities with the wider Washington State community. Target Zero also provides

a framework within which the city can identify its own goals and strategies.

Regional Approaches to Target Zero

In Washington State, there are 17 RTPOs, which were created as part of the state's Growth Management Act in 1990 to ensure that transportation planning conducted by local governments is coordinated at a regional level. Of the state's 39 counties, all but San Juan County participate in the voluntary RTPO Program.

In areas of the state where a federally-authorized MPO exists, state law requires RTPOs to be the same organization as the designated MPOs. The RTPO Program extends transportation planning to rural areas currently not covered by the federal program, thus establishing a regional framework for planning in Washington.

RTPOs and MPOs are increasingly important Target Zero Partners, and will be part of the implementation of the 2019 plan. They are required to conduct transportation planning that contributes to several policy goals, among which is safety. With both federal and state mandates to plan for safety, MPOs and RTPOs play an important role in meeting the goal of Target Zero. All adopted regional transportation plans are required to address safety and identify areas for improvement. Safety is also considered in awarding federal Surface Transportation Block Grant funds for local projects to member jurisdictions of RTPOs and MPOs. To receive funds, jurisdictions must prove that their projects will improve safety, and in some regions, projects that specifically address identified safety issues receive additional points during the project selection process.

There are several RTPO projects consistent with the goals of Target Zero. Below are some examples of successful regional strategies.

Whatcom Council of Governments

In 2017, the Whatcom Council of Governments received a Pedestrian Safety Grant from the WTSC in the amount of $25,080. The goals of the project were to apply proven enforcement and education strategies as identified in Target Zero and to educate transportation planners and engineers on infrastructure treatments that will increase safety for vulnerable users (primarily pedestrians) on Whatcom County's roads. The project also included organizing a county-wide event to observe the World Day of Remembrance, which commemorates "the many millions killed and injured on the world's roads."

Specific strategies drawn from Target Zero included:

- Revising design practices to emphasize context and to target speed to reflect the needs of all road users.
- Educating pedestrians about the risks of distracted walking.
- Expanding targeted crosswalk enforcement and education for both motorists and pedestrians.
- Promoting the use of reflective apparel by pedestrians.

Palouse Regional Transportation Planning Organization

The Palouse RTPO established its first Palouse Driver Safety Campaign in 2016 in response to significant data showing the frequency of serious injury and fatal crashes along SR 26 and US 195, and the community petitions that followed to improve these two highways. According to the U.S. 195 Corridor Crash Analysis Study, the cause of almost 68% fatal crashes was due to one of three factors: most drivers were either distracted, drowsy, or young (inexperienced).
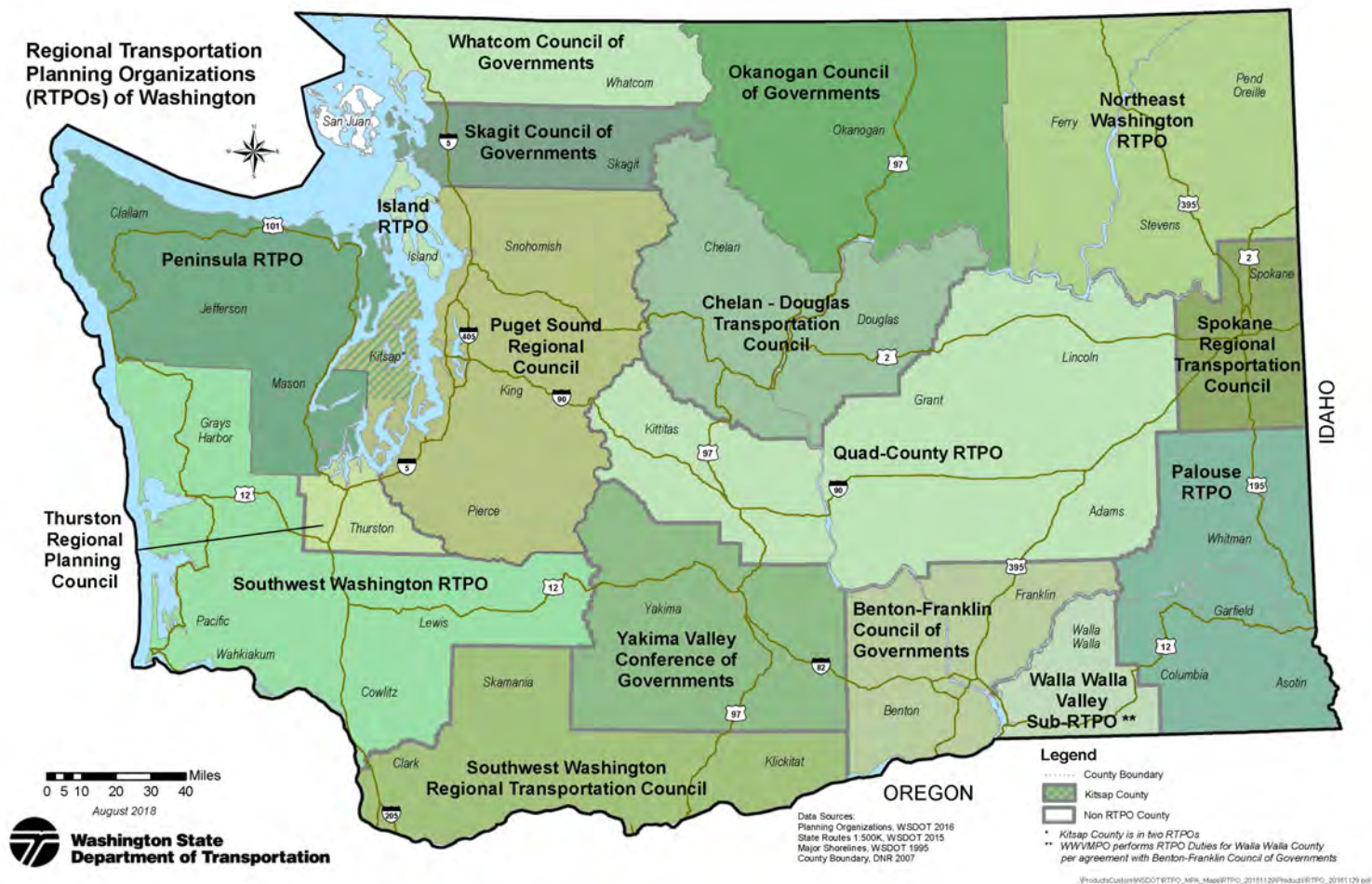
The Palouse RTPO and WSDOT initially started the public awareness campaign. Over time, they partnered with other agencies including WSP, local police and sheriffs' offices, and many others. Partnering with Washington State University has also led to WSU's Driver Safety Committee, where partners routinely meet to discuss strategies to communicate and improve the driving behavior and safety of students, their families, and community members who travel for school and sports in and out of the Palouse region. The goals are to increase public awareness, driver safety-related education, and weather updates, and to instill safe driving habits for Eastern Washington drivers.

