Oregon Triennial Highway Safety Plan

FFY 2024-2026

Oregon Department of Transportation

OREGON
TRIENNIAL HIGHWAY SAFETY PLAN

FFY 2024-2026

State of Oregon Transportation Safety Office Mission

To prevent transportation deaths and serious injuries in Oregon
by positively influencing all road user behaviors through
the development and implementation of safety programs
with local, county, tribal and state partnerships.

Table of Contents

The State of Oregon applied for the following National Safety Incentive Grants:

S. 1906 Racial Profiling Data Collection: **Yes**

S. 405(b) Occupant Protection: **Yes**

S. 405(c) State Traffic Safety Information System Improvements: **Yes**

S. 405(d) 24-7 Sobriety Programs: **No**

S. 405(d) Alcohol-Ignition Interlock Law: **No**

S. 405(d) Impaired Driving Countermeasures: **Yes**

S. 405(e) Distracted Driving: **Yes**

S. 405(f) Motorcyclist Safety Grants: **Yes**

S. 405(g) Nonmotorized Safety: **Yes**

S. 405(h) Preventing Roadside Deaths: **Yes**

S. 405(i) Driver and Officer Safety Education: **Yes**

Triennial Highway Safety Planning Process

Time	Purpose
January	Finalize upcoming year's funding distribution and overall direction of TSO programs.
February	OTSC approval of revenue and multiple committee advice on direction of programs.
March	Drafting of individual program sections of 3HSP to include data, problem identification, trends, strategies, countermeasures chosen, and individual grant project narratives per safety program.
April	Draft Triennial Highway Safety Plan (3HSP) created and distributed for review by ODOT, OTSC, GAC MS, GAC DUII, NHTSA, FHWA, and program area experts.
May	OTSC (GAC MS and GAC DUII) final Consent Calendar approval of 3HSP (before first year of 3HSP only).
May	Final Performance Plan printed and submitted for approvals.
June	OTC final Consent Calendar approval for grants and contracts found in the 3HSP (before first year of 3HSP only).
July	Field implementation of some grants and contracts; finalization of federal fiscal year grant negotiations & agreements
September -October	Host annual Transportation Safety Conference, including work sessions on proposed grant projects for the next grant year; to garner public engagement and input (PP&E) from both traditional as well as non-traditional safety partners. Adjust program data and/or proposed projects based on PP&E input received. Field implementation of grants and contracts for the new FFY grant year starting Oct 1.
December	Staff debrief of current grant year's programs to determine benchmarks. Continue data analysis and research for next grant year.

Overview

1300.11(b)(1)

Oregon state is home to 4.2 million people.[1] Sixty-five percent live in urban areas, 33 percent in rural and 2 percent live in frontier areas, defined as a county with six or fewer people per square mile.[2] Fifty percent of the population is female, and 20 percent are under the age of 18, while 18 percent are over the age of sixty-five. Oregon's population is 75 percent white, 14 percent Latino, 6 percent Asian, 3 percent Black and 2 percent are multi-racial.[3] Foreign-born persons represent 10 percent or Oregon's total population. Ten percent of Oregonians have a disability with the majority, 13 percent residing in the Portland Metro Area.

Traffic crashes are multi-faceted, complicated events. Crashes resulting in fatalities and serious injuries often involve multiple issues and aggravating factors which have strong overlap e.g., impairment and speed, necessitating collaboration between programs and regions to implement effective countermeasures. The current political environment in Oregon continues to impact traffic safety including the legalization of drugs, understaffing in law enforcement, the homeless situation, lack of political will to implement automated enforcement and/or sobriety checkpoints, lack of public defenders, decreasing emergency medical services workforce and public policy that is changing driving from a privilege to a right in the guise of equity. Further complicating the problem is lack of timely data and communication between data systems. All these issues have contributed to the upward trend of fatalities and serious injuries in Oregon making it necessary to pilot and implement new and innovative approaches to reduce traffic violence in our communities.

The State of Oregon has 36 Sheriff Departments, 122 police departments, including tribal police and 21 college public safety departments with 5,646 sworn officers. While all sworn officers can conduct traffic stops, whether or not a department has a dedicated traffic unit or officer depends on the size of the agency and its priorities. Since 2018, the number of sworn officers has decreased, down 128 in 2020 and this downward trend has continued impacting fatalities and serious injuries.

In addition to decreasing law enforcement numbers in Oregon there has also been an overall decline in traffic stops and the number of citations being issued to the motoring public as indicated by Oregon State Police (OSP) numbers. From 2019 – 2020, OSP traffic stops decreased 23 percent. Due to the lack of a single statewide data repository for these statistics it cannot be stated with certainty that stops and citations have declined; however, both OSP and Portland Police Bureau (PPB), which account for 23 percent of all sworn officers in the state have reported declines. Although PPB did not report a decline from 2019 to 2020, from 2016 to 2020 PPB reported a 33 percent decrease.

In 2018, Oregon started participating in the Statistical Transparency of Policing (STOP) project, which tracks data on officer-initiated enforcement stops from 154 agencies. Due to the tiered approach to implementing the program, statewide data is only available in 2021 and 2022 and the reporting years are from July to July; however, the limited data that is available confirms that stops are down 5 percent and citations are down 2 percent from 2021 to 2022[4]. In the future data from this program will allow us to report more accurately on stops and citations.

The decline in stops and citations being issued may be attributed to several factors, the current climate of the general public's view of law enforcement, the continued COVID-19 pandemic priorities and the understaffing of law enforcement agencies throughout the state. Many agencies are struggling

1 Oregon 2020 Census
2 Oregon Health and Sciences University, Oregon Office of Rural Heath.
3 Mapes, Jeff. "How Oregon's statistics in race often get misinterpreted." August 10, 2020, *www.OPB.com*, https://www.opb.org/article/2020/08/10/how-oregons-statistics-on-race-often-get-misinterpreted/
4 STOP data provided by the Oregon Criminal Justice Commission.

to recruit and train qualified officer candidates, which makes it difficult to maintain regular patrol functions and in some cases agencies do not have resources to increase or maintain traffic enforcement levels including teams and motor units. Preliminary data for 2021 and 2022, indicates that stops and citations will continue on a downward trend.

Oregon law enforcement agencies continue to pursue technology and equipment, when pre-approved through NHTSA, to enhance the electronic transfer of crash reporting and citations issued to integrate with state and other databases for analysis. With declining enforcement resources, these advances in technology provide valuable actionable information to Oregon law enforcement and the Transportation Safety Office for analysis. Citation numbers and overtime enforcement hours worked declined significantly in 2020 due to the COVID pandemic and other more pressing priorities. In addition, the current negative political climate regarding police enforcement in general has led to a high retirement and rocky attrition levels for Oregon law enforcement officers. This is a concern as enforcement of traffic laws is one of the strongest countermeasures against risky driving behaviors.

Other law enforcement issues that are impacting fatalities and serious injuries are:

- The need for increased enforcement resources is not generally recognized outside the law enforcement community. Agencies who perform High Visibility Enforcement activities are often depicted as conducting traffic enforcement as a "money grab" versus the true need for traffic safety enforcement, to reduce serious injury and fatal crashes on Oregon's roadways.
- The need for increased training for police officers in the use of speed measuring equipment (Radar/Lidar), crash investigations, and traffic law (including any updates from recent legislative sessions, increased crashes associated with distracted driving and constraining changes in Oregon case law related to impaired driving).
- Due to the recent passage of Measure 110, which decriminalized single use possession of illicit drugs, there is an increased need for police officers to be trained in drug recognition tactics. Oregon has already seen an increase in serious injury and fatal crashes associated with substance-involved driving as it relates to poly-substance use (more than one drug or drugs and alcohol), constraining changes in Oregon laws and case law related to impaired driving and the decline of officers dedicated to traffic safety enforcement.
- There is also an identified need to increase advanced motor officer training availability to motorcycle officers in Oregon.
- Decreasing agency budgets resulting in larger officer-to-population ratios prevent most enforcement agencies from having capacity to respond to crashes that are non-blocking and/or non-injury. In some larger metropolitan areas, this includes serious injury crashes without a trauma system entry patient, or a vulnerable road user involved. There is a need for increased crash investigations and crash reporting training in the law enforcement community. Recent changes at the basic police academy have drastically reduced training hours in these areas.
- Many county and city police agencies lack the resources necessary to dedicate officers to traffic teams, or to even have a traffic team.

The Oregon Motorcycle Safety program provides funding for a motorcycle safety training and education program and is mandatory for those seeking a motorcycle endorsement. ODOT leadership and staff strategically plan for the Oregon Motorcycle Safety Program to take the next steps in continuously improving its service to motorcyclists and motorists. There has been a steady trend of increases in motorcycle fatalities involving impairment in Oregon and the Transportation Safety Office (TSO) program manager is working closely with TSO's Impaired Driving Program Manager as well as both the Governor's Advisory Committee on Motorcycle Safety (GAC-MS) and the Governor's Advisory Community on DUII (GAC-DUII) on efforts to combat and reduce this alarming trend.

Oregon's Transportation Safety Office is also committed to comprehensive driver safety education and increased awareness for young motorists. Oregon's Driver Education program is nationally recognized

and works hard to educate teen drivers on safe driving habits, where its mission, to provide quality driver education to every novice driver in the state. The pandemic brought considerable challenges to the program in providing safe behind-the-wheel driving scenarios; inability to meet in-person for classroom training modules; and with some driver education providers not being open to the public for an extended period of time (and thus some of them closed their doors permanently). Fortunately, the program was able to build, test, and successfully evaluate an on-line training pilot program that can be used in the future as a viable option for students as needed and as applicable.

The Occupant Protection program is continually focused on educating the general public, law enforcement, family medical providers, and families regarding proper selection and use of seat belts and other motor vehicle safety restraints. Oregon has traditionally had a high seat belt usage rate, at times the highest in the nation, but continuous education is needed for new citizens, visitors, and high-risk populations to maintain a high usage rate.

With Oregon's population now surpassing 4 million, it is more important than ever for the Pedestrian Safety Program to work with the wide range of transportation, health, education and enforcement partners looking to promote Oregonian safety, health and well-being. Pedestrian safety is a major challenge in Oregon's more urban areas like Portland and Eugene. Not only do pedestrians and motorists need to be aware of each other, but the industry trend of coming out with a new vehicle 'type' on a regular basis (i.e., the three-wheeled 'trikes,' electric scooters, enclosed cab, etc.) exacerbates the problem as the state tries to keep up with these new vehicle types in order to ensure alignment with current traffic law and maintain safety for all road users.

Transportation Safety Action Plan (TSAP) VISION Statement: Oregon envisions no deaths or life-changing injuries on Oregon's transportation system by 2035.

"Every day, people arrive safely at their destinations in Oregon, but tragically, fatalities and serious injuries still occur on the Oregon transportation system. Any fatality or life-changing injury is a significant loss that can be avoided by implementing state-of-the-art programs, policies, and projects related to safety engineering, emergency response, law enforcement, and education. The TSAP lays the foundation to consider and prioritize safety for all modes and all users of our transportation system in order to eliminate all deaths and life-changing injuries on the transportation system."

Achieving this vision by 2035 requires commitment and engagement from a variety of Oregon's agencies and stakeholders. Engineers, emergency medical service providers, law enforcement and educators traditionally play a strong role in advocating for, planning, designing, and implementing transportation safety plans and will continue to do so. However, this plan also includes goals, policies, strategies, and actions relevant to public health professionals, the media, private stakeholders, the individual transportation system user, and others. All of these organizations and individuals will be tasked with planning and implementing safe travel options, and traveling responsibly, with the safety of all users in mind.

Process for Establishing Performance Measures – 1300.11(b)(1)(i)

Performance goals for each program are established by TSO Program Managers. Performance measures incorporate elements of the Oregon Benchmarks, Oregon Transportation Safety Action Plan, the Safety Management System, priorities and suggestions received at the Annual Safety conference from partners, and nationally recognized countermeasures. Both long-range and short-range measures are used and updated annually. Oregon starts with a minimum of 3-, 5-, or 8-year data history average, then a change rate of 3 percent, plus or minus, to initially propose performance measure targets. If

the 3 percent performance change is deemed unreasonable based on crash data, partner input during planning workshops, and/or legislative and environmental changes (i.e., legalization of recreational use of marijuana), the 3 percent may be adjusted in the target. This level of change has proven to be effective in prior Highway Safety Plans and is an easy way to forecast what can be expected. This level of change is generally representative of one standard deviation, meaning that the actions taken had an influence on the result outside of pure chance. The Oregon highway safety community has also embraced this formula and supports the use of 3 percent reduction targets.

As required under the previous FAST Act, the project selection process for NHTSA-funded grants relies on published reports and various types of data, studies or reviews. The Transportation Safety Office relies on the following resources in selecting projects for all of its funding sources, including NHTSA funding sources and programs and projects contained in the Performance Plan. The resources of information include:

1. Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices - USDOT
2. National Agenda for Motorcycle Safety
3. Annual Report - TSO
4. Annual Reports - various State Highway Safety Offices (SHSO) from across the country
5. State Highway Safety Showcase - Governor Highway Safety Association (GHSA)
6. Mid-Year Project Evaluations - TSO
7. Research Notes - USDOT
8. Program Assessments – both for Oregon as well as various SHSO's nationwide
9. Uniform Guidelines for State Highway Safety Programs – USDOT

Countermeasure Strategies – 1300.11(b)(1)(i)

Multiple countermeasure strategies are employed by TSO and gleaned from the National Highway Traffic Safety Administration's (NHTSA) Countermeasures that Work (CTW), as well as, from research studies, successful pilot projects, and other evaluation information for various safety programs and projects that may or may not have been NHTSA-funded.

TSO hosts an annual planning meeting with partner and stakeholder agencies and groups participating to review proposed performance measures and draft goals or targets that are data driven. The TSO involves the public from the beginning and throughout a program or project's lifecycle to better meet the needs of the community. This practice provides a shared definition of meaningful public involvement and promising practices to help address barriers to inclusion in transportation decision-making.

Some project selections come from proposed projects requested from eligible state and local public agencies and non-profit groups involved in traffic safety. Selection panels may be used to complement TSO staff work to identify the best projects for the coming year. Projects are selected using criteria that include response to identified problems, potential for impacting performance goals, innovation, clear objectives, adequate evaluation plans, and cost-effective budgets. Those projects ranked the highest are included in Oregon's Highway Safety Plan.

Performance goals for each program are established by TSO program staff. Performance measures incorporate elements of the Oregon Benchmarks, Oregon Transportation Safety Action Plan, the Safety Management System, and nationally recognized measures. Both long-range and short-range measures are used and updated annually.

Planning Process – 23 CFR 1300.11(b)(2)(i)

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Data Sources – 1300.11(b)(1)(i)

A state-level analysis is completed, using the most recent data available to certify that Oregon has the potential and data-driven need to fund projects in various program areas. Motor vehicle crash data, survey results (belt use and public perception), and other data on traffic safety problems are analyzed. Program level analysis is included for each of the National Highway Traffic Safety Administration (NHTSA) priority problem areas such as impaired driving, safety belts, and police traffic services. This data is then directly linked to performance goals and proposed projects for the coming year and is included in project objectives. The data sources include, but are not limited to:

1300.11(b)(1)(ii)

- Fatal Analysis Reporting System (FARS)
- ODOT Statewide Crash Data System (CDS)
- Oregon's Law Enforcement Data System (LEDS)
- Oregon's Safety Priority Index System (SPIS)
- Oregon's Geographic Information System Mapping Technology (GIS)
- Driver and Motor Vehicle Services, Oregon Department of Transportation (DMV)
    - Driver records
    - Vehicle records
- Criminal Justice Information System (CJIS)
- Seat Belt Usage Observation Study
- Public Opinion Survey
- Project Evaluations
- Center for Population Research and Census, Portland State University
- Driver Education records, Western Oregon University
- Motorcycle Safety Education, Oregon State University

Performance goals for each program are established by TSO Program Managers, taking into consideration partner input and data sources that are reliable, readily available, and reasonable as representing outcomes of the program. TSO Programs and their projects are designed to impact transportation safety problems identified by data through the problem identification process. TSO and its partner agencies work together in providing continuous follow-up to these efforts throughout the year, adjusting plans or projects in response to evaluation and feedback as feasible.

NHTSA Performance Measure Report 1300.11(b)(5)

The 'in-progress' number may be 2020 (final), 2021 or 2022 (preliminary) data depending on the performance measure, and availability of the data.

C-1) Number of traffic fatalities (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2020	2024	2025	2026
498	439	502	493	507	488	507	488	488	488

The target is set to maintain based on the FY2023 target submitted to NHTSA. This aligns with Oregon's State Highway Safety Plan (SHSP) [TSAP] and Highway Safety Improvement Program (HSIP) per Code of Federal Regulatons (CFR) 23 1300.11 (2)(c) (iii) State Highway Safety Plan (HSP) performance targets are identical to the State Department of Transportation targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP. These performance measures shall be based on a 5-year rolling average that is calculated by adding the number of fatalities or number of serious injuries as it pertains to the performance measure for the most recent 5 consecutive calendar years ending in the year for which the targets are established. The Crash Reduction Factor (CRF) may be used, but only if final FARS data is not yet available. The sum of the fatalities or sum of serious injuries is divided by five and then rounded to the tenth decimal place for fatality or serious injury numbers and rounded to the thousandth decimal place for fatality rates.

Oregon is currently working to reduce traffic fatalities. Like much of the nation, the data shows we are not on a path to achieve our targets. Several factors affect the number of fatalities and serious injuries. These include continuing increases in crashes involving impairment (and specifically, drug impairment), the number of traffic law enforcement officers and agency resources, and emergency response times. Fatal crashes involving alcohol and/or drug use; excessive speed; lane departure; and/or not wearing a safety belt are the most common causes of a fatality on Oregon roadways.

ODOT's strategy to reduce traffic fatalities is to implement traffic safety programs and proven countermeasures based on the causes of fatal crashes in Oregon. For example, the Oregon Transportation Safety Performance Plan (HSP) and the ODOT Transportation Safety Action Plan (TSAP) outline safety activities directed at risky driving behaviors like DUII, non-safety belt use, and speeding. These countermeasures also address strategies and activities for programs like motorcycle safety, child passenger safety, bicycle and pedestrian safety and other priority program areas. ODOT also seeks to combat traffic fatalities and serious injuries through strategic highway safety infrastructure improvements (All Roads Traffic Safety, or ARTS), such as median cable barriers, rumble strips, and pedestrian crossing markings, as well as through the Department of Motor Vehicles (DMV) medically At-Risk program.

Countermeasures That Work (CTW) is tied to specific programs; however, other than enforcement, education and outreach campaigns are one of the few proven countermeasures for affecting risky driving behaviors to improve traffic safety. The statewide program uses grant funds to implement program activities and amplify messages from all program areas focusing on overrepresentation in specific areas based on geo-spatial and other data analysis.

Oregon has chosen to maintain, or only slightly reduce the number of fatalities for the FFY2024, 2025 and 2026 targets because the last few years have indicated a significant jump in those numbers from prior years. This has been an overall trend for the nation as well. Causes include the recent pandemic and its effect on public service capabilities, the traveling public (high speeds per VMT), and higher priorities for partners and grantees during the pandemic (and still recovering from same). Preliminary numbers for CY2021 indicate Oregon had 599 fatalities caused by motor vehicle crashes, 600 for 2022, and 255 to date for 2023, halfway through the calendar year.

Countermeasures implemented in the current FFY2023 grant year (to date) are on track for completion by September 30, 2023, and results will be published in Oregon's Annual Report for each funded project and its activities.

C-2) Number of serious injuries in traffic crashes - State Crash Data Files (SHSP)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2020	2024	2025	2026
1,973	1,764	1,686	1,904	1,590	1,783	1,590	1,783	1,783	1,783

The target is set to maintain based on the FY2023 target submitted to NHTSA. This aligns with Oregon's SHSP [TSAP] and HSIP per CFR 23 1300.11 (2)(c) (iii) State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP. These performance measures shall be based on a five-year rolling average that is calculated by adding the number of fatalities or number of serious injuries as it pertains to the performance measure for the most recent five consecutive calendar years ending in the year for which the targets are established. The CRF may be used, but only if final FARS data is not yet available. The sum of the fatalities or sum of serious injuries is divided by five and then rounded to the tenth decimal place for fatality or serious injury numbers and rounded to the thousandth decimal place for fatality rates.

Reducing the number of traffic crashes is the primary strategy to reduce traffic injuries, but when a crash happens, reducing the severity becomes the secondary strategy. Injury severity can be influenced in three primary ways: first, safe infrastructure, and implementing design practices that mitigate structural safety risks on Oregon's transportation system; second, driver behavior, deploying safety information, education programs and the DMV driver improvement program in order to reduce crashes caused by risky driver behavior. The third way is through emergency medical services at the scene and transport to a hospital or trauma center.

ODOT's Traffic Roadway Safety Division (TRS) also seeks to combat traffic fatalities and serious injuries through strategic highway safety infrastructure improvements (ARTS projects), such as median cable barriers, rumble strips, and pedestrian crossings.

ODOT TSO's strategy to reduce serious injuries from motor vehicle crashes is to continue to implement traffic safety programs and proven countermeasures based on the causes of fatal crashes in Oregon as determined by crash data analysis. For example, the Oregon Transportation Safety Performance Plan (HSP-three year) and the ODOT Transportation Safety Action Plan (TSAP, or Oregon's SHSP for Federal Highway Administration (FHWA) purposes five year) outline safety activities directed at unsafe driving behaviors like DUII, non-safety belt use, and speeding. These plans address strategies for programs like motorcycle safety, child passenger safety, bicycle and pedestrian safety and other priority program areas.

ODOT DMV also has an At-Risk Program within its Driver Control Programs that monitors and addresses at-risk driver needs by testing and monitoring drivers who may be a danger to themselves or others on the road. This includes certain licensing and renewal requirements (medical or other reasons for being considered at risk). Health issues can affect movement as well as cognitive abilities behind the wheel.

TSO works closely with Oregon's Emergency Medical Service (EMS) community and the Oregon Health Authority (OHA) to determine challenges that emergency medical providers face throughout the state, and how they can work collaboratively to improve performance measures like number of responders per capita; and average response times to motor vehicle crash scenes, both for preparation for transfer as well as time needed to transport to a medical facility.

C-3) Fatalities/VMT (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2020	2024	2025	2026
1.36	1.19	1.36	1.37	1.57	1.37	1.57	1.37	1.37	1.37

The target is set to maintain based on the FY2023 target submitted to NHTSA. This aligns with Oregon's SHSP [TSAP] and HSIP per CFR 23 1300.11 (2)(c) (iii) State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP. These performance measures shall be based on a five-year rolling average that is calculated by adding the number of fatalities or number of serious injuries as it pertains to the performance measure for the most recent five consecutive calendar years ending in the year for which the targets are established. The CRF may be used, but only if final FARS data is not yet available. The sum of the fatalities or sum of serious injuries is divided by five and then rounded to the tenth decimal place for fatality or serious injury numbers and rounded to the thousandth decimal place for fatality rates.

Oregon is currently working to reduce fatal crashes. However, preliminary data shows we are not on a path to achieve our performance targets for 2023. Several factors affect the number of fatalities in Oregon, including continuing increases in crashes involving impairment (and specifically, drug impairment), the number of traffic law enforcement officers and agency resources available, and emergency response times. Fatal crashes involving alcohol and/or drug use; excessive speed; lane departure; and/or not wearing a safety belt are the most common causes of a fatality on Oregon roadways.

ODOT's strategy to reduce traffic fatalities has been to implement traffic safety programs and proven countermeasures based on the causes of fatal crashes in Oregon. For example, the Oregon Transportation Safety Performance Plan (HSP) and the ODOT Transportation Safety Action Plan (TSAP) outline safety activities directed at risky driving behaviors like DUII, non-safety belt use, and speeding. These countermeasures also address strategies and activities for programs like motorcycle safety, child passenger safety, bicycle and pedestrian safety and other priority program areas. ODOT also seeks to combat traffic fatalities and serious injuries through strategic highway safety infrastructure improvements such as median cable barriers, rumble strips, and pedestrian crossing markings, as well as through DMV's medically At-Risk program.

Countermeasures That Work (CTW) is tied to specific programs; however, other than enforcement, education and outreach campaigns are one of the few proven countermeasures for affecting risky driving behaviors in improving traffic safety. The statewide program uses grant funds to implement program activities and amplify messages from all its safety programs on overrepresentation in specific areas based on geo-spatial and other data analysis.

Oregon has chosen to maintain, or only slightly reduce the number of fatalities for the FFY2024, 2025 and 2026 targets because the last few years indicate a significant jump in those numbers from prior years. This has been an overall trend for the nation as well. Causes include the recent pandemic and its effect on public service capabilities, the traveling public (triple-digit speeds per VMT), and higher priorities for partners and grantees during the pandemic (and still recovering from same). But even before the pandemic, Oregon reached its highest number of recorded fatalities in 2018 with just over 500 fatalities. Preliminary numbers for CY2021 indicate Oregon had 599 fatalities caused by motor vehicle crashes, 600 for 2022, and 255 to date for 2023, halfway through the calendar year.

Countermeasures implemented in the current FFY2023 grant year (to date) are on track for completion by September 30, 2023, and results will be published in Oregon's Annual Report for each funded project and its activities.

C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)									
5-year avg					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
89	64	86	87	98	85	116	85	85	85

Based on the five-year average of 85, we will maintain or reduce the target of 85.

There has been a steady increase in unrestrained passenger vehicle occupant fatalities in Oregon since 2018. The countermeasure that will be used to achieve the performance measure of maintaining the 2016-2020 average of 85 unrestrained passenger vehicle fatalities is high visibility enforcement (HVE). The Occupant Protection Program will provide grants to local police departments, sheriff's offices, and Oregon State Police to conduct enforcement activities that will maintain and increase compliance with safety belt/child restraint laws. Funding will be conditional on agency traffic enforcement during three (3) two-week blitzes, and during other times when additional traffic enforcement coverage is deemed appropriate by the local jurisdiction. During 2023, fifty local police departments, sixteen Sheriff's Offices and the Oregon State Police participated in Oregon's safety belt HVE program.

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Based on the current trend and 2021 impaired fatalities, we will maintain or reduce the target of 215.

Impaired driving has been a growing problem on Oregon highways, to include fatal and serious injury crashes involving at least one driver who was determined to have been impaired by alcohol, drugs, or a combination thereof. The COVID-19 pandemic caused a significant increase in risky driving across the country. In Oregon, this was compounded by reduced law enforcement staffing, unfavorable case law decisions, and the implementation of Ballot Measure 110, which decriminalized the possession of drugs such as methamphetamine, heroin, and cocaine. Measure 110, in combination with Oregon's previous legalization of recreational cannabis possession, appears to be a significant factor in the increase in drug-impaired driving and related crashes. Oregon has also experienced a drop in the number of certified Drug Recognition Experts over this period of time. It appears Oregon will not reduce alcohol-impaired crash fatalities to target levels, and such fatalities are actually increasing.

ODOT's strategies to reverse these trends must emphasize improvements to prevention, enforcement, and recidivism reduction. Community outreach and educational media campaigns in English and Spanish should highlight prevention efforts. ODOT must support law enforcement and prosecution training as well as improvements to high visibility enforcement efforts to deter and detect impaired drivers. Significant effort should be made to recruit and retain qualified Drug Recognition Experts who can serve as specialists in conducting impaired driving investigations regardless of the source of the impairment.

C-6) Number of speeding-related fatalities(FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
143	170	143	154	135	149	154	149	149	149

Based on the current trend we will maintain or reduce the 2016-2020 5-year average of 149.

In 2017 Oregon saw a significant spike in the number of speed related fatal crashes. Since then, while Oregon's crash fatalities have continued to rise, the number of fatalities related to speed in comparison has been on the decline. Overall, crashes related to speed have not decreased at or below the target numbers, but the percentage in relation to the overall number of fatal crashes in Oregon has declined. It is difficult to account for the reasons why as the most notable decline was in 2020 during the worldwide Covid-19 pandemic. Vehicle miles traveled in Oregon were significantly down due to the pandemic, however, law enforcement experienced a trend of people driving at excessive speeds, often triple digits, taking advantage of the open roadways.

ODOT Transportation Safety Office continues to work with traffic safety partners from around the state to increase enforcement efforts and continue to provide education to the motoring public about the dangers of speeding. In the past five years, the Oregon legislature has passed legislation increasing speed limits around the state. In most recent years, the legislature has reduced some of those increases as well as enhancing enforcement efforts by passing legislation related to photo enforcement in Oregon, giving law enforcement additional means of enforcement especially during a time where we have seen an overall decline in police traffic safety efforts. ODOT TSO will continue to support law enforcement with Oregon's number one countermeasure to curb speeding as a risky driving behavior by encouraging and funding high visibility enforcement efforts in a attempt to continue to see a decline in the number of speed related fatal and serious injury crashes, but as an overall whole, reduce the number of total lives lost on Oregon roadways.

C-7) Number of motorcyclist fatalities (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2017	2018	2019	2020	2021	2017-2021 avg.	2021	2024	2025	2026
57	85	57	67	84	70	84	70	70	70

Based on the five-year average of motorcyclist fatalities of 70 — between calendar years 2017 through 2021 (using FARS published data NCSA – STSI (dot.gov)) our goal is to maintain or reduce this number during the next three years.

This is an increase in average number of fatalities from the 2023 Highway Safety Plan goal of maintaining or reducing the average total number of fatalities of 64. This is a setback to the program and is not in alignment with achieving the stated goal for the 2023 plan. With the new five-year average of 70 rider deaths, it is in alignment with the triennial Highway Safety Plan goal of maintaining or reducing the total number of rider deaths to 70 over the course of the next three years.

Countermeasure strategies that have been and will continue to be employed to prevent rider deaths include education, training, and enforcement. The attitudes and actions of riders during the Covid-19 pandemic coupled with reduced law enforcement availability and reduced rider training and educational opportunities may have played a part in the increase of the average annual death toll for motorcycle riders. Additionally, legislative support in Oregon for traffic law enforcement as well as Law Enforcement Officer (LEO) availability for traffic law enforcement has been on the decline — and riders are aware of this. This awareness is contributing to riders decisions to ride in an unsafe or non-compliant manner which is likely contributing to the increase in fatalities. Many riders in Oregon do not fear the threat of a citation or any penalty associated with having one issued.

C-8) Number of unhelmeted motorcyclist fatalities (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2017	2018	2019	2020	2021	2017-2021 avg.	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Based on the five-year average of five rider fatalities for number of unhelmeted motorcyclist fatalities (using FARS published data NCSA – STSI (dot.gov)) our goal is to maintain or reduce this number during the next three years.

This is the same as the average number of fatalities from the 2023 Highway Safety Plan goal of maintaining or reducing the average total number of fatalities of five deaths. This is in alignment with achieving the stated goal for the 2023 plan. With the new five-year average of five rider unhelmeted deaths, it is in alignment with the triennial Highway Safety Plan goal of maintaining or reducing the total number of rider deaths to five over the course of the next three years.

Countermeasure strategies that have been and will continue to be employed to prevent rider deaths include education, training, and enforcement. The attitudes and actions of riders during the Covid-19 pandemic coupled with reduced law enforcement availability and reduced rider training and educational opportunities may have played a part in the increase of the average annual death toll for motorcycle riders. Additionally, legislative support in Oregon for traffic law enforcement as well as LEO availability for traffic law enforcement has been on the decline — and riders are aware of this. This awareness is contributing to riders' decisions to ride in an unsafe or non-compliant manner (unhelmeted) which is likely contributing to the increase in fatalities. Many riders in Oregon do not fear the threat of a citation or any penalty associated with having one issued.

In October of 2022, the Governor's Advisory Committee on Motorcycle Safety voted to support or propose legislation to update the Oregon law related to the definition of a motorcycle helmet. The update would include reference to the applicable Federal Motor Vehicle Safety Standard. More effort on this proposal is expected throughout the life of the triennial plan which may have a positive impact on the goal of maintaining or reducing the total annual number of unhelmeted riders' deaths to five or less. In a July 2023 meeting among a limited number of State Motorcycle Safety Association (SMSA) members there was informal discussion about supporting any NHTSA proposal to update the standard based on recent developments on helmet technology and research findings related to traumatic brain injuries and prevention protocols and mitigations.

C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2017	2018	2019	2020	2021	2017-2021 avg	2021	2024	2025	2026
40	45	60	59	43	50	43	50	50	50

Based on the five-year average of 50 drivers age 20 or younger involved in fatal crashes, our goal is to maintain or reduce the number of drivers age 20 or younger involved in fatal crashes over the next three years at 50 per year.

The statistics on teen crashes are fluid and fatalities are not following any particular trend. Teens in Oregon fall in two categories; those that take driver education and those that do not. The overwhelming presence of non-driver educated teens needs to be taken into account along with those that do not have access to Oregon's Driver Education program. The State's Driver Education Program (state funded) continues to fund both geographical expansion of accessibility as well as alternative strategies to recruit, train and evaluate instructors, provide different formats of the curriculum (online, etc.), streamline the licensing process with DMV for passing students, and provide subsidies for low or no income families and foster children. Oregon has recently completed a revision of its Oregon Risk Prevention Curriculum (the driver education curriculum) which is hosted in a web-based format that allows users to use Google Translate to access the information in their preferred language. An additional resource is the Oregon Parent Guide to Teen Driving, which has also recently undergone revisions and updates. It will be available fall 2023 in print in English and Spanish and be available in a web-based format that allows for translation online as well. Oregon hosts an annual Driver Education conference to provide continuing education and other updates to instructors, offering neighboring state

Washington and other state driver education programs the opportunity to participate in the Pac-NW (Pacific Northwest) Driver Education conference.

C-10) Number of pedestrian fatalities(FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
71	70	77	82	71	74	87	74	74	74

Based on the five-year average of 2016-2020, the projected targets are to maintain or decrease from the five-year average.

There has been a steady increase in pedestrian fatalities that is also in line with majority of the states in the nation. The current data from 2021 87 pedestrian fatalities indicates that we are far beyond the five-year average of 74.

Many factors have a role in pedestrian crashes; hence the state continually develops and updates safety plans, policies, and road construction projects that also include treatments to increase pedestrian and bicycle safety. This is all in addition to the safe road user behaviors programs that the ODOT Transportation Safety Office focuses on. In alignment with projected targets in the triennial plan, ODOT Transportation Safety Office will use multiple types of education and behavioral safety countermeasures to achieve the targets such as: (1) Enforcement Strategies- High Visibility Enforcement pedestrian safety operations, education to law enforcement of pedestrian safety laws, (2) funding grass-root partnership vulnerable road user education grants, (3) Driver Training and Share the Road Awareness- funding and expanding the Oregon Friendly driver Program and through (4) Statewide Communication and Outreach media messaging and campaigns and (5) funding Safe Routes to School projects.

C-11) Number of bicyclists fatalities (FARS)									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
10	10	9	11	14	11	18	11	11	11

Based on the five-year average of 2016-2020, the projected targets are to maintain or decrease from the five-year average.

There has been a steady increase in bicycle fatalities over the five-year average of 2016-2020 where 2021 data shows 18 bicycle fatalities.

Many factors have a role in bicycle crashes; hence the state continually develops and updates safety plans, policies, and road construction projects that also include treatments to increase pedestrian and bicycle safety. This is all in addition to the safe road user behaviors programs that the ODOT Transportation Safety Office focuses on. In alignment with projected targets in the triennial plan, ODOT Transportation Safety Office will use multiple types of education and behavioral safety countermeasures to achieve the targets such as: (1) Enforcement Strategies- High Visibility Enforcement operations, education to law enforcement of bicycle safety laws, (2) funding grass-root partnership vulnerable road user education grants, (3) Driver Training and Share the Road Awareness programs-funding and expanding the Oregon Friendly driver Program and through (4) Statewide Communication and Outreach media messaging and campaigns and (5) funding Safe Routes to School projects.

B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)									
Actual					5-year avg	In Progress*	Projected Targets		
2018	2019	2020	2021	2022	2018-2020 avg.	2023	2024	2025	2026
95.8%	95.7%	94.6%	94.9%	96.5%	95.5%	96.5%	97%	97%	97%

Based on the five-year average of 95.5 percent we will increase the target to 97 percent.

Oregon has traditionally had a high seat belt usage rate, sometimes the highest in the nation, but continuous education is needed for new citizens, visitors, and high-risk populations to maintain a high use rate. The countermeasures that will be used to achieve the performance measure of increasing the observed seat belt use for passenger vehicles to 97 percent is high visibility enforcement and communications and outreach. The Occupant Protection Program will provide grants to local police departments, Sheriff's offices, and Oregon State Police to conduct enforcement activities that will maintain and increase compliance with safety belt/child restraint laws. Funding will be conditional on agency traffic enforcement during three (3) two-week blitzes, and during other times when additional traffic enforcement coverage is deemed appropriate by the local jurisdiction. During 2023, fifty local police departments, sixteen Sheriff's Offices and the Oregon State Police participated in Oregon's safety belt HVE program. Agencies are encouraged to garner local media coverage of planned enforcement efforts, the purpose of the enforcement activities and the results of the efforts. HVE has been a strong contributing countermeasure strategy toward Oregon's annual observed seat belt use survey indicated Oregon's 2022 usage rate of 96.5 percent. Other than enforcement, education campaigns are one of the only proven countermeasures for occupant projection. The two types of messaging Oregon uses are behavioral, and awareness based. The Occupant Protection Program plans media campaigns to be released in alignment with the timing of the high visibility enforcement activities.

State Performance Measure Report 1300.11(b)(5)

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
OR-1) Number of active local transportation safety groups	Numeric	50	Annual	2023

OR-1) Number of active local transportation safety groups									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
52	52	52	52	50	51	51	50	50	50

Local governments continue to be challenged by budget cuts and decreased activity levels as a residual effect of COVID and corresponding withdrawal from public life. We anticipate maintaining the 2020 number of local transportation safety groups, due to potential drop out and others taking up the safety efforts moving forward. Fortunately, none were completely disbanded during the pandemic.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-2) number of distracted driving fatalities related to mobile electronic devices	Numeric	4	Annual	2023

OR-2) number of distracted driving fatalities related to mobile electronic devices									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
9	1	2	5	7	5	0	5	5	5

Distracted driving fatalities decreased beyond the target value of four to zero in 2021, indicating that the chosen countermeasures used were successful in reducing the number of fatalities related to mobile electronic devices, however, the historic 2016-2020 average is five. With continued law enforcement staffing issues we believe maintaining or reducing below five is a realistic target.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-3) Number of EMS training courses (and/or online training opportunities) for rural EMS personnel to earn CEUs	Numeric	100	Annual	2023

OR-3) Number of EMS training courses (and/or online training opportunities) for rural EMS personnel to earn CEUs.

Actual						In Progress*	Projected Targets		
2018	2019	2020	2021*	2022*	2021-2022	2023	2024	2025	2026
-	-	-	*	*	7	10	10	11	12

The number of training courses (event opportunities to earn multiple Continuing Education Units (CEU)) offered in 2021 was seven. These events were either EMS conference training opportunities, or on-line offerings.

*During the recent pandemic all three of Oregon's annual EMS conferences were not held. Online training opportunities were created and continue currently in addition to the in-person training courses. Currently three EMS conferences have been held YTD 2023, with additional on-line and in-person training events totaling ten options for obtaining CEU and training credits.

In reviewing the 2023 HSP and 2022 HSP Performance Reports, and HSP 2021 Annual Report, this state performance measure has been inconsistent in 'what' it is measuring, and/or incorrect; therefore, Oregon cannot accurately report on this performance measure:

Oregon's HSP 2023 1300 submittal, page 15:

> OR-3: Number of EMS ***training courses*** (and/or online training opportunities) for rural EMS personnel to earn CEUs

Oregon's HSP Comprehensive 2023, page 58:

> OR-3: Increase the number of EMS rural/frontier responder ***training [opportunities]*** (online or in-person) for rural/frontier EMS personnel to earn CEUs from 0 in 2020 to 100 by December 31, 2023. (All conferences were cancelled due to COVID-19.)
>
> HSP 2022 EMS chapter: Goals: Increase education base of EMS personnel by ***increasing the number of EMT's*** in Oregon's workforce from 11,686 in 2019 to 13,953 by December 31, 2025.

HSP 2021 Performance Report:

> OR-8) number of EMS ***training courses*** for individual rural EMS personnel

HSP 2022 Performance Report 1300 VERSION: (and in the Annual Report for 2022 page 12):

> "The following is a performance report outlining ODOT-TSD's progress on the 2021 state targets:" [note: the measure is number of courses; but the value of 77 is students trained]

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-4) Number of people **killed or seriously injured** due to defective/inadequate brakes, or no brakes	Numeric	11	Annual	2023

OR-4) Number of people killed or injured due to defective/inadequate brakes, or no brakes.									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
260	200	258	224	157	220	227	220	220	220

For FY2023 the target was based on the five-year average. Based on the trend it is difficult to tell whether Oregon on track to meet the projected target in 2023.

Fatal & Serious Injury						In Progress
2016	2017	2018	2019	2020	5-yr avg	2021
10	8	19	9	11	11	13

For FY2024 the performance measure was changed from people killed or seriously injured (F&A) to people killed or injured (F&I).

The FY2024 target is set to maintain based on the 2016-2020 average.

Drivers continue to violate federal and state laws and rules related to vehicle safety equipment. This occurs as a result of intentionally or unintentionally using non-compliant equipment and/or delaying necessary repair or replacement of critical safety equipment.

Rear-end crashes due to defective brakes continue to occur, resulting in 602 fatalities and injuries occurring between 2016 and 2020.

Based on the 2021 In-Progress data point Oregon could meet the projected targets.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-5) Number of judges participating in annual transportation safety related judicial training programs	Numeric	49	Annual	2023

OR-5) Number of judges participating in annual transportation safety related judicial training programs.									
Actual					5-year avg	In Progress*	Projected Targets		
2018	2019	2020	2021	2022	2018-2022 avg.	2023	2024	2025	2026
65	68	50	0	65	50	72	75	80	82

There continues to be a need for statewide judicial education for consistency in adjudication among jurisdictions. The Covid-19 worldwide pandemic significantly impacted conference attendance in 2020 and no conference was held in 2021. Municipal and Justices of the Peace rely heavily on the ODOT sponsored spring traffic safety education conference for updates regarding traffic and case law as well as continuing education credits. Participation and attendance from state court judges continues to be a challenge. However, with the new Oregon State Judicial Outreach Liaison, there has been a promising connection and increased attendance by state court judges this past year.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-6) Impaired Driving (Riding - .08 BAC or using drugs)	Numeric	28	Annual	2023

OR-6) Impaired Driving (Riding - .08 BAC or using drugs) Limited to motorcycles.									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
21	29	38	32	32	30	42	42	42	42

Impaired driving has been a growing problem on Oregon highways, to include fatal and serious injury crashes involving at least one driver who was determined to have been impaired by alcohol, drugs, or a combination thereof. The COVID-19 pandemic caused a significant increase in risky driving across the country. In Oregon, this was compounded by reduced law enforcement staffing, unfavorable case law decisions, and the implementation of Ballot Measure 110, which decriminalized the possession of drugs such as methamphetamine, heroin, and cocaine. Measure 110, in combination with Oregon's previous legalization of recreational cannabis possession, appears to be a significant factor in the increase in drug-impaired driving and related crashes. Oregon has also experienced a drop in the number of certified Drug Recognition Experts over this period of time. It appears Oregon will not reduce alcohol-impaired crash fatalities to target levels, and such fatalities are actually increasing.

ODOT's strategies to reverse these trends must emphasize improvements to prevention, enforcement, and recidivism reduction. Community outreach and educational media campaigns in English and Spanish should highlight prevention efforts. ODOT must support law enforcement and prosecution training, as well as improvements to high visibility enforcement efforts to deter and detect impaired drivers. Significant effort should be made to recruit and retain qualified Drug Recognition Experts who can serve as specialists in conducting impaired driving investigations regardless of the source of the impairment.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-7) Number of fatal and serious injuries for drivers 65 years of age and older	Numeric	351	Annual	2023

OR-7) Number of fatal and serious injuries for drivers 65 years of age and older.									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
282	260	267	316	256	393	393	484	470	455

Calendar year 2021 saw a significant increase in fatal and serious injuries for drivers 65 years of age and older. One of the reasons for this may be partially due to the rise in Oregon population for this age group; in 2022 this age group represented just under 20 percent of the state's population (total population is 4.24M). TSO will continue to pursue age-appropriate training and education opportunities to provide to seniors regarding physical limitations they may start to experience as they age, and options available to choose from to continue independently driving (or determining when it's time to stop for safety reasons).

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-8) Number of officers trained statewide through the Police Traffic Safety training conference	Numeric	225	Annual	2023

OR-8) Number of officers trained statewide through the Police Traffic Safety training conference.									
Actual					5-year avg	In Progress*	Projected Targets		
2018	2019	2020	2021	2022	2018-2022 avg.	2023	2024	2025	2026
302	308	200	167	168	229	240	250	260	275

Due to the worldwide Covid-19 pandemic many traffic safety related trainings were required to be cancelled and postponed. Oregon officers rely heavily on ODOT sponsored traffic safety trainings to receive traffic law and case law updates as well as opportunities to network with officers from around the state who may be experiencing similar traffic issues and hear about new or innovative countermeasures to address these issues. In both 2021 and 2022, there was a decline in the attendance due to the pandemic as well as a decline in officers available to cover patrol shifts. Additionally, with the changes to the basic police academy and the crash investigation curriculum, ODOT TSO has not sponsored a crash investigations training for a few years. With the new curriculum in place, there should be a revised agenda to address vital information that was removed from the academy training.

Performance Target from FY2023	Target Metric Type	Target Value	Target Period	Target Start Year
OR-9) number of traffic records performance measures identified in Traffic Records Strategic Plan	Numeric	1	Annual	2023

OR-9) number of traffic records performance measures identified in Traffic Records Strategic Plan									
Actual					5-year avg	In Progress*	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
1	1	1	1	1	1	1	1	1	1

This performance measure was set based on Oregon identifying at least one meaningful and measurable instance of improvement to its traffic records systems. Oregon succeeded in this effort for FY2023 and anticipates the ability to continue to do based on recommendations made in the recent Traffic Records Assessment, and approval/implementation through the Oregon Traffic Records Coordinating Committee (TRCC). See Project Narratives for Traffic Records in the Performance Plan section of this 3HSP.