According to WSDOT crash data, from 2013–2015 in Whitman County, 41 out of 49 (84%) fatal and serious injury crashes involved distracted, drowsy, or young drivers (16–25 years old). Along with many local and state partner agencies, the public awareness campaign may have helped to reduce the crash rate. Between 2016–2018, only 31 out of 50 (62%) fatal and serious injury crashes involved distracted, drowsy, or young drivers.

Other MPOs and RTPOs

Many MPOs and RTPOs perform similar safety-related activities through various plans that each MPO/RTPO writes and implements. The Walla Walla Valley MPO is researching implementation of a multi-agency and cross-jurisdictional traffic-safety education campaign as a part of its 2019 transportation planning work program.

Coordination between MPOs/RTPOs and WSDOT ensures unified improvement in the various safety initiatives to support Target Zero's goal of zero fatal and serious injury crashes by 2030.
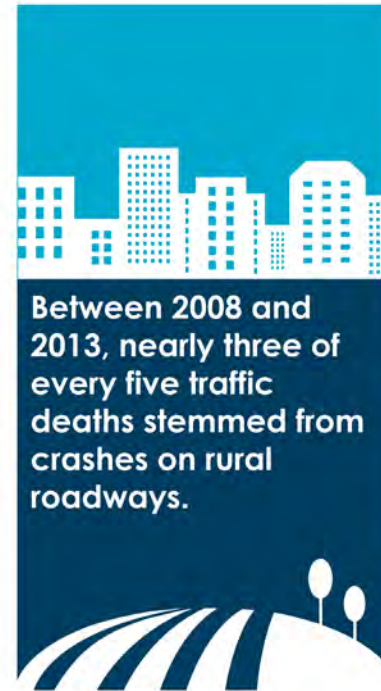
Rural Roads

RCW 82.14.370 defines rural counties as those where the population density is between 60–100 people per square mile. In 2010, 31 of Washington State's 39 counties—nearly 80%—met that definition. That percentage has held steady since 1990.

There are a number of challenges and issues specific to addressing safety on rural roads as compared to more urban roads around the state. At the most basic level, one of the fundamental challenges of addressing safety on rural roads is that many of these roads were never designed in the first place. Many developed over time, even before cars, as the paths people would take to or from their residence or farm to town, to neighboring properties, or to more distant locations. These paths were eventually upgraded, including paving, to make this travel easier. But these roads, without the benefit of intentional design, did not have safety of the user as a significant element in how and where they came to be.

This issue is becoming more prominent as formerly rural areas are urbanizing, resulting in increased traffic and conflicts in these locations. In addition to this fundamental issue, some other key challenges for achieving Target Zero in rural areas include:

Engineering limitations. From the engineering perspective, there are a variety of strategies that offer potential benefits for rural roads. However, many of these strategies have limitations when applied to rural areas. For example, rumble strips are effective at reducing lane departure crashes. But significant portions of the rural roadway network, especially county roads, have insufficient pavement depth to allow for this treatment.

Another example is improved delineation, such as pavement markings or flexible guideposts. These improvements are low-cost, but while safety funds are typically available for an initial installation, both of these have a high cost to maintain the improvement, straining limited agency budgets.

Between 2008 and 2013, nearly three of every five traffic deaths stemmed from crashes on rural roadways.

Since 2014, the pattern has reversed: in 2017 nearly three of every five fatalities originated from urban roadway crashes.

Rural Health Care and Health Equity

○ In Washington, there are 101 acute-care hospitals with emergency departments across the state. Counties that do not currently have a hospital include: Douglas, Skamania, and Wahkiakum.

○ There are 43 rural hospitals, and of those 39 are Critical Access Hospitals.

○ Rural counties have a higher percentage of citizens age 65 and older, with 14.6% in 2017 for urban areas and 20.3% in rural counties. This disproportionate percentage of older adults is predicted to rise sharply.

○ Response and transport times are longer in rural geographic areas and can be associated with greater risk for time sensitive conditions such as trauma, cardiac events, and stroke.

○ People in rural areas are less likely to have health insurance, use fewer preventive services, and overall have lower income and less education on average, leading to disparities in health outcomes and life expectancy.

High Risk Rural Roads

The High Risk Rural Roads (HRRR) Program is outlined by Congress as including small, rural roads (rural collectors and local access roads). Each state is allowed to define what High Risk Rural Roads are to implement the federal program. Washington State defines those roads at the county level, identifying HRRR counties as those that rank in the top 10 based on either fatal and serious injury crash rate per A) mile of road or B) million vehicle miles traveled.

Enforcement challenges. From the enforcement perspective, access to funding sources is a challenge in rural areas. Traditional funding for high visibility enforcement (HVE) requires a certain frequency of contacts per hour to be eligible for funding. However, most rural roads lack the traffic volumes required to achieve those contact rates. Beyond that, physical deployment of enforcement efforts is also limited by the nature of the rural roadways being addressed. Most of these roads do not have anywhere for a law enforcement officer to observe traffic, much less a safe location to pull over a driver on the road.

Complex coordination. There may be multiple jurisdictions involved in implementing a strategy on rural roads. From a coordination and partnerships perspective, this adds complexity. For example, there are many rural areas in the state that are within a tribal reservation boundary. Implementing engineering or enforcement strategies requires agreement and coordination among tribes, counties, and state agencies. While there are areas in the state where partners have overcome this added challenge, there are other areas in the state where this complexity has limited traffic safety efforts.

Large road system with low crash concentrations. For many years, Washington traffic crashes were more numerous and highly dispersed in rural areas, and less frequent and more concentrated on urban roadways. Additionally, use of rural roads is not in proportion to their lane-miles; while about seven of every 10 lane-miles on Washington roads were located in rural areas, the vehicle miles-traveled (VMT) on rural roads amounted to just over one-fourth of all VMT statewide.

There are few proven strategies for reducing rural traffic safety crashes that appear to be practical at this time. There are challenges unique to rural areas, such as small law enforcement agencies and great distances between cities. Three approaches that hold some promise are:

- Working to change Washington's traffic safety culture so that motorists, motorcyclists, and people who walk or ride bicycles adopt safer travel behaviors.
- Spreading low-cost county road improvements across the state to maximize the benefits of those improvements.
- Promoting wider use of non-traditional practices like automated traffic enforcement.

Risk-based Approaches to Rural Road Crashes

WSDOT has begun taking a more risk-based focus to investing resources on rural roads. This approach focuses on identifying roadway characteristics that are common to fatal and serious injury crashes, then prioritizing and improving the locations with these characteristics present. See the Lane Departure chapter page 92 and the Evaluation, Analysis, and Diagnosis chapter page 176 for more details. The risk-based approach is being undertaken with the development and implementation of local road safety plans. Currently, 33 of 39 counties have developed at least one iteration of a local road safety plan.

Since the first local road safety plans were developed in 2014, fatal and serious injury crashes on county roads have remained relatively unchanged, while other jurisdiction types have experienced an increase in these crashes. Preliminary data from 2018 indicate that these crashes on county roads are decreasing while remaining steady for other jurisdictions. While addressing safety on rural roads remains a significant challenge, taking this risk-based approach may be one of the ways to keep pushing the data trend in the right direction.