TABLE 1: GRANT FUNDED ENFORCEMENT

	FFY 2017	FFY 2018	FFY 2019	FFY 2020	FFY 2021	5-Year Average
Seat Belt Citations	8,236	4,032	2,743	2,276	2,858	4,029
Impaired Driving Arrests	1,474	1,065	656	468	536	840
Speeding Citations Issued	6,162	4,238	11,456	4,489	7,247	6,718

Source TSO Grant Files, 2017-2021

TABLE 2: OREGON TRAFFIC CRASH DATA AND MEASURES OF EXPOSURE

	2016	2017	2018	2019	2020	2016-2020 Average
Fatal Crashes	448	403	446	456	460	433
Injury Crashes	30,283	28,397	27,727	27,032	19,178	26,517
Fatalities and Serious Injuries	2,471	2,203	2,188	2,398	2,084	2,269
Fatalities	498	439	502	494	507	488
Fatalities per 100 Million VMT	1.36	1.19	1.36	1.37	1.37	1.33
Fatalities per Population (in thousands)	0.12	0.11	0.12	0.12	0.12	0.12
Injuries	44,628	41,893	41,089	39,737	27,737	39,017
Serious Injuries per Population (in thousands)	0.48	0.43	0.40	0.45	0.37	0.43
Injuries per 100 Million VMT	121.24	113.99	111.51	110.45	75.74	106.65
Injuries per Population (in thousands)	10.95	10.12	9.79	9.38	6.50	9.35
Population (in thousands)	4,076	4,141	4,195	4,236	4,268	4,183
Vehicle Miles Traveled (in millions)	36,719	36,753	36,848	35,977	32,298	35,719
No. Licensed Drivers (in thousands)	3,002	3,060	3,108	3,148	3,303*	3,010
No. Registered Motorcycles and Passenger Vehicles (in thousands)*	3,530	3,472	3,433	3,420	3,530	3,457

*Source: ODOT Statewide Crash Data System (CDS); Center for Population Research and Census, School of Urban and Public Affairs; Seat Belt Observation Study; *2021 DMV Statistics for GAC-MC, Report. 2021 & 2022 data not available at the time of this report.*

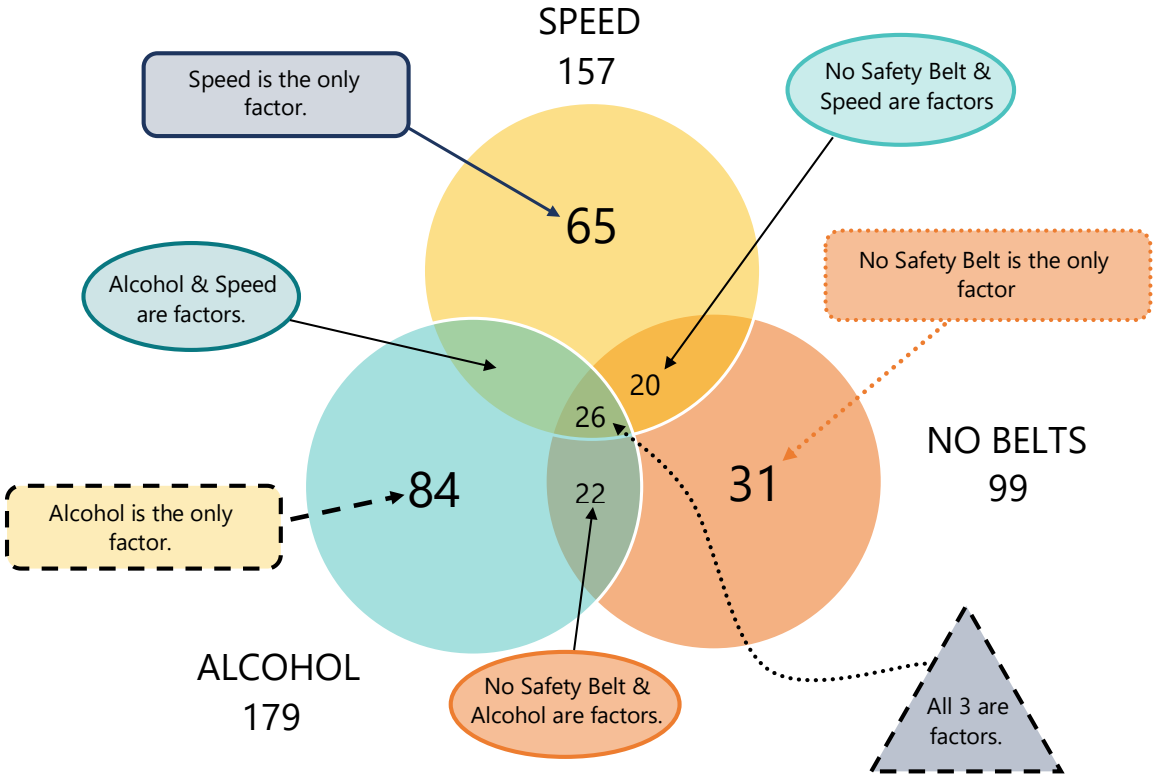
TABLE 3: FATAL AND INJURY CRASH INVOLVEMENT BY AGE OF DRIVER, 2020*

Age of Driver	# of Drivers in F&I Crashes	% of Total F&I Crashes	# of Licensed Drivers**	% of Total Drivers	Over/Under Representation^
14 & Younger**	4	0.01%	0	0.00%	0.00
15**	45	0.07%	16,753	0.46%	0.14
16**	412	0.63%	29,152	0.90%	0.80
17**	598	0.91%	34,349	1.06%	1.00
18	863	1.31%	38,688	1.20%	1.17
19	855	1.30%	41,979	1.30%	1.04
20	885	1.35%	43,274	1.34%	1.10
21	904	1.38%	45,660	1.41%	1.68
22-24	2,454	3.74%	145,339	4.49%	1.53
.25-34	7,324	11.16%	570,741	17.65%	1.21
35-44	5,955	9.07%	545,786	16.88%	1.01
45-54	4,964	7.56%	483,984	14.97%	0.94
55-64	4,372	6.66%	513,351	15.88%	0.78
65-74	2,812	4.28%	455,180	14.08%	0.56
75 & Older	1,421	2.16%	269,327	8.33%	0.48
Unknown	31,769	48.40%	105	0.00%	0.00
Total	**65,637**	**100.00%**	**3,233,594**	**0.00%**	**n/a**

Sources: Crash Analysis and Reporting, Oregon Department of Transportation, U.S. Department of Transportation, Driver and Motor Vehicle Services, Oregon Department of Transportation
^Representation is percent of fatal and injury crashes divided by percent of licensed drivers.
**2021 & 2022 data not available at the time of this report. **Grouped together for 2020 report.*

The following Venn diagram shows the relationship between driver behavior factors in Oregon fatalities.

FIGURE 1: VENN DIAGRAM OREGON TRAFFIC FATALITIES INVOLVING ALCOHOL, SPEED AND RESTRAINTS AVERAGE PER YEAR: 2018 – 2020



Source: ODOT Statewide Crash Data System (CDS), average per year without rounding.

Public Participation and Engagement

1300.11(b)(2)(i)

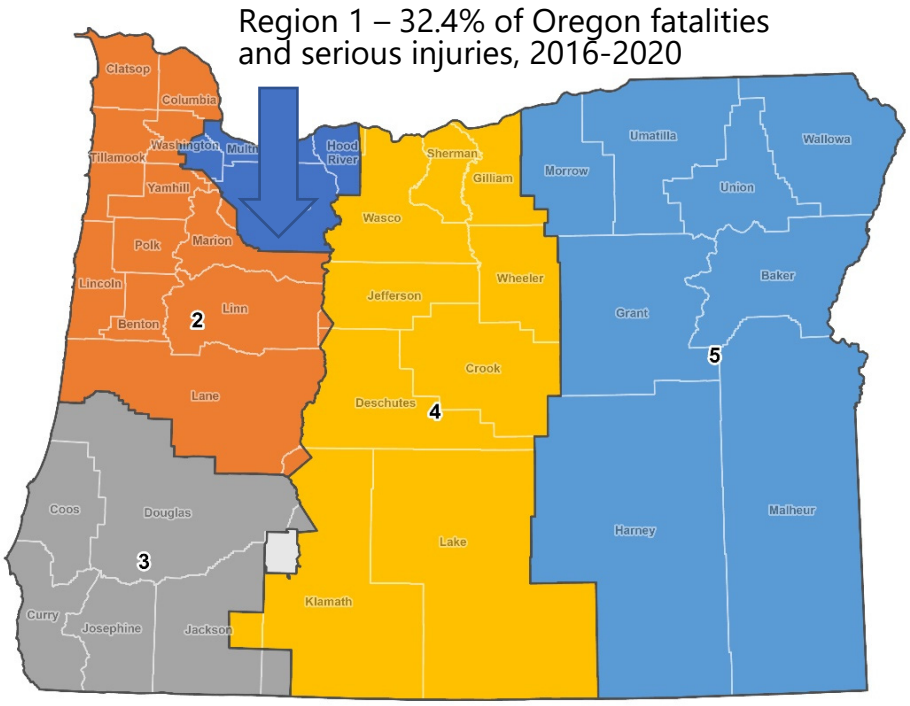
The TSO hosts an annual planning meeting with partner and stakeholder agencies and groups participating to review proposed performance measures and draft goals or targets that are data driven. The TSO involves the public from the beginning and throughout a program or project's lifecycle to better meet the needs of the community. These public participation and engagement efforts meet the initial goal of providing a shared definition of meaningful public involvement and promising practices to help address barriers to inclusion in transportation decision-making. Through these efforts the SHSO hopes that the conference and ongoing engagement events throughout the year provide direction to the SHSO in determining appropriate countermeasures and resulting projects for the identified traffic safety problems and issues in Oregon.

Some project selections come from proposed projects requested from eligible state and local public agencies and non-profit groups involved in traffic safety. Selection panels may be used to complement TSO staff work to identify the best projects for the coming year. Projects are selected using criteria that include responses to identified problems, potential for impacting performance goals, innovation, clear objectives, adequate evaluation plans, and cost-effective budgets. Those projects ranked the highest are included in Oregon's Highway Safety Plan.

Performance goals for each program are established by TSO program staff. Performance measures incorporate elements of the Oregon Benchmarks, Oregon Transportation Safety Action Plan, the Safety Management System, and nationally recognized measures. Both long-range and short-range measures are used and updated annually.

Moving forward, the Transportation Safety Office will continue to engage representatives and individuals from communities in Oregon that are over-represented in traffic crashes, are economically challenged, reside in areas where the transportation infrastructure is lacking or is in poor condition, are not easily identified in the current traffic records databases, or reside in areas with high volumes of traffic-related injuries and deaths. The engagement agenda includes conversations regarding the goals, performance measures, countermeasure strategies, and potential projects to be funded with NHTSA grant dollars. The input received contributed to the development of the Oregon highway safety program for FFY's 2024-2026.

FIGURE 2: OREGON DEPARTMENT OF TRANSPORTATION REGIONS



Three specific communities have been identified as examples below in regard to invitees to TSO's annual conference, and specifically for the public participation and engagement work session and input received for the 2024 HSP: ODOT Region 1's Hispanic communities, ODOT Region 1's Asian communities, and the federally recognized Tribes.

ODOT Region 1 accounts for more than 32 percent of the number of traffic-related fatalities and serious injuries for the five-year average of 2016-2020.

Multnomah, Clackamas, and part of Washington County are in ODOT's Region 1 territory.

Problem Identification – Hispanic Community

A review of the 2020 Oregon Census states that forty-three percent of Oregon's Hispanic population reside in the urban areas of Multnomah, Washington and Clackamas County. Eighteen percent, 18 percent and 7 percent, respectively.

A review of the last four-year average from the Fatality Analysis Reporting System indicates that Hispanic traffic fatalities in the tri-county area of ODOT Region 1 (Clackamas, Multnomah, and Washington County) account for 20 percent of the overall Hispanic traffic fatality count in Oregon.

Organizations were invited to the HSP engagement sessions that represent the Hispanic population in the ODOT Region 1 area. Immigrant and Refugee Community Organization (IRCO), Division Midway Alliance, Latino Network and Centro Cultural were invited.

Problem Identification – Asian Community

A review of the 2020 Oregon Census states that thirty-one percent of Oregon's Asian population reside in the urban areas of Multnomah, Washington and Clackamas County. Ten percent, 14 percent and 7 percent, respectively.

A review of the last four-year average from the Fatality Analysis Reporting System indicates that Asian traffic fatalities in the tri-county area of ODOT Region 1 (Clackamas, Multnomah, and Washington County) account for 8 percent of the overall Asian traffic fatality count in Oregon.

Organizations were invited to the HSP engagement sessions that represent the Asian population in the ODOT Region 1 area. Division Midway Alliance, IRCO and Asian Pacific American Network of Oregon (APANO) was invited.

FIGURE 3: COMPARISON OF FATALITIES BY RACE AND COUNTY POPULATION

WASHINGTON COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	16%	18%	19%
Black	0%	4%	0%
American Indian	3%	1%	5%
Asian	3%	14%	0%

MARION COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	21%	16%	23%
Black	1%	2%	3%
American Indian	1%	0.30%	0%
Asian	2%	3%	0%

MULTNOMAH COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	10%	13%	15%
Black	15%	8%	10%
American Indian	1%	1%	1%
Asian	4%	10%	4%

CLACKAMAS COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	7%	7%	3%
Black	0%	2%	8%
American Indian	2%	1%	0%
Asian	3%	7%	0%

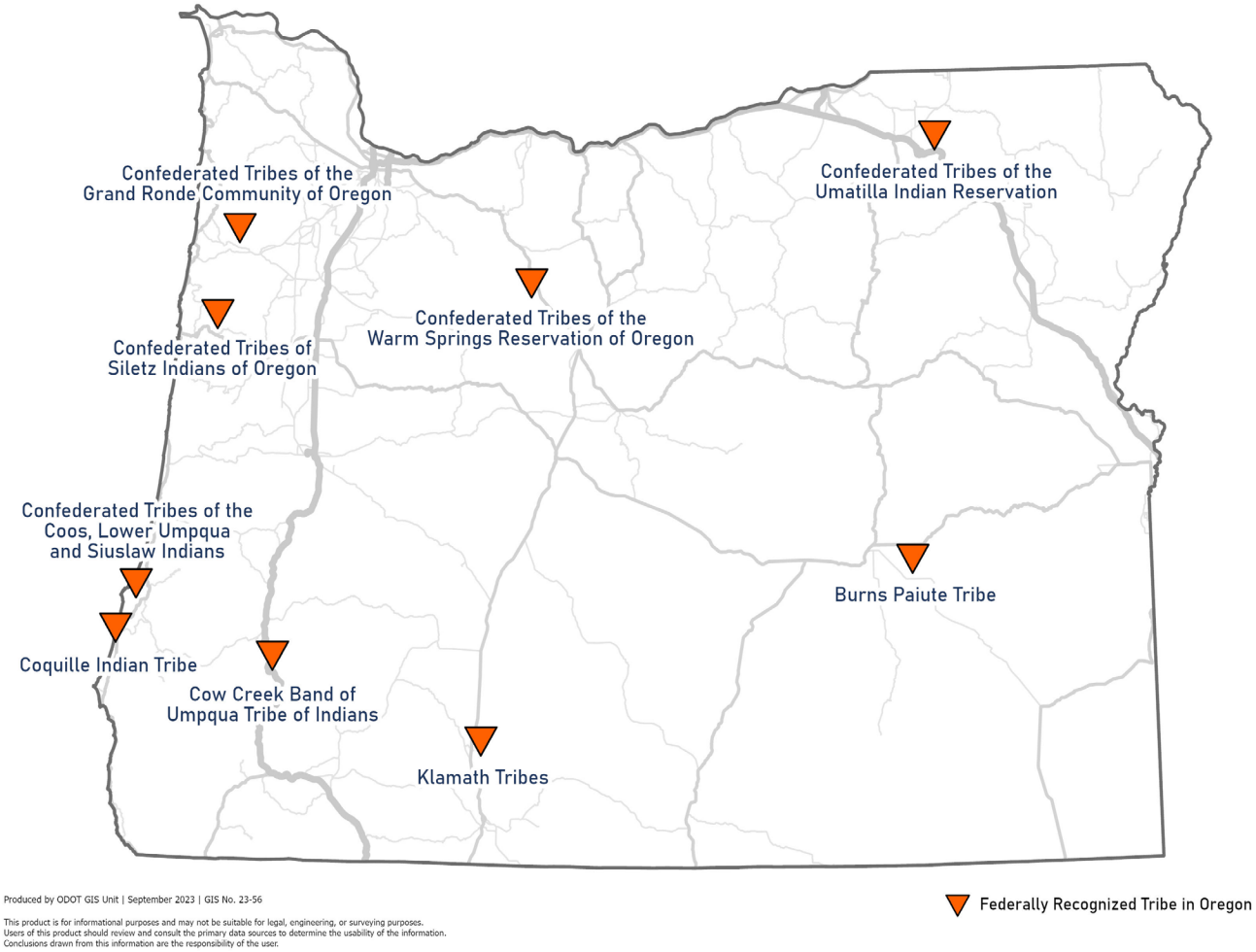
Source: Fatality Analysis Reporting System (FARS)

Problem Identification – Tribal Community

A review of the 2020 Oregon Census states that 1.9 percent of Oregon's population is American Indian.

The 2020 Oregon Traffic Crash Summary does not report data for the ethnicity or race of individuals involved in traffic crashes. There is no way to determine the impacts of traffic-crashes to this population outside of the Fatality Analysis Reporting System data on fatal crashes. The omission of race data in the State's crash data system is an issue for Tribal members and for all races.

FIGURE 4: FEDERALLY RECOGNIZED TRIBES IN OREGON



Source: State of Oregon Department of Human Services, Tribal Affairs

A review of the last four-year average from the Fatality Analysis Reporting System indicates that American Indians accounted for 1.9 percent of the overall traffic fatality count.

Tribal representatives were invited to the HSP 2024 engagement sessions that represented two of the largest American Indian populations in Oregon[5]: Klamath Tribal Health & Family Services, and the Confederated Tribes of Grand Ronde (location site for the conference). Klamath Falls was in attendance.

5 Federally recognized tribes in Oregon *Source: State of Oregon Department of Human Services, Tribal Affairs*

Event and Information Gathered

For FY2024, the primary Public Participation and Engagement (PP&E) effort was conducted during the Transportation Safety Office's (TSO) annual Safety Conference March 14-15, 2023, in Grand Ronde at a Tribal facility. This conference is usually conducted in October of each year, for planning of the next year's HSP; however, under the new Bipartisan Infrastructure Law (BIL) and the subsequent NHTSA rules that came out Feb 7, 2023, the requirement for conducting formal PP&E efforts for FY2024 could only be met in time by holding the conference in the spring of 2023. In order for TSO to have as much time as possible to compile and complete Oregon's 3HSP by July 1, TSO was able to quickly schedule the conference within six weeks' time. Accessibility for invitees was considered in relation to geographical as well as physical location in determining the conference site, along with availability on such short notice.

This event was in-person for the first time since 2019 due to the pandemic and limitations on social gatherings. Amy Joyce, DMV Administrator and Governor's Highway Safety Representative, welcomed more than 130 attendees that included both traditional and non-traditional safety partners: ODOT, local government agencies, non-profits, safety advocates; as well as local communications partners, Tribes, schools, US Forest Service staff, and minority group representatives among others.

Day one included workshops on impaired driving, the Safe System Approach, pedestrian safety, and the Vulnerable Road User Assessment, to name a few. On day two TSO included its annual Highway Safety Planning (HSP) work session at the conference to present the draft FFY2024 grants and projects being proposed as well as looking forward to FFY's 2025 and 2026.

Attendees were able to approach the various program tables of their choice (impaired driving, pedestrian safety, driver education, occupant protection, and the ODOT Regions, to name only a few of TSO's safety programs) to provide their input and suggestions on the proposed FFY2024 HSP as put forth by TSO's individual program managers. Attendees submitted their thoughts and input through several different access points, dependent on their preference: sticky notes; writing tablets; verbal discussion; and a new webpage specifically for submitting and collecting this information, Public Input for Highway Safety Plan, by email TransportationSafetyInput@odot.oregon.gov. The web page and email will be open throughout the year for collecting public input and feedback on TSO's planned activities (see also the 2024 Highway Safety Plan Workshop Book that was presented to attendees).

Specific invitations were extended to the ODOT Region 1 Hispanic community, ODOT Region 1 Asian community, and the federally recognized Tribes.

Triennial HSP Engagement Outcomes (details are in the topical sections, see pages 73, 74-75, 116, 131, 179, 206-207, 228-229, 270 and 276.)

Input from the audiences mentioned above, as well as nearly 100 other individuals, was gathered at the Annual Conference. Each program/topical section addresses the comments and input received for that program on their respective pages of this HSP. Some of the comments that were received from the Conference are listed as well as an explanation of what, if any, of the content for that specific topical section was influenced, changed, added, or deleted due to the comments received from the Annual Conference or alternative communication channels as described earlier.

The Region Transportation Safety Coordinators (RTSCs) consistently engage in outreach activities throughout the grant year, which often leads to implementation of grant projects. In 2023, the Impaired Driving Program Manager traveled to each of the Regions to meet with all the local disciplines involved with impaired driving to discuss the issues and potential solutions. This led to TSO issuing a Notice of Opportunity for organizations in Region 1 to apply for impaired driving grant funds.

Currently Regions 1-4 host individual Child Passenger Safety Conferences which all RTSCs attend.

In addition, the RTSCs participate in regular meetings with traffic safety partners. As an example, the Region 1 RTSC participates in the monthly Safe Kids meeting with child passenger safety partners, which led to the creation of a flyer on car seat use that was translated into the nine harbor languages: Spanish, Vietnamese, Chinese, Russian, Somali, Ukrainian, Romanian, Nepali and Chuukese. Following that, the Afghan support network contacted the Region 1 RTSC, and the flyer was translated into Dari and Pashto languages as well as the addition of a Marshallese version due to the request of another partner in Region 2.

A project on pedestrian safety with the City of Portland's Office of Civic Life in 2020 led to the translation of the pedestrian safety brochure into the nine harbor languages. Region 1 also attends the quarterly Southeast Public Safety meetings and sits on the Multnomah County Child Fatality Review Board.

RTSC's consistently participate in community events including child passenger safety events, Transportation Safety Committee Meetings, Safety Corridor Meetings and other events as invited. In 2023, Region 1 participated in a Native CARS car seat check event, a high visibility enforcement event in Canby, Oregon, NW Education District event for the visually impaired, and the Portland Police Bureau's Driver Education for ESL and LEP Community members.

As mentioned earlier, attendees of the TSO Transportation Safety Conference in March 2023 submitted their thoughts and input through several different access points, dependent on their preference: sticky notes; writing tablets; verbal discussion; and a new webpage specifically for submitting and collecting this information, Public Input for Highway Safety Plan, by email TransportationSafetyInput@odot.oregon.gov.

The conference venue was also ADA compliant and accessible to people with disabilities, and the location was convenient for both coastal and central valley residents to attend. Future conferences will be hosted in different regions of the state (cycling throughout the five ODOT Regions). Materials and presentations in languages other than English were not provided at the 2023 event (and based on attendees, was not necessary) but will be looked at for future public events hosted by the TSO based on event type, audience, etc.

The new webpage specifically created for submitting and collecting reactions on the HSP, Public Input for Highway Safety Plan, will be shared through outreach efforts such as newsletters and the main TSO webpage, as well as on-site visits and meetings with local agencies and advocates. Comments will also be accepted through the input email of TransportationSafetyInput@odot.oregon.gov. The web page and email address are 'live' year-round. Note that the state's website requirements are very stringent in relation to accessibility standards.

The languages of non-English groups qualify for the safe harbor provision by having a Limited English Proficiency (LEP) population of 1,000 people or more within the Portland service area.

Ongoing Engagement Planning

Moving forward, PP&E efforts will work toward the following goals:

- Improve cooperative efforts with partner agencies and organizations working with underserved and at-risk communities by increasing the number of applications for traffic safety project funding with at least one new partner organization.
- Use TSO Regional program staff in each of ODOT's five regions to increase community engagement in rural areas statewide. Gain at least one "TSO safety advocate" in each district each year.
- Expand community engagement efforts with high visibility enforcement mobilizations and efforts by ten percent.

- Build on existing relationships with tribal partners to expand traffic safety projects on tribal lands by participating in at least one tribal community event per year.
- Increase TSO participation with the Hispanic communities through local events and gatherings by twenty percent this year.
- Increase youth outreach and community partnerships and organizations who work with youth to engage a minimum of one new partner each year.
- Engage with more employers in the state to adopt safe driving policies and provide direct outreach to at least one new employer.

During the upcoming three years that are covered by the HSP, the Transportation Safety Office (TSO) will engage representatives and individuals from communities in Oregon that are over-represented in traffic crashes, are economically challenged, reside in areas where the transportation infrastructure is lacking or is in poor condition, are not easily identified in the current traffic records databases, or reside in areas with high volumes of traffic-related injuries and deaths.

At a minimum, the TSO will reserve ample time at its Annual Conferences in 2024, 2025, and 2026 with an engagement agenda that includes conversations regarding the goals, performance measures, countermeasure strategies, and potential projects for funding with NHTSA grant dollars. The input received will contribute to the development of the Oregon highway safety program for FFY 2025, FFY 2026, and FFY 2027.

Monthly GAC-DUII, GAC-MS, and Oregon Transportation Safety Committee (OTSC) meetings staffed by TSO will continue to include a Public Comment item on each agenda. Governor-appointed committee members are also from local communities and regularly provide input to approve or further transportation safety program activities for Oregon's SHSO. In addition, there are multiple liaisons to each committee that also provide regular updates and information regarding their community, programs, and efforts for same. The TSO runs the annual grant application by each committee for review, suggestions, and approval before submission to NHTSA. Considerations are currently being discussed with each committee to host at least one town hall or similar-type meeting during the year, inviting specific partners or communities for comment and input toward Oregon's highway safety planning efforts. These meetings are conducted both in-person and virtually to accommodate participation by all who want to attend.

The TSO's Regional Transportation Safety Coordinators (RTSCs) also meet regularly with local community organizations, advocates and safety partners on traffic safety related problems, projects, and prevention ideas going forward. Some of these communities have developed local Transportation Safety Action Plans (LSAPs) and coordinate the implementation of its action items with those same partners, gathering their own public input for sharing with others regarding implementation and other needs.

Identification of the communities that will be invited to future input sessions will be done through a detailed, step-by-step, manner that purposefully "shows our work:"

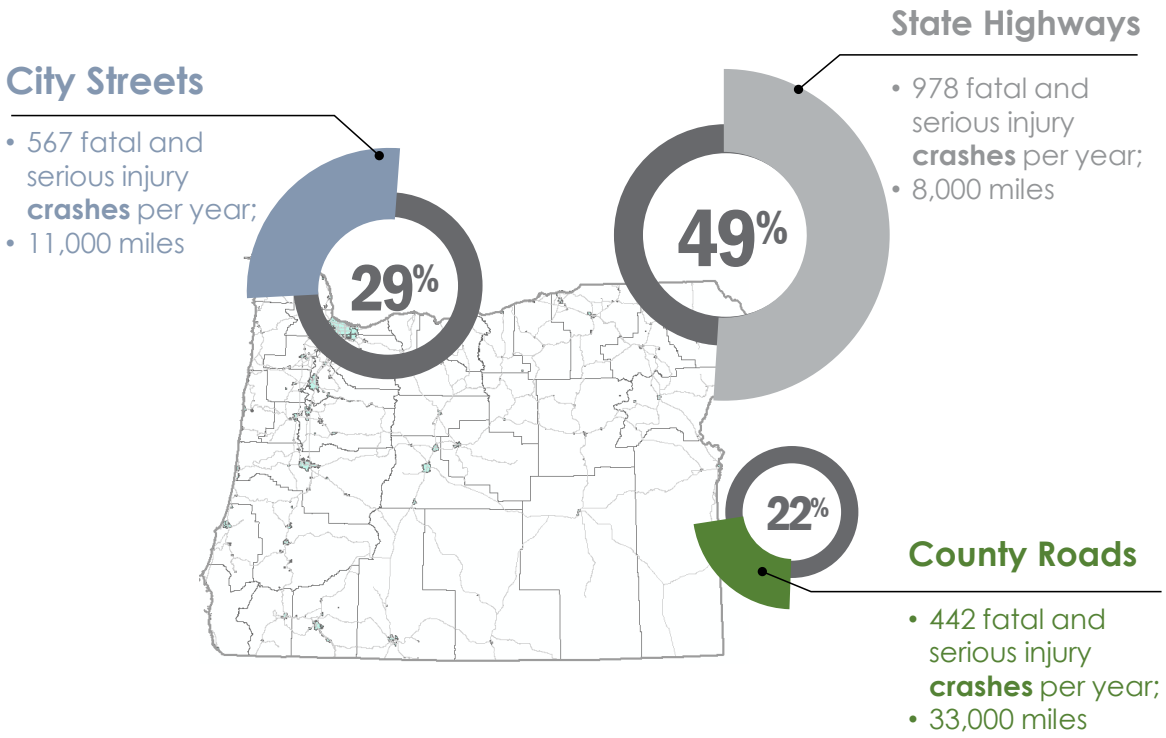
- State level review
- Geographic area or subset of the population
- Data table to narrow down the audience of interest
- Crash data (or adjudication data) to confirm the audience to be invited
- Specific reference to the source of the data and its use
- List of the organizations or general information about the specific invites

Statewide

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 1.3.1	Collaborate with state, regional, Tribal, county, and city transportation and safety agencies, and other stakeholders, to identify unsafe walking, biking, or driving behaviors that could be addressed through legislation. Identify and pursue legislation to modify these behaviors.

FIGURE 5: 2016-2020 FATAL AND SERIOUS INJURY CRASHES BY ROADWAY TYPE



Source: ODOT Statewide Crash Data System (CDS)

Problem Identification –1300.11(b)(1)(i)

Fatal and serious injury crashes in Oregon have been steadily increasing since 2014 with an average annual increase of 88 crashes per year, representing a 15 percent increase overall. Preliminary 2021 data and initial 2022 fatal crash notifications indicate that these trends continued through 2022.

In Oregon, 22 percent of fatal and serious injury crashes occur on County roads, 29 percent occur on city Streets and 49 percent on State highways.

Crashes are complex and multi-dimensional events and although a single factor may be identified as the primary crash cause, there are many interrelated factors that contribute to motor vehicle crashes.

Factors such as speeding, distracted driving, and impairment, especially poly-substance impairment where alcohol and drugs are present, continue to increase while enforcement for traffic infractions continues to remain low.

Key findings for contributing factors in Oregon's fatal and serious injury crash data:

- Nearly all contributing factors have increasing trends over the 2016-2020 average.
- A little less than half occurred on state highways (49%), holding steady with the 2016-2020 average.
- Crashes on rural roads have increased to 44 percent, up from the 41 percent 2015-2019 average and crashes on urban roads have decreased to 56 percent, down from the 2015-2019 average of 59 percent.
- Consistent with past years, in 2020 the highest percentage of crashes resulted from roadway departure at 40 percent, while 37 percent occurred at intersections.
- Seventeen percent of 2020 fatal and serious injury crashes involved unlicensed drivers.
- Crashes involving impairment accounted for 28 percent of all 2020 fatal and serious injury crashes (upward trend). Poly-substance[6] crashes represent 20 percent of all impaired crashes, up from 14 percent in 2016. Controlled substances or recreational drugs were decriminalized in Oregon in February 2021 (Ballot Measure 110), so it is anticipated that the poly-substance crash trend will only continue upward.
- Crashes involving speed accounted for 22 percent of all 2020 fatal and serious injury crashes.
- Although motorcycles make up only 3.5 percent of registered vehicles in 2020, 14 percent of fatal and serious injury crashes involved a motorcycle. The two most common aggravating factors in motorcycle crashes are speed and impairment. In 2020, 30 percent of all motorcycle fatal and serious injury crashes involved a speeding motorcyclist, while 10 percent involved the use of drugs and/or alcohol by motorcyclists.
- Crashes involving a pedestrian or bicyclist have continued to increase. Pedestrian deaths have increased from an average of 78 people killed annually between 2016-2020 to 80 people in 2020. Bicycle deaths have increased from an average of 11 in that same time period to 14 in 2020.

TABLE 4: OREGON TRAFFIC CRASH DATA AND MEASURES OF EXPOSURE 2016-2020

	2016	2017	2018	2019	2020	2016-2020 Average
Fatal Crashes	448	403	446	456	460	433
Injury Crashes	30,283	28,397	27,727	27,032	19,178	26,517
Fatalities and Serious Injuries	2,471	2,203	2,188	2,398	2,084	2,269
Fatalities	498	439	502	494	507	488
Fatalities per 100 Million VMT	1.36	1.19	1.36	1.37	1.37	1.33
Fatalities per Population (in thousands)	0.12	0.11	0.12	0.12	0.12	0.12
Injuries	44,628	41,893	41,089	39,737	27,737	39,017
Serious Injuries per Population (in thousands)	0.48	0.43	0.40	0.45	0.37	0.43
Injuries per 100 Million VMT	121.24	113.99	111.51	110.45	75.74	106.65
Injuries per Population (in thousands)	10.95	10.12	9.79	9.38	6.50	9.35
Population (in thousands)	4,076	4,141	4,195	4,236	4,268	4,183
Vehicle Miles Traveled (in millions)	36,719	36,753	36,848	35,977	32,298	35,719
No. Licensed Drivers (in thousands)	3,002	3,060	3,108	3,148	3,303	3,010
No. Registered Motorcycles and Passenger Vehicles (in thousands)	3,530	3,472	3,433	3,420	3,530	3,457

Source: ODOT Statewide Crash Data System (CDS)

6 Poly-substance is defined in ODOT crash data as an active participant (i.e., driver, ped, bicyclists) who had been using both alcohol and drugs; one active participant had been using alcohol, and another had been using drugs, or any such combination as long as both alcohol and drugs were present.

Oregon Traffic Crash Data and Measures of Exposure[7]

Oregon state is home to 4.2 million people.[8] Sixty-five percent live in urban areas, 33 percent in rural and 2 percent live in frontier areas, defined as a county with six or fewer people per square mile.[9] Fifty percent of the state's population is female where 20 percent are under the age of 18, while another 18 percent are over the age of sixty-five. Oregon's population is 74 percent white, 14 percent Latino, 4 percent Asian, 2 percent black and 19 percent are multi-racial.[10] [11] Foreign born persons represent 10 percent of Oregon's total population. Fifteen percent of Oregonians have a disability with the majority of them, 13 percent residing in the Portland Metro Area.

The majority of Oregon's ethnic and racial diversity resides in the Greater Portland Metro area in the counties of Clackamas, Multnomah and Washington, with the exception of the Hispanic population 43 percent reside in urban areas in the counties of Multnomah, Washington and Marion, at 18 percent, 18 percent and 16 percent, respectively.

Seventy-three percent of Oregon's Asian population reside in urban areas in the countries of Clackamas, Multnomah and Washington, 11 percent, 30 percent and 31 percent respectively.

Sixty-nine percent of Oregon's Black population reside in the urban areas of counties Clackamas, Multnomah and Washington, at 2 percent, 8 percent and 4 percent respectively.

7 Crash Analysis and Reporting, Oregon Department of Transportation; Center for Population Research and Census, School of Urban and Public Affairs; Seat Belt Observation Study; *2021 DMV Statistics for GAC-MC, Report

8 Oregon 2020 Census

9 Oregon Health & Sciences University. Oregon Office of Rural Health, Data Publications & Maps. Accessed 06 June 2023

10 Mapes, Jeff. How Oregon's statistics in race often get misinterpreted. August 10, 2020, *www.OPB.com*.

11 Race does not add up to 100% because one person can identify as more than one race.

FIGURE 6: COMPARISON OF FATALITIES BY RACE AND COUNTY POPULATION

WASHINGTON COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	16%	18%	19%
Black	0%	4%	0%
American Indian	3%	1%	5%
Asian	3%	14%	0%

MARION COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	21%	16%	23%
Black	1%	2%	3%
American Indian	1%	0.30%	0%
Asian	2%	3%	0%

MULTNOMAH COUNTY

Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	10%	13%	15%
Black	15%	8%	10%
American Indian	1%	1%	1%
Asian	4%	10%	4%

CLACKAMAS COUNTY

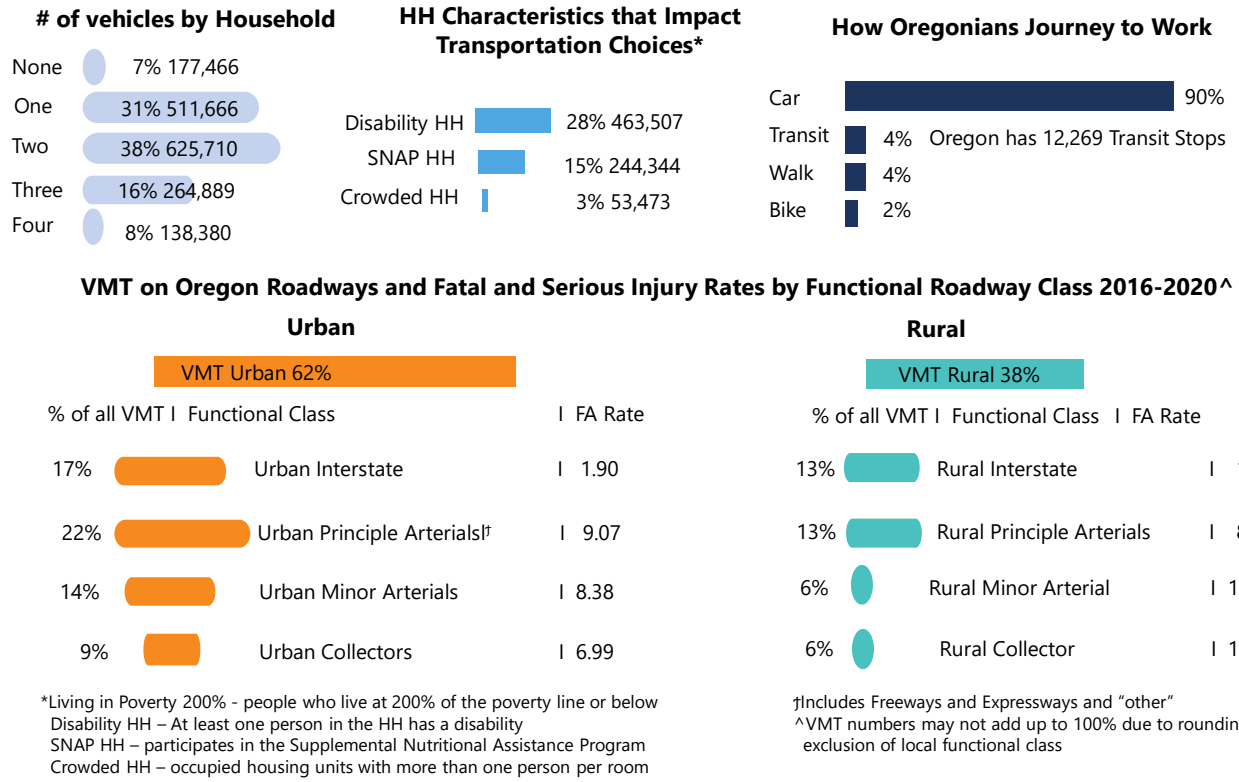
Race	5 yr. fatality average	% of pop	% 2020 fatalities
Hispanic	7%	7%	3%
Black	0%	2%	8%
American Indian	2%	1%	0%
Asian	3%	7%	0%

Source: Fatality Analysis Reporting System (FARS)

When comparing the five-year fatality average[12] of different ethnic populations, American Indians/Native Alaskans are over-represented in traffic fatalities in Clackamas, Marion and Washington Counties. Hispanics are over-represented in Marion and Washington Counties and Blacks are over-represented in traffic fatalities in Multnomah County. In comparing 2020 fatalities to population, the upward trend for American Indians/Alaskan Native is continuing in Washington County and for Hispanics in Clackamas and Marion, with Multnomah County also demonstrating an over-representation of Hispanics based on population in 2020. While Blacks were only over-represented in Multnomah County based on the five-year average, in 2020 fatalities for this demographic show over-representation in Clackamas and Marion Counties.

Population as a measure of race over-representation in traffic fatalities is not a good gauge of disparity because it does not adjust for differential exposure. Research concludes that fatality count comparisons ignore exposure altogether, and population-adjusted measures implicitly assume that activity levels per capita are the same for all race/ethnic groups. Hispanic and Black Americans have higher traffic fatality rates than White Americans across the transportation system.[13] Raifman and Choma found that fatality rates per 100 million miles traveled are systematically higher for Black and Hispanic Americans for all modes and notably higher for vulnerable modes (e.g., Black Americans died at more than 4 times the rate of White Americans while cycling, 33.71 compared with 7.53, and more than 2 times the rate while walking, 40.92 compared with 18.77. The authors noted that observed disparities remained when considering only urban areas and appear to be exacerbated during darkness.

FIGURE 7: POPULATION CHARACTERISTICS THAT IMPACT TRANSPORTATION



Source 2020 US Census American Community Survey Sample; General Transit Feed Specification, ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

12 FARS Data

13 Raifman, M.A, MPP, Choma, E.F. PhD. "*Disparities in Activity and Traffic Fatalities by Race/Ethnicity.*" June. 2022, American Journal of Preventative Medicine. Volume 63, Issue 2, p160-167, August 2022

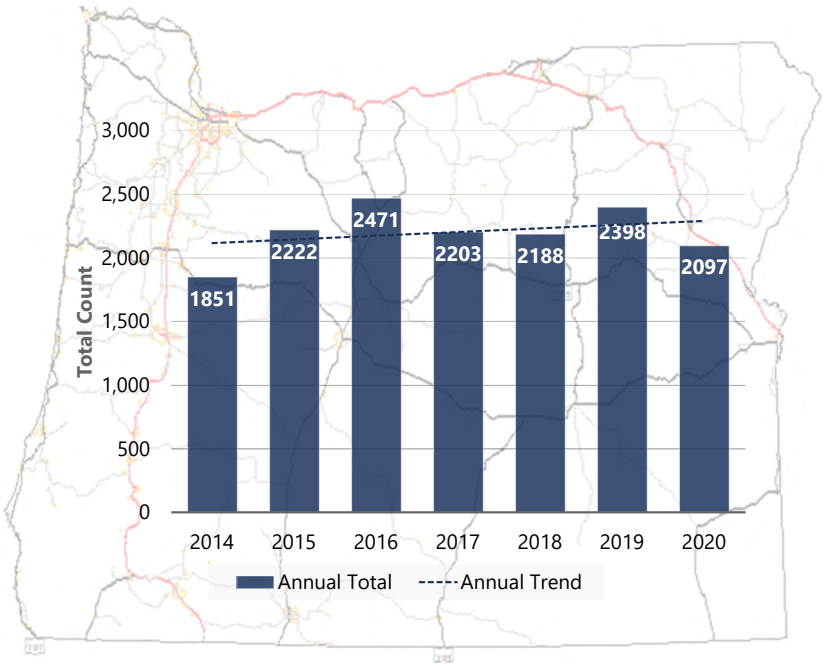
Although current data collection limitations do not allow for an accurate analysis that is based on exposure, the fact that fatalities are over-represented in racial and ethnic groups in certain counties compared to population infers that this problem is greater than demonstrated by the most current and available data.

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall. When looking at the combined numbers, 2020 showed a decrease in fatalities and serious injuries; however, fatalities have been increasing with an average annual increase of 25 per year, representing a 42 percent increase overall. While 2020 represented a brief reprieve from the upward trend, it should be viewed as an outlier, as preliminary 2021 data and initial 2022 fatal crash notifications indicate that these upward trends continued through 2022.

Traffic crashes are multi-faceted, complicated events and socio-economic factors, immigration status, age, language proficiency, race, ethnicity, as well as roadway characteristics contribute to who dies or becomes disabled due to traffic violence.

Crashes resulting in fatalities and serious injuries often involve multiple issues and aggravating factors which have strong overlap, e.g., impairment and speed, necessitating collaboration between programs and regions to implement effective countermeasures. The current political environment in Oregon continues to impact traffic safety, including the legalization of drugs, understaffing of law enforcement, the homeless situation, lack of political will to implement automated enforcement and/or sobriety checkpoints, lack of public defenders, decreasing emergency medical services workforce, and public policy that is changing driving from being a privilege to a right in the guise of equity. Further complicating the problem is lack of timely data and communication between data systems. All these issues have contributed to the upward trend of fatalities and serious injuries in Oregon making it necessary to pilot and implement new and innovative approaches to reduce traffic violence in our communities.

FIGURE 8: OREGON FATALITIES AND SERIOUS INJURIES 2014-2020



Source: ODOT Statewide Crash Data System (CDS)

From 2019 to 2020 overall fatalities and serious injuries decreased by 12 percent, while fatalities increased by 3 percent. Although Oregon saw decreases in the majority of categories, seven out of 11, this is not reflective of a downward trend but rather an anomaly, as preliminary 2021 data and 2022 initial fatal crash notifications indicate a sharp increase in Oregon's fatalities and serious injuries.

Trends

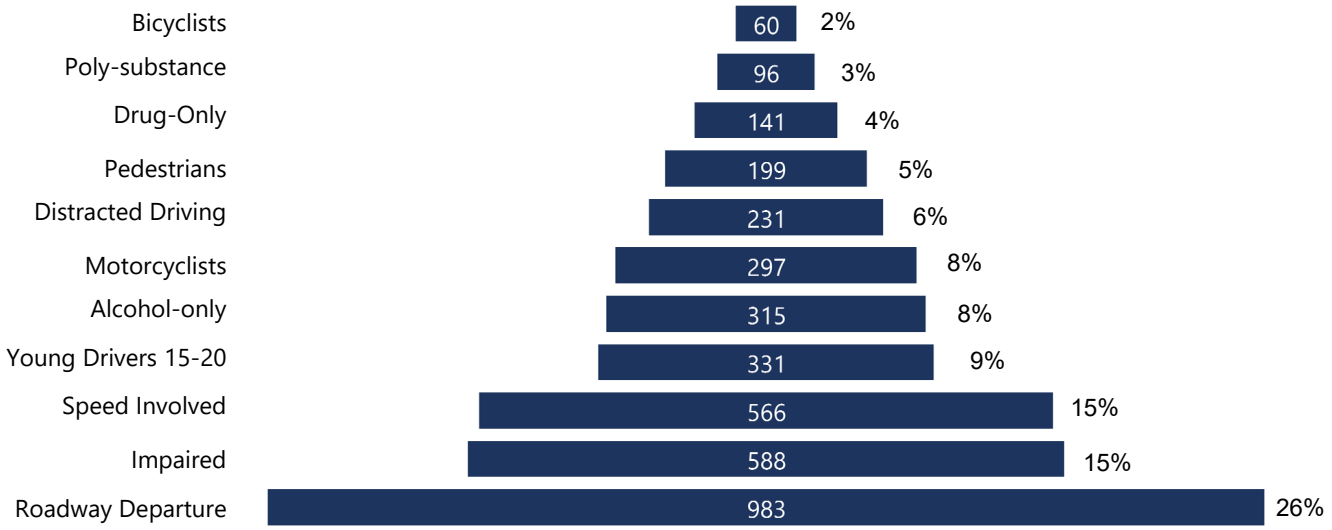
- Roadway departure remains the leading cause of fatalities and serious injuries accounting for 45 percent. Sixty-one percent (579) of the 948 fatalities and serious injuries were drivers; 47 percent of drivers were impaired (273), 31 percent were alcohol involved; 29 percent of the alcohol involved fatalities and serious injuries were at or above the legal level of impairment, 15 percent were using drugs of which 54 percent was suspected cannabis use, and 40 percent involved speed. 15 percent of roadway departure fatalities and serious injuries involved a driver using an impairing substance and speeding.
- More than one-quarter (29%) of fatalities and serious injuries involved impaired driving with one or more substances or any combination thereof.
- One-quarter of fatalities and serious injuries resulted from speeding.
- Fatalities and serious injuries caused by impaired driving increased 15 percent from 2019 to 2020 (577 to 652).
- Poly-substance and drug-only fatalities and serious injuries increased 40 percent and 21 percent respectively from the 2016 – 2020 average. Fatalities and serious injuries due to poly-substance impairment increased 16 percent from 2019 to 2020.
- Although fatalities and serious injuries among young drivers 15-20 in 2020 remained constant with the 2016-2020 average, from 2019 to 2020 fatalities and serious injuries among young drivers increased 16 percent (287 to 332).
- Drivers aged 15-20 represent 4.5 percent of total licensed drivers but represented 16 percent of fatalities and serious injuries.
- Half of all intersection fatalities occur on state highways and half of all pedestrian and bicycle fatalities occur on local roads.

TABLE 5: FATAL AND INJURY CRASH INVOLVEMENT BY AGE OF DRIVER, 2019

Age of Driver	# of Drivers in F&I Crashes	% of Total F&I Crashes	# of Licensed Drivers	% of Total Drivers	Over/Under Representation^
14 & Younger	10	0.02%	0	0.00%	0.00
15	63	0.12%	16,753	0.52%	0.24
16	651	1.26%	29,152	0.90%	1.40
17	953	1.85%	34,349	1.06%	1.74
18	1,256	2.44%	38,688	1.20%	2.04
19	1,208	2.35%	41,979	1.30%	1.81
20	1,320	2.56%	43,274	1.34%	1.92
21	1,218	2.37%	45,660	1.41%	1.68
22-24	3,530	6.85%	145,339	4.49%	1.53
25-34	10,987	21.34%	570,741	17.65%	1.21
35-44	8,757	17.01%	545,786	16.88%	1.01
45-54	7,246	14.07%	483,984	14.97%	0.94
55-64	6,366	12.36%	513,351	15.88%	0.78
65-74	4,072	7.91%	455,180	14.08%	0.56
75 & Older	2,054	3.99%	269,327	8.33%	0.48
Unknown	1,805	3.51%	31	0.00%	0.00
Total	51,496	100.00%	3,233,594	0.00%	n/a

Source: ODOT Statewide Crash Data System (CDS), U.S. Department of Transportation, Oregon Driver and Motor Vehicle Services 2020 Oregon License Issuance and Vehicle Registration

FIGURE 9: AVERAGE YEARLY STATEWIDE COLLISION CONTRIBUTING FACTORS 2016-2020



Source: ODOT Statewide Crash Data System (CDS)

The State of Oregon has 36 Sheriff Departments, 122 police departments including tribal police, and 21 college public safety departments with a total of 5,646 sworn officers. While all sworn officers can conduct traffic stops, whether or not a department has a dedicated traffic unit or officer depends on the size of the agency and its priorities. Since 2018, the number of sworn officers has decreased, down 128 in 2020, and this downward trend has continued to impact fatal and serious injury crashes.

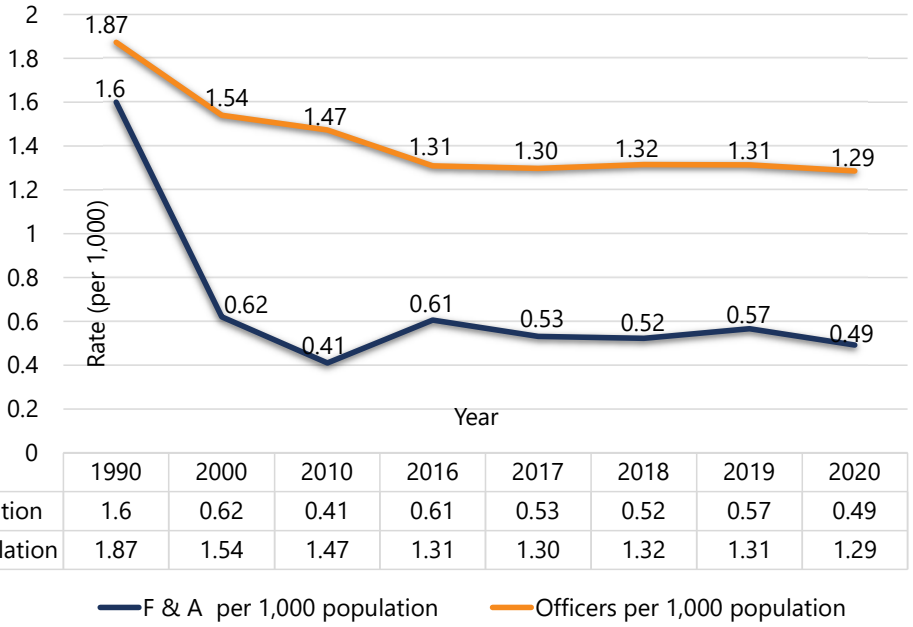
In tandem with the decreasing law enforcement officer numbers has been an overall decline in traffic stops and the number of citations issued to the motoring public as indicated by Oregon State Police (OSP) numbers. From 2019 – 2020, OSP traffic stops decreased 23 percent, while citations increased by 1 percent and warnings increased by .9 percent. Due to the lack of a single statewide data repository for these statistics it cannot be stated with certainty that stops and citations have declined; however, both OSP and the Portland Police Bureau (PPB), which account for 23 percent of all sworn officers in the state, have reported declines. Although PPB did not report a decline from 2019 to 2020, from 2016 to 2020 PPB did report a 33 percent decrease.

In 2018 Oregon started participating in the Statistical Transparency of Policing (STOP) project, which tracks data on officer-initiated enforcement stops from 154 agencies. Due to the tiered approach to implementing the program, statewide data is only available in 2021 and 2022 and the reporting years are from July to July; however, the limited data that is available confirms that stops are down 5 percent and citations are down 2 percent from 2021 to 2022[14]. In the future data from this program will allow more accurate reporting on stops and citations.

Oregon's Transportation Safety Office is also committed to comprehensive driver safety stops and citations being issued may be attributed to several factors: the current climate of the general public's view of law enforcement, the continued COVID-19 pandemic priorities, and the understaffing of law enforcement agencies throughout the state. Many agencies are struggling to recruit and train qualified officer candidates, which makes it difficult to maintain regular patrol functions, and in some cases agencies do not have the resources to increase or maintain traffic enforcement levels that include traffic teams and motor units. Preliminary data for 2021 and 2022 indicates that stops and citations will continue on a downward trend.

14 STOP data provided by the Oregon Criminal Justice Commission.

FIGURE 10: CAR CRASHES PER 1,000 POPULATION VS. LAW ENFORCEMENT PER 1,000 POPULATION



	1990	2000	2010	2016	2017	2018	2019	2020
F & A per 1,000 population	1.6	0.62	0.41	0.61	0.53	0.52	0.57	0.49
Officers per 1,000 population	1.87	1.54	1.47	1.31	1.30	1.32	1.31	1.29

Sources: ODOT Statewide Crash Data System (CDS), Fatality Analysis Reporting System (FARS), Department of Public Safety Standards and Trainings, ODOT Department of Motor Vehicles, Oregon State Police Forensic Services, ODOT Transportation Safety Office 2022 Public Opinion Survey

Oregon employs the proven countermeasure of High Visibility Enforcement (HVE) in five program areas:

Program	Effectiveness of HVE
Occupant Protection	CTW 4 Star Citation
Impaired Driving	CTW 4 Star Citation
Distracted Driving	CTW 4 Star Citation
Pedestrian	CTW 3 Star Citation
Speed	CTW 2 Star Citation

In looking at High Visibility Enforcement (HVE) awards and spend rates from 2016 – 2019, speed and occupant protection had the highest spend rates, consistently above 80 percent. DUII in any given year is usually in the lower range of percentage of HVE awards spent. In 2020, HVE expenditures dropped below 65 percent in all programs, with 34 percent of pedestrian HVE spent, and 59 percent of both DUII and Distracted Driving funds spent. Expenditure rates of HVE across the state have not yet recovered from the 2020 low and continue to remain below 60 percent (except in 2021 when speed HVE achieved 72 percent spend out). HVE spending reached an all-time low in Oregon of 50 percent due to several factors, including staffing shortages; law enforcement agencies have also shared that younger officers are less interested in working overtime shifts.

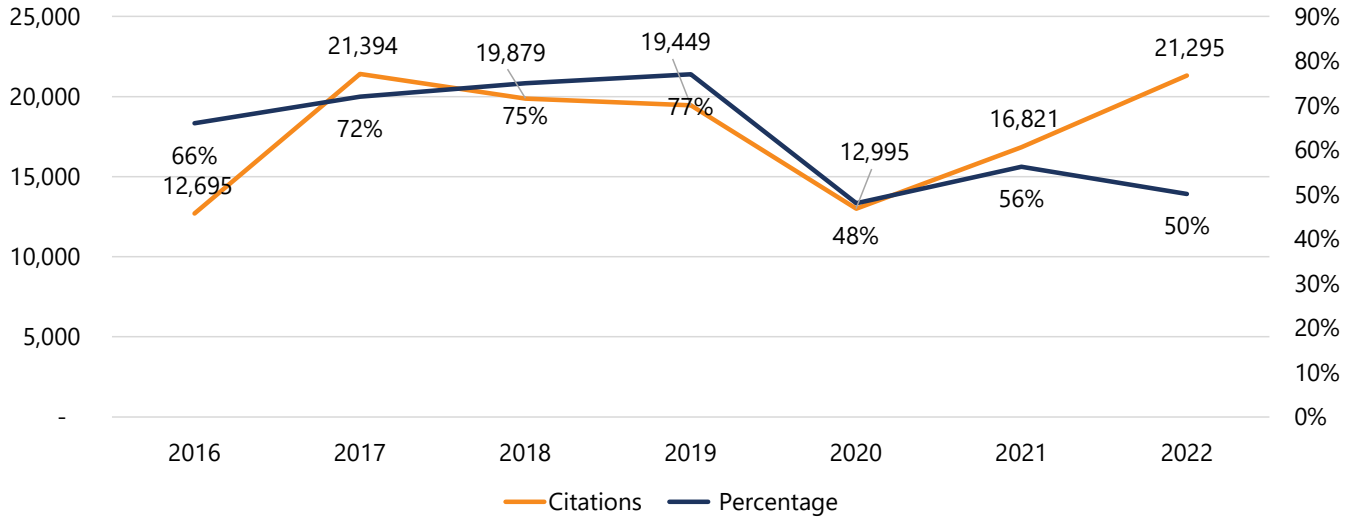
Also of note is that in all HVE programs except occupant protection, warnings exceeded citations issued. Research is mixed on whether or not citations are effective at changing behavior, where it depends on the behavior and on the person. Research found that citations for seatbelts do change behavior,[15] while citations do not really impact speeding;[16] this is evident in the effectiveness rating of

15 Rachael Stephens. "Do traffic tickets reduce motor vehicle crashes? Evidence from "Click It or Ticket"" *The Journalist's Resource*, 11 December. 2014. Do traffic tickets reduce motor vehicle crashes? Evidence from "Click It or Ticket" - The Journalist's Resource (journalistsresource.org) Accessed 18 May. 2023.

16 Lawpoolsir, S., Li, J., Braver, E.R. "*Do Speeding Tickets Reduce the Likelihood of Receiving Subsequent Speeding Tickets?,"* March. 2011, Traffic Injury Prevention. Do Speeding Tickets Deter Drivers From Speeding? - National Motorists Association, Accessed 18 May. 2023.

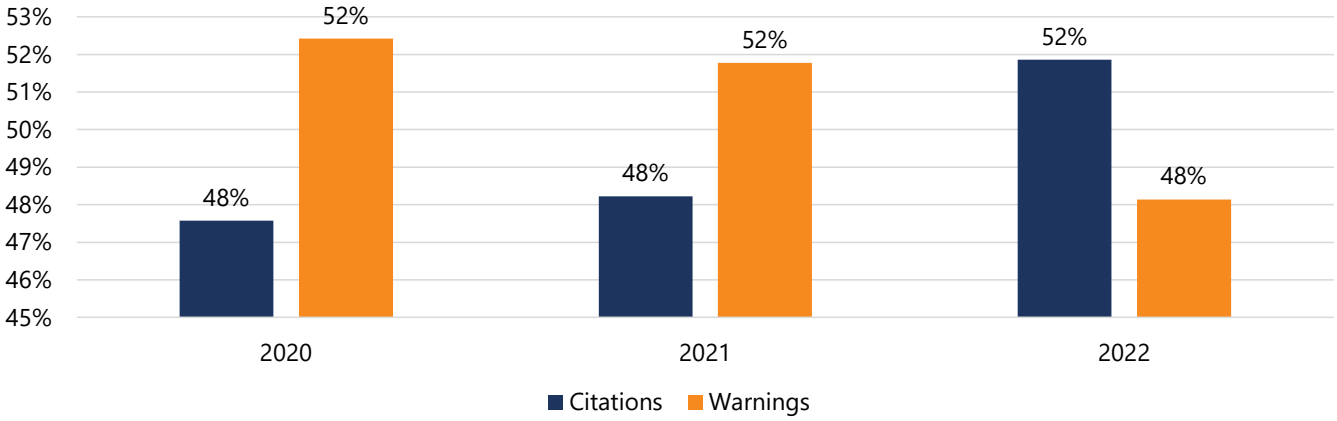
HVE depending on the behavior, in CTW. What we do know is that HVE has an immediate effect of stopping the behavior, as you cannot be speeding if you are pulled over by a law enforcement officer on the side of the road. How long the behavior change lasts is yet unknown; however, HVE is an important tool in traffic safety for its education and outreach component. Although limited research exists on the effectiveness of diversion classes for traffic offenders, in CTW diversion for seatbelt violations is identified as the most effective, where it rates diversion for speeding and DUII lower on the scale of effectiveness. Diversion courses which allow for an officer to exercise discretion based on the interaction with the motorist have not been adequately researched to determine effectiveness; however, they are an important tool in traffic safety.

FIGURE 11: PERCENTAGE OF HIGH VISIBILITY ENFORCEMENT GRANT MONEY SPENT VS. CITATIONS



Source: Oregon Department of Transportation, Transportation Safety Office Grant Files, 2016-2022

FIGURE 12: HIGH VISIBILITY ENFORCEMENT CITATIONS VS. WARNINGS



Source: Oregon Department of Transportation, Transportation Safety Office Grant Files, 2016-2022

Deaths and serious injuries on Oregon highways are the most significant public health crisis that Oregon faces and require a multidisciplinary approach with law enforcement, prosecutors and judicial services, health educators and programs, traffic engineering, municipalities, government traffic safety counterparts, treatment, and other government and advocacy agencies to reduce the impact on the state. Traffic laws are dynamic and constantly changing because they are subject to external factors

such as the environment, technology, legislation, public opinion and case law.

The Transportation Safety Office, in addition to their participation in public meetings and workshops and facilitation of Governor Advisory Committees, works continually to be a resource for traffic safety partners by providing education and outreach materials, data and analysis, grant funds for projects and conferences where partners can receive the latest data, learn about laws (and any changes), new safety infrastructure, best practices, and networking to form new partnerships and work across multiple disciplines to improve roadway safety.

NHTSA asserts that it is important that all stakeholders in the criminal justice system are aware of the efforts being made to reduce traffic fatalities and to that end, peer-to-peer training, education, and outreach have been found to be most effective in promoting proven and promising practices.[17] Because the majority of traffic cases are heard in municipal courts (70% and 80%) and judges are not required to have any specific traffic training, it is important for TSO to engage with judges who are key in enforcing traffic laws in helping to prevent recidivism through appropriate consequences.

In Countermeasures That Work, NHTSA refers to training for law enforcement in the areas of motorcycle safety, older drivers, pedestrian safety, bicycle safety and DUII interdiction.

From 2016 – 2020 the Oregon Legislature passed an average of 34 bills annually that impacted transportation in Oregon, some of which impacted transportation safety; however, just as important were the case law changes. In order to successfully prosecute DUIIs, reckless driving and traffic felonies, the law enforcement procedure must be flawless. The Oregon Appellate Court and the Oregon Supreme Court are very active in issuing opinions that significantly impact DUII law in Oregon. As a result of this, there is a vital need for providing judges, prosecutors and law enforcement with continuous legal updates and training to comply with court opinions. This has been especially necessary in the last five to seven years due to several opinions that have impacted DUII procedures and necessitated a statutory rewrite of Oregon DUII law.

Because changes in DUII law come often and significantly impact procedure and courtroom arguments, it is imperative that law enforcement be kept up to date on these changes. In addition, new drugs are constantly coming on the market in different forms, changing investigative techniques, and poly-substance crashes in Oregon have been on the rise. Helping law enforcement stay informed and up to date is a key factor in traffic safety and in reducing fatal and serious injury crashes. Listening to law enforcement about what they are dealing with on the ground helps TSO develop projects and change policy to further traffic safety, such as allowing grant funds to pay for HVE straight-time as well as overtime shifts.

In addition, training on LIDAR, Advanced Roadside Impaired Driving Enforcement Training (ARIDE), and recruiting and training new drug recognition experts (DRE) is important for new officers and for officers looking to gain specialized skills.

Because traffic crashes are complex, multi-faceted events, bringing together the diverse groups who can impact traffic safety remains important to create new networks and partnerships, learn about cross-cutting issues, and allow TSO partners and potential partners to share their traffic safety concerns and observations while also learning about resources available to them. These interactions are key to working with local communities, meeting their specific traffic needs and addressing them innovatively through education and outreach that take into account specific needs of the diverse communities that TSO serves.

17 Axel, N. E., Knisely, M. J., McMillen, P., Weiser, L. A., Kinnard, K., Love, T., & Cash, C. (2019, March). Best practices for implementing a state judicial outreach liaison program. Revised March 2019. (Report No. DOT HS 812 676). Washington, DC: National Highway Traffic Safety Administration.

The ODOT Regions

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1 Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.

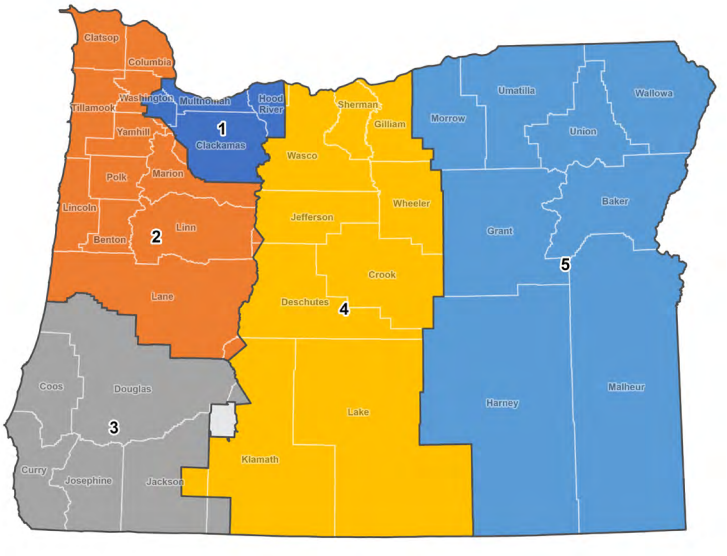
Oregon is split into eight geographical regions: the Coastal Region, Willamette Valley, Rogue Valley, Cascade Range, and Klamath Mountains; the Columbia Plateau, the High Desert, and the Blue Mountains. Each region has different geographical elements and climates that need to be taken into account in providing traffic infrastructure.

The Oregon Department of Transportation divides its operations into five geographical regions[18]. Each region is responsible for developing and managing transportation construction projects and maintaining state, federal, and interstate highways and other transportation infrastructure within its boundaries.

Not only do the five ODOT Regions differ in physical environment, but they also differ in demographics, population, economy, education, politics and culture. While the Transportation Safety Office is based in the state capitol to better serve Oregon's diverse population, each Region has a TSO Region Transportation Safety Coordinator (RTSC). RTSCs evaluate crash data within their regions to implement the statewide programs and identify projects based on the diverse needs of the local communities they serve to reduce fatal and serious injury crashes.

Region 1	**Portland Metro Region**
Region 2	**Willamette Valley, North and Mid-Coast**
Region 3	**South Oregon and South Coast**
Region 4	**Central Oregon**
Region 5	**Eastern Oregon**

FIGURE 13: OREGON ODOT REGIONS



Region 1 contains the majority of Oregon's population and racial and ethnic diversity, a robust transit system, a large homeless population, an active bike lobby, and nine harbor languages[19]; lack of transportation infrastructure on the East side of Portland, and multi-municipalities that provide transportation infrastructure call for innovative approaches that engage partners.

Region 2 is ODOT's Northwest Region that provides transportation facilities and services for nearly one-third of Oregon's population. It is home to nearly 200 miles of U.S. 101 – the Oregon Coast Highway which is a destination, a historic and cultural resource, and a challenge to maintain with landslides, hurricane force winds, and more than 90 inches of rain per year.

18 ODOT Region boundaries are determined by maintenance operations and highway sections as reflected in the map above. RTSC boundaries for program purposes are defined by county.

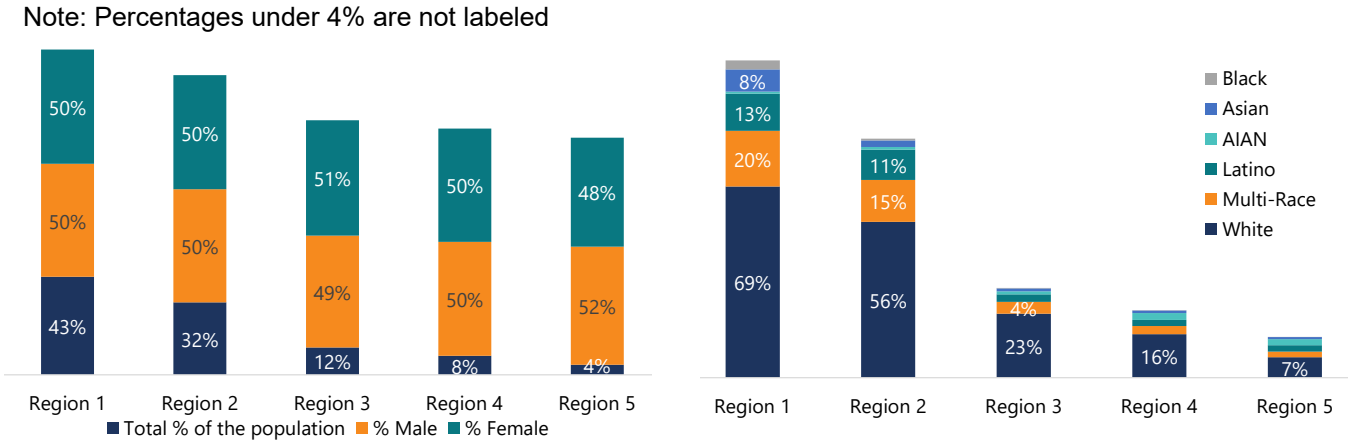
19 The languages of non-English groups qualify for the safe harbor provision by having an LEP population of 1,000 people or more within the Portland service area. (Limited English Proficiency).

Region 3 manages the longest section of Interstate 5 in Oregon which includes the highest mountain pass along the West Coast Interstate Highway from Mexico to Canada. The geographic diversity in the region is extraordinary, including Oregon's only National Park, Crater Lake. The Coquille Tribe, the Cow Creek Band of Umpqua Tribe of Indians, and a portion of the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw are represented in the Region.

Adjacent to Region 4 is the Confederated Tribes of Warm Springs Indian Reservation. Both the Klamath Tribes and the Confederated Tribes of Warm Springs native populations live within Region 4 boundaries. While primarily rural, there are three urban clusters within Region 4 comprising a total estimated population of 353,230 in 2020, or 8.2 percent of the statewide population. Central Oregon is a recreation hub of Oregon with winter and summer tourism being a huge draw for visitors.

Region 5 includes the Confederated Tribes of the Umatilla Indian Reservation and the Burns Paiute Tribe within the eight most eastern counties, which make up approximately 39 percent of the total land area of the state with just five percent of the state's total population. Mountain passes, inclement weather, variable speed limit corridors, and speed limit increases on I-84, I-82, and several state highways are some of the more unique transportation features of Region 5.

FIGURE 14: OREGON POPULATION CHARACTERISTICS BY REGION 2016-2020



Source 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportatio

FIGURE 15: POPULATION DISTRIBUTION BY REGION AND AGE

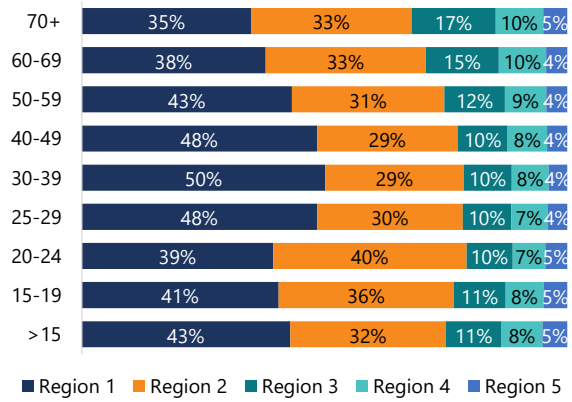
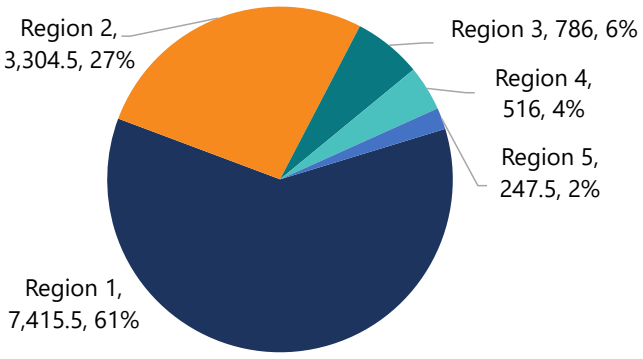


FIGURE 16: TRANSIT STOPS BY REGION



Source: 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

In all five Regions, roadway departure is the number one cause of motor vehicle fatalities and injuries followed by speed, impairment, and in Region 2 intersection crashes are another top contributor to fatalities and serious injuries. Crashes are multi-faceted complex events involving environmental factors, mechanical failure and human behavior and error. In Oregon crash data, crashes are coded based on the events that relate to the overall crash, up to three events. If more than three events contribute to the crash, only the three most significant events are coded. Therefore, in attempting to identify the magnitude of a problem, it may be identified using a characteristic of crash location such as roadway departure or intersections, by road user type such as motorcyclists and pedestrians, or involved behaviors such as impairment or distraction. The trends and characteristics that contribute to fatalities and serious injuries are further explored in problem identification.

TABLE 6: TOP THREE CRASH CAUSES BY REGION

Region	Crash Cause 1	Crash Cause 2	Crash Cause 3
Region 1	Roadway Departure	Impaired Driving	Speed
Region 2	Roadway Departure	Intersection Crashes	Impaired Driving Alcohol & Drugs
Region 3	Roadway Departure	Speed	Impaired Driving - Alcohol
Region 4	Roadway Departure	Speed	Impaired Driving - Alcohol
Region 5	Roadway Departure	Speed	Impaired Driving - Alcohol

Source: ODOT Statewide Crash Data System (CDS)

In looking at the distribution of fatal and serious injury crashes across the regions by volume, Regions 1 and 2 account for the majority of these crashes at 68 percent. Looking at the crash rate by region presents a different perspective.

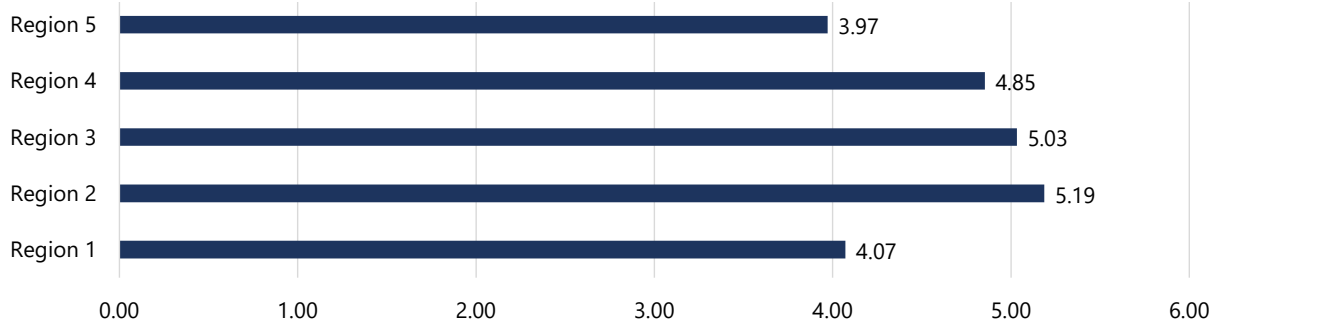
Crash fatality and serious injury *rates* refer to the number of fatalities and serious injuries that occur as a result of traffic crashes within a specific population or geographical area, in this case expressed as the number of fatalities and serious injuries per vehicle miles traveled (VMT).

Region 2 has the highest rate of 5.19 fatalities and serious injuries per 100M VMT followed by Region 3 with a crash rate of 5.03 and Region 4 with a crash rate of 4.85, indicating larger problems in Regions 3 and 4 than is evident when just measuring volume.

The crash rate indicator is important for assessing the effectiveness of implemented road safety countermeasures, evaluating the impact of polices and identifying locations where improvements in infrastructure, vehicle safety and driver behavior are needed. It provides a more accurate picture by taking into account exposure, allowing a more accurate evaluation of the magnitude and location of the problem.

Continuing to monitor these rates over time by region will help identify trends and assist local agencies in selecting and prioritizing interventions toward reducing crash-related fatalities and serious injuries.

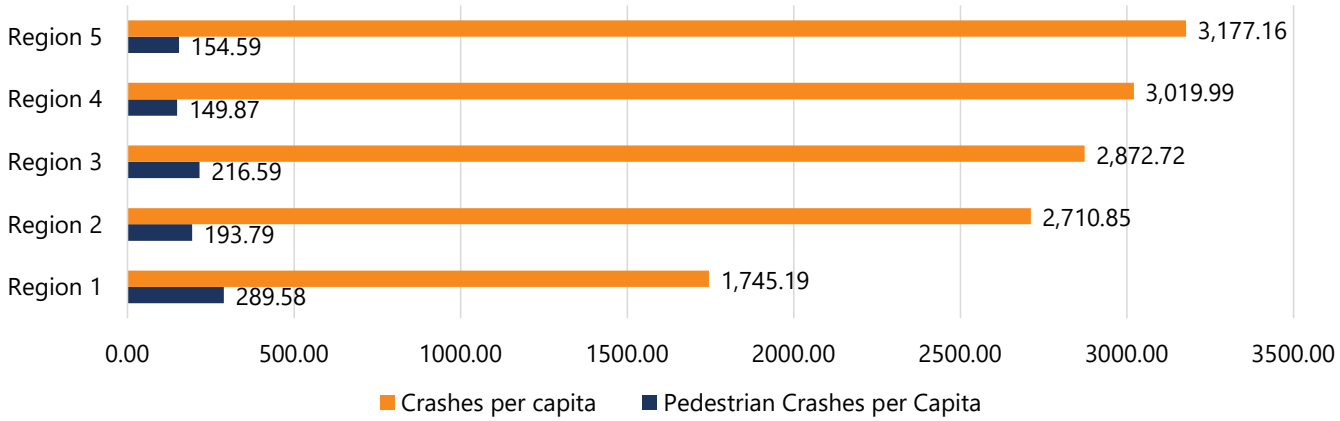
FIGURE 17: CRASH RATE PER 100M VMT BY REGION 2016 – 2020



Source: 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

Crash per capita is another way to normalize crash data and refers to the measurement of fatal and serious injury traffic crashes relative to the population size of a specific area. This measurement allows an assessment of the frequency or rate at which people are involved in fatal and serious injury crashes within a given region. While a lower per capita crash rate may indicate a safer travel environment, it is important to consider multiple factors before drawing conclusions about whether or not a problem exists. Factors such as population density, urban-design, cultural norms, transportation infrastructure for all road users, law enforcement staffing and efforts and consequences for violating the law significantly influence crash rates. These region specific characteristics can provide context in combination with crash data to determine where problems exist and the appropriate countermeasures.

FIGURE 18: FATAL AND SERIOUS CRASHES AND PEDESTRIANS CRASHES PER CAPITA BY REGION



Source: ODOT Statewide Crash Data System (CDS); Portland State University Population Research Center

In comparing the fatal and serious injury pedestrian crashes per capita by region, the rates in Region 1 and 3 stand out; however, other factors may be influencing the rate at which pedestrians are involved in crashes; Region 1 has 61 percent of the transit stops, while Region 2 has 27 percent and Region 3 has 6 percent. Factors such as access to transit services and availability of vehicles within a household can influence mode of travel chosen. For example, in Region 1 nine percent of households have no vehicle while in Region 3 six percent have no vehicle. While a lower crashes per capita rate is generally a positive indicator, it doesn't necessarily mean that there are no pedestrian safety concerns within the region.

FIGURE 19: NUMBER OF VEHICLES PER HOUSEHOLD PER REGION

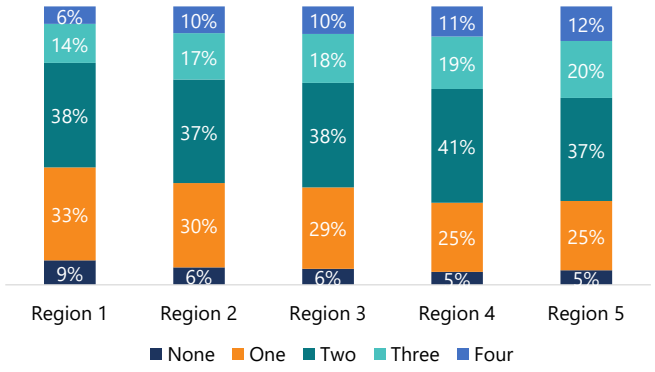
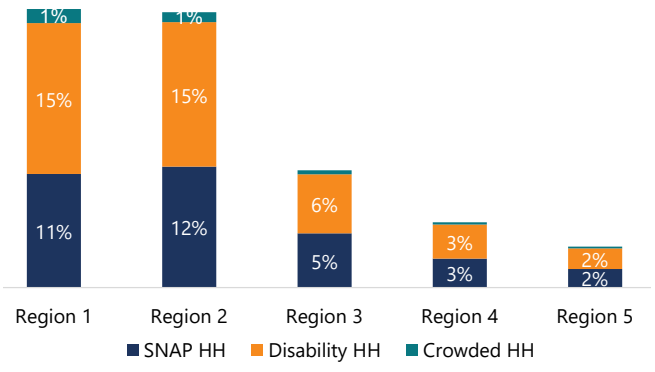


FIGURE 20: HOUSEHOLD CHARACTERISTICS THAT IMPACT TRANSPORTATION CHOICES



Source: 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

FIGURE 21: HOW OREGONIANS JOURNEY TO WORK BY REGION

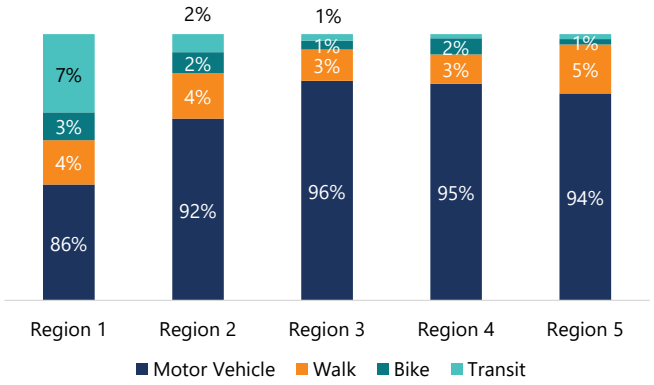
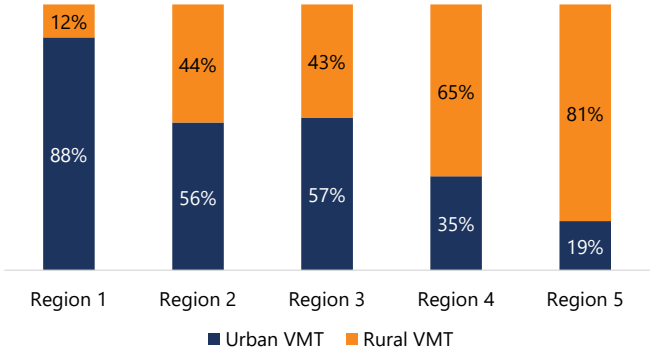


FIGURE 22: URBAN VS. RURAL VMT BY REGION



Source 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

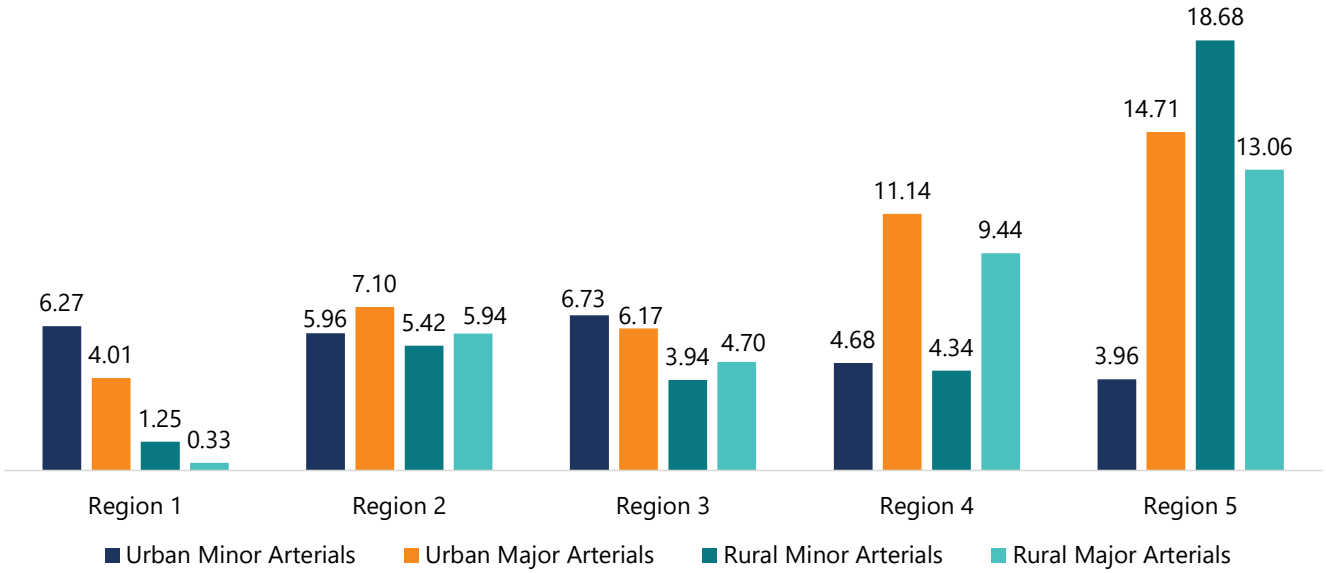
From 2019 to 2020, Regions 1,2 and 3 saw an overall decrease in combined fatalities and serious injuries, but 2021[20] data and preliminary 2022 data indicate 2020 was an anomaly due to pandemic related traffic impacts with fatalities and serious injuries continuing to trend upward. For Oregon, 2021 represented a 32-year high in traffic fatalities (599) and a 25-year high in serious injuries (2,498), a 63 percent increase over the 2016-2020 average.

The Oregon Transportation Safety Office has been historically focused on influencing outcomes through education and outreach on risky behaviors and modes that impact crash severity, speed, impairment and distracted driving, occupant protection, vulnerable road users, vehicle safety features, emergency response and the engineering of roadway design. However, socio-economic status, race, ethnicity, gender, age, English proficiency, and cultural aspects combine to impact access and exposure to transportation related risks and hazards, which influences who dies on Oregon's roadways.

Each of the RTSCs participate in a combination of community projects, including but not limited to: child passenger safety, bicycle and pedestrian safety, and community transportation safety events around the specific needs and opportunities within the communities they serve. Public requests for collaboration on projects and input on transportation related safety issues are obtained thorough participation in local traffic safety committees, area commissions on transportation, participation in local government planning teams, and grassroots efforts. Education, communication, and outreach (3 stars CTW) are the typical countermeasures enacted by the regional programs in coordination with the statewide programs administered out of TSO's Salem Office, along with local agencies as part of a targeted approach to data identified problems.

20 2021 Data was just recently finalized and therefore was not the best or most complete data for this report due to the timeline.

FIGURE 23: FATAL AND SERIOUS INJURY CRASH RATE BY FUNCTIONAL ROADWAY CLASS



Source 2020 US Census American Community Survey Sample; General Transit Feed Specification; ODOT Statewide Crash Data System (CDS); TransGIS, Oregon Department of Transportation

Region 1 Overview

ODOT's Region 1 oversees public transportation investments in Clackamas, Hood River, and Multnomah counties, and a portion of Washington County. Motorists, truckers, bus drivers, and bicyclists travel more than 18 million miles on Region 1 highways every day. Region 1 is responsible for:

- 2,130 Highway Lane Miles (70% Urban/ 30% Rural)
- 1,144 Bridges (Including 8 Willamette, and 2 Columbia River Bridges)
- 330 Traffic Signals
- 150 Ramp Meters
- 70 Flashers and,
- the Metro Area Intelligent Transportation System

FIGURE 24: REGION 1

Region 1 Problem Identification

When looking at fatalities and serious injuries combined in 2020, Region 1 saw a 20 percent decrease in fatalities and serious injuries overall; however, fatalities saw a 15 percent increase from 2019 to 2020. Fatalities and serious injuries in Region 1 saw a decrease in all categories except pedestrian which increased 10 percent (99 to 109) and impaired driving increased 8 percent (175 to 190). The eight percent increase in impaired driving was due to increases in all impaired driving types from 2019 to 2020:

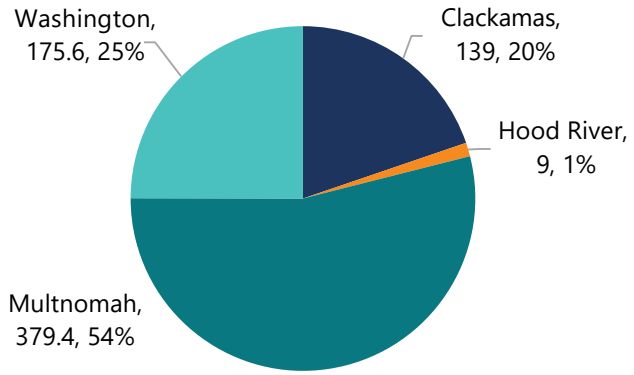
- Alcohol 13% (120 to 136)
- Drugs 20% (86 to 103)
- Poly-substance 58% (31 to 49)

Roadway departure remains the top cause of fatal and serious injury crashes in Region 1, accounting for 20 percent of all fatal and serious injuries; followed by alcohol or drug involved (one substance) and speed at 17 percent; however, all three causes have strong overlap. While fatal and serious injuries decreased in 2020, Region 1 fatalities increased 15 percent.

Although Region 1 saw decreases in the majority of categories this is not reflective of a downward trend, but rather an anomaly, as preliminary 2021 data indicates a 28 percent (210) increase in fatalities and serious injuries, with a 35 percent increase in fatalities (60) and a 51 percent increase (295) in serious injuries. Initial fatal crash notifications indicate that this upward trend continued through 2022.

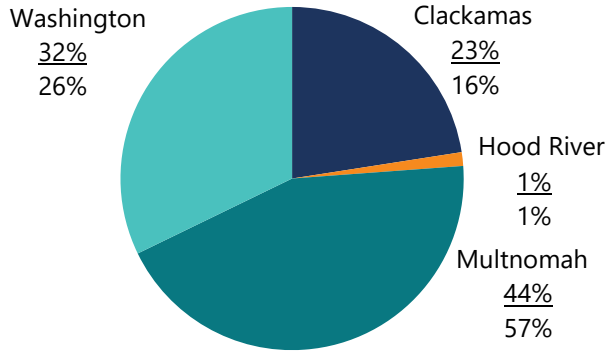
Geographically, Region 1 consists of Multnomah and Hood River Counties, most of Clackamas County and half of Washington County; however, all four counties are served by the Region 1 Transportation Safety Coordinator.

FIGURE 25: DISTRIBUTION OF FATALITIES AND SERIOUS INJURIES BY COUNTY IN REGION 1



Source: ODOT Statewide Crash Data System (CDS)

FIGURE 26: DISTRIBUTION OF POPULATION BY COUNTY, POVERTY BY COUNTY



Source: Portland State University Population Research Center, U.S. Census 2020

In looking at the counties in Region 1, each has unique characteristics and issues when it comes to traffic safety. Clackamas, Multnomah, and Washington are seeing a rise in poly-substance crashes, while Clackamas and Hood River are dealing with an increase in motorcyclist fatalities and serious injuries. Due to the City of Portland and its urban nature, Multnomah County has the majority of the pedestrian and bicycle crashes, while Washington County is also dealing with a rise in pedestrian crashes.

The tables below provides the 2016-2020 fatality and serious injury average by mode and aggravating factor, the representative percentage of all Region 1 fatalities and serious injuries by county, and the percentage increase or decrease from 2019 – 2020.

TABLE 7: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY COUNTY - REGION 1

Clackamas	2016-2020 Average	% of Region 1 Fatalities & Serious Injuries	Increase/Decrease 2019-2020
Roadway Departure	56	31%	-23%
Alcohol or Drug Involved (one substance)	48	28%	5%
Speed	34	23%	-
Peds	16	15%	-17%
Motorcyclists	18	18%	54%
Young Drivers 15-20	23	24%	-42%
Distracted Driving	11	25%	-31%
Poly-substance	10	31%	77%
Bicyclists	3	11%	100%
Hood River	**2016-2020 Average**	**% of Region 1 Fatalities & Serious Injuries**	**Increase/Decrease 2019-2020**
Roadway Departure	4	2%	-66%
Alcohol or Drug Involved (one substance)	3	2%	-75%
Speed	4	3%	-33%
Peds	0.6	1%	-
Motorcyclists	2	2%	300%
Young Drivers 15-20	1	1%	-100%
Distracted Driving	1	2%	-
Poly-substance	2	6%	-
Bicyclists	0.4	1%	-
Multnomah County	**2016-2020 Average**	**% of Region 1 Fatalities & Serious Injuries**	**Increase/Decrease 2019-2020**
Roadway Departure	77	43%	-
Alcohol or Drug Involved (one substance)	118	69%	17%
Speed	85	57%	1%
Peds	71	66%	12%

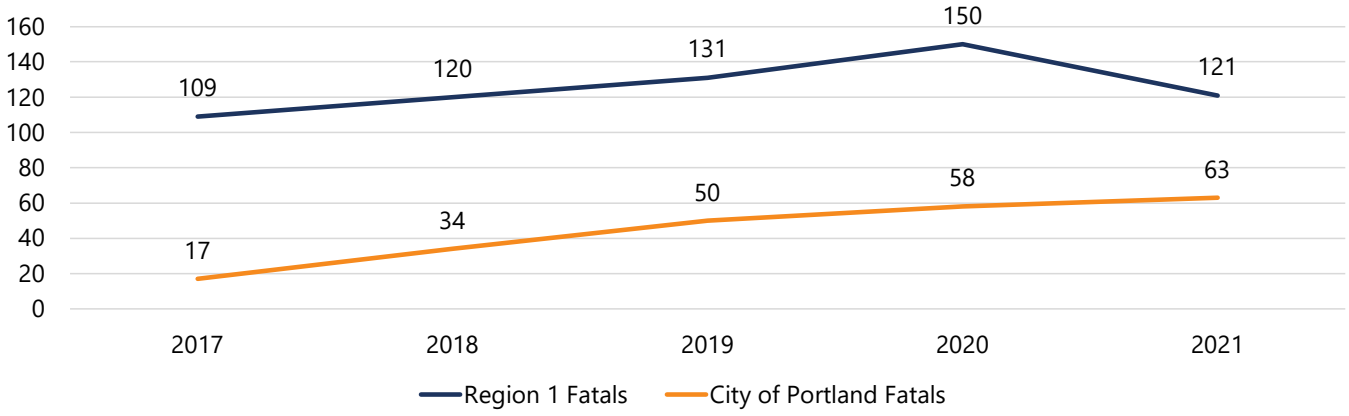
TABLE 7: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY COUNTY - REGION 1

Motorcyclists	57	58%	-51%
Young Drivers 15-20	47	48%	7%
Distracted Driving	19	43%	-19%
Poly-substance	18	56%	45%
Bicyclists	18	67%	17%
Washington	**2016-2020 Average**	**% of Region 1 Fatalities & Serious Injuries**	**Increase/Decrease 2019-2020**
Roadway Departure	42	23%	-19%
Alcohol or Drug Involved (one substance)	34	20%	-3%
Speed	25	17%	-12%
Peds	21	19%	31%
Motorcyclists	21	21%	-41%
Young Drivers 15-20	26	27%	-17%
Distracted Driving	13	30%	-21%
Poly-substance	5	16%	100%
Bicyclists	5	19%	-83%

Source: ODOT Statewide Crash Data System (CDS)

Fatalities in the City of Portland have been on the rise since 2018, accounting for 52 percent of the fatalities in 2021.

FIGURE 27: FIVE YEAR FATAL CRASH TREND - REGION 1 VS. CITY OF PORTLAND



Source: ODOT Statewide Crash Data System (CDS)

The Portland-Hillsboro-Metro area in Region 1 is home to more than 314,491 foreign born residents, at 12.7 percent, with more than 425,093 individuals ages five and up speaking languages other than English at home.[21] Although traffic safety information is available online, culturally sensitive and language accessible materials are in demand.

In 2018, more than 28 percent of immigrants, or 24,510 people living in Portland had limited English language proficiency. Among them, the top five languages spoken at home other than English were: Spanish (32 %), Vietnamese (21.3 %), Chinese (13.7 %), Russian (8.8 %), and Ukrainian and related

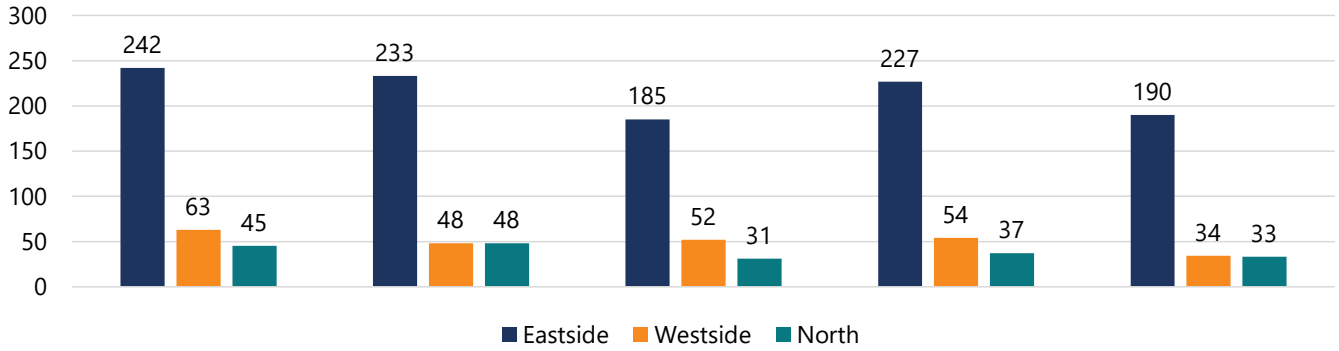
21 US Census 2020

(3.3 %).[22] For these new arrivals, many do not know or have access to formal local regulations and driving information in their languages.

Outside of English, the top five languages most prevalent among Immigrant and Refugee Community Organization (IRCO) clients were Spanish, Russian, Somali, Vietnamese, and Arabic.[23] Other languages served by IRCO in which traffic resources are not available include Togan, Dari, Karen, Nepali, Swahili, and others.

Immigrants and refugees are more likely to be employed by essential industries (e.g. health care, agriculture, food service, warehousing)— carrying out vital roles that keep Portland and the country functioning, but putting them at a higher risk of travel danger. Despite making up just 13.5 percent of the city's residents in 2018, immigrants comprised more than 21.1 percent of all Restaurant and Food Service workers and 20.1 percent of all Transportation and Warehouse workers in Portland—all of these industry sectors require high use of our roads (New Americans Research 2018).

FIGURE 28: DISTRIBUTION OF FATALITIES AND SERIOUS INJURIES IN PORTLAND 2016-2020



Source: ODOT Statewide Crash Data System (CDS)

In the Portland Metro area, fatalities from traffic crashes among African American, Black and African immigrant and refugee residents were nearly twice the rate of white residents from 2013 through 2017; a disparity that increased when compared to the previous five-year period. The Portland Bureau of Transportation (PBOT) reports that 60 percent of 2021 fatal crashes in the city, the largest city in Oregon, occurred on eight percent of the streets dubbed the "high crash network" by PBOT. The majority of these streets are located on the East side, and all but one of the thirty identified high crash intersections are on or East of 82nd Avenue. Seventy-six percent of traffic deaths in the City of Portland occurred in low-income communities and communities with the most racial and ethnic diversity.[24]

The majority of IRCO's site and client communities are based on Portland's east side near 82nd Avenue. Many Asian and Pacific Islander families live near east Portland and increasingly, like other underserved communities of color, Black/African communities are being displaced by gentrification and/or spreading further east in search of affordable housing. Latinx communities make up 10 percent of IRCO's client base, many living in or near Glisan St. in neighborhoods such as Montavilla and Hazelwood.[25]

22 New American Economy. "New Americans in Portland, OR." 2020.
23 IRCO. "Impact Report 2021." 2021.
24 Arden, Amanda. "Portland sees highest number of traffic deaths since 1990: report." February 3, 2022. *www.koin.com* https://www.koin.com/local/portland-sees-highest-number-of-traffic-deaths-since-1990-report/
25 Curry-Stevens, A., Cross-Hemmer, A., & Coalition of Communities of Color. "Communities of Color in Multnomah County: An Unsettling Profile." 2010.

At IRCO sites, traffic incidents concern the immigrant and refugee staff and clients. The culturally specific hub Africa House resides in the high crash Hazelwood neighborhood — the fourth largest Black/ African community in Portland. IRCO's Pacific Islander & Asian Family Center (PIAFC) is sited on Sandy Boulevard, a very active street once called "wreck alley" by local news for rashes of vehicle collisions plaguing NE Sandy Blvd. Immigrants, refugees, and people of color have higher risk of traffic injury and death in the area; however they often do not know where to go for resources or educational materials.[26]

The City of Portland has nine harbor languages, non-English language groups that qualify for the safe harbor provision by having a Limited English Proficiency (LEP) population of 1,000 people or more within the Portland service area. This requires all city-wide programs to provide information in those languages which are: Spanish, Vietnamese, Chinese, Russian, Somali, Ukrainian, Romanian, Nepali and Chuukese. Portland also highlights other languages spoken by many of Portland's LEP community members, which did not reach the 1,000 thresholds as Japanese, Korean, Tagalog, Laotian, Arabic and Mon-Khmer Cambodian.[27]

ODOT Region 1 partners with refugee, immigrant and English as a second- language communities: Immigrant and Refugee Community Organization (IRCO), Asian Pacific Network of Oregon (APANO), Division Midway Alliance, the Slavic Community Center, and the Afghan Support Network. These are all located in East Portland, where 70 percent of fatalities and serious injuries occur. There are 150,000[28] Eastern European immigrants (Slavic) and their families who have settled in the Portland Metropolitan Area and it is likely that number is growing due to the Russo-Ukrainian War.

In addition, since the fall of Afghanistan to the Taliban in August 2021, the U.S. has evacuated 75,000 Afghan Allies and their families and has promised to provide refuge to thousands more. Oregon is expected to resettle thousands of Afghan refugees, 1,200 of whom arrived in January 2022, of which 15 percent were settled in the Portland area with expectation of more arrivals.

Although many drove in Afghanistan, they will need education and support to obtain driver licenses and learn the rules of the road in order to become employed and more independent.

In Oregon 70 to 80 percent of traffic cases are heard in Municipal Courts; however, Multnomah County does not have a municipal court, so Multnomah County Circuit Court has the busiest traffic docket due to that deficiency. Municipal Court data by county shows from 2016 to 2022, on average per year, there were 97,344 cases with at least one traffic violation heard and 428 requests for interpretation. Although the requests for interpretation represent less than 1 percent of all cases with at least one traffic violation, 54 percent of all interpreter requests in Oregon were in Multnomah County.[29]

From 2016 – 2022, 60 percent of interpreter requests were for Spanish, nine percent were for Russian, 4 percent were for Arabic, Somali and Vietnamese respectively, and one percent were for Farsi. Portland Police Bureau (PPB), the largest law enforcement agency in Oregon with 800 sworn members and one traffic sergeant, reports that since 2013 PPB has responded to a large volume of crashes involving immigrants/ refugees/new Portlanders (IRNPs) whose first language is not English, are self-taught drivers, and are not familiar with local laws. IRNPs are not aware of what to expect on public streets, have not been properly equipped to drive, and have predispositions and ambivalence toward law enforcement, based on their cultural contexts.

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26 Ashton, David. "Careless drivers turn outer Sandy Blvd into wreck alley." 2007.

27 City of Portland. "Office of Equity and Human Rights" *portlandoregon.gov*, https://www.portlandoregon.gov/oehr/81538 Accessed 03 June 2023

28 Impact NW. "Slavic Community Services" *impactnw.org*, https://impactnw.org/programs/slavic-community-services/#:~:text=Since%20the%20end%20of%20the,in%20the%20Portland%20Metropolitan%20area. Accessed 03 June 2023

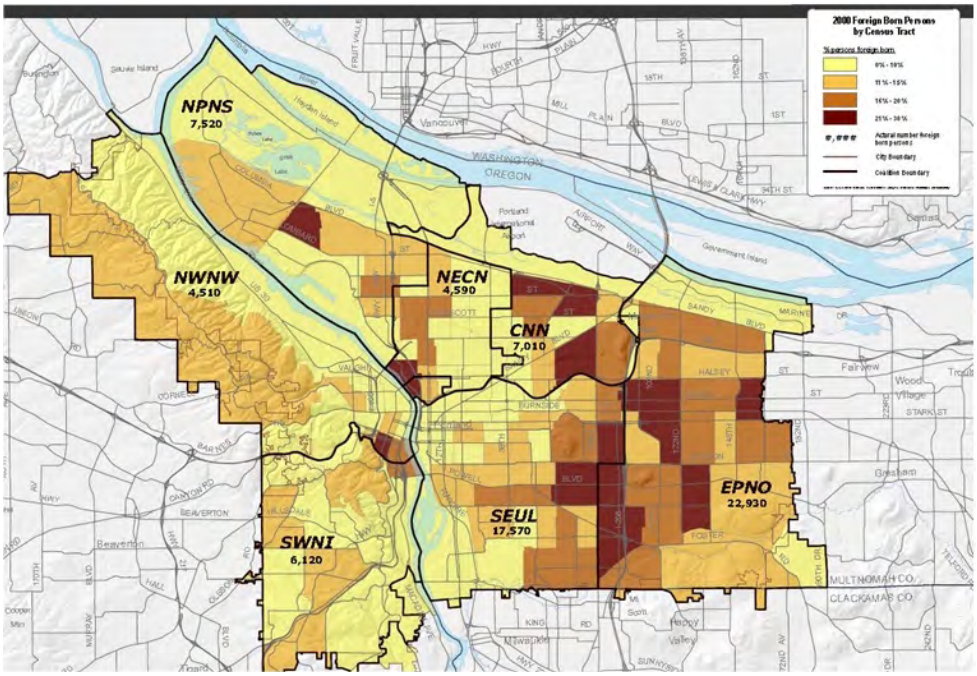
29 Oregon Judicial Department, Cases with at Least One Traffic Violation Charge and Count of Cases with an Interpreter Request by Court and Year for Cases Filed 2016 – 2022 Prepared by: Business and Fiscal Services Division - 06/02/2023

Traffic crashes involving ESL Portlanders are increasing. Additionally, it is estimated that 15 percent of hit and run suspects in Portland are IRNPs who flee the scene out of fear of what police may do and/or fear of deportation. In addition, diversion classes are often inaccessible to ESL and LEP Portlanders, because they are in English and offer few interpreter services.

Although the Oregon Driver and Motor Vehicle Services (DMV) provides the Oregon Driver's Manual online so that is can be translated through Google Translate, a 2021 study conducted by the UCLA Medical Center found that Google Translate preserved the overall meaning for 82.5 percent of translations, but the accuracy between languages spanned from 55 to 94 percent. 55 to 94 percent, due to complexity of the the language and it struggles with complex or specialized vocabulary. However, accuracy depends on how widely spoken a language is, Spanish translations have around 90 percent accuracy. Region 1 partners who are native Ukrainian and Russian speakers have expressed less than satisfactory results from Google Translate. In addition, it has been noted that even when a translator is provided for the DMV driver's test there is not a high success rate, particularly among the Afghan community. Partnerships that provide driver education, traffic law and safety information, and culturally sensitive public service announcements in native languages by native speakers or interpreters are highly valued. In addition, these classes can be designed around cultural sensitivities such as separating men and women for better learning outcomes. The Portland Police Bureau's ESL/LEP Driver Education Course has a long waiting list, and the Driver Permit Class designed and offered by the Afghan Support Network is also not meeting demand.

Driving is the most dangerous thing Americans do every day. For immigrants who are fleeing war zones or places where cars are not common, where women aren't allowed to drive, and traffic infrastructure is underdeveloped, providing driver education and traffic safety classes is imperative to their transition and safety.

FIGURE 29: 2000 FOREIGN BORN CITIZENS BY CENSUS TRACT - PORTLAND



Source: U.S. Census Bureau 2000

The above map[30] shows the percent and total population of foreign-born people in Portland for 2000 by

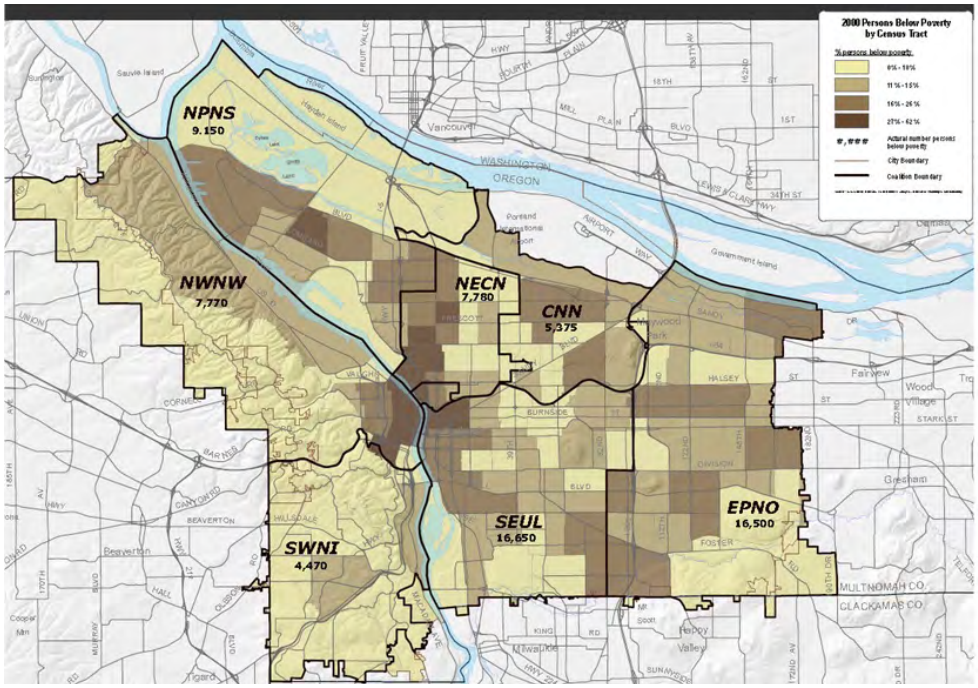
30 City of Portland "Portland Plan – Foreign Born Population by District Coalition" *www.portlandoregon.gov*, Foreign Born Population by District Coalition (portlandonline.com) Accessed 04 June 2023

census tract. All but one census tract with more than 20 percent foreign born concentrations are on the East side. East Portland has both the greatest concentration and the largest population of foreign-born people.

In addition to its ESL/LEP population, Region 1 accounts for 43 percent of Oregon's population of which 10 percent live in poverty, 23 percent live at 200 percent of the poverty line or below, and 11 percent of households in Region 1 are enrolled in the Supplemental Nutritional Assistance Program (SNAP). In the four counties that Region 1 encompasses, Clackamas County has a poverty rate of 8.5 percent, Washington 9.6 percent, Hood River 10 percent and Multnomah County with a poverty rate of 15.1 percent.[31] Region 1 accounts for 10 percent of Oregonians that live in poverty. Thirty-eight percent of the people living in poverty in Region 1 live in the City of Portland and 81 percent of Portlanders who live in poverty live on the East side. As mentioned earlier more than 70 percent of the fatalities and serious injuries that occur in Portland, occur on the East side which is not only where the majority of foreign-born Portlanders live, but also where poverty is the most prevalent.

People who live in poverty often do not have access to Driver Ed, cannot afford car seats and because survival takes up the majority of their time they do not have the bandwidth to attend a traffic safety classes even though they bear the brunt of fatal and serious injury crashes. In order to better engage this group there must be some incentive to participate in traffic safety education and outreach must be more innovative.

FIGURE 30: 2000 POVERTY BY CENSUS TRACT – PORTLAND



Source: U.S. Census Bureau 2000

The above map shows the percent of people below poverty in each census tract, as well as the actual number of people in poverty in each area of Portland. Southeast and outer East Portland have the majority of people living in poverty, more than 16,000 for each according to the 2000 census.

31 Mechling, Audrey. "A Portrait of Poverty in Oregon." August 7, 2020, Oregon Center for Public Policy, https://www.ocpp.org/ https://www.ocpp.org/2020/08/07/poverty-oregon/

Access to Driver Education for Low-income Teens and ESL/LEP Adults

The four counties that Region 1 serves (Clackamas, Hood River, Multnomah and Washington) have 219,469 licensed drivers according to Oregon DMV's 2019 Issuance by County report. In looking at driver participants in all crashes, drivers ages 14-21 are not over-represented; however, they are over-represented in crashes with fatal and serious injury outcomes. These over-representations are more pronounced in the county of Hood River which is 98.6 percent rural, has the second largest population in the region living in poverty, and only has one Driver Education provider. Multnomah County has the largest percentage of population living in poverty at 15.1 percent; however, it also provides better access to driver training with seven Driver Education providers. In Region 1 from 2016-2020 an average of only 11 percent of licensed drivers ages 14-21 completed Driver Education.

TABLE 8: CRASHES BY LICENSED DRIVERS AGES 14-21

County	% of all drivers	% of all participants	% of participants in fatal & serious injury outcomes	Fatal & serious injury rate per # of licensed drivers
Clackamas	9%	8%	10%	1.76
Hood River	10%	6%	10%	1.59
Multnomah	6%	5%	8%	2.71
Washington	9%	7%	8%	1.51
Total	**7%**	**6%**	**9%**	**1.98**

Source: ODOT Statewide Crash Data System (CDS)

Oregon's Driver Education program is nationally recognized and in 2018 showed that teens (ages 16-20) without driver education were responsible for 91 percent of all teen driver crashes[32] [33] in Oregon; the 2018-2022 five-year average decreased to 85 percent of all teen crashes were caused by teens who had not participated in Driver Education. The data also reveals that from 2018-2022 teens ages 16-20 without Driver Education had on average 87 percent of all the traffic convictions in that age group.[34]

Multnomah County has the highest per capita licensed driver fatal and serious injury rates, for ages 14-21; however, this is probably due to a multitude of factors. Research states that teens from wealthy homes are 51 percent more likely to have a license than low-income teens. The survey found that while teens from high-income families are still driving at about the same rate as teens in 1999, licensure for low-income teens has plummeted far below average. One in three parents making less than $50,000 per year said their teen didn't drive because their family couldn't afford their driving-related expenses. These costs affect one in five families in the middle income bracket.[35]

From 2016-2020, 56 percent of teen driver fatalities and serious injuries in Multnomah County occurred in East Portland, 13 percent occurred in West Portland and 6 percent happened in North Portland. Also of note Gresham, a city in Multnomah County with a 19.1 percent poverty rate, accounted for 15 percent of teen driver fatalities and serious injuries in Multnomah County.

32 ODOT DMV Study 2018

33 The study that found teens without driver ed were responsible for 91 percent of all teen driver crashes was based on ages 15-20; however, licensure data was only available by the age14-21 grouping.

34 OBOT Driver Ed Program

35 The Zebra "Study: The cost of teen driving hits low-income families hardest." Accessed 04 June 2023

In the article, "Driver's Ed is Becoming Harder for Poor Kids to Afford[36]," the author notes that as states have stopped funding Driver Education, participation has declined and that it is lower income teens and teens of color who are most affected. A 2013 study found little evidence that Graduated Driver Licensing Programs (GDL) contribute to the delay in teens obtaining their licenses, and further indicates that the common barriers to driver education are accessibility and cost. "In other words, this new way of administering driver's education makes things harder for teens in poor areas." The article goes on to state that driver education scholarships are largely an unrecognized and unmet need in most communities. Oregon offers free Driver Education to teens in foster care and also pays a $210 subsidy per student (those who successfully complete), and an additional subsidy of $75 per pupil when the provider offers scholarships to low-income students. However, driver education in Oregon can still cost families between $475 - $685, a cost that is out of reach for many families living below the poverty line. In addition, providers may not be easily accessible, and the programs are rigorous about attendance which may be more problematic for low income families due to parent work schedules, families that only have one vehicle, and lack of access to public transportation.

Pedestrian

From 2016-2020, 54 percent of all Oregon pedestrian fatalities and serious injuries (F&A) occurred in Region 1; of that 54 percent, 52 percent occurred in the City of Portland, and 73 percent occurred on the East side.

Pedestrian fatalities and serious injuries have been on the rise in Region 1 since 2018. In 2019 pedestrian fatalities and serious injuries increased four percent, while from 2019 to 2020 there was a 10 percent increase. Almost twice as many pedestrian fatalities and serious injuries occur in Region 1 compared to Region 2, with 109 and 58 respectively. In addition, the majority of pedestrian deaths and serious injuries occur in Multnomah County within the City of Portland.

TABLE 9: DISTRIBUTION OF PEDESTRIAN FATALITIES AND SERIOUS INJURIES BY COUNTY

County	2016	2017	2018	2019	2020
Clackamas	19	11	18	17	14
Hood River	2	0	1	0	0
Multnomah	83	78	52	66	74
Washington	24	18	24	16	21

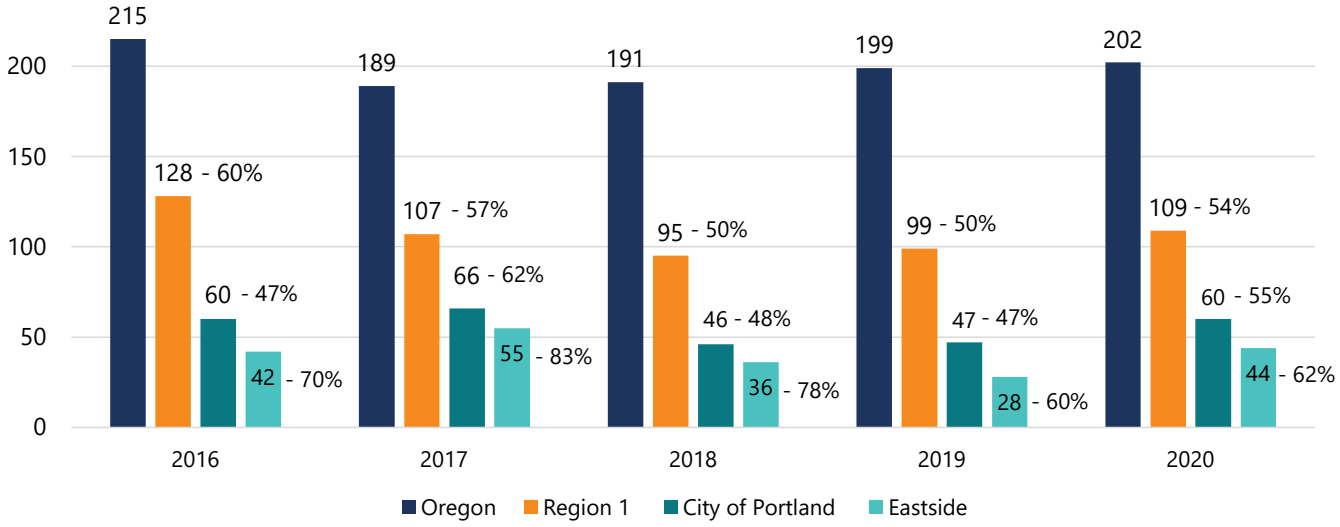
Source: ODOT Statewide Crash Data System (CDS)

From 2016-2020 Oregon experienced 391 pedestrian fatalities[37], of which 27 percent were people of color, as opposed to 73 percent Caucasian. Of the 104 pedestrian fatalities that were people of color, 59 percent occurred in Region 1. While the majority of diverse and ethnic populations are in Region 1, of the 189 pedestrian fatalities that occurred in Region 1 from 2016-2020, 32 percent were people of color; this is not an over-representation when compared to Region 1 population, but does not normalize for exposure. In addition, 56 percent of people of color pedestrian deaths happened in Multnomah County, of which 76 percent took place in the City of Portland.

36 Valeii, Kathi. "Driver's Ed is Becoming Harder for Poor Kids to Afford" *Pacific Standard Magazine*, 16 January 2018, Driver's Ed Is Becoming Harder for Poor Kids to Afford - Pacific Standard (psmag.com) Accessed 04 June 2023

37 FARS Data

FIGURE 31: COMPARISON OF THE DISTRIBUTION OF PEDESTRIAN FATALITIES AND SERIOUS INJURIES, OREGON, REGION 1 AND BY REGION 1 COUNTY



Source: ODOT Statewide Crash Data System (CDS)

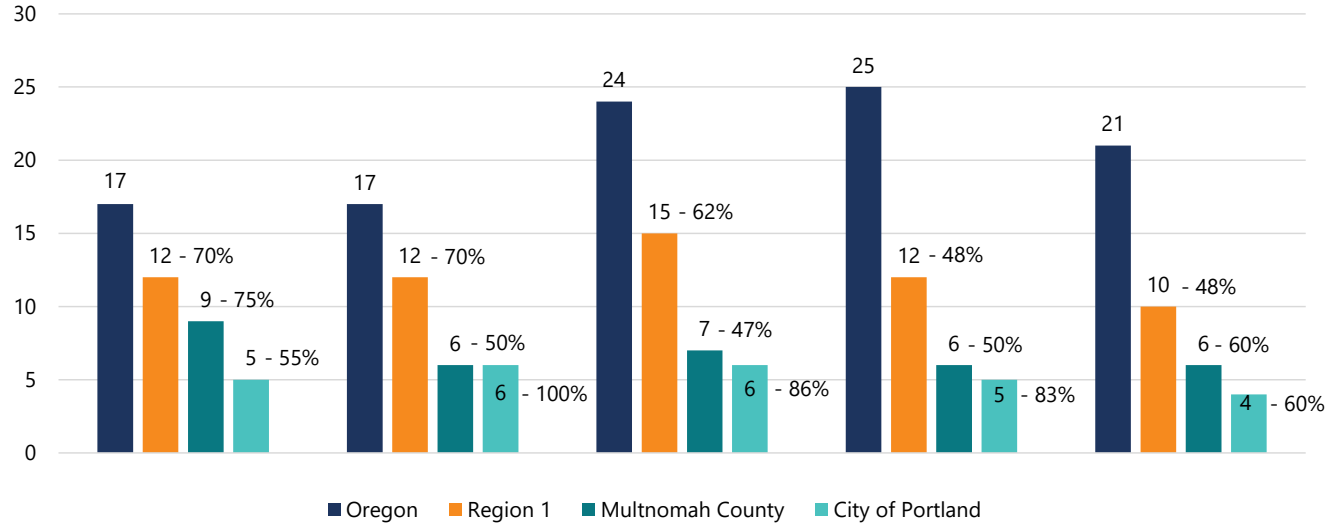
Due to data limitations, it is difficult to determine the depth and breadth of race over-representation in pedestrian fatalities. The ability to analyze serious injuries through a race lens could provide a more comprehensive overview. However, in their report Fatal Pedestrian Crash Report Summary and Recommendations[38], Oregon Walks reviewed 48 fatal pedestrian crashes in Portland from 2017 to 2019. The authors examined police reports, roadway design characteristics, driver and pedestrian behavior, media reports, and other available records for every crash.

Significant findings include:

- Pedestrian deaths in Portland disproportionately harm underserved groups including Black Portlanders (3.0x), older adults (3.2x), persons with disabilities (3.3x) and people experiencing homelessness (9.1x).
- Pedestrian deaths occur disproportionately in East Portland (2.5x), where PBOT and ODOT operate numerous high-speed arterials without a complete grid of side-streets, and PBOT and ODOT fail to provide sidewalks, adequate street lighting and safe crossings on many streets.
- All 48 fatal pedestrian crashes in the 3-year dataset (100%) occurred in poorer-than average areas (i.e., census tracts with a median income lower than the citywide median).

38 Oregon Walks, Fatal Pedestrian Crash Report Summary and Recommendations, March 17, 2021, page 2, Portland, Oregon, Oregon Walks Accessed 08 June 2023

FIGURE 32: DISTRIBUTION OF BIPOC PEDESTRIAN FATALITIES BY OREGON, REGION 1, MULTNOMAH COUNTY AND CITY OF PORTLAND

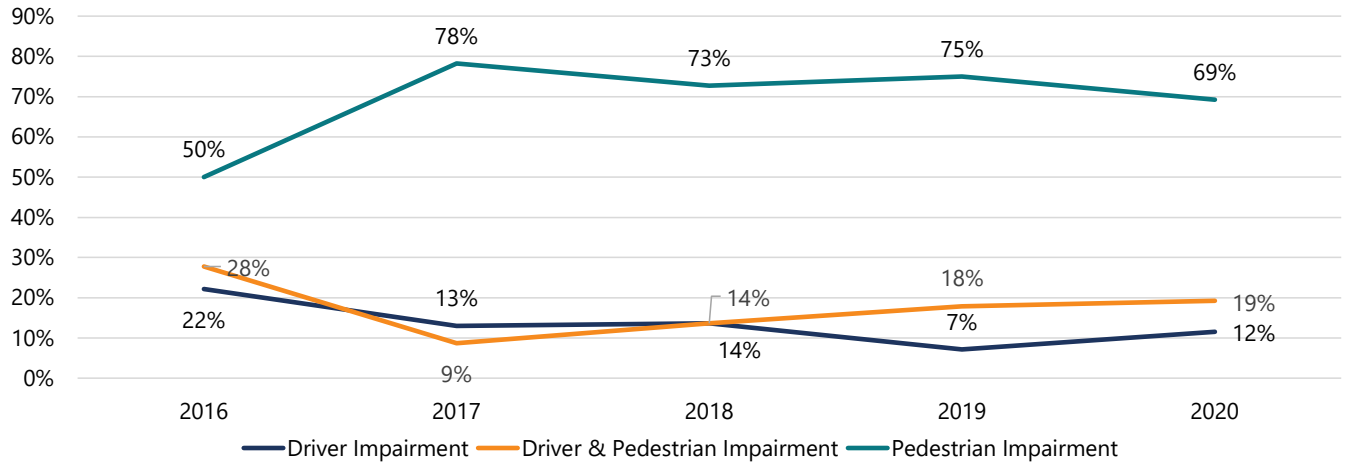


Source: Fatality Analysis Reporting System (FARS)

In addition to driver behavior such as speed and impairment in crashes that result in pedestrian fatalities and serious injuries, another contributor to the problem is that drivers in the Portland Metro Area seem to be less aware of their responsibilities and laws regarding pedestrians.

In Region 1 from 2016-2020, 66 percent of pedestrian fatalities and serious injuries did not involve impairment, while in pedestrian fatalities only that number decreases to 38 percent. Thirty-four percent of pedestrian fatalities and serious injuries involved impairment, and in looking at just fatalities, 51 percent involved impairment, indicating that impairment can impact the severity outcome.

FIGURE 33: IMPAIRMENT IN REGION 1 PEDESTRIAN FATALITIES BY PARTICIPANT (ONLY IN FATALITIES WHERE THERE WAS IMPAIRMENT)



Source: ODOT Statewide Crash Data System (CDS)

In pedestrian fatalities and serious injuries from 2016 – 2020 that involved impairment, on average 12 percent of the impairment was by both the driver and the pedestrian, 19 percent of the impairment was the driver, and 62 percent was impairment on the part of the pedestrian.

TABLE 10: PARTICIPANT IMPAIRMENT IN REGION 1 PEDESTRIAN FATALITIES AND SERIOUS INJURIES 2016 -2020 AVERAGE

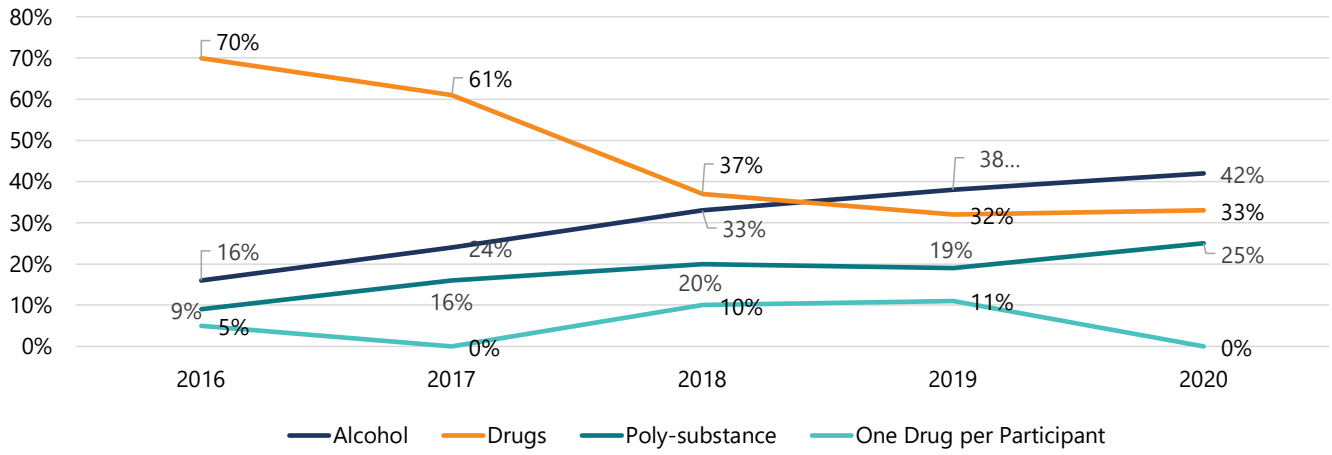
	Fatalities and Serious Injuries	Fatals	Serious Injuries
Driver Impairment	19%	13%	30%
Driver & Pedestrian Impairment	12%	17%	1%
Pedestrian Impairment	62%	70%	69%

Source: ODOT Statewide Crash Data System (CDS)

While alcohol is the impairing substance most often involved in pedestrian fatalities and serious injuries, poly-substance impairment, where one participant is using both alcohol and drugs, is on the rise. One drug per participant refers to cases where the driver was using alcohol and the pedestrian was using drugs or vice versa.

Another contributing factor to the rise in pedestrian fatalities in the Portland Metro area is the homeless situation. The last point in time[39] count on the homeless population found that 5,228 people were experiencing homelessness in the Portland Metro area and Multnomah County on January 26, 2022. The homeless camp on the sidewalks and next to high crash corridors, as well as on freeways and expressways difficult to access on foot. In addition, one in three homeless people in Portland report having a mental illness, substance abuse disorder[40] or both, approximately 1,700 people.

FIGURE 34: IMPAIRING SUBSTANCE(S) IN REGION 1 PEDESTRIAN FATALITIES AND SERIOUS INJURIES



Source: ODOT Statewide Crash Data System (CDS)

In 2021, Portland Police Bureau started indicating in their pedestrian fatality tracking whether or not the deceased individual was homeless.

39 Multnomah County. "Point-In-Time Counts." *Multnomah County – Joint Office of Homeless Services*. Accessed 08 June 2023.

40 Templeton, A., Dembosky, A., Feibel, C., "Oregon and California look for answers as homelessness overlaps mental health and addiction." April 1, 2023, Oregon Public Broadcasting. Accessed 18 May. 2023.

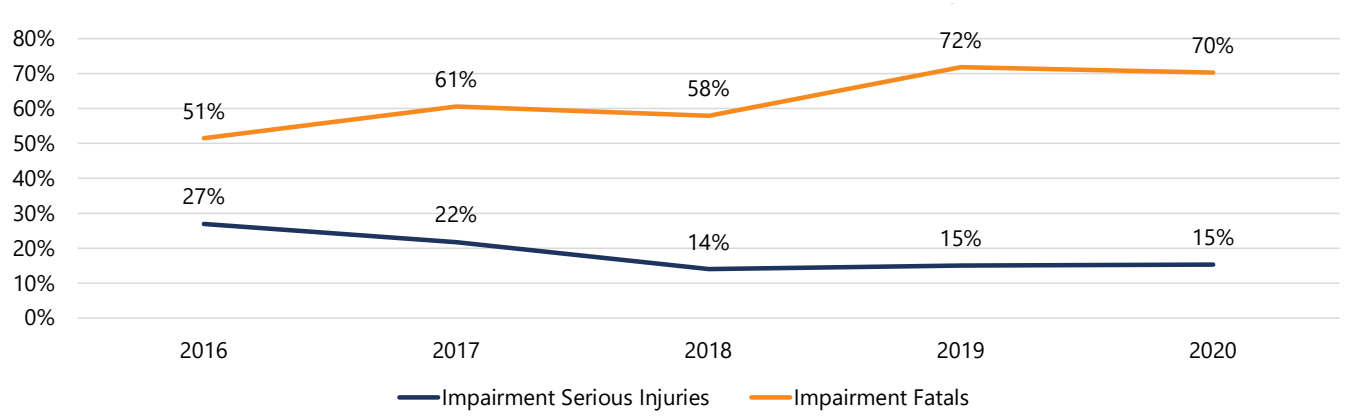
TABLE 11: REPRESENTATION OF HOMELESS INDIVIDUALS IN PEDESTRIAN FATALITIES IN THE CITY OF PORTLAND

City of Portland	2021	2022	2023
Fatalities	29	32	11
Homeless Fatalities	21	11	2
% of pedestrian fatalities that were homeless individuals	72%	34%	18%

Source: Portland Police Bureau

Because the most current up to data is for 2016-2020, there are no further details on these fatalities but the over-representation of homeless individuals in pedestrian fatalities within the City of Portland needs to be addressed in order to decrease pedestrian fatal and serious injuries.

FIGURE 35: REGION 1 PEDESTRIAN IMPAIRMENT IN FATALITIES VS. SERIOUS INJURIES



Source: ODOT Statewide Crash Data System (CDS)

Access to Car Seats for Low-Income, Refugee and Immigrant Families

From 2016-2020, Region 1 lost four children under the age of eleven and 55 children sustained serious injuries from traffic crashes. There was no over-representation of race or ethnicity in the Region 1 child fatalities; however, three occurred in Clackamas County in the years 2016, 2019 and 2020 respectively. One six-year-old was belted but alcohol and drugs were involved, another six year-old was not restrained with alcohol involved in the crash, and a seven year old was improperly restrained with a seatbelt and drugs were involved. The other fatality occurred in Multnomah County for a ten-year old who was belted; however, alcohol and drugs were also involved in that crash. Eleven percent, 15 percent and 75 percent of serious injuries of children aged 0-11 occurred in Clackamas, Washington and Multnomah Counties respectively.

Of the 41 serious injuries for children aged 0-11 and the one fatality that occurred in Multnomah County, 55 percent occurred in East Portland and 12 percent occurred in the City of Gresham where there are higher rates of poverty and greater diversity in terms of race and ethnicity. Due to data limitations race is not available for serious injuries of children ages 0-11.

While Region 1 has a robust Child Passenger Safety (CPS) Program working with six partners including the Native CARS program, which serves Native American families, the $30.00 co-pay for a car seat is a burden for some families and particularly for newly arrived immigrant/refugees and families living in poverty.

TABLE 12: CAR SEAT DISTRIBUTION IN REGION 1 BY DOERNBECHER CHILDREN'S HOSPITAL

Year	Car seats distributed	Misuse Rate	% provided at no cost
2016	375	75%	45%
2017	642	79%	63%
2018	617	83%	84%
2019	745	83%	83%
2020	493	83%	69%
2021	304	77%	70%
2022	583	76%	68%
2023	627	82%	79%

Source: Oregon Health and Sciences University, Doernbecher Children's Hospital Tom Sargent Safety Center

Currently, partners in Region 1 have a limited ability to meet the needs of families who cannot afford a co-pay for a child restraint or seat. According to the CPS partners in Region 1, the community need for low-income car seats is out-stripping what ODOT can provide through its CPS grants of $9,500. Divided between the six CPS partners, each partner receives approximately $1,500 which purchases approximately 22 seats. Five partners received 38 car seats each through an ODOT NHTSA funded grant project that provided car seats they could distribute without a co-pay to immigrant families.

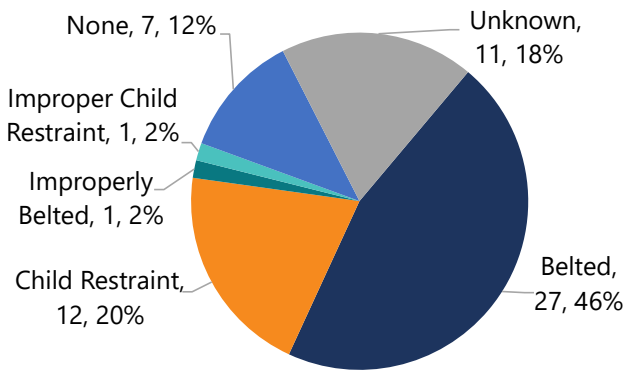
Oregon Health Sciences University – Doernbecher Children's Hospital (DCH), the largest injury prevention program in Oregon, and Randall Children's Hospital are the only two programs that have other resources for seats they can provide at no or low cost. DCH received a two-year grant from the Buckle Up for Life Grant Program which ends in 2023 and they will not be eligible to apply for it again until 2026. In addition, the applicants for the National free car seat grant in 2023 increased by 40 percent, meaning even if DCH applies for it they may not be funded in the future. DCH is the child passenger safety partner in Region 1 that provides the most low-income seats and free seats. DCH is also able to provide free car seats through a foundation grant to in-patients only. From July 2022 to date DCH has distributed 254 Buckle Up for Life Seats that require no co-pay and 55 ODOT seats that do require a co-pay. Of the families receiving no-cost seats, 60 percent reported they are of Hispanic origin, 48 percent White, 15 percent Black, and 2.3 percent reported as Native American/Alaskan Native.

Randall Children's Hospital (RCH) is the other major CPS partner with access to free seats. They receive a grant from their foundation that provides 20 free car seats a year for in-patients, in addition to a CARR Subaru grant for $2,000 that allows them to distribute free seats with seat checks and installation education at CARR Subaru events. RCH reports an average yearly misuse rate of 68 percent and that many of the people they provide low-income car seats to do not have cars. where there is a need for rear-facing infant car seats that they can use on the bus, in ride-shares, and with app-taxis. Although convertible car seats have a longer use life expectancy, they are bulky to carry around and difficult to install and reinstall, which people without vehicles may have to do several times a day.

This can lead to less use, greater misuse, and installation fatigue, leading to families choosing to carry their children in their arms rather than have them appropriately restrained.

Although seat checks are free to any family regardless of income, seat provision programs are for low-income families. Yearly, CPS partners providing low-income seats see on average an 80 percent misuse rate and the yearly average of families who choose the no cost option is 70 percent.

FIGURE 36: RESTRAINT USE IN REGION 1 IN FATALITIES AND SERIOUS INJURIES AGE 0-11



Source: ODOT Statewide Crash Data System (CDS)

Region 1 CPS partners report stories of families counting out change from zip-top bags, asking if they can make payments on a seat, one father asked if he could pay $5.00 a week for six weeks and another collecting cans to afford the co-pay, or cutting back on other necessities to ensure their child is properly restrained. During one car seat check, a can of formula from Woman, Infants and Children (WIC) fell out of the car spewing powder everywhere; the mother was devastated and visibly distraught, as she did not have the money for additional formula and a car seat. While research is mixed on whether or not a health product is more valued by a recipient depending on whether or not they received it for free or had to pay a portion of the cost, CPS partners in Region 1 have observed that seats that require a co-pay are more often used, and less often given away and/or sold. Region 1 would benefit from car seats being provided with a sliding co-pay scale.

Education and Outreach to Increase Driver Familiarity with New and Existing Laws

In Oregon, an average of 83,537 out-of-state licenses are surrendered annually; however, in recent years that has decreased with only 60,726 surrendered in 2020. In Region 1 an average of 32,000 teens ages 14-17 earn their driver license, of which only ten percent have completed driver education.

Traffic laws differ by state and there is no test requirement to surrender an out-of-state license for an Oregon license. In addition, traffic laws are often changed by legislation. The Oregon Legislature convenes annually, but sessions in even numbered years cannot exceed 35 days and in odd numbered years they cannot exceed 160 days.

In even number years the legislature introduces an average of 250 bills, of which an average of 69 are passed. In odd number years the legislature introduces an average of 2,800 bills where an average of 1,000 pass. A number of the bills introduced by the Legislature impact the Oregon Department of Transportation and transportation in general. From 2016 – 2020 an average of 34 bills that passed annually impacted transportation in Oregon, and depending on the year some of those bills impacted transportation safety specifically. In 2017, the legislature passed 15 bills that impacted transportation safety where some of the bills, like the Omnibus Transportation Spending Bill, or HB 2638 which created the Ignition Interlock Oversight Program have some impact on the driving public, other bills had a more direct impact on motorists, such as HB 2409, which allowed for speed citations from red light cameras (auto enforcement), HB 2597 which upgraded the distracted driving law, HB 3403 which changed the requirement for rear-facing car seats (up to two years old), and SB 34 which changed the Move Over law to include any vehicle displaying flashing lights, and to require education and outreach on that law.

In addition, new infrastructure like the green bike boxes that Portland started deploying in 2010 are not well understood by drivers in Portland, and even less so by visitors from both in state and out of state areas. Region 1 partners with Community Affairs to educate Region 1 drivers about new infrastructure at community meetings on construction projects, while at the same time pushing out traffic safety messages; however, it is evident through observation that drivers in Region 1 are still lacking knowledge about some laws and awareness about the consequences of some behaviors. As mentioned earlier, drivers in Region 1 do not fully understand their responsibilities to pedestrians, are not familiar with the Move Over or Move It law, and do not understand that in Oregon 'yellow is red,' to name a few challenges. Drivers also lack facts about the danger of certain behaviors and their consequences; for example, speeding doesn't get you there any faster, and that smoking cannabis does in fact not improve one's driving ability. Since there are no refresher courses required and the driver test is only taken once; and only 10 percent of teens participate in Driver Education, more education and outreach about little known but important laws and new infrastructure treatments, and awareness about behaviors that contribute to fatal and serious injury crashes is needed.

Risky Drivers

Vision Zero as implemented in Europe starts with safe systems, creating systems that if and when people crash, roadways are designed to minimize the impact of the crash. However, Europe's *Vision Zero* program extends to all aspects of road use including driving privileges:

- driver training (the minimum driving age is 18, driver training is expensive, and to obtain a license, driver training is mandatory);
- a points system for drivers who if they obtain so many points on their license they can no longer drive (in Europe the privilege is taken away when abused);
- strict regulations on cars themselves. Driving with a burnt-out light is illegal; an MOT certificate is required for vehicles that are more than three years old, confirming that the vehicle at the time of its test met the minimum acceptable environmental and road safety standards required by law.
- extensive use of automated enforcement.

Vision Zero, as implemented in the U.S., has adopted the infrastructure focus of *Vision Zero*, a piece of a much larger system, but has failed to implement other critical factors that decrease traffic fatalities.

Risky behaviors are recognized by the state's Transportation Safety Action Plan (TSAP, or Strategic Highway Safety Plan) as a significant contributor to fatal and severe injury traffic crashes in Oregon. Beyond information collected in citations and crash reports by police, little information exists about drivers' risk profiles and how those risk profiles can differ by age, gender, educational attainment, income, geography, and location. Additionally, it is not known how driver intervention strategies, such as ODOT's driver education, Driver Improvement, and At-Risk programs, impact those risk profiles for Oregon's drivers.

In an attempt to better understand driver risk profiles, Region 1 looked at the 96 fatalities that occurred in the Region in 2017. Data was pulled from three sources: ODOT, police reports and the DMV. In 2019 when the analysis started, 2017 was the most complete data file.

In 2017, Region 1 (Clackamas, Hood River, Multnomah and Washington Counties) experienced 96 fatal crashes involving 220 participants: 131 drivers, 40 pedestrians, 31 passengers, 14 motorcyclists and four bicyclists. Transportation modes included 140 vehicles. Forty-six percent (99) participants died and 7 percent (15) sustained serious injuries; 35 percent of participants who died were using safety equipment, 14 percent were not using safety equipment, and 38 percent were pedestrians.

Half of the 2017 fatalities occurred under clear conditions (50%), followed by 24 percent that happened in rainy conditions, where 60 percent occurred on dry roads, followed by 37 percent on wet roads. Forty-five percent occurred in darkness while 42 percent occurred during daylight hours, indicating that weather, wet road conditions and darkness are factors to consider in fatal crashes.

Thirty-one percent of the fatalities occurred on Urban Principal Arterials, followed by Urban Minor Arterials, while 41 percent of fatal crashes occurred on straight roadways followed by 29 percent at intersections.

For the 198 participants whose ages were available, the youngest participant was one-year old and the oldest 95, with the greatest age representation in fatalities being 21-25 years of age (12%), and 26-30 years old (11%), followed by ages 41-45 (11%) and 56-60 (10%).

Notable findings were:

- Sixty-nine percent of all 2017 fatalities involved aggravating factors; 61 percent of these had one or more aggravating factors: alcohol, drugs, speed, marijuana or some combination. Twenty-six percent had one aggravating factor, 25 percent had two aggravating factors and 10 percent had three aggravating factors.
- Of the 216 participants, 174 had Oregon DMV Records, nine had ID cards, and 38 had clean records. All participants' records including those of passengers and pedestrians were reviewed where available.
- 127 participants in the 2017 fatal crashes had 1,274 DMV records; divided equally, that is nine records per person. However, 115 participants accounted for 996 of those records and one participant, a white male aged 49, had 116 DMV records, followed by a second participant, white male aged 34, with 37 DMV records. Seventeen participants involved in these crashes had 18 or more DMV records.

Unfortunately, due to the small sample size, data collation, potential data errors, and incomplete records, the findings cannot be referenced with confidence, nor are they replicable. What the analysis did accomplish was to peak interest in research on risky driver behaviors.

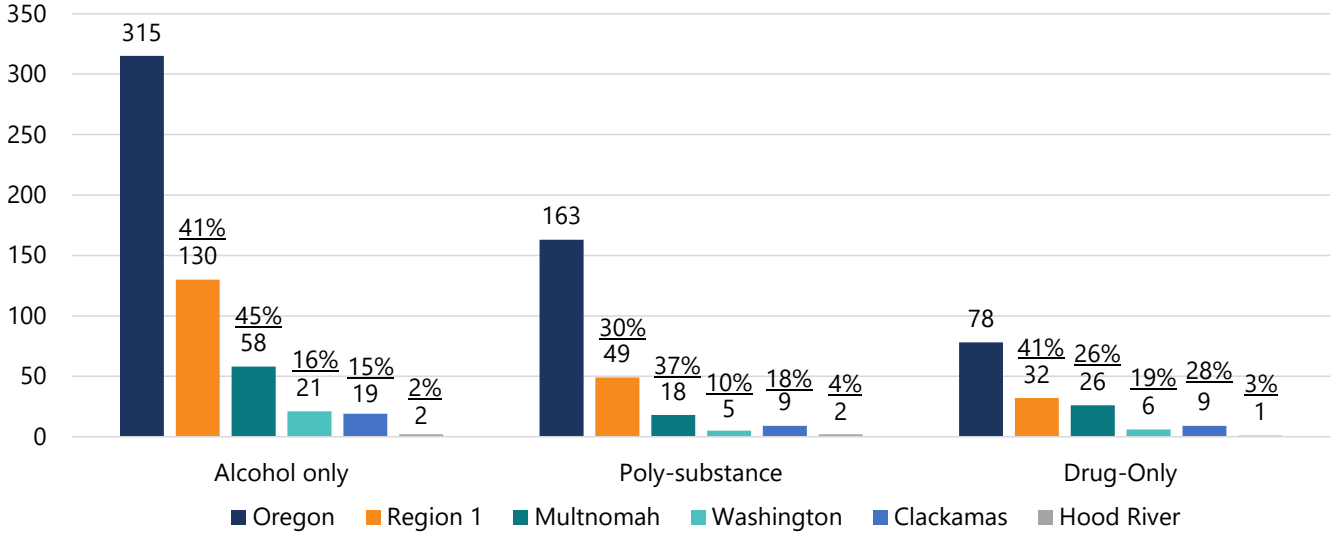
In looking at road user behaviors and getting bad drivers off the road, limiting their access to vehicles; aggravating factors that pedestrians engage in that contribute to fatal crashes; and effectiveness of risky driver interventions are overlooked aspects of reducing fatal and serious injuries in Region 1 and the State of Oregon.

Impaired Driving

Impaired driving in Oregon has been on the increase and particularly in the drug and poly-substance categories, Region 1 is following the statewide trend. In 2016, fatalities and serious injuries that involved impairment represented 27 percent of all fatalities and serious injuries. That percentage increased yearly and in 2020, impairment was involved in 47 percent of fatalities and serious injuries in the region.

Region 1 accounts for 38 percent of all impaired fatalities and serious injuries; 41 percent of all Oregon alcohol-only, 41 percent of all drug only impairment, and 30 percent of all poly-substance involved fatalities and serious injuries.

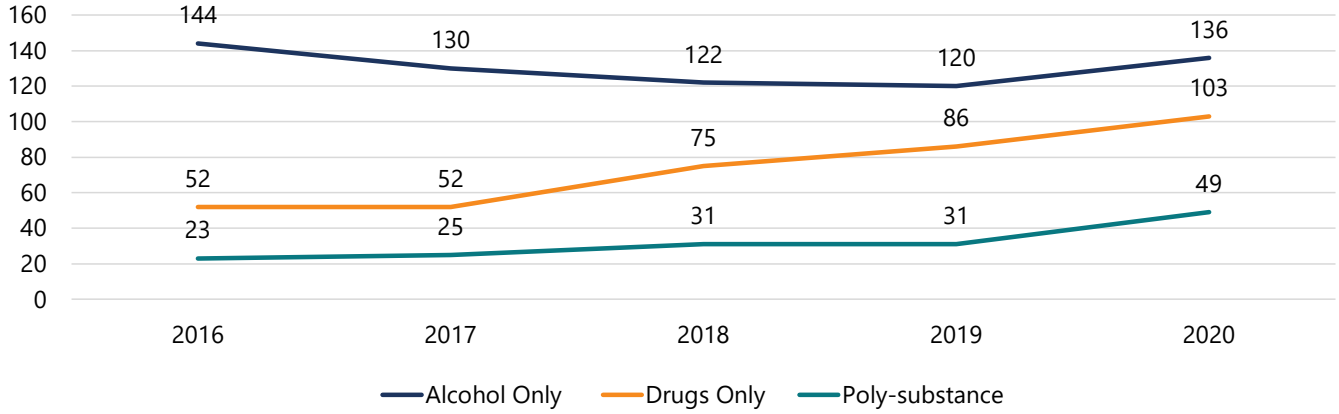
FIGURE 37: DISTRIBUTION OF SUBSTANCE-INVOLVED FATALITIES AND SERIOUS INJURIES BY OREGON, REGION 1 AND THE COUNTIES IN REGION 1



Source: ODOT Statewide Crash Data System (CDS)

Multnomah County has the majority of all fatalities and serious injuries involving impairing substances in all categories, followed by Washington County in alcohol only, and Clackamas County in drug only and poly-substance involvement.

FIGURE 38: REGION 1 SUBSTANCE-INVOLVED FATALITIES AND SERIOUS INJURIES

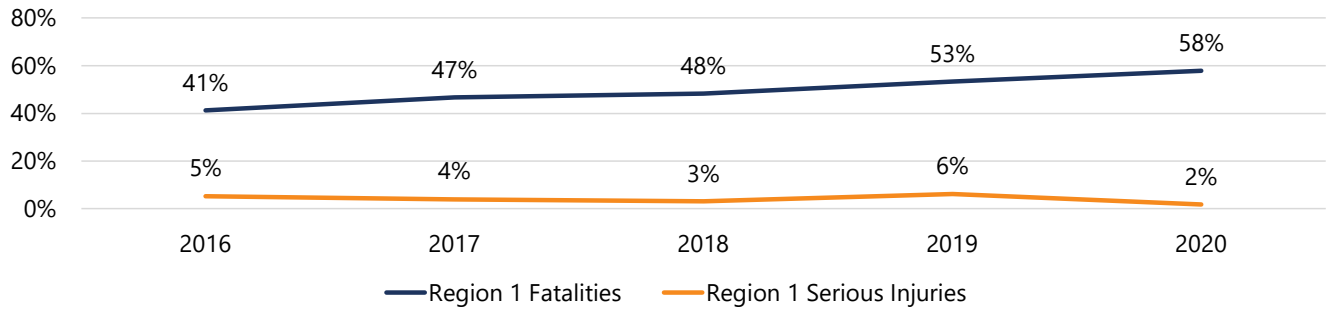


Source: ODOT Statewide Crash Data System (CDS)

From 2016 – 2020 89 percent of fatalities and serious injuries involving impairment (F&A) in Multnomah County took place in the City of Portland, with 73 percent occurring on its East Side. In Clackamas County 78 percent involving impairment took place outside city limits, with three roadways accounting for 51 percent of the county's impaired fatalities and serious injuries: OR 224, OR 211 and S. Dryland Road accounting for 32 percent, 12 percent and 7 percent respectively. On October 27, 2021, a road segment of mile points 14 to 22 on OR 211 was designated a safety corridor (stretches of state highways where fatal and serious injury traffic crash rates are higher than the statewide average for similar types of roadways); in response to its high crash rate in recent years. In Washington County, 48 percent of fatalities and serious injuries involving impairment took place outside city limits, with 64 percent occurring on three roadways, or OR8, OR47 and Cedar Canyon Road with 43 percent (3), 28 percent (2) and 28 percent (2), respectively. Seventeen percent of the fatalities and serious injuries occurred within the City of Beaverton in the 2016-2020 timeframe; however, the most recent year that either a fatality or serious injury due to impairment occurred within the city was 2018.

From 2016-2020 Region 1 accounted for 33 percent of Oregon's motorcycle fatalities and serious injuries (493) and 30[41] percent of the fatalities. Thirty-three percent of all fatalities and serious injuries involved impairment on the part of the motorcycle rider and those numbers have only been increasing. In 2020, Region 1 had 70 motorcyclist fatalities and serious injuries, where preliminary 2021 data shows an 81 percent increase to 127.

FIGURE 39: MOTORCYCLE FATALITIES AND SERIOUS INJURIES - MOTORCYCLIST IMPAIRMENT



Source: ODOT Statewide Crash Data System (CDS)

Alcohol use is a public health problem that affects and intersects many areas, like chronic diseases, injuries and violence, including domestic violence and sexual assault. It has contributed to and increased the severity of the opioid epidemic and impacts behavioral and mental health care systems, while also impacting public safety and law enforcement efforts.

In Oregon, alcohol is the third leading cause of preventable deaths, killing more people than all other drugs combined, and the alcohol-related death rate has increased by one-third over the past 20 years.[42] In 2019, excessive alcohol use cost Oregon $4.8 billion[43] due to lost productivity, health care expenses, criminal justice costs, motor vehicle crashes and social welfare. Decreases in alcohol consumption are associated with decreases in many pressing health and social issues, including impaired driving and motor vehicle crashes.

The Oregon Health Authority (OHA) identifies binge drinking as the most common, costly and deadly pattern of excessive alcohol use, where binge drinking accounts for about 88 percent of all alcohol-impaired driving events. More than 1 in 5 Oregon adults reported binge drinking in the past month (OHA 2023). DUII is part of a larger problem of excessive alcohol use, where reducing excessive alcohol use would have an impact on reducing DUII incidences. Over-serving, and providing sales to minors also contribute to the larger problem of impaired driving.

TABLE 13: LIQUOR LICENSES, COMPLIANCE MISSIONS AND COMPLIANCE BY COUNTY IN REGION 1

2018-2022	Clackamas	Hood River	Multnomah	Washington
# of liquor licenses	926	200	3,203	1,139
# of compliance missions	208	7	30	182
% of non-compliance	22%	29%	10%	11%

Source Oregon Liquor and Cannabis Commission

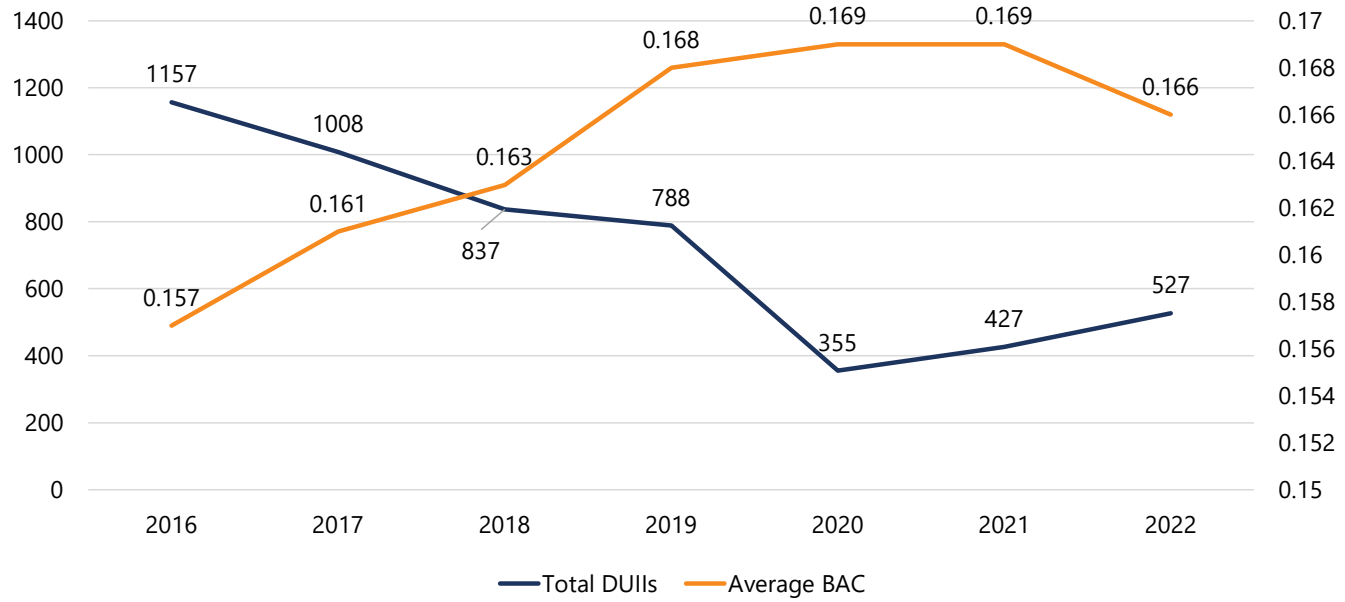
41 The 33 percent is based on county boundaries rather than the Region 1 boundary.
42 Oregon Health Authority Presentation, Transportation Safety Conference March 14, 2023
43 ECONorthwest. Economic Analysis of Excessive Alcohol Consumption In Oregon. November 2021.

It should be noted that in the county of Hood River from 2014 – 2022, 39 percent of the people arrested for DUII stated they had been drinking at home, while 64 percent of those arrested for DUII named one of eight establishments (out of 88[44]) where they had been drinking prior to their arrest, indicating a need for server training; this was not the case in the other counties, most likely due to the higher density of drinking establishments. However, because the information about where the person had been drinking prior to their arrest came from a person who was intoxicated, it cannot be determined reliable.

The Portland Region of the Oregon Liquor and Cannabis Commission (OLCC), which includes Clackamas, Hood River, Multnomah and Washington Counties, had a 76 percent compliance rate (no sale without an identification) in decoy operations from March to June 2023, compared to an 81 percent compliance rate in the Salem region (Region 2) and a 63 percent compliance rate in the Medford area (Region 4).

In that same OLCC region, the worst cities for compliance were Tigard and Hillsboro in Washington County, and Lake Oswego and West Linn in Clackamas County. In Clackamas County one mission that hit three cities, Estacada, Molalla and Eagle Creek, had a 32 percent non-compliance rate. These cities are all accessed by OR211 which was designated a safety corridor in October 2021 due its high fatal and serious injury crash rate, and of which 69 percent involved alcohol, drugs and/or speed.

FIGURE 40: NUMBER OF DUII ARRESTS BY YEAR AND AVERAGE BAC OLCC'S PORTLAND REGION



Source: Oregon Liquor and Cannabis Commission

While DUII arrests were on a downward trend until 2020, even with the lockdowns which started in March 2020 and ended in June 2021, DUII arrests have been on the rise accompanied by a rise in average BAC until 2022.

In 2022, based on alcohol and drug specialist screenings, the number of repeat DUIIs in Region 1 was on average 33 percent.

44 Oregon Liquor Control Commission (now the Oregon Liquor and Cannabis Commission, as of 2022).

TABLE 14: DUII RECIDIVISM BY AGE

County	Repeat DUII	Underage	Age 21-25	Age 26-30	Age 31-65
Clackamas[45]	33%	4%	15%	17%	60%
Hood River	28%	7%	22%	18%	52%
Multnomah	36%	0%	12%	22%	62%
Washington[46]	35%	5%	18%	18%	57%

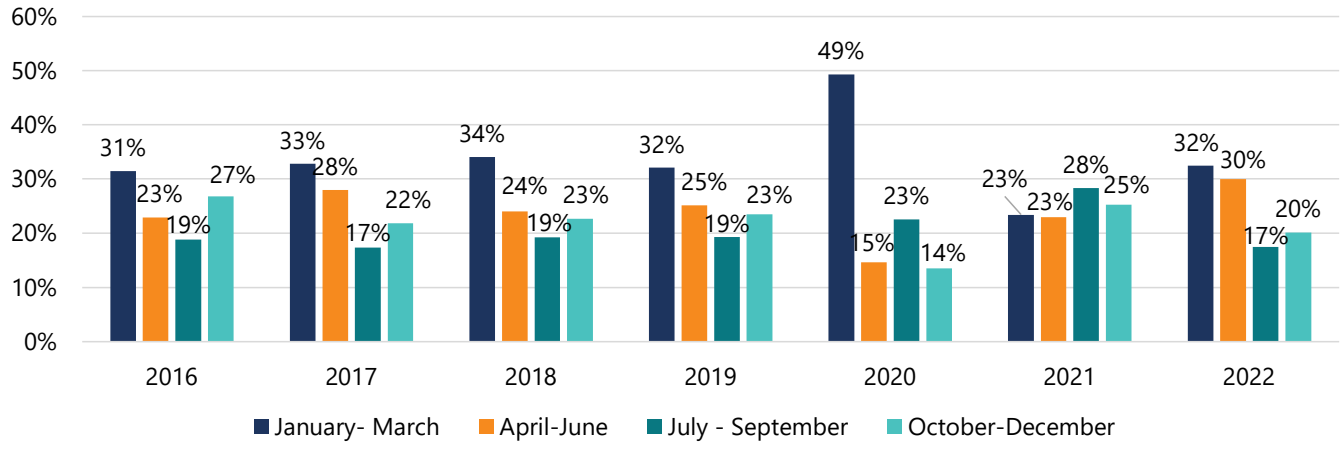
Source: Alcohol and Drug Evaluation Screening (ADSS) Region 1

People convicted of DUII in Oregon are required to complete a mandatory alcohol and drug screening provided by an Alcohol and Other Drug Screening Specialist, or an ADSS evaluation. There are two possible outcomes from an ADSS screening; the court approved evaluation will find that DUII education or information is sufficient for the defendant, or that the defendant needs DUII treatment, the primary difference between DUII education or DUII treatment is the amount of time a defendant must spend in classes. The classes are offered by various treatment providers and everyone who has an ADSS evaluation will be referred to some form of class.

Of note is that much of the ADSS evaluation is dictated by law, as opposed to therapeutic science or the professional discretion of a dedicated therapist. Therefore, an ADSS evaluation does not necessarily identify an alcohol or drug abuse problem. The repeat DUII statistic for people who have been through alcohol/drug treatment is disconcerting, and more information is needed to determine why there is an average recidivism rate of 32 percent. For more information, please see the section on 'treatment' in the Impaired Driving Program chapter.

In looking at the data it appears that January – March are the months when the most DUII arrests occur, followed by April - June, but whether or not that is because there is more enforcement, or because more people on the roads are impaired is unclear with the data that is available.

FIGURE 41: REGION 1 PERCENTAGE OF DUII ARRESTS BY QUARTER



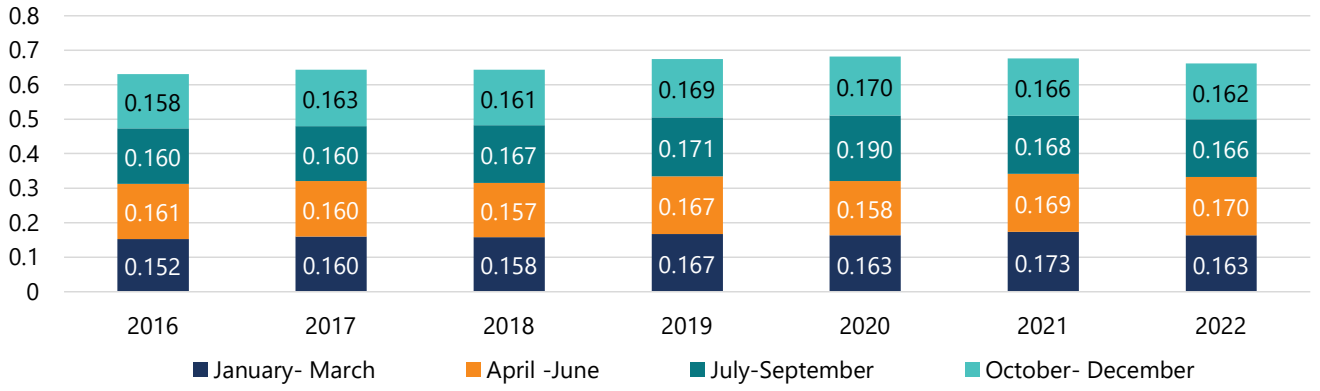
Source: Oregon Liquor and Cannabis Commission

45 Clackamas County data is from 2023 January – May.

46 Washington County numbers for repeat offenders represent any prior booking into the Washington County Jail so it is possible this number is higher.

Looking at average BAC by quarter, nothing stands out except that in July-September 2020, five months into the COVID lockdown, the average BAC jumped from 0.171 in 2019 to 0.190 in 2020.

FIGURE 42: REGION 1 AVERAGE BAC BY QUARTER



Source: Oregon Liquor and Cannabis Commission

Speed

In Region 1, speed is the top cause in 17 percent of all fatalities and serious injuries; however, speed has a strong overlap with many modes, crash types and other factors. Forty-two percent of roadway departure crashes involved speed and speed is often a contributing factor in pedestrian, motorcyclist, and substance-involved crashes that result in fatalities and serious injuries. The 2016 – 2020 average for speed related fatalities and serious injuries is 149. Speed is an issue throughout Region 1, and when the roads were clear during the pandemic (reduced VMT), officers reported stopping drivers clocked at over a 100 mph on a regular basis. Although the roadways are no longer clear enough to allow for those speeds, drivers have not necessarily slowed down. Due to the high speeds that all drivers are engaging in, the current threshold to stop a speeding driver is 20 mph over the speed limit.

In recent years illegal street takeovers and street racing have become more common, creating dangerous situations for all motorists (and bystanders). From 2016-2020 there were 20 crashes related to speed racing, resulting in 14 fatalities and serious injuries. On February 20, 2023, one person died and two others were injured in a crash related to speed racing. On August 27, 2022, 26-year-old Ashlee McGill was waiting for a bus when she was struck and killed by an out-of-control car engaged in street racing.

On June 12, 2022, the City of Portland experienced several street takeovers, where street racers took over streets at SE 7th and Morrison, NE Martin Luther King and Columbia near the Lloyd Center, and Whitaker Road in North Portland east of I-5. Portland Police Chief Lovell stated that it is difficult for police to respond due to the sheer numbers of people that descend on the city for street takeovers, making it hard to control, "Many nights we struggle to get enough officers to answer calls for service, much less deal

ILLEGAL TAKE-OVER OF THE BURNSIDE BRIDGE ON JUNE 13, 2022

Source: Youtube Video

with hundreds, and I mean hundreds of street racers that come here to engage in that activity."[47]

Recent street racing missions conducted by the Portland Police Bureau yielded the following results:

TABLE 15: RESULTS OF PORTLAND POLICE BUREAU'S SPEED RACING MISSIONS

Date	Arrests	Cites	Vehicles Towed
April 30, 2023	5	24	2
May 1, 2023	5	25	2
May 8, 2023	5	33	6

Source: Portland Police Bureau

In addition, it was reported that on April 30, 2023, 20 to 30 vehicles eluded officers. The industrial area on Swan Island and Marine Drive are popular street racing venues.

Due to the increasing problem of street racing and resulting lives lost, the Oregon Legislature passed a law that was signed by the Governor to increase the penalties for street racing. A person convicted of street racing will now face a maximum of nearly a year (364 days) in prison, a fine of $6,250, or both for the first offense. The punishment goes up to five years and/or a $125,000 fine for the second and subsequent offenses, and SB 615, adds speed racing as a subset of 'reckless driving' and authorizes the criminal forfeiture of the vehicles involved.

Safety Corridors

As mentioned in the impaired driving problem statement, on October 27, 2021, OR 211 from milepost 14 (just west of S Vaughan Road in Molalla) to milepost 22 (just east of S Scheiffer Road in Colton) was designated a safety corridor. Safety corridors are stretches of state highways where fatal and serious injury traffic crash rates are higher than the statewide average for similar types of roadways. The OR 211 Safety Corridor is a short-term way for ODOT to work with the community and law enforcement to address the recent increase in crashes.

Sixty-nine percent of the fatal and serious injuries in this corridor from 2015 to 2019 involved aggravating factors like speed, alcohol and drugs.

The designation of a stretch of highway as a safety corridor doubles the traffic fines in that section, and more enforcement is dedicated to the safety corridor.

Over the next three to five years, ODOT will also implement low-cost engineering solutions designed to bring down the crash rate in the corridor. These solutions will be designed to fit the most common causes of crashes in the corridor, which in 2019 were driving left of center, inattention, driving too fast for current conditions, and driving faster than the speed limit. At the end of a three-to-five-year period, ODOT will have a better idea of some longer term, higher cost safety solutions to plan for after the OR 211 Safety Corridor is decommissioned. A road safety audit on this stretch of highway was started in June 2022. Currently the contractor is working on the final drafts for the contingency reports on edge line rumble strips in the corridor, and illumination conceptual designs and estimates for the Wall Street and Union Mills Road / Beavercreek Road intersections. The Traffic unit is working on refining the scope of the OR 211 Road Safety Audit Implementation project, which will include illumination at the Union Mills / Beavercreek Road intersection, and a number of (primarily signing) improvements there as well at various other intersections and curves throughout the corridor.

With the designation of the Safety Corridor, a stakeholder group was formed consisting of County representatives, local schools, law enforcement and others who will meet regularly to develop priorities

47 "7 Arrested after Illegal Street Racing in Portland." YouTube, uploaded by KPTV Fox 12 Oregon, 13 June 2022 https://youtu.be/mTngthn7-Mo

and goals for traffic safety improvements in the Safety Corridor, and to develop and implement an education and outreach plan in conjunction with the engineering improvements to impact and change risky driving behavior on this stretch of highway.

Safety Priority Index System

Like a road sign warning of potential hazards ahead, the ODOT's Safety Priority Index System (SPIS) alerts transportation officials to public roadway segments exhibiting unusually high incidences of crashes. SPIS compares the number of crashes on the entire roadway network across Oregon, including city streets, county roads and state highways. It generates both "on-state highway" and "off-state highway" annual reports, listing public roadway segments with a calculated SPIS score. The SPIS score is based on crash rate, frequency and severity over the prior three calendar years. The higher a SPIS score, the higher the potential safety needs for the identified roadway segment. The consistent, data-driven and unbiased methodology of SPIS enables the ranking and comparing of roadway safety at local, regional and statewide levels. Transportation officials may use the annual SPIS reports to guide their investigations and evaluations of public roadway safety issues within their jurisdictions, and to prioritize roadway segments to investigate for potential safety improvements.

The most recent completed SPIS report is from 2020, which evaluates crash data from 2017-2019. The 2020 SPIS report contained 292 'top 10 percent' and 'top 5 percent' sites in the Region. Of those, 16 sites were identified for increased enforcement, primarily of speeding, DUII, and/or red-light-running. Two of those were also identified for education/outreach. Please see Appendix for list of sites.

Region 1 Public Participation and Engagement

Region 1 works hard on developing a robust network of community partners. The RTSC participates in monthly Safe Kids meetings which brings together the Child Passenger Safety Network, the quarterly Southeast Community Safety Meeting working on public safety in the Southeast, and the Multnomah County Child Fatality Review Board. Currently, Region 1 has a network of 15 transportation advisory committees, 31 Neighborhood Associations, 30 city contacts, 40 community-based organizations and 74 law enforcement officers.

Outreach and education in the Region focuses on maintaining and building on partnerships in all four counties with law enforcement, health educators and programs, traffic engineering, government traffic safety counterparts, injury prevention specialists, communities, neighborhood associations and non-profit organizations. Education and outreach efforts emphasize addressing traffic safety issues through grassroots efforts in collaboration with communities, non-profits and other partners.

Projects are funded based on a Notice of Opportunity (NOO). An annual NOO is sent out to partner organizations including law enforcement, cities, counties, neighborhood associations, non-profits, and other eligible entities that have expressed interest in traffic safety. It is a simpler way to encourage applications from smaller organizations who may not have the staff or bandwidth to fill out a full grant application, only to be denied funds based on ineligibility. The NOO is reviewed by the RTSC and the applicable Salem program manager (in relation to program specific grant funds, e.g. 405g NHTSA funding for pedestrian safety), and the Transportation Safety Office Manager who provides guidance on regional services and eligibility of fund use. Funds are awarded based on the traffic safety issue to be addressed, eligibility of activities, and prior performance if applicable. Applicants from diverse communities who are not traditional traffic safety groups, and smaller municipalities and law enforcement agencies are sought out. Potential grantees are notified if their project idea can be funded (or not) and are requested to fill out the full grant application. Grant applications are then reviewed by Region 1 and the appropriate Salem program manager to ensure budget and activities were allowable.

The traffic safety issues addressed in the Region's problem identification statement were primarily identified by the traffic safety partners the region works with through prior grant applications and discussions about potential future projects. Since 2018, Region 1 has implemented 50 projects with 43 organizations, including community-based organizations, law enforcement, counties, and cities.

In November and December of 2022, Region 1 hosted five meetings with TSO's Impaired Driving Program Manager. The meetings were to bring together all agencies and organizations that work on the reduction of substance-involved driving, including representatives from law enforcement, drug task force members, and judicial teams; parole and probation; VIP coordinators, prosecutors; prevention; DMV; treatment and evaluation; hospital, Regional OLCC, traffic safety; DPSST; ODOT's Commerce and Compliance Division, and non-profit organizations. The meetings were to hear from people working in the sector about challenges, to brainstorm ideas to address those challenges and to foster connections between the diverse agencies and sectors that work to get impaired drivers off of the Region's roads. There were four meetings held, one in each of the counties; and a fifth meeting that was conducted specifically for law enforcement, who were also invited to the county meetings. Three-hundred and six people were invited to the meetings, 76 people attended with approximately 20-30 people per county meeting, and 12-15 attended in Hood River and for the law enforcement meeting.

The issues regarding over-serving, and those to improve access to treatment were the direct result of these meetings.

Region 1 is focused on changing the transportation culture through education, outreach and enforcement, while amplifying traffic safety messages through existing channels and partnerships. The program provides transportation safety education, outreach, enforcement, and/or services to a wide variety of community-based traffic safety programs for targeted crash reduction. Grants may be provided to local jurisdictions, traffic safety organizations and non-profits to address identified transportation safety problems in ODOTs Region 1.

Region 1 Trends

- Pedestrian fatalities and serious injuries are on the rise, Southeast Portland is where the majority of these crashes occur; reaching the diverse populations in the Southeast as well as the homeless population, and by addressing the impairment issue is key to addressing this increase in F&A.
- Impaired driving crashes are on the rise in all categories: alcohol, drugs, and poly-substance use; of note is that the drug and poly-substance fatalities are greater than serious injuries, which rarely happens in a crash category e.g. speed, motorcyclist, distracted driving, indicating that driving under the influence of drugs or of drugs and alcohol has more severe consequences.
- Roadway departure may be the cause of a fatal or serious injury crash, but 75 percent of these crashes also have aggravating factors such as speed, impairment and distracted driving.
- Although 2020 saw a decrease in fatalities and serious injuries, it was an anomaly and preliminary data shows a disconcerting increase in 2021 with all indications that this trend continued through 2022.
- The areas with the most fatalities and serious injuries in Region 1 correlate with the areas that have the most poverty and ethnic and racial diversity. Due to data limitations, it is unknown if there is over-representation in race/ethnicity or poverty; however, because these are factors in fatalities and serious injuries, Region 1 will continue to make Southeast Portland a focus, and work with diverse groups on identifying and addressing their traffic safety concerns.
- The counties in Region 1 have unique characteristics and traffic safety issues; however, impaired driving, pedestrians, and motorcyclists are issues across the Region.

- Bicycle fatalities and serious injuries have decreased in Region 1; however, this group of vulnerable users will continue to be a priority through grassroots efforts.
- Since 2018, the City of Portland continues to account for a larger portion of all Region 1 fatalities, making it a priority in the effort to move towards decreasing fatalities in the Region.
- Due to the fact that the majority of ethnicity and race diversity exists in East Portland, and to some extent the Hispanic population in Washington County, Region 1 will continue to work with organizations on providing traffic safety materials for non-English, ESL and LEP speakers with a focus on providing materials and education that is culturally appropriate and meets their unique needs as self-identified, with direction and input by the impacted communities.
- Teens who have access and participate in Driver Education are better drivers, which necessitates an effort to increase access and participation to driver education regardless of income or ethnicity.
- Just as Southeast Portland bears the brunt of fatalities and serious injuries, it also bears the brunt of pedestrian fatalities and serious injuries where a significant portion of these are houseless individuals, indicating the need for a continued focus in this area on pedestrian education and safety for both pedestrians and drivers. Because the areas that experience the most pedestrian fatalities and serious injuries are also the poorest and most ethnically and racially diverse, Region 1 will continue to work with partners to reach these groups with traffic safety education and outreach.
- Although Region 1 has a low fatality rate for children 0-11, Multnomah County and East Portland bear the brunt of traffic crashes that result in disabling injuries for children of this age group. Disability, for a family already coping with poverty, can be a lifetime sentence to poverty. Currently Region 1 has a limited ability to meet the needs of low-income families who cannot afford a co-pay for a child restraint, and the high rate of mis-use is indicative of the need for education and appropriate car seats to protect our most vulnerable citizens. In addition, the free car seat programs in Region 1 also serve the racial and ethnically diverse populations of Portland, indicating that if equity is a NHTSA goal then programs to provide car seats to low-income families need to be more flexible and have greater reach than they currently do.
- Once a person receives a driver license in the United States, there is rarely an opportunity or a requirement for them to learn new laws or refamiliarize themselves with the old ones, except in the case of age or disability. Due to immigration to Oregon from other states and countries, lack of access to Driver Education and general lack of knowledge about Oregon traffic laws it is evident that more outreach and education needs to reach the general public in regard to their responsibilities as drivers and the consequences of certain behaviors.
- Due to data limitations Region 1 and the State of Oregon has limited knowledge of how prior driving behavior impacts the likelihood of a fatal or serious injury crash, and whether or not driver intervention programs are effective. More data and information is needed to ascertain whether or not Oregon is succeeding in rehabilitating its most risky drivers or at least getting them off the roads before they cause irreparable harm.
- As discussed previously, impaired driving is the second largest cause of fatalities and serious injuries in Region 1. Recent public engagement throughout the Region has revealed the need for all sectors involved in the impaired driving issue, Law Enforcement, Drug Task Force Members, Judicial; Parole and probation; VIP Coordinators, Prosecution; Prevention; DMV; Treatment and Evaluation; Hospital, Regional OLCC, Traffic Safety; DPSST; Regional ODOT, Commerce and Compliance Division, and non-profit organizations to break silos and work together to decrease fatalities and serious injuries resulting from impaired driving.
- Speed is the second largest cause of fatalities and serious injuries in Region 1, where there's also a concern in the increase of speed racing events, and although this behavior has not yet accounted for a high percentage of speed related deaths, it needs to be addressed as indicated by the legislation passed in 2023.

- In Region 1 traffic engineering and safety have a symbiotic relationship, recognizing that engineering solutions are more effective when accompanied by education and outreach. Region 1 Traffic Safety will continue to work with engineering on supporting hot spots and engineering solutions with accompanying education and outreach when identified as an appropriate countermeasure.

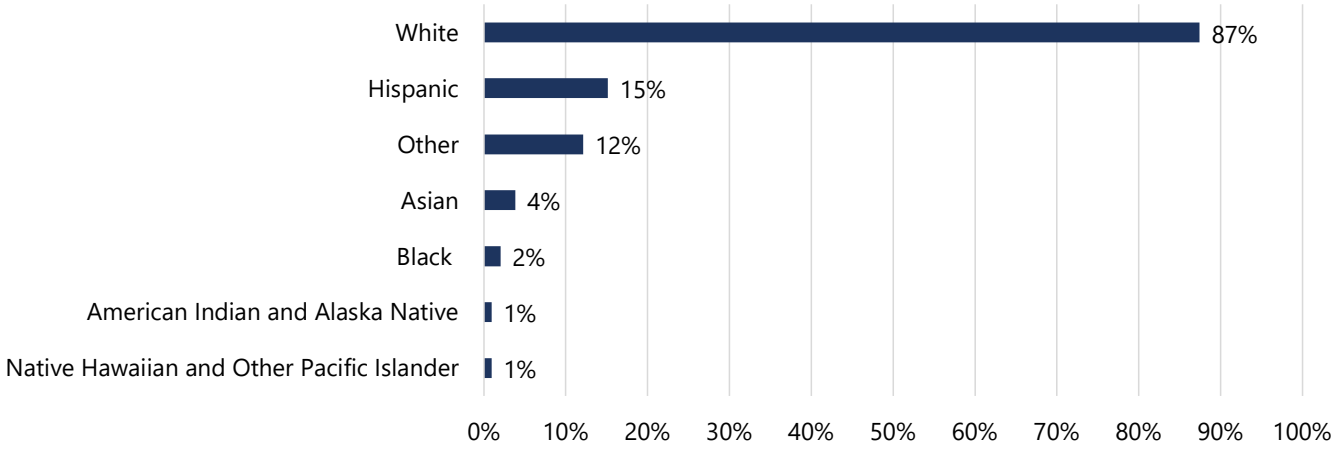
Region 2 Overview

Region 2 works to reduce traffic crashes on state and local roads through grant projects and other countermeasures found within various statewide programs in TSO's annual Highway Safety Plan (i.e., impaired driving, occupant protection, and speed). The RTSC leads coordination within the Region's public and private agencies and organizations, including local transportation safety committees and law enforcement, to enhance transportation safety programs and their effectiveness within the identified high crash areas.

Region 2 is made up of 10 counties as well as a section of Washington, Clackamas, Jefferson, Deschutes, and Klamath counties. Region 2 is responsible for the safety, construction, and maintenance of almost 25 percent of state highway miles that cover the Willamette Valley, North and Central Coast, Coast Range, and Central Cascade passes. The Region is made up of urban and rural areas with unique traffic safety issues, ethnic and cultural diversity, and disparities in traffic crashes for aging drivers and young drivers.

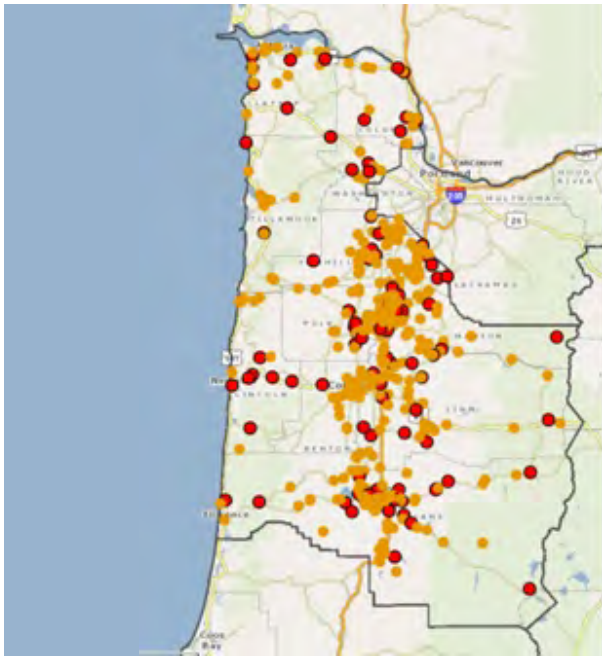
FIGURE 43: REGION 2

FIGURE 44: 2020 PERCENT OF POPULATION BY ETHNICITY, ODOT REGION 2



Source: 2020 US Census

FIGURE 45: DRIVER INVOLVED AGE 15-20, 2016-2020, REGION 2 - FATALITIES AND SERIOUS INJURIES

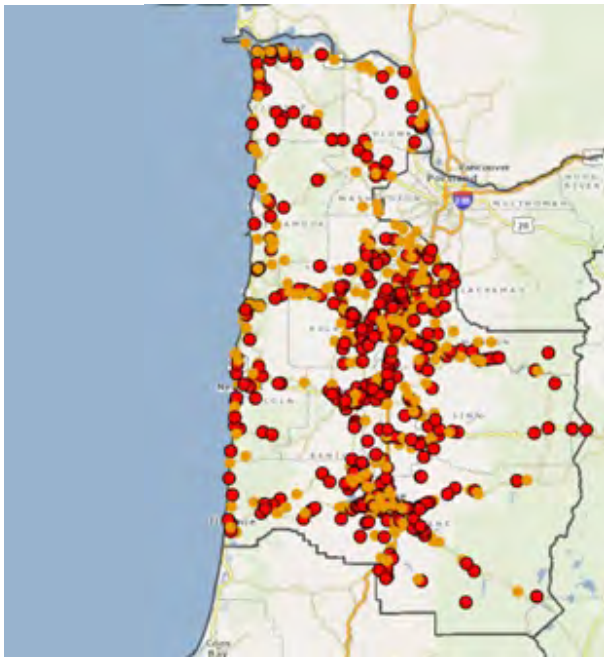


Source: ODOT Crash Analysis & Reporting Unit

FIGURE 46: DRIVER INVOLVED AGE 65+, 2016-2020, REGION 2 - FATALITIES AND SERIOUS INJURIES

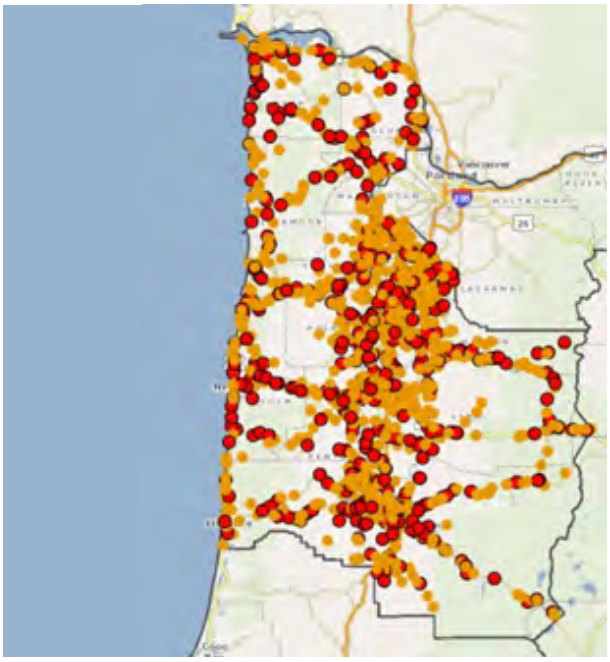
Source: ODOT Crash Analysis & Reporting Unit

FIGURE 47: ALCOHOL OR DRUG INVOLVED, 2016-2020, REGION 2 - FATALITIES AND SERIOUS INJURIES



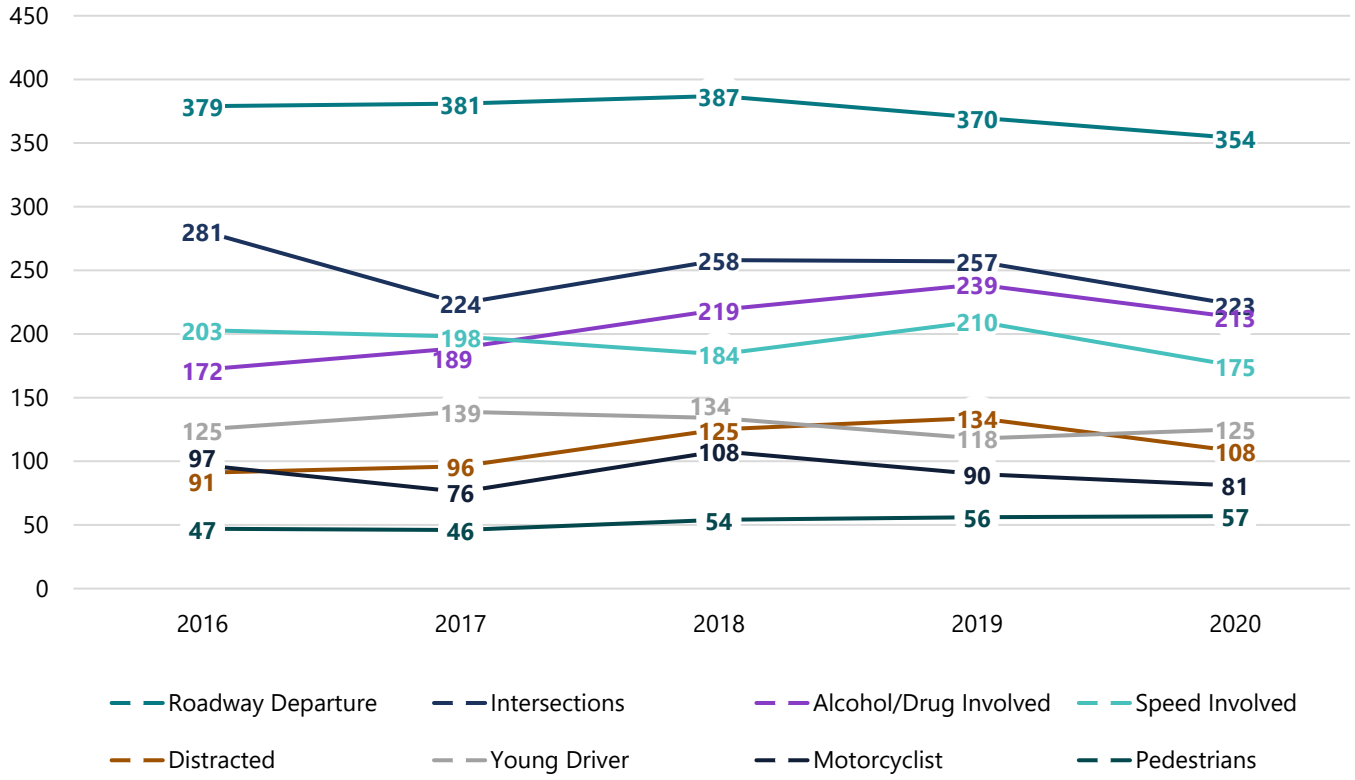
Source: ODOT Crash Analysis & Reporting Unit

FIGURE 48: ROADWAY DEPARTURES, 2016-2020, REGION 2 - FATALITIES AND SERIOUS INJURIES



Source: ODOT Crash Analysis & Reporting Unit

FIGURE 49: REGION 2 - FATALITIES AND SERIOUS INJURIES



Source: ODOT Statewide Crash Data System (CDS)

Region 2 Problem Identification

In Region 2, roadway departure and intersection crash types result in the highest number of fatalities and serious injuries. And despite efforts to reduce traffic fatalities over the last decade, speed, alcohol/drugs, distracted driving, and improper safety belt use continue to be major factors contributing to deaths and injuries on all the Region's roads. Other challenges in the Region include teen driver, aging drivers, motorcyclist, and pedestrian crashes.

Region 2 has seen an increase in drug impaired fatal and serious injury crashes. There is a need for more training for law enforcement officers (Drug Recognition, ARIDE, court testimony, recent case opinions, etc.), and public education campaigns related to reducing drug impaired driving.

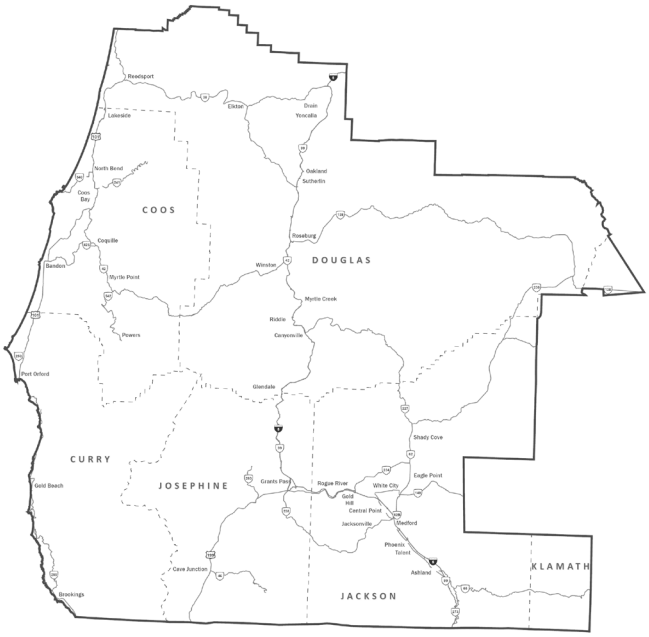
There continues to be a need to provide education and resources to local traffic safety committees on the 4-E (education, engineering, enforcement, and emergency medical services) approach to transportation safety and provide education to communities in various languages.

Region 3 Overview

Region 3 is the Oregon Department of Transportation's Southwest region, extending from the Oregon coast to Crater Lake, and from the northern California border to the borders of Lane and Douglas counties. The region oversees public transportation investments in Coos, Curry, Douglas, Jackson and Josephine Counties. The geographic diversity in the region is extraordinary. The gem of Oregon's only National Park is Crater Lake, the deepest and possibly the 'bluest' lake in the country. The region has a wide range of rivers and lakes, coastline, mountains, wetlands, desert, and the largest stand of old growth timber in the world.

Region 3 works to reduce traffic crashes on its state, county and city roads through grant projects and other countermeasures found within various statewide programs in TSO's annual Highway Safety Plan (i.e., impaired driving, occupant protection, and speed). The RTSC leads coordination within the Region with public and private agencies and organizations, including local transportation safety committees and law enforcement, to enhance safety programs and their effectiveness within the identified high crash areas.

FIGURE 50: REGION 3



Region 3 Problem Identification

In 2020, Region 3 had 15 percent of total state traffic fatalities compared with 12 percent of the state's licensed drivers. Despite sustained reductions in traffic fatalities over the last decade, speed, alcohol, and roadway departure continue to be major factors contributing to deaths and injuries on all roads within Region 3.

Roadway departure remains the top type of fatal and serious injury crash in Region 3, accounting for 52 percent of all fatal and serious injuries in 2020; followed by alcohol or drug involved (one substance) at 31 percent, and speed at 26 percent; however, all three causes have strong overlap. While fatal and serious injuries decreased in 2020 by 27 percent, Region 3 fatalities decreased 17 percent.

Although roadway departure was noted as the top cause of fatal and serious injury crashes in the region, the majority have factors that include speed, impairment, and/or distraction; while others had no **known** aggravating factors, which could also include falling asleep, medical issues or suicide.

Speed was a contributing factor in 78 fatal and serious injury crashes in Region 3 (15 percent of the statewide fatal and serious injury crashes) in 2020, decreasing considerably from 96 in 2019.

In 2020, 15 percent of the statewide alcohol and/or drug involved fatal and serious injury crashes (92) occurred in Region 3.

Drug involved fatal and serious injuries decreased in Region 3 from 62, to 50 in 2020 which equated to 16 percent of the statewide total.

Although Region 3 saw decreases in many of the crash categories, this is not reflective of a downward trend but rather the result of a global pandemic-induced anomaly, and preliminary 2021 data indicates an increase in fatalities and serious injuries. Initial fatal crash notifications also indicate that this trend continued through 2022.

The tables below provide the 2016-2020 fatality and serious injury average by mode and aggravating factor, the representative percentage of all Region 3 fatalities and serious injuries by county, and the percentage increase or decrease from 2019 – 2020.

TABLE 16: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY REGION AND COUNTY - REGION 3

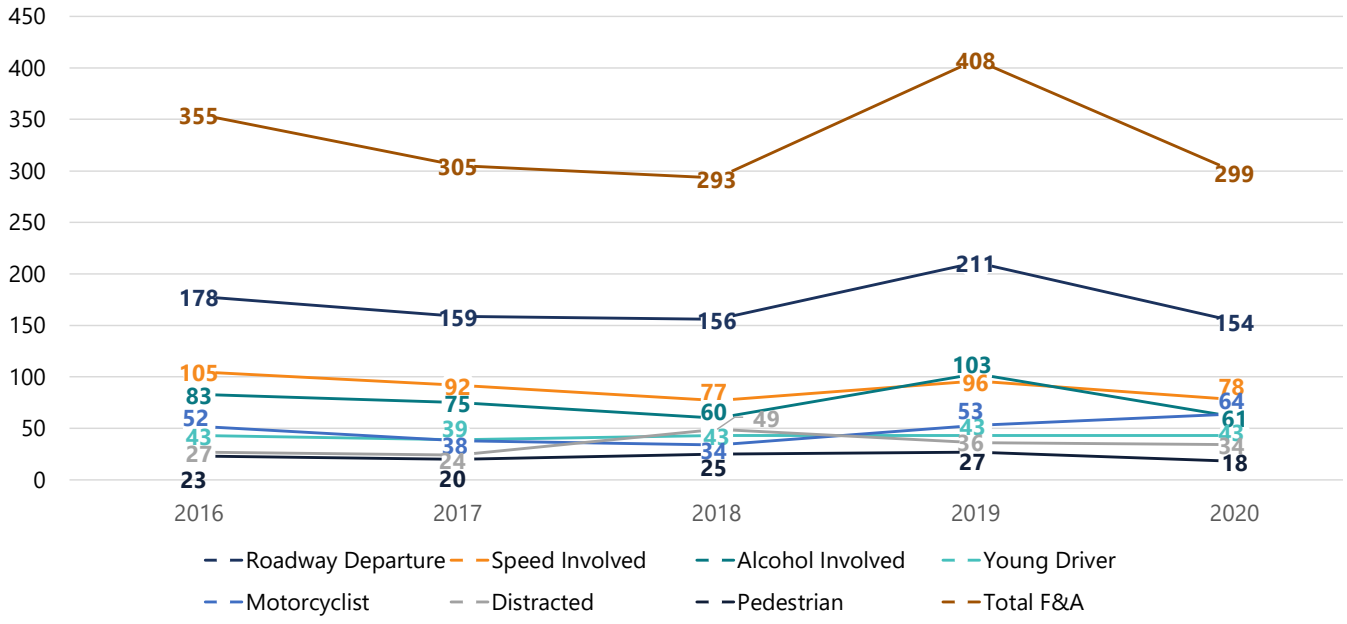
Coos	2016-2020 Average	% of Region 3 Fatalities & Serious Injuries	Increase/Decrease from 2019 to 2020
Roadway Departure	23	14%	-42%
Alcohol or Drug Involved	11	11%	67%
Speed	14	16%	-69%
Peds	2	9%	50%
Motorcyclists	3	7%	-
Young Drivers 15-20	5	12%	-50%
Distracted Driving	3	3%	34%
Poly-substance	2	11%	-300%
Bicyclists	.6	9%	300%
Curry	**2016-2020 Average**	**% of Region 3 Fatalities & Serious Injuries**	**Increase/Decrease from 2019 to 2020**
Roadway Departure	7	4%	-47%
Alcohol or Drug Involved	5	5%	-
Speed	3	4%	-30%
Peds	1	5%	-
Motorcyclists	1	2%	300%
Young Drivers 15-20	1	3%	100%
Distracted Driving	1	3%	200%
Poly-substance	.6	4%	300%
Bicyclists	.6	9%	-100%
Douglas	**2016-2020 Average**	**% of Region 3 Fatalities & Serious Injuries**	**Increase/Decrease from 2019 to 2020**
Roadway Departure	55	32%	-26%
Alcohol or Drug Involved	26	26%	-6%
Speed	24	27%	-14%
Peds	4	18%	-40%
Motorcyclists	14	30%	82%
Young Drivers 15-20	11	23%	8%
Distracted Driving	11	33%	-23%
Poly-substance	6	32%	25%
Bicyclists	3	43%	-67%

TABLE 16: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY REGION AND COUNTY - REGION 3

Jackson	2016-2020 Average	% of Region 3 Fatalities & Serious Injuries	Increase/Decrease from 2019 to 2020
Roadway Departure	57	33%	-15%
Alcohol or Drug Involved	38	38%	-52%
Speed	32	36%	15%
Peds	11	48%	-12%
Motorcyclists	23	48%	-16%
Young Drivers 15-20	17	41%	23%
Distracted Driving	12	36%	-22%
Poly-substance	7	37%	-93%
Bicyclists	3	43%	-43%
Josephine	**2016-2020 Average**	**% of Region 3 Fatalities & Serious Injuries**	**Increase/Decrease from 2019 to 2020**
Roadway Departure	33	19%	-46%
Alcohol or Drug Involved	21	21%	17%
Speed	15	17%	-
Peds	5	22%	-80%
Motorcyclists	7	15%	34%
Young Drivers 15-20	8	19%	13%
Distracted Driving	6	18%	-58%
Poly-substance	4	21%	400%
Bicyclists	.6	9%	100%

Source: ODOT Statewide Crash Data System (CDS)

FIGURE 51: REGION 3 FATALITIES AND SERIOUS INJURIES



Source: ODOT Statewide Crash Data System (CDS)

When reviewing fatal and serious injury data in Region 3 it is important to consider that in some counties you can see what appears to be a substantial increase or decrease in a particular crash mode. That is typically due to an increase/decrease of one or two total fatalities or serious injuries in a small county. While numbers are tracked year to year, watching the overall trend over several years and watching the direction of an average is more indicative of a program area concern getting better or worse in Region 3.

Region 4 Overview

Region 4 works to reduce traffic crashes on state and local roads through grant projects and other countermeasures within various statewide programs in TSO's annual Highway Safety Plan (i.e., impaired driving, occupant protection, and speed). The RTSC leads coordination within the Region with public and private agencies and organizations, including local transportation safety committees and law enforcement, to enhance safety programs and their effectiveness within the identified high crash areas.

The wide ranging differences within Region 4 make each of the nine counties unique in population characteristics and highway types, which in turn impacts safety factors such as presence of law enforcement, emergency medical service response time, traffic amenities and public transportation, and availability of protected active transportation facilities such as sidewalks and bike lanes.

FIGURE 52: REGION 4

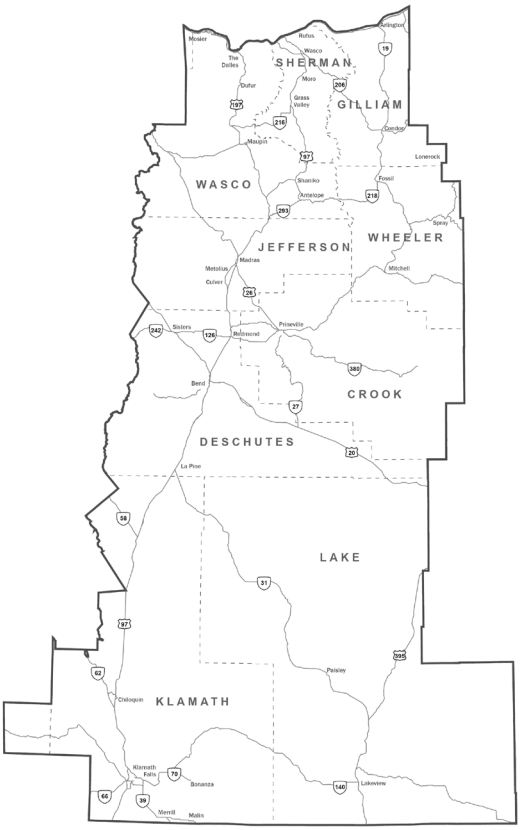


TABLE 17: VEHICLE MILES TRAVELED COMPARED TO LAND AREA BY COUNTY IN REGION 4

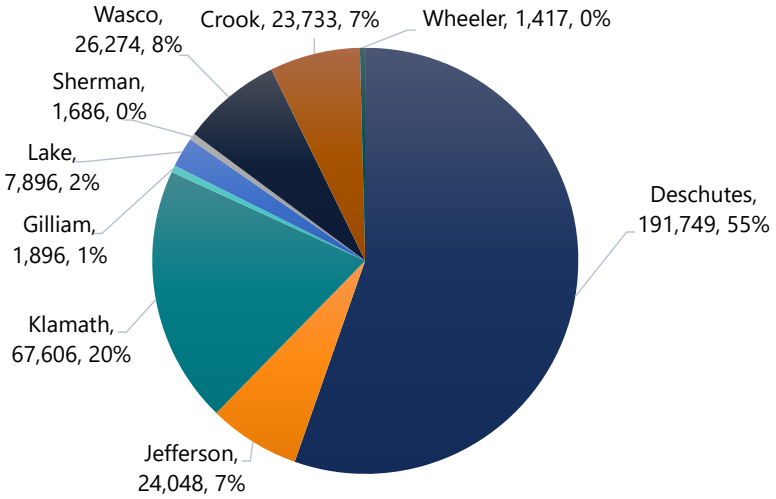
	Vehicle Miles Traveled (VMT) 2020	% of VMT in Region 4	% Land Area in Region 4 (sq mi)
1. CROOK	111,632,468	5.1%	10.7%
2. DESCHUTES	707,837,285	32.1% ↑	10.9%
3. GILLIAM	162,358,611	7.4% ↑	4.3%
4. JEFFERSON	194,079,458	8.8% ↑	6.4%
5. KLAMATH	460,439,565	20.8%	21.4%
6. LAKE	67,684,889	3.1%	28.6%
7. SHERMAN	125,358,841	5.7%↑	3%
8. WASCO	359,920,312	16.3% ↑	8.6%
9. WHEELER	19,137,786	0.9%	6.2%

Source: Oregon Highway Performance Monitoring System (HPMS)

The variety in population size and diversity between Region 4 counties is very large, and difficult to observe in charts depicting the entire region at a glance. It is for this reason that the following charts are listed by county to illustrate the details that would have otherwise been lost when comparing the race and age characteristics of residents living in both the urban and rural areas.

All data is taken from the 2020 US Census to allow analysis of the crash data within the context of the communities in which they occurred, and prior to the many changes brought about by the COVID-19 pandemic.

FIGURE 53: REGION 4 POPULATION BY COUNTY



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 54: 2020 POPULATION BY AGE - CROOK COUNTY

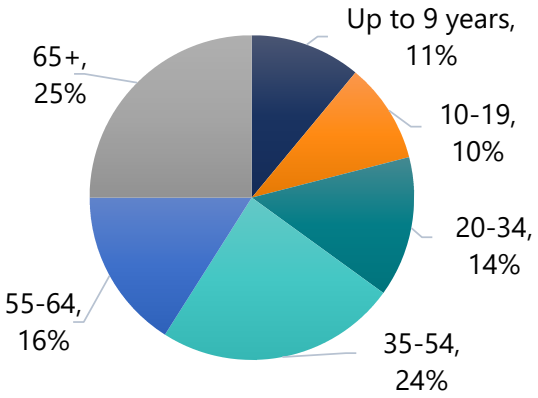


FIGURE 55: 2020 POPULATION BY RACE - CROOK COUNTY

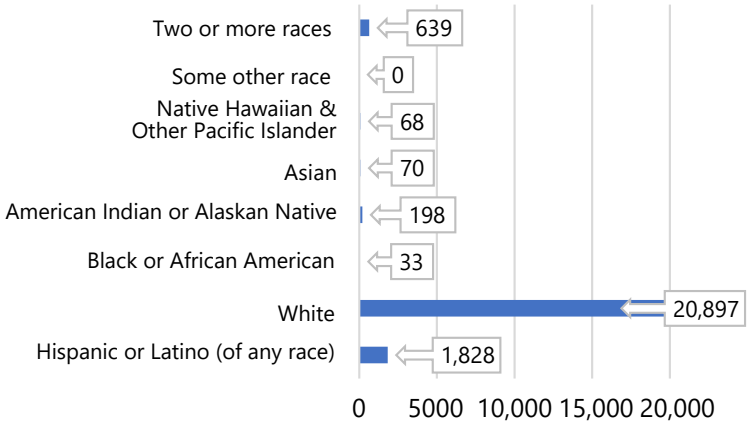


FIGURE 56: 2020 POPULATION BY AGE - DESCHUTES COUNTY

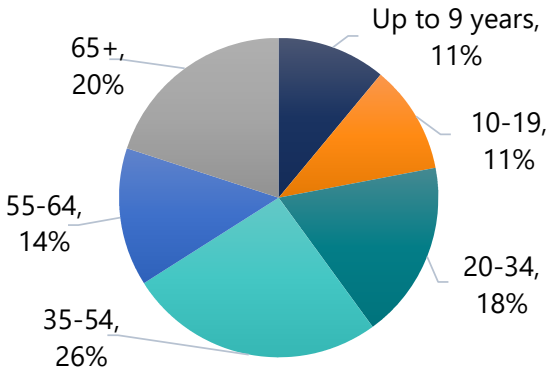
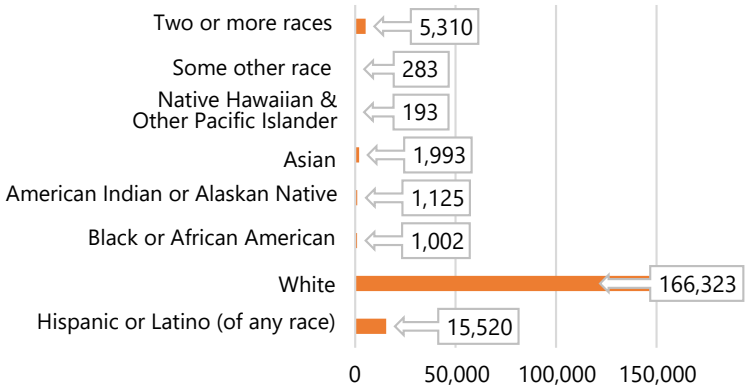


FIGURE 57: 2020 POPULATION BY RACE - DESCHUTES COUNTY



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 58: 2020 POPULATION BY AGE - GILLIAM COUNTY

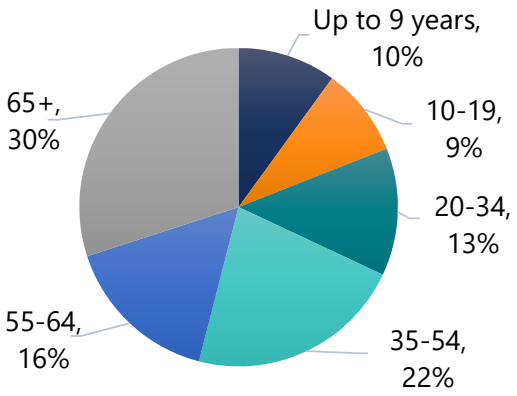


FIGURE 59: 2020 POPULATION BY RACE - GILLIAM COUNTY

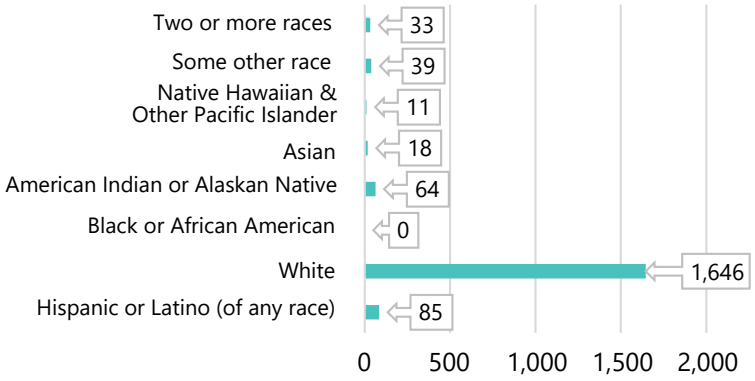


FIGURE 60: 2020 POPULATION BY AGE - JEFFERSON COUNTY

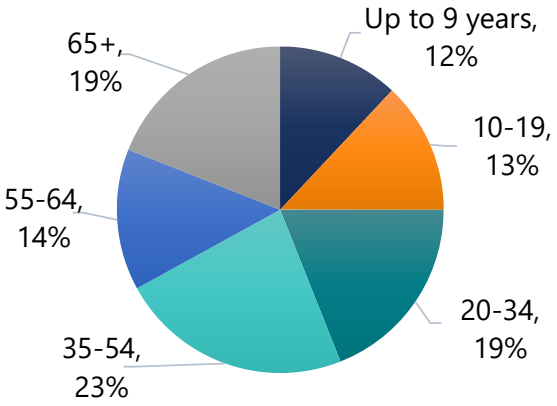


FIGURE 61: 2020 POPULATION BY RACE - JEFFERSON COUNTY

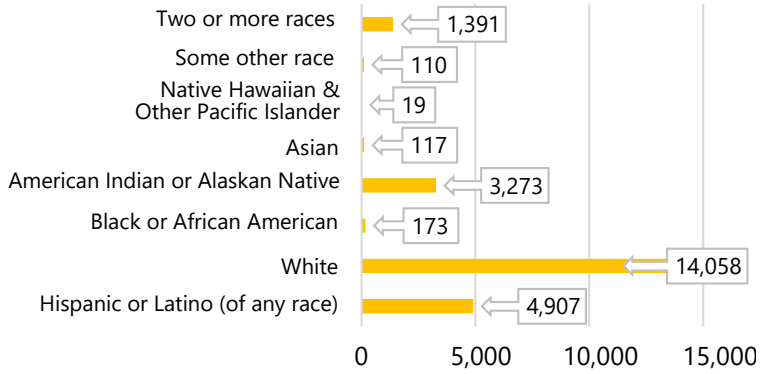


FIGURE 62: 2020 POPULATION BY AGE - KLAMATH COUNTY

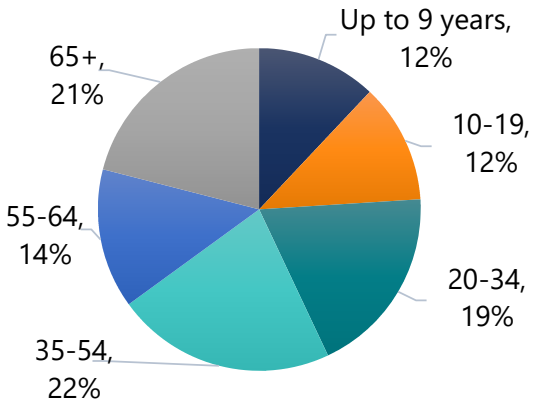
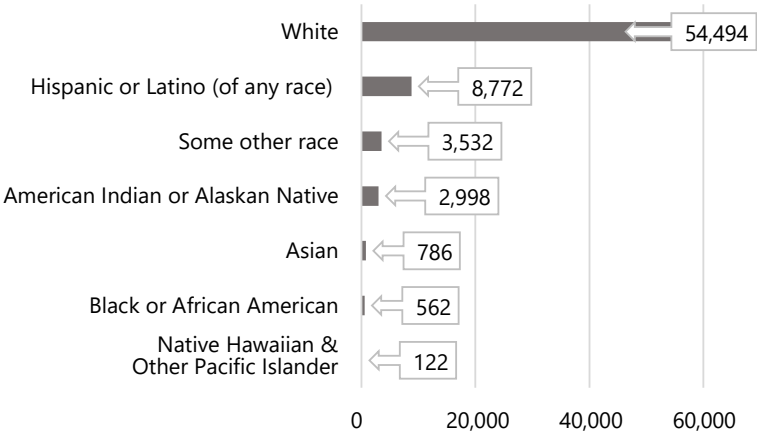


FIGURE 63: 2020 POPULATION BY RACE - KLAMATH COUNTY



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 64: 2020 POPULATION BY AGE - LAKE COUNTY

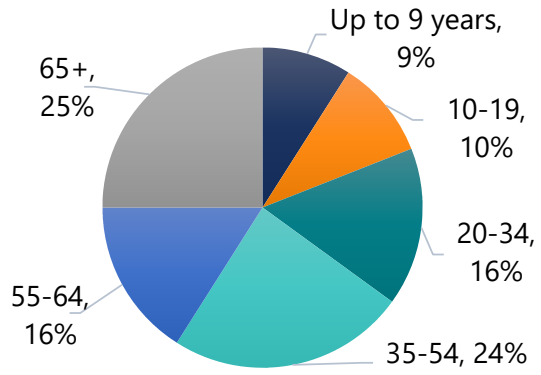


FIGURE 65: 2020 POPULATION BY RACE - LAKE COUNTY

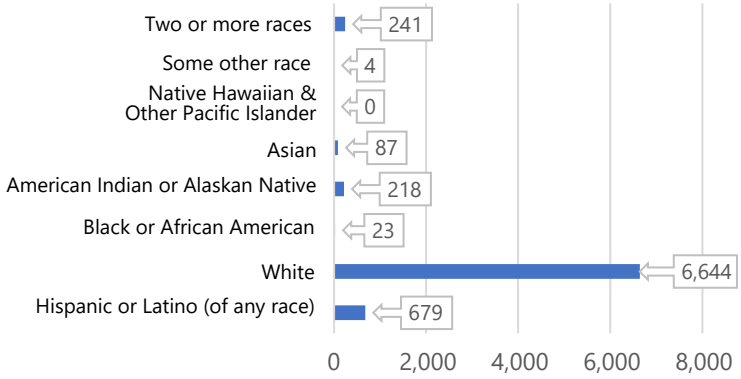


FIGURE 66: 2020 POPULATION BY AGE - SHERMAN COUNTY

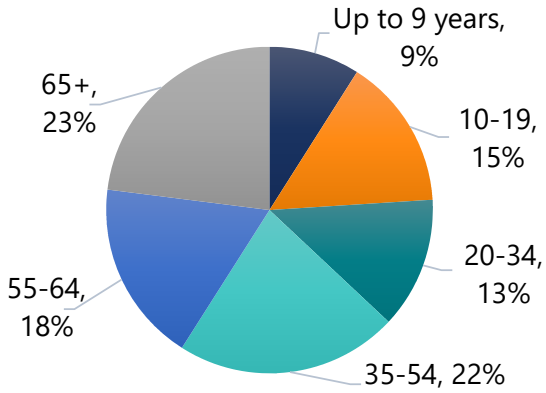


FIGURE 67: 2020 POPULATION BY RACE - SHERMAN COUNTY

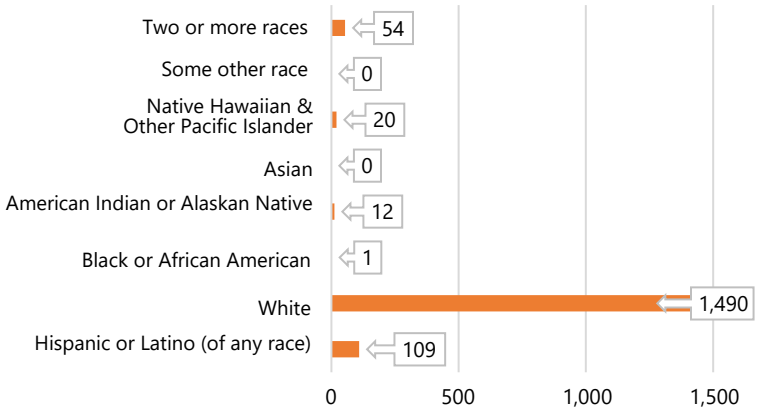


FIGURE 68: 2020 POPULATION BY AGE - WASCO COUNTY

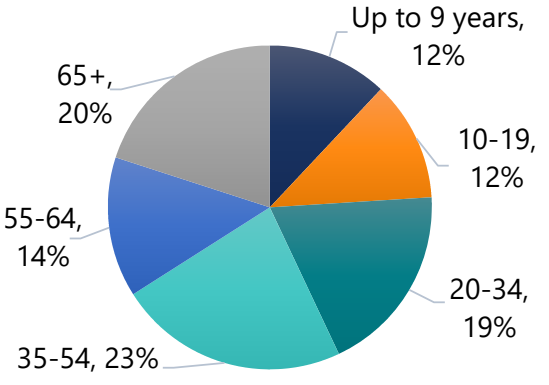
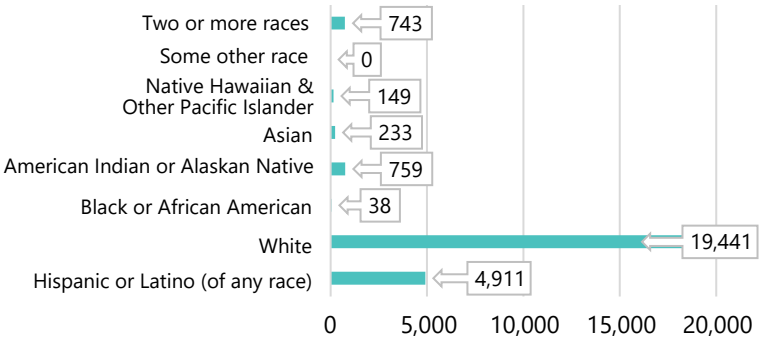


FIGURE 69: 2020 POPULATION BY RACE - WASCO COUNTY



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 70: 2020 POPULATION BY AGE - WHEELER COUNTY

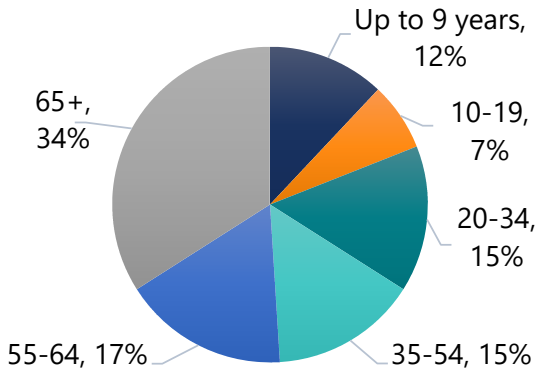
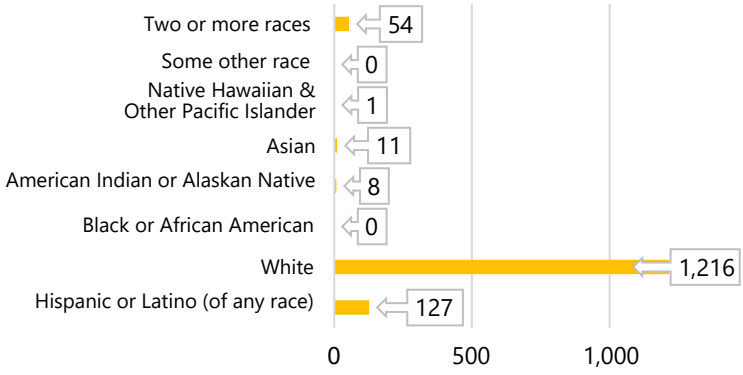
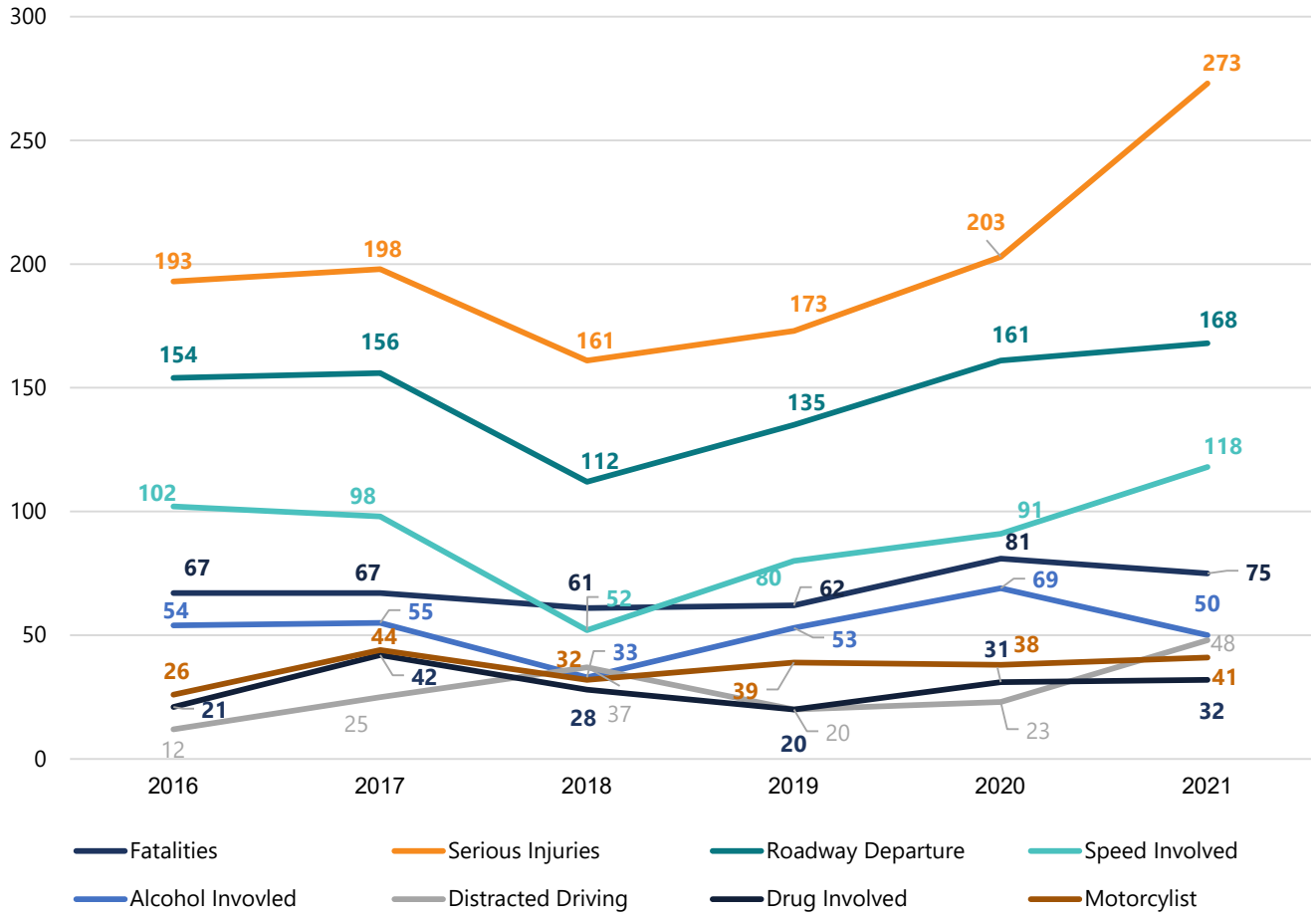


FIGURE 71: 2020 POPULATION BY RACE - WHEELER COUNTY



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 72: REGION 4 - FATALITIES AND SERIOUS INJURIES



Source: ODOT Statewide Crash Data System (CDS)

Region 4 Problem Identification

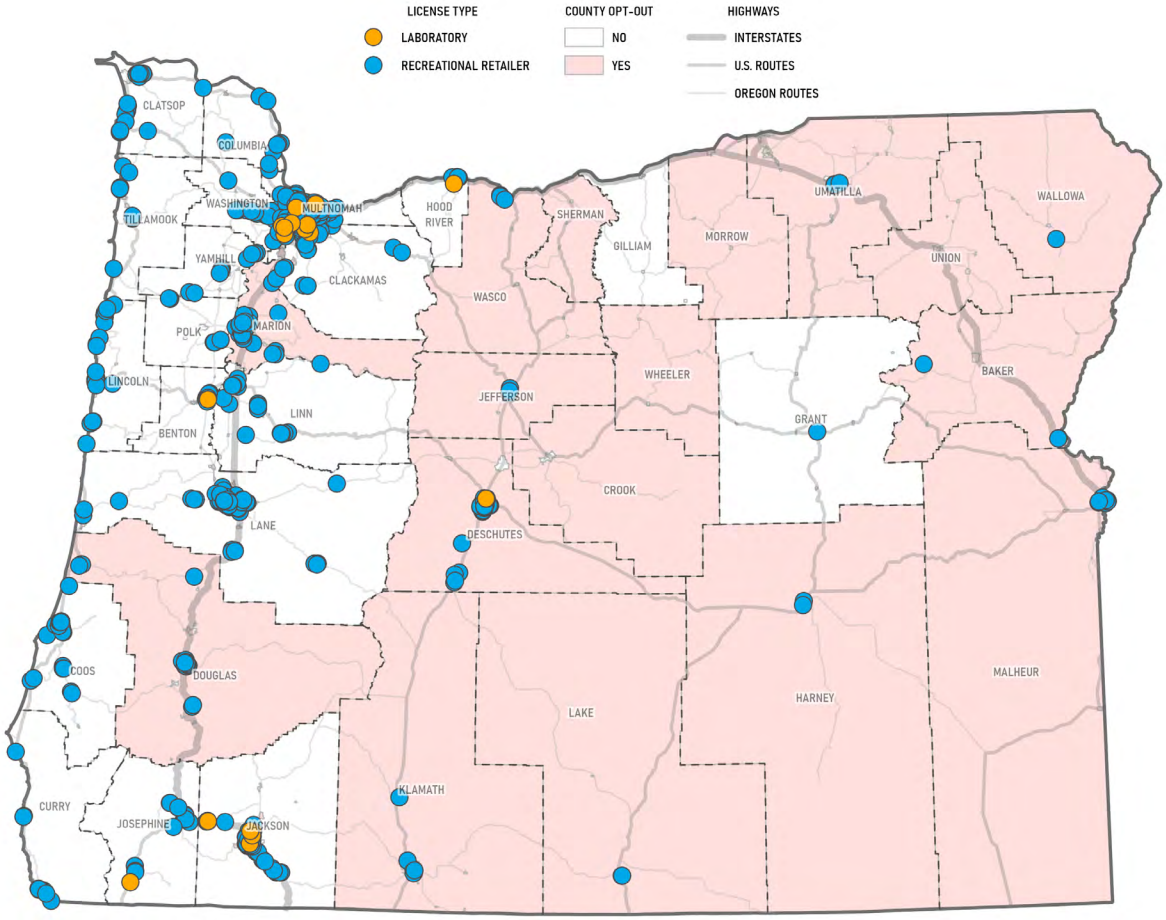
IMPAIRED DRIVING

One of the top three factors involved in fatal and serious injury crashes both statewide and within Region 4 is impaired driving. Whether alcohol only, drug only, or poly-substance involved crashes, Oregon is seeing a rise in impaired driving crashes. The highest occurrences of these crashes are in the most populated counties of ODOT's Region 4.

Over the last several years however even less densely populated counties have maintained or seen an increase in impaired driving fatal and serious injury crashes. This suggests the magnitude of this problem is widespread and not reliant on a single factor, such as close proximity to alcohol distributors or marijuana dispensaries. Recreational marijuana dispensaries are currently only permitted in Deschutes, Jefferson, Klamath, Lake, and Wasco counties as of 2023.

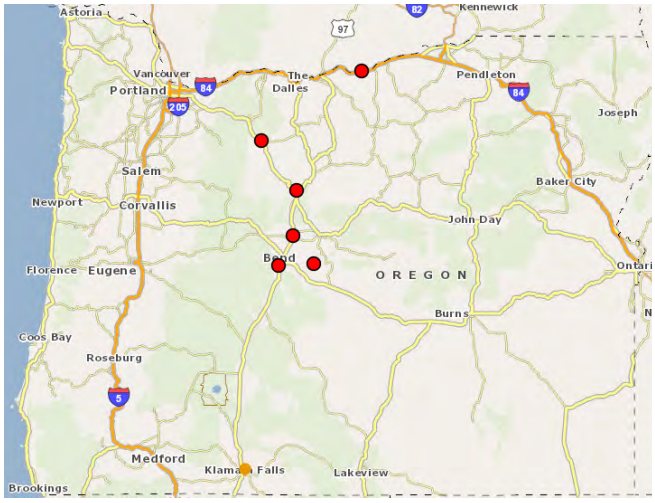
The complex factors leading to impaired driving crashes, as discussed in the Impaired Driving Program chapter, impact both Region 4's rural and urban counties. Proven countermeasures, such as high visibility enforcement details paired with strong public education, awareness, and prevention programs are necessary to change road user mindsets and community cultural norms surrounding impaired driving; to make driving impaired unacceptable within every demographic and at all locations.

FIGURE 73: RECREATIONAL MARIJUANA RETAILERS AND LABORATORIES JUNE 2023



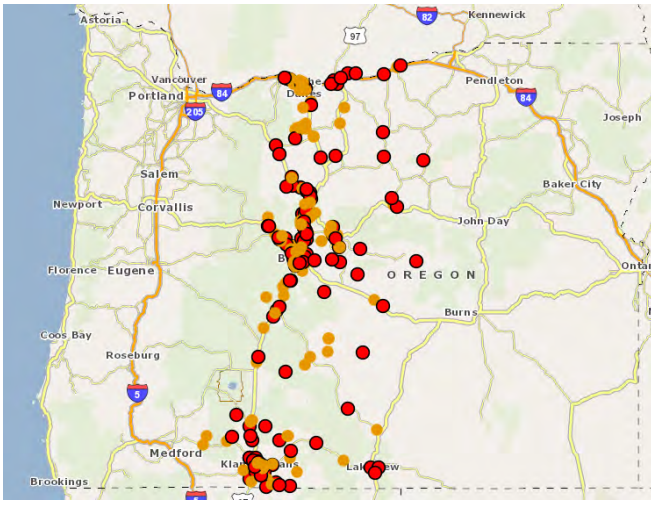
Source: Oregon Liquor and Cannabis Commission

FIGURE 74: FATAL OR SERIOUS INJURY CRASHES INVOLVING DRUGS. REGION 4 2015-2020



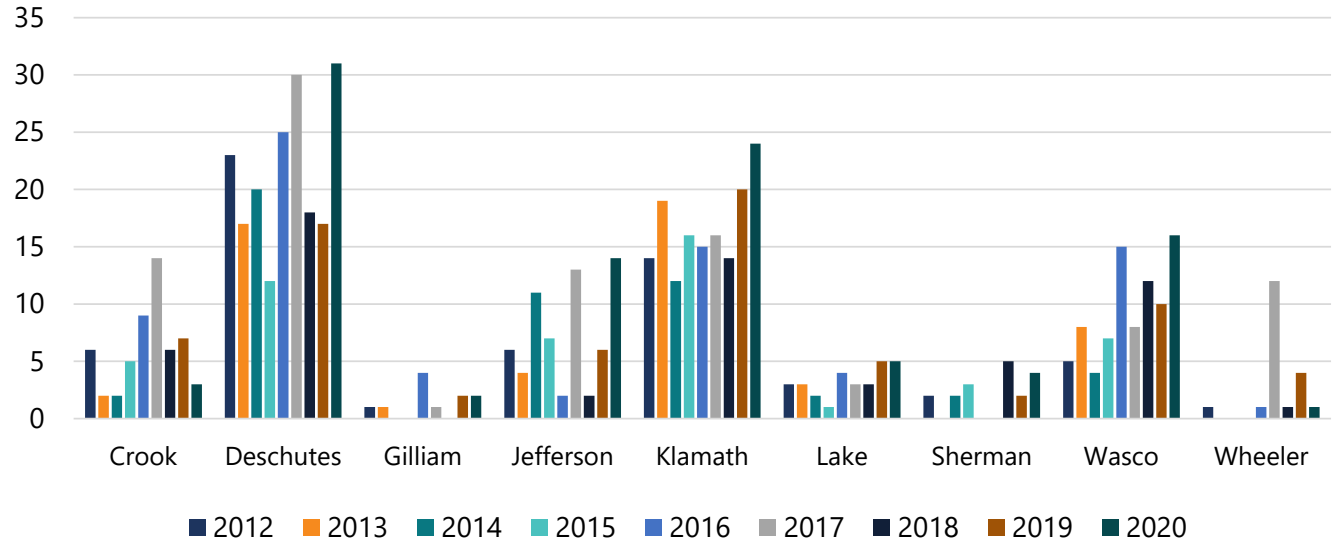
Source: ODOT Statewide Crash Data System (CDS)

FIGURE 75: FATAL OR SERIOUS INJURY CRASHES INVOLVING ALCOHOL. REGION 4 2015-2020



Source: ODOT Statewide Crash Data System (CDS)

FIGURE 76: TOTAL ALCOHOL OR DRUG INVOLVED FATALITIES AND SERIOUS INJURIES



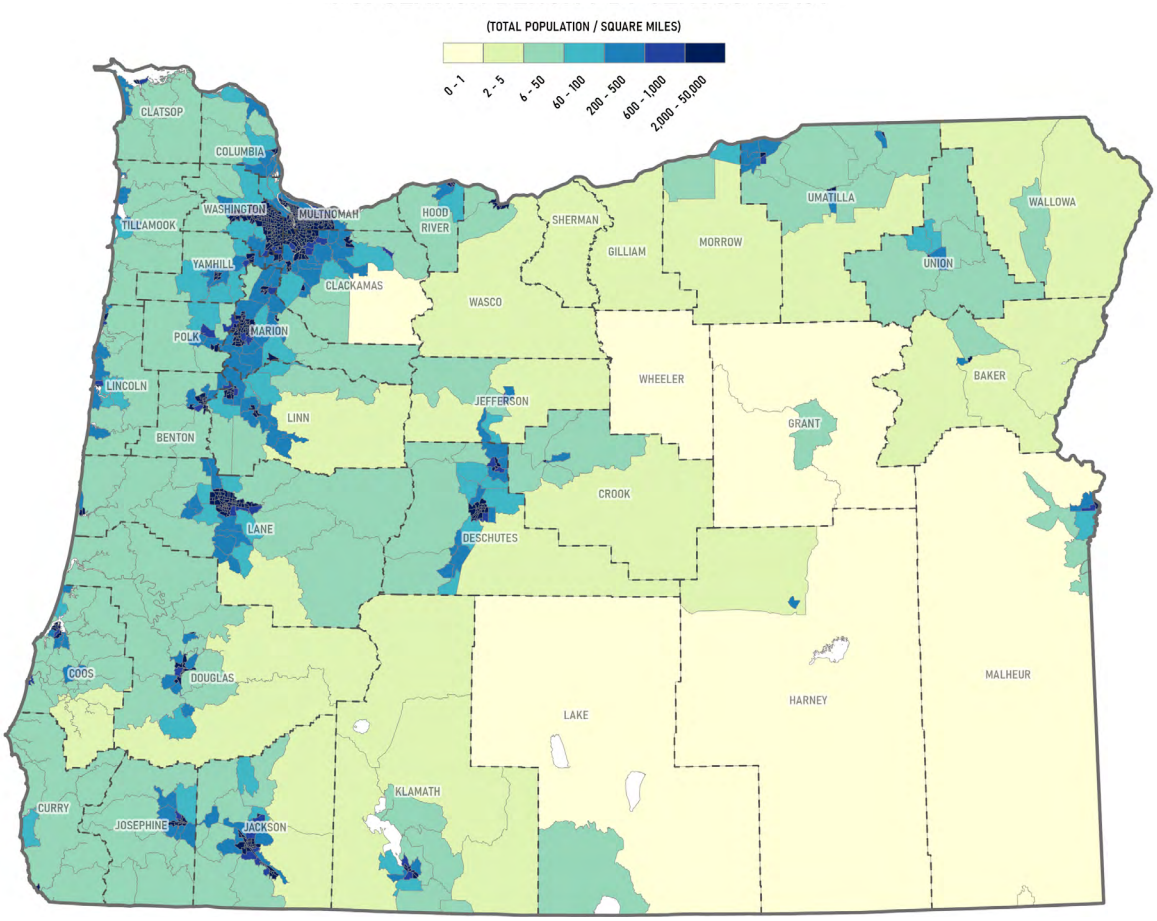
Source: ODOT Statewide Crash Data System (CDS)

SPEED

Even though cars have become safer, and infrastructure is continually maintained and improved, more vehicle miles driven correlates with increased traffic fatalities and serious injuries. Region 4 is largely rural in nature with many miles of rural highways, which are associated with higher speed and roadway departure crashes. These two crash types are the top two involved factors for fatal and serious injuries in Region 4. Central Oregon is among the fastest growing regions in the country and brings with it an increase in traffic volume, another increase to vehicle miles traveled.

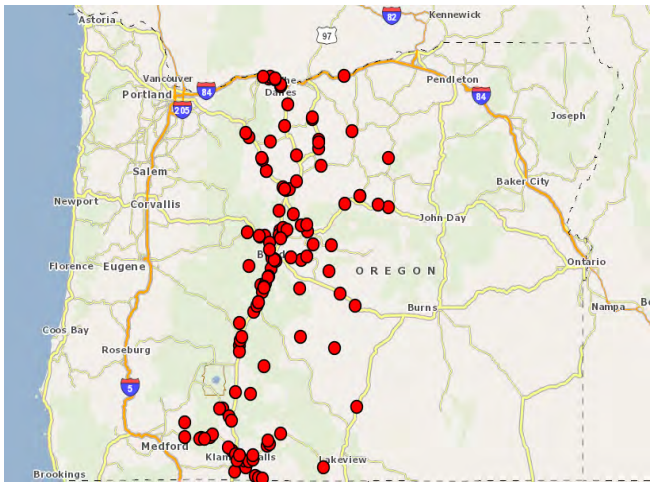
The rural nature of a majority of Region 4's high desert highways present unique challenges to transportation safety. The flat and straight highways along with increased speed limits promote high speed driving, but where these highways also serve as the main streets for small towns, there is increased danger to all users of the system. The longer distances between population centers decreases enforcement capabilities and increases response and travel times for first responders to provide essential services. Less densely populated areas may have few law enforcement officers within their communities but high traffic volumes using the large arterial highways that cut through their areas. This inequity in resources further exacerbates the problem of driver complacency owing to little or no enforced consequences.

FIGURE 77: POPULATION DENSITY BY CENSUS TRACT



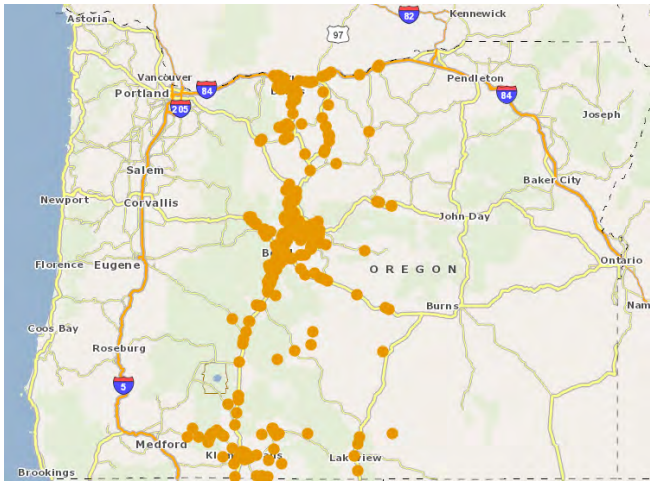
Source: US Census 2020

FIGURE 78: FATAL CRASHES INVOLVING SPEEDING – REGION 4 2015-2020



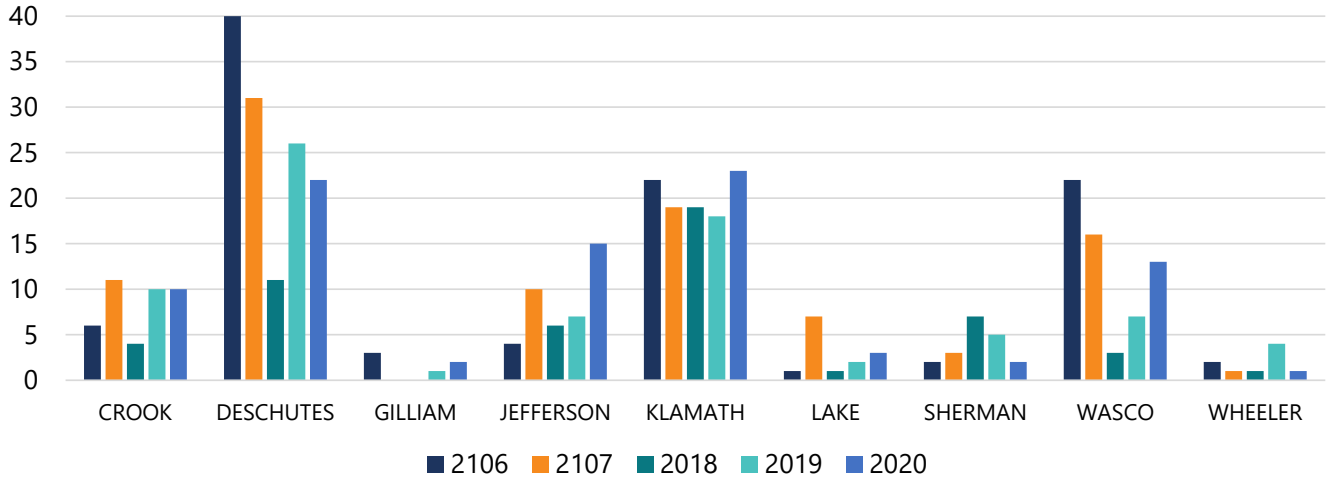
Source: ODOT Statewide Crash Data System (CDS)

FIGURE 79: SERIOUS INJURY CRASHES INVOLVING SPEEDING – REGION 4 2015-2020



Source: ODOT Statewide Crash Data System (CDS)

FIGURE 80: SPEED INVOLVED FATALITIES AND SERIOUS INJURIES – REGION 4



Source: ODOT Statewide Crash Data System (CDS)

The role of the Region programs and the coordinators who facilitate them is to use crash data to identify safety concerns within their regional communities, with the objective to work with local partners to reduce fatal and serious injury crashes. This is done at the request of the agencies and groups within the counties and cities who request NHTSA funding and technical support from the Transportation Safety Office on an ongoing basis throughout each grant year. Unlike the larger statewide subject-based programs who create large-scale strategies to be used across all of Oregon, the ODOT Regions work with each of the program areas to assist in developing smaller yet meaningful and effective projects at the request of local partners, and in a targeted approach. RTSCs work within all TSO program areas to assist local safety groups and governments in providing transportation safety outreach, communication, and education.

Region 5 Overview

Region 5 is responsible for the safety, construction, and maintenance of the State's Highway System in the eight eastern counties in the state: Morrow, Umatilla, Union, Baker, Wallowa, Grant, Harney, and Malheur. These counties make up approximately 39 percent of the total land area of the state with just five percent of the state's population. Region 5 is frontier and rural in nature encompassing 2,228 state highway, 10,384 county and 892 city miles of roadway, with no active safety corridors.

Region 5 works to reduce traffic crashes on state and local roads through grant projects and other countermeasures within various statewide programs in TSO's annual Highway Safety Plan (i.e., impaired driving, occupant protection, speed, etc.). The RSTC leads coordination within the Region with public and private agencies and organizations, including local transportation safety committees and law enforcement, to enhance safety programs and their effectiveness within the identified high crash areas.

The widely ranging differences within Region 5 make each of the eight counties unique in population characteristics and highway types, which in turn impacts safety factors such as presence of law enforcement, emergency medical service response time, traffic amenities and public transportation, and availability of protected active transportation facilities such as sidewalks and bike lanes.

FIGURE 81: REGION 5

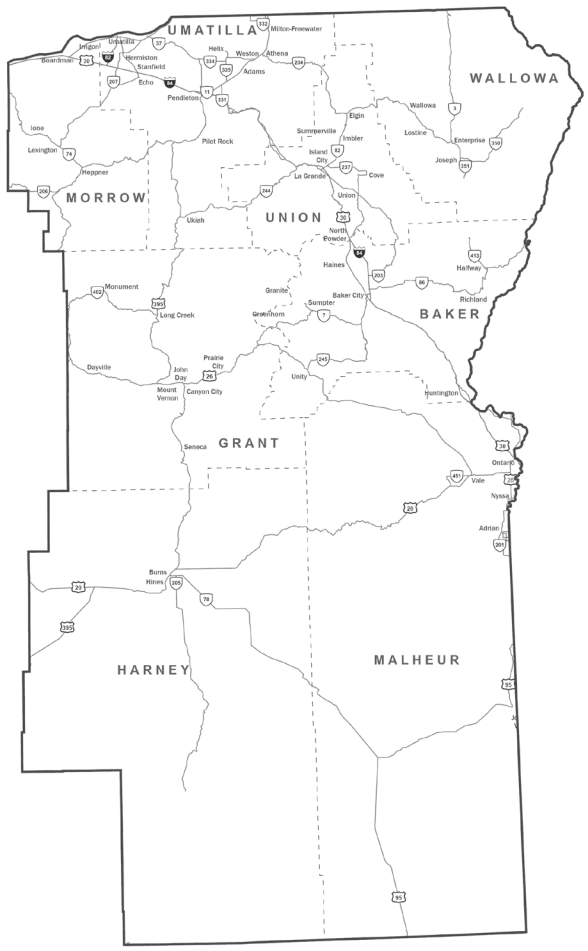
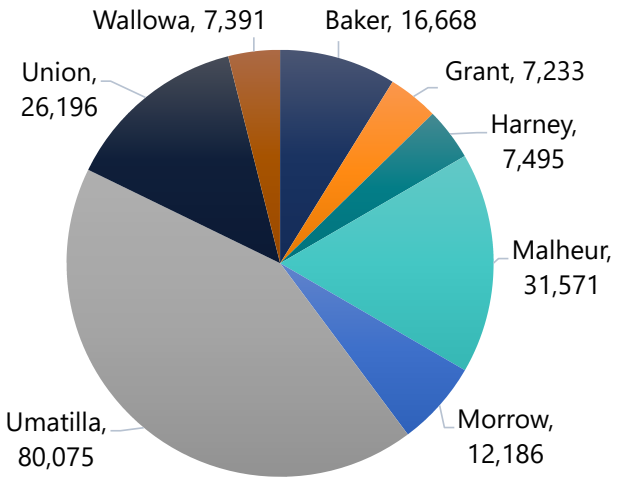


TABLE 18: VEHICLE MILES TRAVELED COMPARED TO LAND AREA BY COUNTY IN REGION 5

	Vehicle Miles Traveled (VMT) 2020	% of VMT in Region 5	% Land Area in Region 5 (sq mi)
1. MORROW	190,555,308	9.9%	5.4%
2. UMATILLA	667,165,418	34.6%	8.4%
3. UNION	257,351,071	13.4%	5.3%
4. WALLOWA	42,578,057	2.2%	8.2%
5. GRANT	56,218,596	2.9%	11.8%
6. BAKER	292,802,116	15.2%	8.1%
7. HARNEY	90,016,641	4.7%	26.7%
8. MALHEUR	328,979,223	17.1%	26.1%

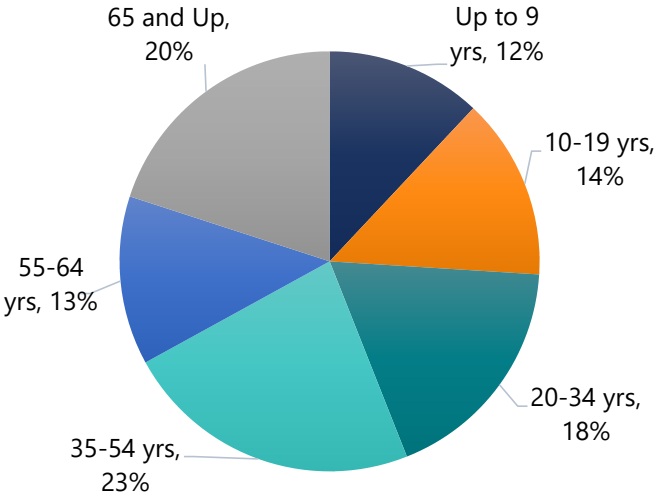
Source: Oregon Highway Performance Monitoring System (HPMS)

FIGURE 82: 2020 POPULATION BY COUNTY REGION 5



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 83: 2020 POPULATION BY AGE REGION 5



Sources: Portland State University Population Research Center, US Census 2020

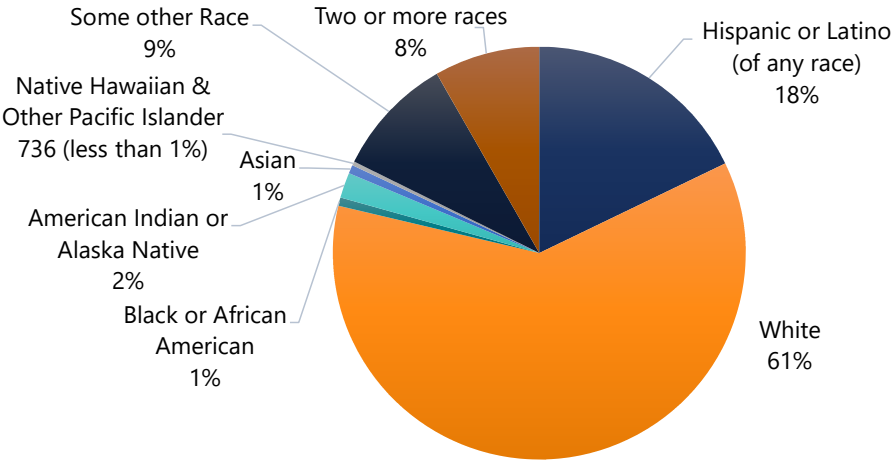
All data is taken from the 2020 US Census to allow analysis of the crash data within the context of the communities in which they occurred, and prior to the many changes brought about by the COVID-19 pandemic. It's important to note that only Umatilla and Union counties are designated as rural whereas the other six counties in the region are designated as frontier meaning that those counties have a population density of fewer than six people per square mile. According to the National Center for Frontier Communities, "Frontier America consists of sparsely populated areas that are geographically isolated from population centers and services." Wallowa county has no traffic lights in the entire county, while Grant County boasts a single traffic light. Both of these frontier counties border one of the two rural counties in the region where residents frequently travel to shop for their essentials so maneuvering through a variety of traffic patterns is critical for even the frontier resident. Counties like Wallowa, Grant, Harney, and sections of Malheur County are hours from an interstate or other major highway. Traveling throughout the region is typically communicated in terms of time "how long it takes to get somewhere" vs. how many miles it is from one location to the next because unlike more urban areas of the state, traffic congestion does not impact travel time between locations. When considering travel in terms of time (able to be manipulated) vs. distance (fixed), things like speed become a more significant consideration in the region. Mountain passes and the wide-open spaces of the high desert provide challenges in emergency response time, law enforcement coverage, and even things like cell phone coverage.

Frontier counties like Grant, Harney, Baker, and Wallowa are considered retirement communities with large percentages of their population more than 50 years old. The other four counties in the region, have more of an even split amoung ages and even lean more towards a younger demographic. These four counties also happen to be the four most populated counties in Region 5.

As depicted in figure 84, 2020 population by race in Region 5, the region is primarily white (61%), with a substantial hispanic or latino population (18%), and much smaller populations of other races as listed. Migrant and seasonal farmworkers and non-farmworkers in those households have larger populations in Morrow, Umatilla, and Malheur Counties than other counties in the region according to the *Estimates of Migrant and Seasonal Farmworkers in Agriculture, 2018 Update* assembled by the Oregon Health

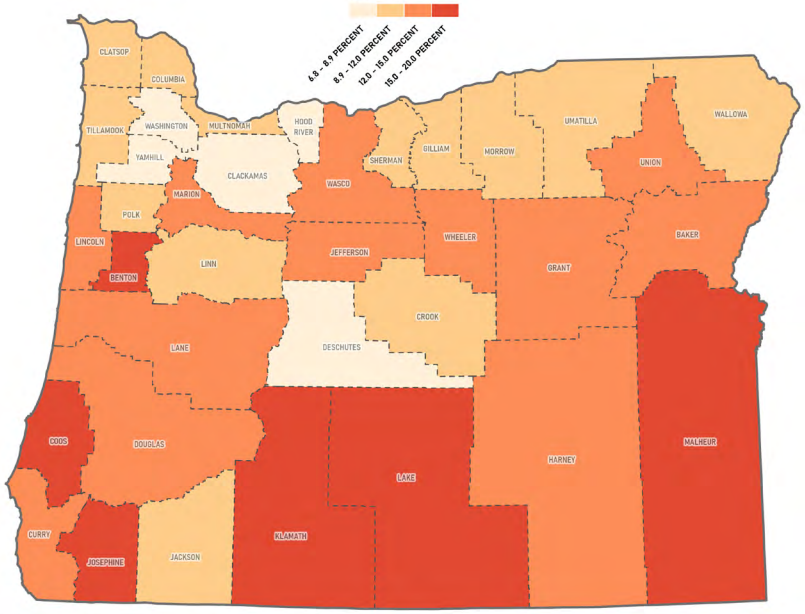
Authority. These are also the three counties with the highest Hispanic populations. Eastern Oregon University (EOU) located in La Grande (Union County) also draws a variety of races to the area to further their education. In particular, EOU attracts many Pacific Islander students to their campus "due to affordability, while others attend because the tight-knit community reminds them of home. Kinship, family and community are highly regarded in island culture, so EOU's rural setting helps students feel instantly connected" according to the EOU Press story *Pacific Islanders Navigate Higher Education, April 20, 2020*. Pacific Islanders do make up a small percentage of the overall population of the region with only 736 total people identified in this population group. However, 492 of them reside in Union County, totaling 1.9 percent of the county's population.

FIGURE 84: 2020 POPULATION BY RACE REGION 5



Sources: Portland State University Population Research Center, US Census 2020

FIGURE 85: OREGON POVERTY BY COUNTY



Source: US Census 2010

REGION 5

County	Percent
Baker	14.5%
Grant	13.9%
Harney	12.6%
Malheur	19.5%
Morrow	11.5%
Umatilla	11.7%
Union	12.6%
Wallowa	11.6%

In 2020, the statewide average of the Oregon population that lived in poverty was 11 percent. Each county in Region 5 was above the statewide average with Malheur county recorded at 19.5 percent at the highest rate in the region and Morrow county recorded at 11.5 percent, the lowest rate in the region. Poverty impacts all aspects of a person's livelihood including transportation choices. If a person in poverty is able to afford a vehicle, the safety of the vehicle, age of the vehicle, and condition of the vehicle may all be impacted. Other traffic safety decisions that can be impacted by poverty include safety equipment such as helmets and safety seats for children. Families who struggle with food insecurity, housing, utility bills, employment, and other responsibilities may not prioritize helmets and safety seats for their children. When poverty is considered in relation to the distance some families would have to travel to purchase helmets and safety seats due to their frontier communities, the barriers for families in poverty to provide safety equipment to their families becomes even greater. As an example, only Umatilla, Union, and Malheur counties have retail outlets where child safety seats can be purchased new.

Despite reductions in traffic fatalities over the last decade, recent years have shown an increase statewide and nationally in numbers. Roadway departure, speed, and driving under the influence continue to be major factors in fatal and serious injuries in Region 5 as reflected by the data. Building a positive safety culture to change poor human behaviors is needed to maintain the momentum toward reducing fatal and serious injury crashes.

In 2020, fatalities due to traffic crashes in Region 5 were over represented with 7.3 percent of the state's fatalities. However, this number represents a decrease in total fatalities from 41 in 2019 to 37 in 2020. In the same year, serious injuries due to traffic crashes increased in number and percent of the state's total with 112 total serious injuries which is up from 2019 where 95 serious injuries were recorded for the region. This number represents 7 percent of the state's total serious injuries due to traffic crashes. It is noteworthy that in 2018, the numbers were lower than they had been in a decade. The increase from 2018 to 2019 and then to 2020 is more in line with the trend previous to 2018.

Fatalities and serious injuries in Region 5 saw an increase in all categories except alcohol impaired driving, drug impaired driving, and pedestrians killed or injured.

Traditionally, a large percentage of fatalities and serious injuries are a result of a roadway departure crashes due to the rural nature of the region and roadway departure continues to be the top contributor to fatal and serious injury crashes in Region 5. In 2020 there were 93 fatalities and serious injuries from these crash types, up from 79 in 2019. This represents 62.4 percent of the total fatalities and serious injuries in Region 5 for 2020, and 9.8 percent of statewide roadway departure fatalities and serious injuries. Speed related crashes are the second highest cause of fatal and serious injury crashes in the region with 25.5 percent (38) of all Region 5 fatalities and serious injuries being speed involved. In 2020, Region 5 accounted for 7.1 percent of statewide speed involved fatalities and serious injuries. Behind speed, alcohol involved fatalities and serious injuries are the third highest cause of fatal and serious injury crashes in the region with 12.8 percent (19) of all Region 5 fatalities and serious injuries being alcohol involved, despite this number being down from 23 in 2019. The region accounted for 4.6 percent of statewide alcohol involved fatalities and serious injuries.

Although roadway departure was the top contributor of fatal and serious injury crashes in Region 5, it's important to note that the majority of roadway departure crashes involve at least one aggravating factor that could include speed, impairment, distraction, drowsy driving, medical event, and even suicide.

Region 5 saw decreases in impaired driving (alcohol involved and drug involved) and pedestrian fatalities and serious injuries in 2020 and increases in all other areas. Unfortunately, preliminary 2021 data indicates continued increases in all areas with the exception of a second-year decrease in drug involved fatalities and serious injuries, and a decrease in bicyclist fatalities and serious injuries. This data shows a 30 percent (45) increase in fatalities and serious injuries with a 27 percent increase in fatalities (10) and a 31 percent increase (35) in serious injuries.

By maintenance boundaries, Region 5 includes small sections of Gilliam and Wheeler counties in addition to the eight counties referenced previously; however, only the eight counties described are served by the Region 5 Transportation Safety Coordinator, leaving Gilliam and Wheeler counties in their entirety served by the Region 4 Transportation Safety Coordinator.

The tables below provide the 2026-2020 fatality and serious injury average by mode and aggravating factor, the representative percentage of all Region 5 fatalities and serious injuries by county and the percentage increase or decrease from 2019 – 2020.

TABLE 19: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY COUNTY - REGION 5

Baker	2016-2020 Average	% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)	Increase/Decrease from 2019-2020
Roadway Departure	12	14%	30%
Alcohol or Drug Involved (one substance)	4	13%	67%
Speed	4	10%	100%
Peds	1	2%	-
Motorcyclists	2	11%	-100%
Young Drivers 15-20	1	1%	-
Distracted Driving	2	13%	-67%
Poly-substance	1	20%	-50%
Bicyclists	0.4	1%	-
Grant	**2016-2020 Average**	**% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)**	**Increase/Decrease from 2019-2020**
Roadway Departure	4	5%	100%
Alcohol or Drug Involved (one substance)	1	3%	500%
Speed	3	8%	150%
Peds	0	0%	-
Motorcyclists	2	11%	-
Young Drivers 15-20	1	1%	200%
Distracted Driving	0.4	3%	-100%
Poly-substance	0	0%	-
Bicyclists	0	0%	-
Harney	**2016-2020 Average**	**% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)**	**Increase/Decrease from 2019-2020**
Roadway Departure	8	9%	14%
Alcohol or Drug Involved (one substance)	3	9%	-60%
Speed	3	8%	-
Peds	0.2	3%	-100%
Motorcyclists	2	11%	300%
Young Drivers 15-20	3	15%	-
Distracted Driving	3	20%	-
Poly-substance	0	0%	-
Bicyclists	0	0%	-

TABLE 19: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY COUNTY - REGION 5

Malheur	2016-2020 Average	% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)	Increase/Decrease from 2019-2020
Roadway Departure	22	25%	24%
Alcohol or Drug Involved (one substance)	5	16%	17%
Speed	9	23%	225%
Peds	1	2%	50%
Motorcyclists	3	16%	200%
Young Drivers 15-20	7	35%	350%
Distracted Driving	3	20%	33%
Poly-substance	2	40%	50%
Bicyclists	0.2	10%	-
Morrow	**2016-2020 Average**	**% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)**	**Increase/Decrease from 2019-2020**
Roadway Departure	8	9%	43%
Alcohol or Drug Involved (one substance)	1	3%	-
Speed	5	13%	-33%
Peds	0.4	7%	-
Motorcyclists	2	11%	-100%
Young Drivers 15-20	1	5%	-100%
Distracted Driving	2	13%	33%
Poly-substance	0	0%	-
Bicyclists	0.2	10%	100%
Umatilla	**2016-2020 Average**	**% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)**	**Increase/Decrease from 2019-2020**
Roadway Departure	21	24%	-4%
Alcohol or Drug Involved (one substance)	13	41%	-28%
Speed	10	26%	-20%
Peds	3	50%	-
Motorcyclists	6	32%	-25%
Young Drivers 15-20	6	30%	175%
Distracted Driving	3	20%	250%
Poly-substance	2	40%	-75%
Bicyclists	1	50%	200%

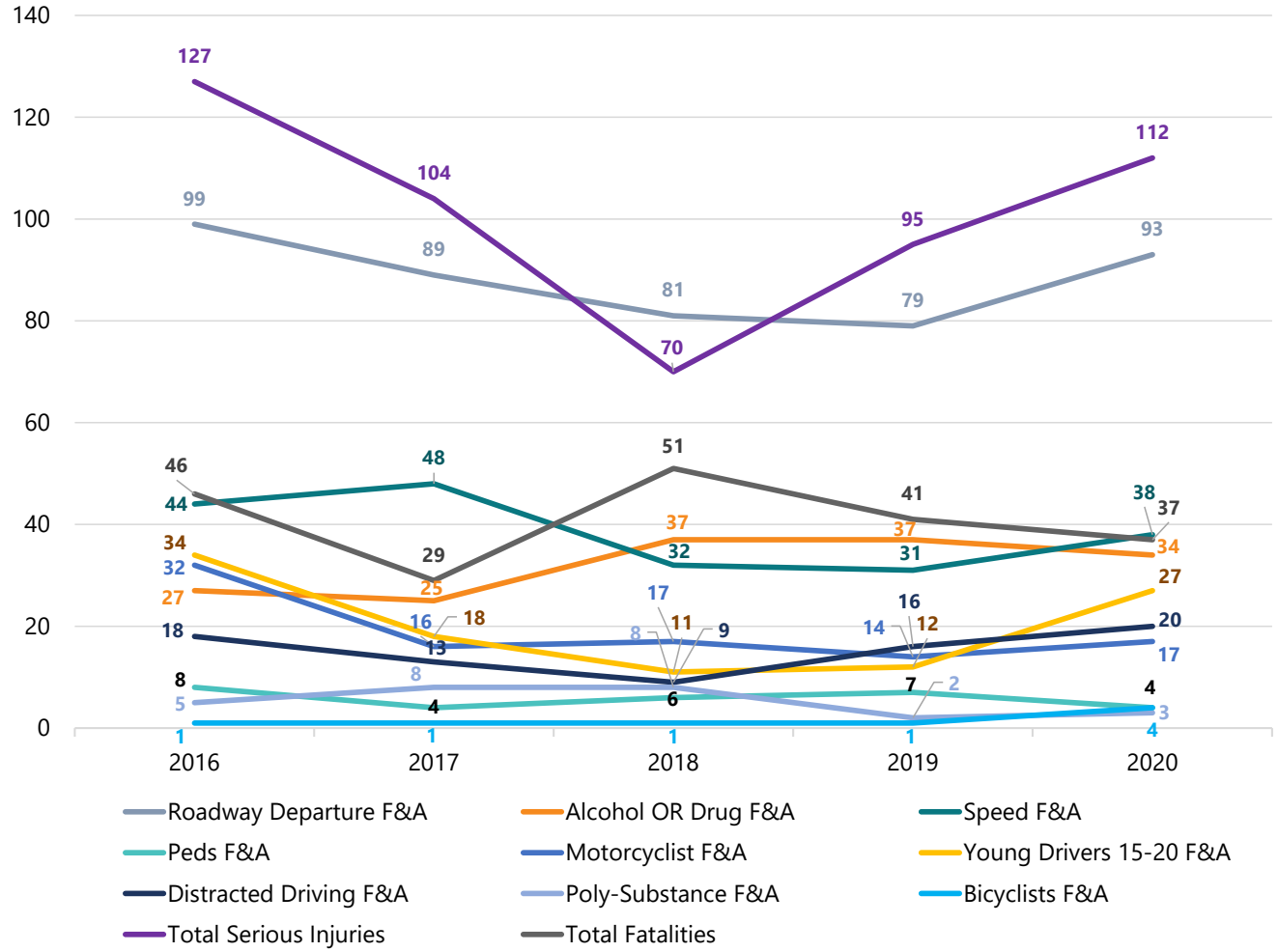
TABLE 19: 2016-2020 AVERAGE FATALITIES AND SERIOUS INJURIES BY COUNTY - REGION 5

Union	2016-2020 Average	% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)	Increase/Decrease from 2019-2020
Roadway Departure	9	10%	33%
Alcohol or Drug Involved (one substance)	3	9%	-75%
Speed	4	10%	-40%
Peds	0.2	3%	-
Motorcyclists	1	5%	50%
Young Drivers 15-20	1	5%	-
Distracted Driving	2	13%	400%
Poly-substance	0	0%	-
Bicyclists	0	0%	-
Wallowa	**2016-2020 Average**	**% of Region 5 Fatalities & Serious Injuries by Factor (2016-2020 Average)**	**Increase/Decrease from 2019-2020**
Roadway Departure	5	6%	-40%
Alcohol or Drug Involved (one substance)	0.4	1%	-
Speed	1	3%	-100%
Peds	0.4	7%	-100%
Motorcyclists	1	5%	100%
Young Drivers 15-20	0.4	2%	-
Distracted Driving	0.4	3%	-100%
Poly-substance	0	0%	-
Bicyclists	0	0%	-

Source: ODOT Statewide Crash Data System (CDS)

When reviewing fatal and serious injury data in Region 5 it is important to remember that the numbers are much smaller than in other regions and sometimes from one year to the next, there appears to be a substantial increase in a particular issue based on a 100+ percent increase as noted in several instances in the table above. The reality in some of these cases is that that substantial jump can be due to an increase by one or two total fatalities or serious injuries in a particular county. While numbers are tracked year to year, watching the overall trend over several years and watching the direction of an average is more indicative of an issue getting better or worse in Region 5.

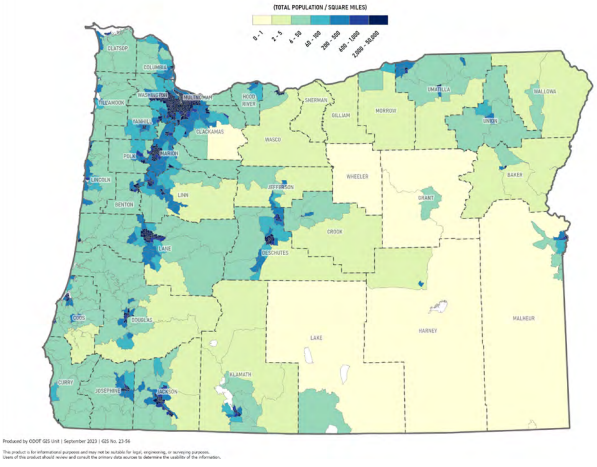
FIGURE 86: FATALITIES AND SERIOUS INJURIES REGION 5



Source: ODOT Statewide Crash Data System (CDS)
Note: There may be more than one factor coded in a single crash. (For example, a driver seriously injured in a roadway departure crash may also have been speeding.)

As identified in the Statewide Chapter and discussed previously in this section, roadway departure is the most frequently recorded crash factor in Region 5. The second most frequently recorded crash factor in Region 5 is speed. Even though cars have grown safer, and infrastructure is continually improved, more vehicle miles driven correlates with increased traffic fatalities and serious injuries. Region 5 is largely frontier/ rural in nature with many miles of rural highways, which are associated with higher speed and roadway departure crashes.

FIGURE 87: POPULATION DENSITY BY CENSUS TRACT

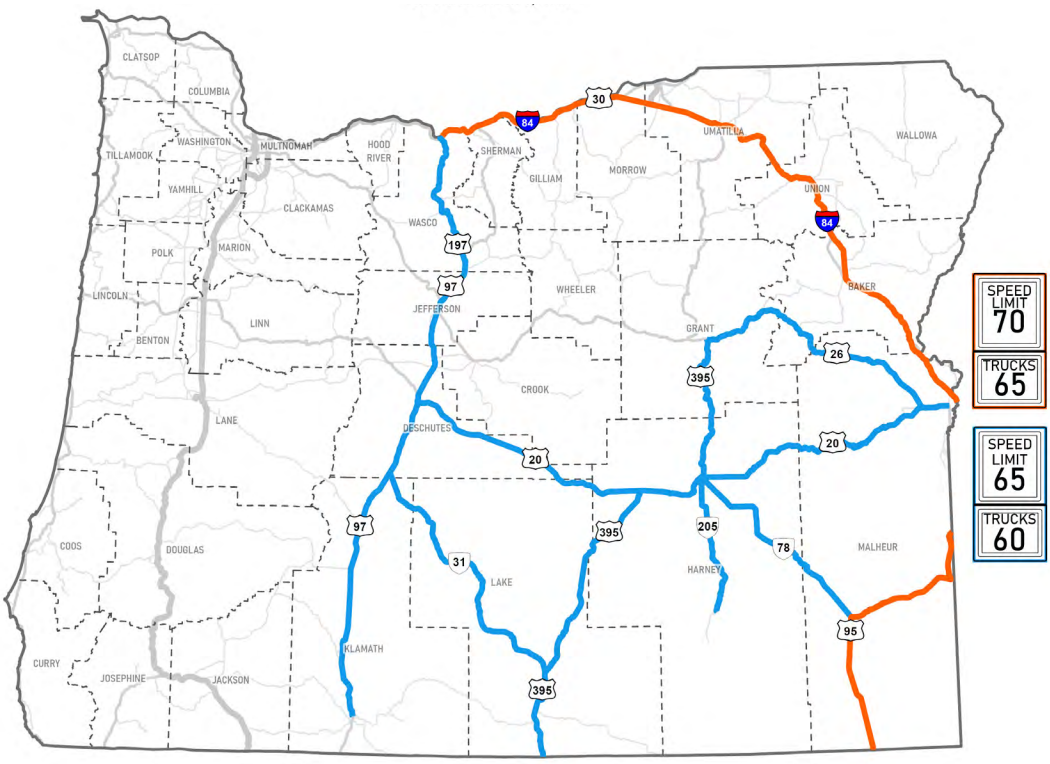


Source: US Census 2010

The rural nature of Region 5's high desert highways and mountain passes present unique challenges to transportation safety. The flat and straight highways along with increased speed limits promote high speed driving, but where these highways also serve as the main streets for small towns there is increased danger to all users of the system. The longer distances between population centers decreases the enforcement capabilities and increases the response and travel times for first responders to provide essential services. Less densely populated areas may have few law enforcement officers within their communities but high traffic volumes using the large arterial highways that cut through their areas. This inequity in resources further exacerbates the problem of driver complacency owing to no enforced consequences.

In addition to the geographical challenges in Region 5 that lend to high speeds, in 2016, several state highways, I-84 throughout Region 5, and I-82 in Region 5 went through the process of increasing speed limits. While not all state highways in the region increased their speed limit at this time, Oregon State Police have noted that the average speeds on all highways in the area have increased. Of particular note is US95 in Malheur County which is the only highway in Oregon outside of the interstates, that increased the speed to 70 miles per hour.

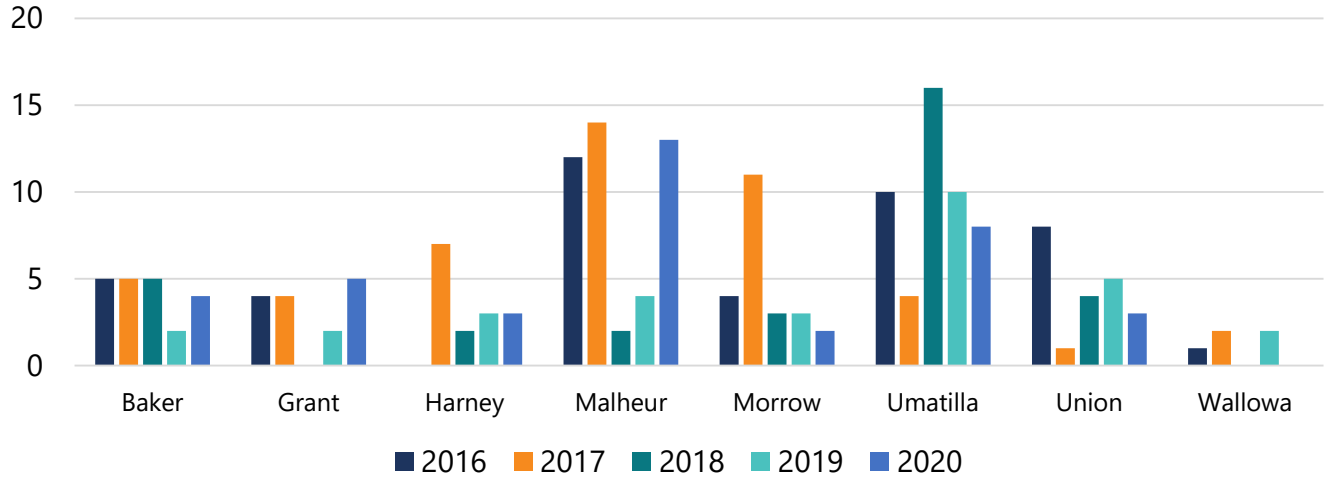
FIGURE 88: HIGHWAY SPEED LIMIT INCREASES



Source: Oregon Department of Transportation

Region 5 was also the first region in the state to construct a regulatory (enforceable) variable speed limit (VSL) corridor in 2016. This 30-mile corridor is along I-84 in the Baker Valley. Variable speed limit signs are electronic versions of black-on-white speed limit signs. Pavement, weather, and congestion sensors automatically adjust VSL signs to best suit conditions on the highway. In the Baker Valley, the winter pavement conditions vary and are unpredictable. Motorists can be driving on dry pavement then suddenly hit an icy patch. The intent of the VSL is to slow traffic in these trouble areas. When conditions improve, speed limits are automatically raised. The VSL corridor has provided the Oregon Department of Transportation with the ability to provide real-time updates to travelers during hazardous conditions but because these systems are not common in the state, there is a need for increased education on how, why, and when they work.

FIGURE 89: SPEED INVOLVED FATALATIES AND SERIOUS INJURIES IN REGION 5 BY COUNTY



Source: ODOT Statewide Crash Data System (CDS)

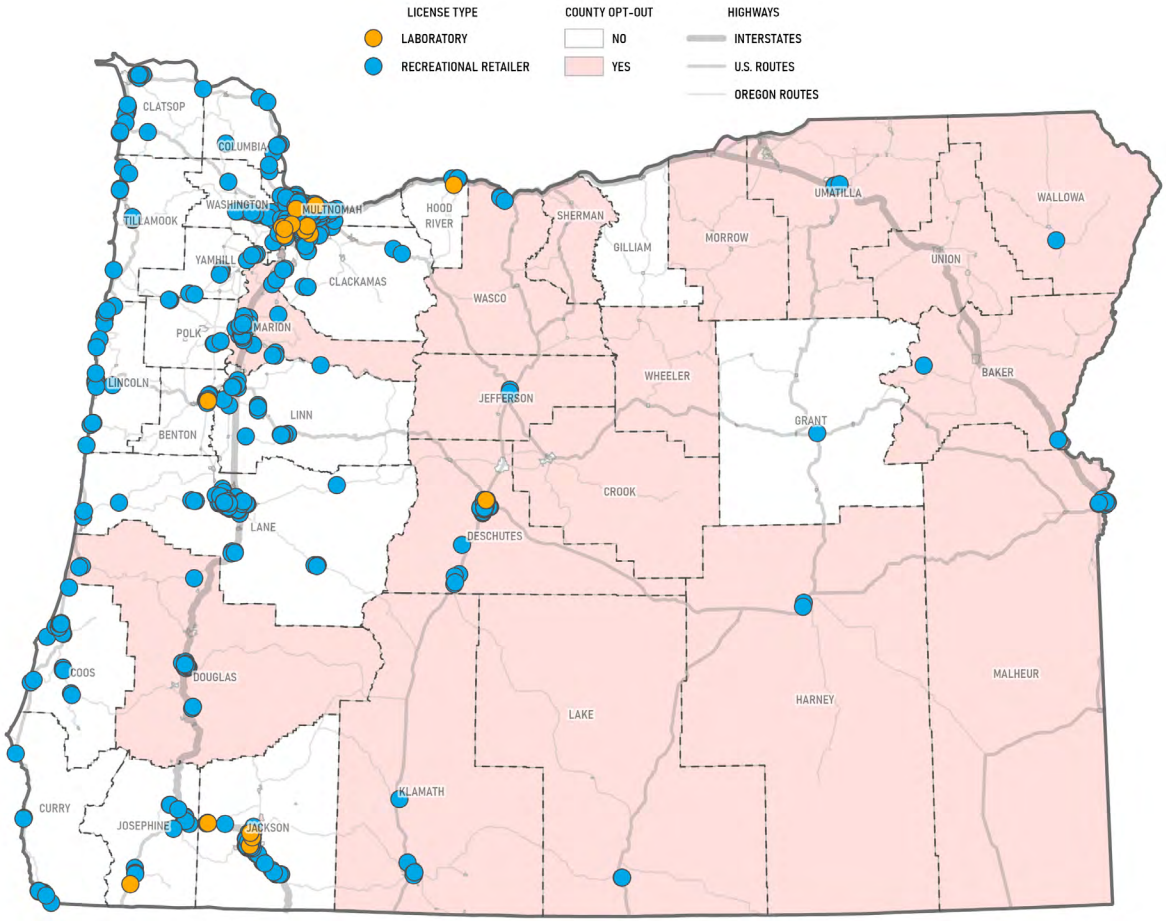
Another unique challenge to Region 5 related to speed and winter weather conditions is the number of road closure events on I-84 from the Pendleton area (Umatilla County) all the way to Ontario (Malheur County) on the Idaho border. The ODOT District 13 office began tracking long term (more than two hour) road closures in the fall of 2020 on this section of I-84.

Winter Season	# Road Closures Over 2 Hours
10-1-2020 to 3-31-2021	24
10-1-2021 to 3-31-2022	59
10-1-2021 to 3-31-2023	24

While it was recorded that the vast majority of these road closures were due to semi-trucks "spinning out" or "jackknifing" due to not chaining up prior to attempting the mountain passes along the route, driving too fast for conditions in conjunction with the lack of chains is a serious issue in the wintertime in Region 5. When the freeway closes, some travelers attempt to find detours with their GPS system and many times, those alternate routes are dangerous and unpassable. Keeping the traveling public driving at a safe speed during winter conditions and obeying the chain up requirements as posted in the mountain passes is a priority of the region.

After speed, the third most frequently recorded crash factor in Region 5 is alcohol impaired driving. Whether alcohol only, drug only, or poly-substance involved crashes, Oregon is seeing a rise in impaired driving crashes overall. Numbers for poly-substance involved crashes in Region 5 have not increased as sharply as in other areas of the state, but alcohol involved and drug involved crashes have trended up in recent years.

FIGURE 90: RECREATIONAL MARIJUANA RETAILERS AND LABORATORIES JUNE 2023

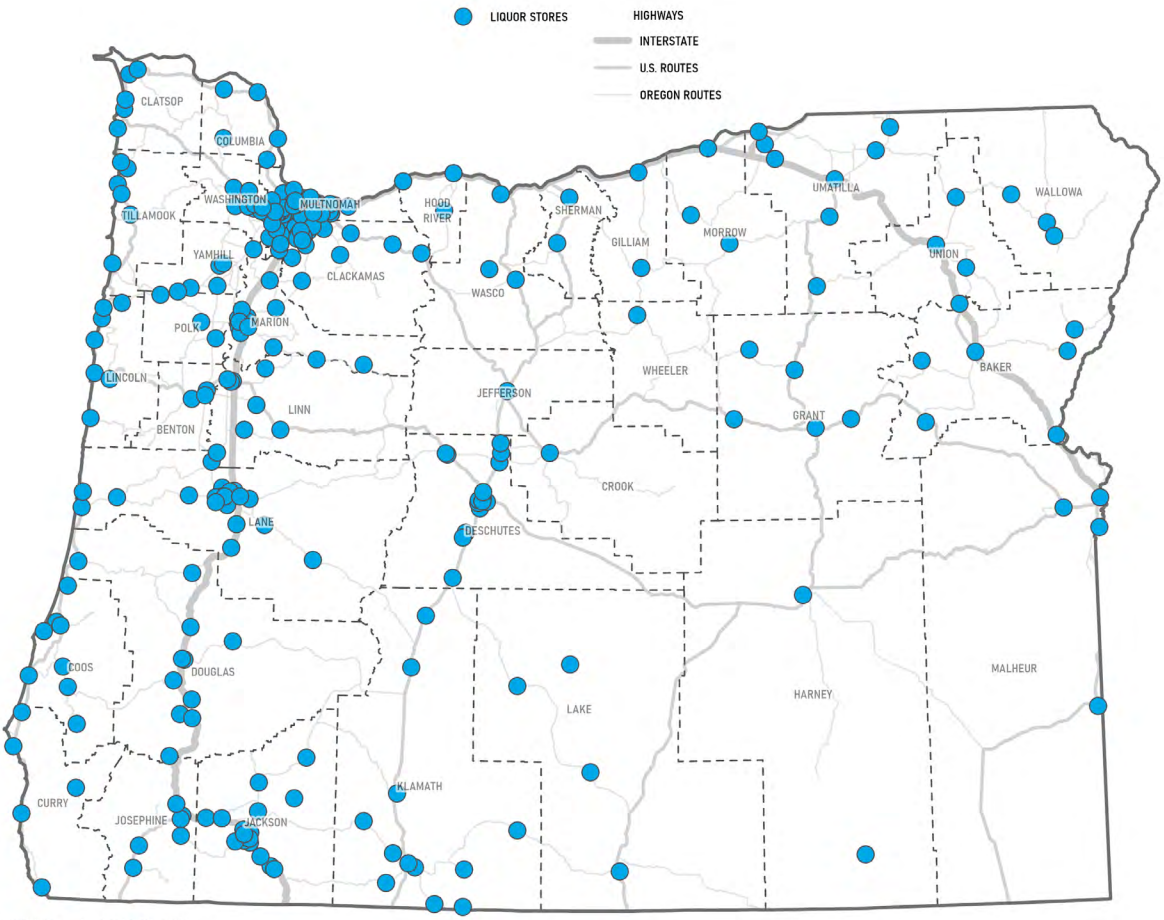


Source: Oregon Liquor and Cannabis Commission

The highest occurrences of these crashes typically occur in the most populated counties in Region 5. Over the last several years, however; even the less densely populated counties have maintained or increased in impaired driving fatal and serious injury crashes. This suggests the magnitude of this problem to be widespread and not reliant on single factors such as close proximity to alcohol distributors or marijuana dispensaries. Recreational marijuana dispensaries are currently permitted in all counties in the region with the exception of Morrow and Union counties as of 2023. However, cities have the option of opting out of allowing dispensaries within the city limits and some of the larger towns in these counties have done that. For example, Baker City has opted out of allowing dispensaries, but the county did not. As of the date of this submission, Baker County currently has two dispensaries, both in very small towns (Sumpter, population 208 and Huntington, population 502). The dispensary in Huntington was operating before any of the dispensaries in Ontario which resulted in a high number of travelers from Idaho coming into that small town to purchase marijuana. With dispensaries spread out over many miles in the region, citizens who choose to partake in recreational marijuana are driving a considerable number of miles to make their purchases.

In comparison, availability of alcohol is still more widespread as you can see in Figure 91: Alcohol Retailers in Oregon. This map only shows liquor stores but if it were to be updated to show all locations where beer and wine could be purchased, the density of the outlets would overtake the map.

FIGURE 91: ALCOHOL RETAILERS IN OREGON

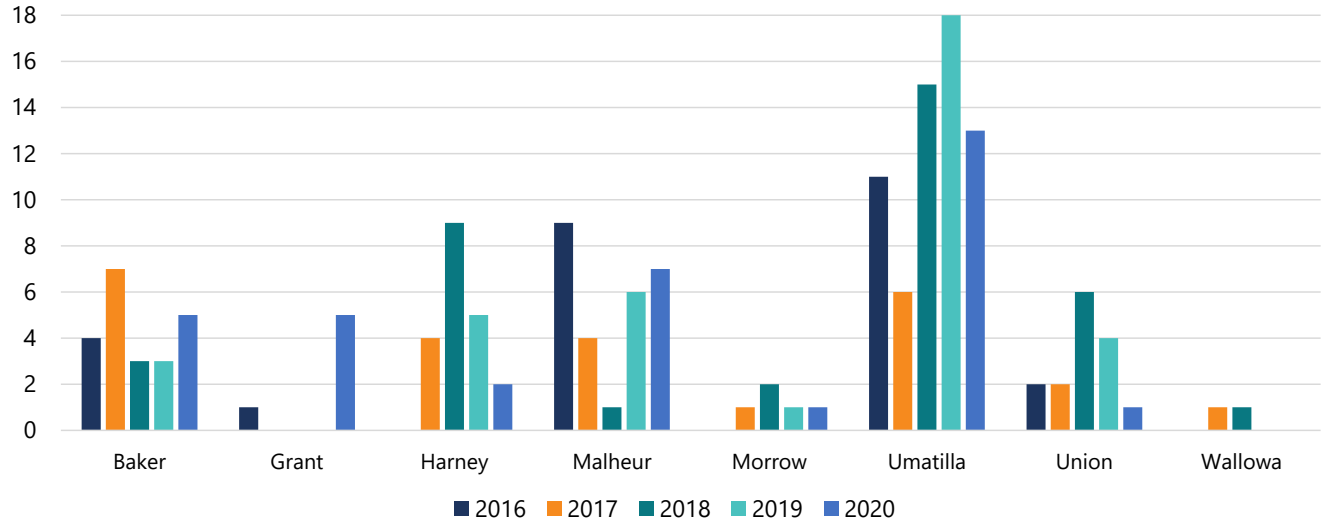


Source: Oregon Liquor and Cannabis Commission

Countermeasures at both the statewide and community levels will be necessary to start changing the mindset and cultural norms surrounding impaired driving, making it unacceptable within every demographic and all locations.

The role of the Region programs and the coordinators who facilitate them is to use crash data to identify safety concerns within their regional communities with the objective to work with local partners to reduce fatal and serious injury crashes. This is done at the request of the agencies and groups within the counties and cities who request 402 funding and technical support from the Transportation Safety Office on an ongoing basis throughout each grant year. Unlike the larger statewide subject-based programs who create large-scale strategies to be used across all of Oregon, the regions work within each of the program areas to assist in developing smaller yet meaningful and effective projects at the request of local partners in a targeted approach. RTSCs work within all TSO program areas to assist local safety groups and governments in providing outreach, communication, and education.

FIGURE 92: ALCOHOL OR DRUG INVOLVED FATALITIES AND SERIOUS INJURIES IN REGION 5 BY COUNTY



Source: ODOT Statewide Crash Data System (CDS)

Conclusion

Since the first automobile was sold in the United States in 1889, traffic fatalities trended upward from 26 in 1899[48] to an all-time high of 54,589 in 1979. Since 1899, 3,869,676 people have died on our nation's roadways. Since 2000, more people have died on our nations roadways than those who perished in both World Wars. Traffic crashes are the most significant and preventable public health issue of our time.

Changing Oregon's transportation culture through education and enforcement, while amplifying traffic safety messages by conducting outreach through existing channels and partnerships are key to reversing this trend. Oregon works toward zero deaths (TSAP goal) by managing programs to address specific behavioral issues, safety issues, and/or modes that all have unique challenges, aggravating factors and culturally specific considerations, e.g. the motorcycle riding community, in the effort to decrease fatal and serious injury crashes. Part of the education and outreach are media plans that are geographic, age and travel mode specific. Maintaining a robust and nationally renowned Driver Education program is also key to systematic change, as well as, reaching certain groups with culturally specific and appropriate messaging.

Recognizing the distinctive characteristics of the ODOT Regions and working to provide programs that recognize the diversity of Oregon are key to positively influencing roadway safety as well as providing training for traffic safety partners. Public participation and input that result in problem identification, and appropriate interventions that incorporate and respond to solicited feedback are crucial to changing our transportation culture to one that recognizes and values local communities over dangerous driving and riding behaviors.

48 NHTSA Motor Vehicle Traffic Fatalities and Fatality Rates. Accessed 10 June 2023.

Strategy – Education, outreach, communications and training.

PROBLEM 1300.11(B)(4)(I)

Education, outreach, communications and training help address the problem of increasing fatalities and injuries as identified in the statewide problem identification.

COUNTERMEASURES AND JUSTIFICATION 1300.11(B)(4)(II) 1300.12(B)(2)(VIII)

Communications, Training, Outreach and Education – 1300.11(b)(4)(ii)(B) - Partnerships in collaboration with communities and non-profits to address traffic safety issues through grassroots efforts.

Outreach and education efforts focus on maintaining and building on partnerships with law enforcement, health educators and programs, traffic engineering, government traffic safety counterparts, injury prevention specialists, communities, neighborhood associations and non-profit organizations and advocates. Education and outreach efforts emphasize addressing traffic safety issues through grassroots efforts in collaboration with communities and other partners.

While the effectiveness of community engagement through grassroots efforts is supported more by qualitative studies rather than quantitative data, numerous researchers have concluded that community engagement is a critical component of any public health strategy.[49] [50] Community engagement serves as "a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. [It] often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs and practices.[51]" 1300.11(b)(4)(iii)

Further explanations of countermeasures and justifications are stated in the individual program chapters that follow.

Countermeasures that work are tied to specific programs; however, other than enforcement, education and outreach campaigns are one of the few proven countermeasures for affecting risky driving behaviors to improve traffic safety. The statewide program uses grant funds to implement program activities and amplify messages from all program areas focusing on overrepresentation in specific areas based on geo-spatial and other data analysis.

49 O'Mara-Eves A, Brunton G, Oliver S, Kavanagh J, Jamal F, Thomas J. The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. BMC Public Health. 2015 Feb 12;15:129. doi: 10.1186/s12889-015-1352-y. PMID: 25885588; PMCID: PMC4374501

50 Bassler, A. et al., "Developing Effective Citizen Engagement: A How-to Guide for Community Leaders." *Center for Rural America*, 2008.

51 Centers for Disease Control and Prevention (CDC). 2011. *Principles of Community Engagement.* Available at: https://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf

TABLE 20: TARGETS COUNTERMEASURES WILL ADDRESS 1300.11(B)(4)(III):

Number of traffic fatalities 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
498	439	502	493	507	488	507	488	488	488

Number of serious injuries 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020 avg.	2020	2024	2025	2026
1,973	1,764	1,686	1,904	1,590	1,783	1,590	1,783	1,783	1,783

Fatalities/VMT 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
1.36	1.19	1.36	1.37	1.57	1.37	1.57	1.37	1.37	1.37

Serious injuries/VMT 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
5.37	4.80	4.58	5.29	4.92	4.99	4.92	4.99	4.99	4.99

Non-motorized fatalities and serious injuries 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
280	251	249	254	261	259	261	259	259	259

TABLE 21: ALLOCATION OF FEDERAL FUNDS – ESTIMATE 1300.11(B)(4)(IV)

Funding Source	2024	2025	2026
402	$1,555,000	$1,555,000	$1,555,000
402 PA	$900,000	$900,000	$900,000
402 Region Prgm Management	$125,000	$125,000	$125,000
402 Regional Services	$912,000	$912,000	$912,000
164 PA	$100,000	$100,000	$100,000
405(d)	$140,000	$140,000	$140,000
405(e) flex	$170,000	$170,000	$170,000
State Highway Fund	$1,560,000	$1,560,000	$1,560,000
State Motorcycle Fund	$125,000	$125,000	$125,000
Student Driver Training Fund	$275,000	$275,000	$275,000
FHWA	$125,000	$125,000	$125,000
TOTAL Statewide Projects	**$5,987,000**	**$5,987,000**	**$5,987,000**

Overview of Program

The Statewide Program funds the operations and management necessary to implement all Oregon traffic safety programs.

The projects under the statewide chapter implemented by the regions employ education, outreach, communications and training. The effectiveness ratings for education, communications outreach and training depends on the program and the countermeasure. Communication/Mass Media for impaired driving receives 3 stars, education for occupant protection low-use has 4 stars, for speeding if communications/mass media are supporting enforcement it receives 3 stars and communications and outreach on distracted driving has a 1 star effectiveness rating. There is no countermeasure for grassroots communication and outreach; however, research concludes that public engagement is a critical component of any public health strategy. Please see the justification on page 103 of the Triennial HSP.

Chapter	Countermeasures	Rating
1	5.2 Mass Media Campaigns	3 stars
2	6.1 Strategies for Older Children	3 stars
4	2.1 Communications and Outreach Distracted Driving	1 star
6	2.1 Pre-licensure driver education	2 stars
7	1.1 Formal courses for older drivers	2 stars
8	3.1 Communications and Outreach Impaired Pedestrians	2 star
8	3.3 Enforcement Strategies	1 star
8	4.5 Driver Training	1 star
8	4.6 Pedestrian Gap Acceptance Training	1 star

Education, outreach, communications and training often are not supported by specific countermeasures; however, they are informed by Highway Safety Program Guidelines 4 driver education and training and guidelines 8, 13, 14, 15, 19, 20 (specifically communication program) and 21 (specifically the outreach program).

Chapter 4 2.1 – Citation – While communications and outreach for distracted driving receives a 1 star citation the results of three NHTSA demonstration projects, focused on HVE combined with paid and earned media, suggest that these elements show promise in reducing the use of handheld phones and texting.[52] While there are no specific projects in the statewide chapter that focus on Distracted Driving, this behavior will be addressed as a behavioral issue in different projects.

Chapter 6 2.1 – Citation - While pre-licensure driver education receives 2 stars in Countermeasures that Work, ODOT DMV data identifies that teens who take an approved driver education program have a 21 percent lower crash rate and 57 percent fewer traffic convictions than those who don't, addressed on page 142 of the Triennial Highway Safety Plan. The countermeasure strategy of driver education was informed by Highway Safety Program Guideline number 4 specifically program management, enforcement, driving education and training program and program evaluation and data.

Chapter 7 1.1 – Citation - While pre-licensure driver education and formal courses for older drivers both receive 2 stars in Countermeasures that Work, there is no countermeasure that addresses pre-licensure driver education for adults. However, a review of articles published from 2004-2008 by Korner-Bitensky[53] on the effectiveness of older driver retraining programs for improving driving skills and reducing crashes provided strong evidence that education combined with on-road training improves driving performance. The value of physical training in addition to education is reinforced by research results by Romoser and Fisher[54] They found that active training, such as practice with feedback, is a more effective strategy for increasing older drivers' likelihood of side-to-side scanning, looking for threats during turns, than is passive training (classroom lecture or video only) or no training.

Chapter 8 3.1, 3.3, 4.5, 4.6 – Citation – This project employes the countermeasure strategy grassroots outreach and education as identified and justified on page 103 of the Triennial HSP. The countermeasure strategy of education and outreach is informed by Highway Safety Program Guideline 14, specifically Section VI Communication Program which states, "The State should enlist the support of a variety of media, including mass media, to improve public awareness of pedestrian and bicyclist crash problems and programs directed at preventing them. Communication programs and materials should be culturally relevant and multilingual as appropriate, and should address issues such as:

- Visibility, or conspicuity, in the traffic system;
- Correct use of facilities and accommodations;
- Law enforcement initiatives;
- Proper street-crossing behavior;
- Safe practices near school buses, including loading and unloading practices;
- The nature and extent of traffic-related pedestrian and bicycle fatalities and injuries;
- Driver training regarding pedestrian and bicycle safety;
- Rules of the road;
- Proper selection, use, fit, and maintenance of bicycles and bicycle helmets;
- Skills training of bicyclists;
- Sharing the road safely among motorists and bicyclists; and
- The dangers that aggressive driving, including speeding, pose for pedestrians and bicyclists.

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52 Chaudhary, N. K., Casanova-Powell, T. D., Cosgrove, L., Reagan, I., & Williams, A. (2014, March). *Evaluation of NHTSA distracted driving demonstration projects in Connecticut and New York* (Report No. DOT HS 81 635). National Highway Traffic Safety Administration.

53 Korner-Bitensky, N., Kua, A., von Zweck, C., & Van Benthem, K. (2009). Older driver retraining: An updated systematic review of evidence of effectiveness. *Journal of Safety Research*, 40, 105-111.

54 Romoser, M. R. E., & Fisher, D. L. (2009). The effect of active versus passive training strategies on improving older drivers' scanning in intersections. *Human Factors, 51*, 652-668.

And Section VII which states: "Outreach efforts should include a focus on reaching vulnerable road users, such as older pedestrians, young children, and new immigrant populations."

In addition, it should be noted that these projects are grassroots and while the effectiveness of community engagement through grassroots efforts is supported more by qualitative studies rather than quantitative data, numerous researchers have concluded that community engagement is a critical component of any public health strategy.[55] Community engagement serves as "a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. [It] often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs and practices."[56]

55 Korner-Bitensky, N., Kua, A., von Zweck, C., & Van Benthem, K. (2009). Older driver retraining: An updated systematic review of evidence of effectiveness. *Journal of Safety Research, 40*, 105-111.

56 O'Mara-Eves A, Brunton G, Oliver S, Kavanagh J, Jamal F, Thomas J. The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. BMC Public Health. 2015 Feb 12;15:129. doi: 10.1186/s12889-015-1352-y. PMID: 25885588; PMCID: PMC4374501

Pedestrians and Bicyclists

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 1.1.2	Tailor safety culture marketing and media tools to specific user groups with specific needs (e.g., youth, aging travelers, walkers, motorcyclists, bicyclists, under-invested groups, and different income groups).
Strategy 3.1.2	Support a high-visibility enforcement program increasing traffic, bicycle and pedestrian law enforcement capabilities (priority and funding).
Strategy 3.1.5	Conduct education and outreach to law enforcement to increase understanding and enforcement of traffic, commercial vehicle, pedestrian, and bicycle laws.

The Pedestrian and Bicyclist Safety program educates and promotes awareness of safe road user behaviors through public information materials, safety campaigns, working with partners to deliver education programs for target audiences, and to educate and fund law enforcement agencies to enforce laws regarding vulnerable road user safety.

Problem Identification 23 CFR 1300.11(b)(1)(i)(ii)

The Non-motorized Safety Grants Section 405g under the Bipartisan Infrastructure Legislation (BIL) (previously authorized under MAP-21 and the Fast Act) provides funding to address pedestrian and bicyclist safety where pedestrian and bicyclist's fatalities exceed 15 percent of the state's overall traffic fatalities (23 CFR 1300.26). Using the most current data from NHTSA FARS, Oregon's 2020 fatalities for bicyclists and pedestrians exceeded this benchmark accounting for 17 percent of Oregon's total traffic fatalities. Eligible expenditures with these 405g funds include:

1. Training of law enforcement officials relating to nonmotorized road user safety, State laws applicable to nonmotorized road user safety, and infrastructure designed to improve nonmotorized road user safety.
2. Carrying out a program to support enforcement mobilizations and campaigns designed to enforce State traffic laws applicable to nonmotorized road user safety;
3. Public education and awareness programs designed to inform motorists and nonmotorized road users regarding:
    a. Nonmotorized road user safety, including information relating to nonmotorized mobility and the importance of speed management to the safety of nonmotorized road users.
    b. The value of the use of nonmotorized road user safety equipment, including lighting, conspicuity equipment, mirrors, helmets, and other protective equipment, and compliance with any State or local laws requiring the use of that equipment.
    c. State traffic laws applicable to nonmotorized road user safety, including the responsibilities of motorists with respect to nonmotorized road users.
    d. Infrastructure designed to improve nonmotorized road user safety; and
    e. The collection of data, and the establishment and maintenance of data systems, relating to nonmotorized road user traffic fatalities.

Under BIL, the term 'Nonmotorized' was updated to include not just vulnerable road users who walk, bike, and roll but also roll using micro-mobility; modes with a low-speed and low horsepower vehicle such as such as e-bike, e-scooter, personal mobility device, personal transporter, or all-terrain vehicle. For the purposes of simplification, going forward in this document for Oregon we will use the following:

1. The term 'pedestrian' will include anyone walking or rolling with any type of conveyance including human powered and low-speed, low- horse powered.
2. The term 'bicyclist' will include people operating a bicycle by human power or motorized low-speed, low-horsepower.
3. The term 'vulnerable road user (VRU)' is used to refer to the diverse 'pedestrian' and 'bicyclist' types combined.

Oregon VRU Safety Data Analysis

Vulnerable road users face special safety challenges when traveling on multi-modal roadways as they often face a higher risk of fatality or serious injury in motor vehicle related crashes (MVCs) due to not having occupant protection inside a motor vehicle. Pedestrian and bicyclist fatalities have continued to rise nationally, from 14 percent of total motor-vehicle-related traffic fatalities in 2009 to approximately 20 percent in 2020. Similarly compared to the national statistics, in Oregon there has been a steady increase from a combined state total of 11 percent pedestrian and bicycle fatalities in 2009 to 17 percent in 2020 (NHTSA FARS, 2023). Using the most current state rankings posted on the NHTSA.gov website for 2020, Oregon ranks 23rd in the nation for pedestrian fatality rates at 1.67 per 100,000 people (NHTSA, 2023). There is no current state bicycle fatality rate ranking available; however, the 2020 rate for Oregon is .33 per 100,000 (national rate is .28 with a range of 0.5-0.78) (NHTSA Crash Stats, 2023).

In many ways, 2020 was an anomalous year for crash data both nationally and in Oregon. With 2020 being the first year of the pandemic, traffic patterns and travel behavior changed dramatically and quickly starting in March of 2020. This was due to state Governors social distancing requirements where more people stayed at home and indoors. While the overall number of pedestrian and bicycle crashes significantly decreased in 2020, the percentage of serious injury and fatality crashes stayed consistent from previous years as observed in Tables 22 and 24 below.

2020 began with an alarmingly high pedestrian fatality count in Oregon. The preliminary pedestrian fatality count in January and February was 60 percent higher than the same time frame in 2019. However, by the end of April 2020, the preliminary pedestrian fatality comparison to the same time frame in 2019 was -20 percent. However, despite the dramatic shift in changes to traveling behaviors in Oregon, the number of combined serious injury and fatalities increased in 2020 for both pedestrians and bicyclists from 2019. So while there were less crashes with vulnerable road users in 2020, the injury severity did not lesson (See Tables 22, 24). This can be important to understanding how road user behaviors and possible changes to land use in transportation may have played a larger role in this trend. So, while Oregon is using 2020 state and NHTSA FARS data in this document, it is important to point out the remaining alarming trend for vulnerable road users throughout the pandemic in 2021 and 2022. Given this, preliminary alarming data trend of 2021 and 2022 both nationally and in Oregon for vulnerable road users has now been highlighted in the recent release of the Governors Highway Safety Association's 2022 preliminary report where 2022 ranks the highest number of pedestrian fatalities since 1981 (GHSA, 2023).

TABLE 22: PEDESTRIANS IN MOTOR VEHICLE CRASHES ON OREGON ROADWAYS

	2016	2017	2018	2019	2020	2016-2020 Average
Injuries:						
All pedestrian Injuries (Non-fatal)	1,066	942	952	953	690	921
Serious pedestrian Injuries	141	116	112	114	124	121
Percent of total Oregon serious injuries	7%	6%	6%	5%	8%	6%
Fatalities:						
Number*	74	73	79	85	78	78
Percent of total Oregon fatalities*	15%	17%	16%	17%	15%	16%
Crashes:						
Number of pedestrian crashes	1,078	974	971	980	741	948
Fatal and serious injury crashes	207	184	189	199	202	196
Percent of total Oregon fatal and serious injury crashes	10%	10%	10%	9%	11%	10%

*Source: Crash Analysis Reporting Unit, Oregon Department of Transportation.*This data is not used in the NHTSA performance measures*

TABLE 23: PEDESTRIAN FATALITIES IN MOTOR VEHICLE ON OREGON ROADWAYS

	2016	2017	2018	2019	2020	2016-2020 Average
Fatalities:						
Number*	71	70	77	81	71	74
Percent of total Oregon fatalities*	14%	16%	15%	17%	14%	15%

Source: Fatality Analysis Reporting System Data, FARS, NHTSA. STSI (FARS) data ** This data is used for the NHTSA performance measures.*

TABLE 24: BICYCLISTS IN MOTOR VEHICLE CRASHES ON OREGON ROADWAYS

	2016	2017	2018	2019	2020	2016-2020 Average
Injuries:						
Number (Non-Fatal)	846	761	824	724	465	724
Serious injuries	55	52	49	43	45	49
Percent of total Oregon serious injuries	1.9%	1.8%	1.9%	2.0%	3.0%	2.0%
Fatalities:						
Number*	10	10	9	12	14	11
Percent of total Oregon fatalities*	2.0%	2.3%	1.8%	2.5%	3.0%	2.1%
Crashes:						
Number	847	764	826	731	475	728
Fatal and serious injury crashes	65	62	58	56	58	63
Percent of Oregon total fatal and serious injury crashes	2.8%	2.6%	2.9%	3.0%	3.0%	3.0%

*Source: Crash Analysis Reporting Unit, Oregon Department of Transportation.*This data is not used in the NHTSA performance measures*

TABLE 25: BICYCLIST FATALITIES MOTOR VEHICLE ON OREGON ROADWAYS

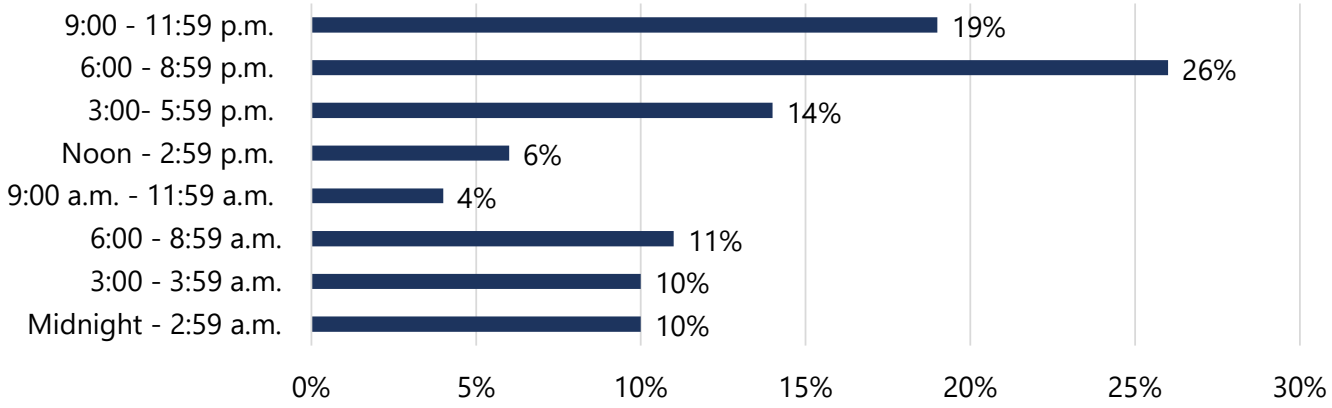
	2016	2017	2018	2019	2020	2016-2020 Average
Fatalities:						
Number*	10	10	9	12	14	11
Percent of total Oregon fatalities*	2.0%	2.3%	1.8%	2.5%	3.0%	2.3%

*Source: Fatality Analysis Reporting System Data, (FARS), State Traffic Safety Information, Federal Highway Administration: Highway Statistics Series, US Census 2020 * This data is used for the NHTSA performance measures.*

Pedestrian Data Analysis

Time of day and lighting continue to be one of the most important factors in crash injury severity. In years 2016-2020, 74 percent of Oregon's pedestrian fatalities occurred in dark lighting conditions and 65 percent of the pedestrian fatalities occurred during nighttime (6:00 p.m. - 5:59 a.m.) (See Figures 93-95) Also importantly is that the majority of pedestrian fatalities occur in the Fall (32% and in the Winter 28%) (See Figure 96) (NHTSA FARs, 2023).

FIGURE 93: OREGON PEDESTRIAN FATALITIES BY TIME OF DAY



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 94: PEDESTRIAN FATALITIES DAYTIME VS. NIGHTTIME

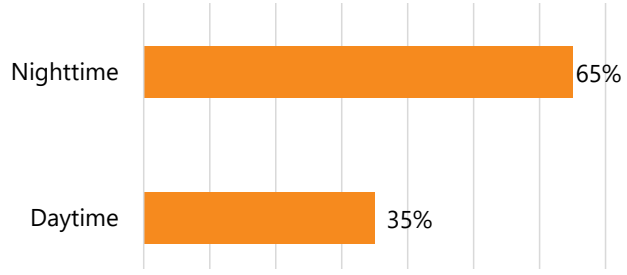
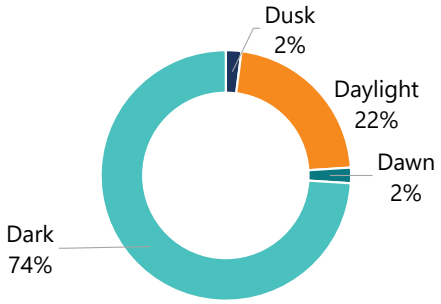


FIGURE 95: PEDESTRIAN FATALITIES LIGHTING CONDITIONS



Daytime: 6 a.m.-5:59 p.m.; Nighttime: 6 p.m.-5:59 a.m.

Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 96: PEDESTRIAN FATALITIES BY SEASON

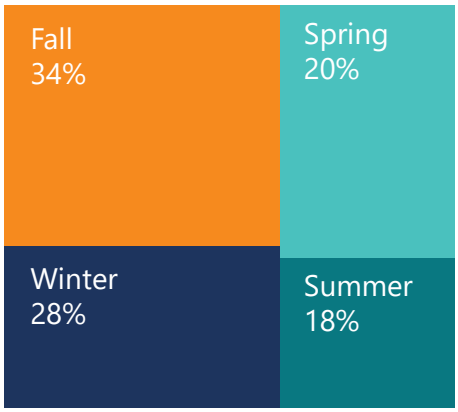
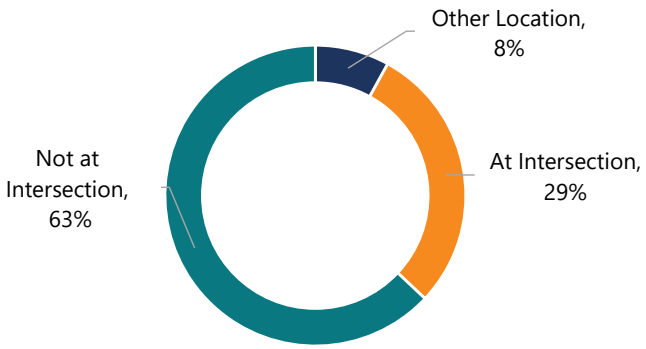


FIGURE 97: PEDESTRIAN FATALITIES BY ROADWAY LOCATION

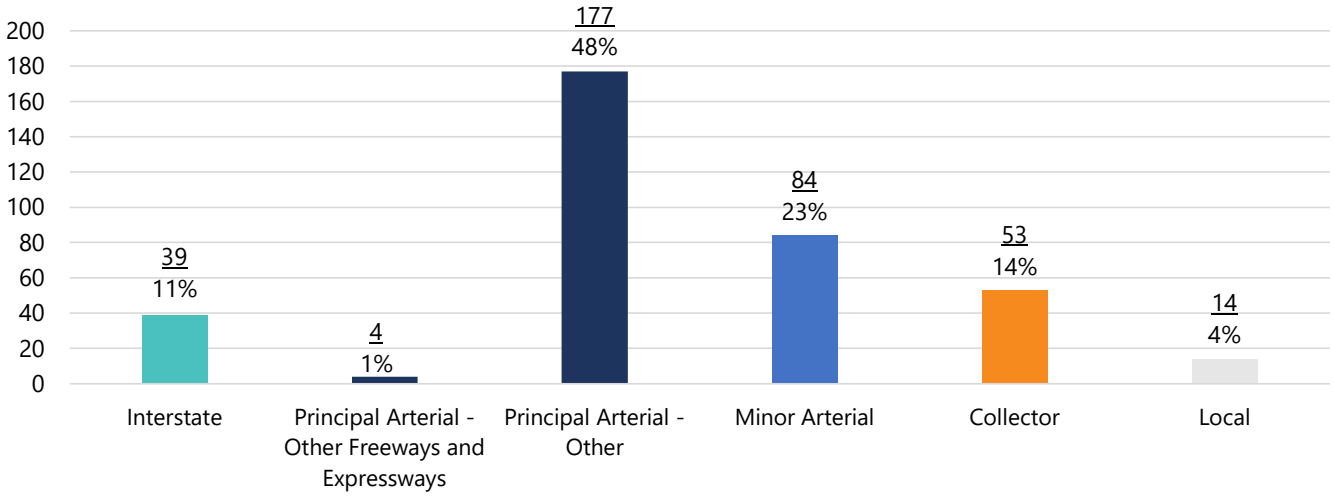


Source: Data Visualization – Fatality Analysis Reporting System (FARS)

Location of where the pedestrian was at the time of crash can be important to understanding factors in the crash. In years 2016-2020 63 percent of pedestrian deaths were reported to occur outside of an intersection which can also mean mid-block. The areas that can be marked in the 'other' section are sidewalks, bicycle lanes, median or crossing island, parking lane, shoulder or roadside or where just not distinguished at the time of reporting (Figure 97) (NHTSA FARS, 2023)

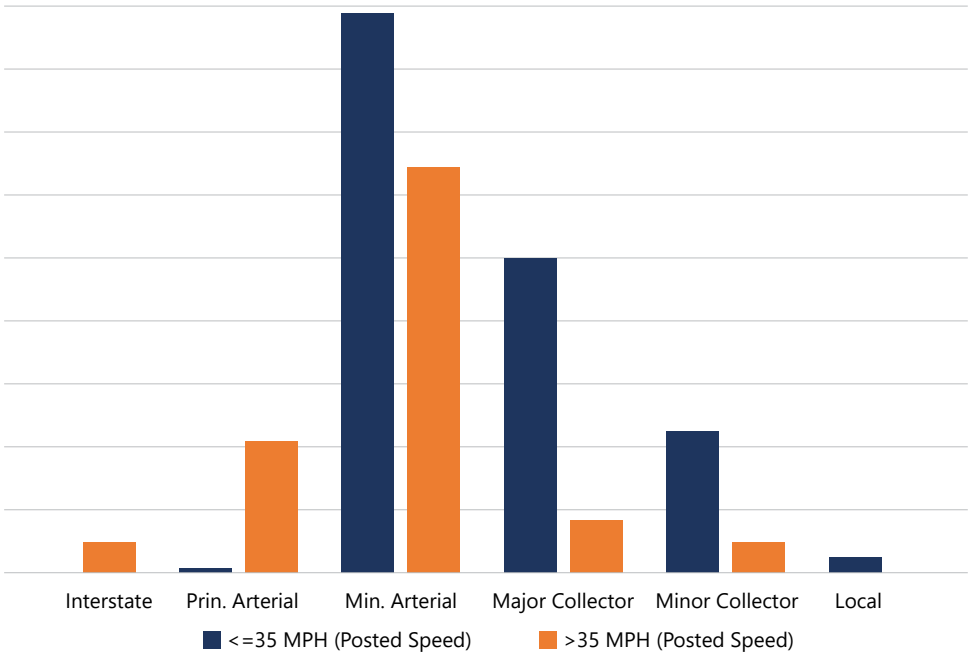
Data of the functional class system show that almost half (48%) of pedestrian fatalities occur on principal arterials (See Figure 98) and of those, the majority occur where speeds are posted less than or equal to 35 MPH (See Figure 99, ODOT CARs Data).

FIGURE 98: PEDESTRIAN FATALITIES BY FUNCTIONAL CLASS ROADWAY SYSTEM



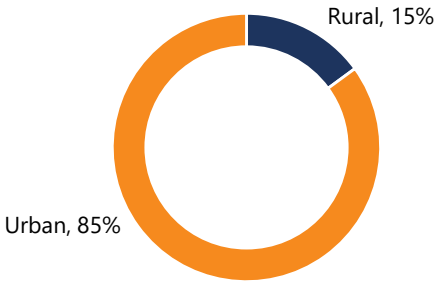
Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 99: PEDESTRIAN FATALITIES BY FUNCTIONAL CLASS VS. MPH



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 100: PEDESTRIAN FATALITIES URBAN VS. RURAL



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

The majority (85%) of pedestrian deaths in Oregon between 2016-2020 occurred on urban roads (See Figure 100) NHTSA FARS, 2023) and more specifically in ODOT's region 1 (Portland Metropolitan Area) and region 2 (Willamette Valley (Salem-Eugene).

TABLE 26: PEDESTRIAN FATALITIES AND SERIOUS INJURIES 2016- 2020 CARS DATA BY ODOT REGION

Region	Ped Fatalities	Ped Serious Injuries	Total Pedestrian Fatalities and Serious Injuries	% of all Pedestrian Fatalities and Serious Injuries	County with the highest pedestrian fatalities and serious injuries
Region 1	187	351	538	54%	Multnomah (242)
Region 2	109	155	264	27%	Marion (43)
Region 3	50	60	110	11%	Jackson (27)
Region 4	25	30	55	6%	Deschutes (11)
Region 5	18	11	29	3%	Umatilla (4)

Source: ODOT Statewide Crash Data System (CDS)

TABLE 27: PEDESTRIAN FATALITIES BY RACE AND YEAR

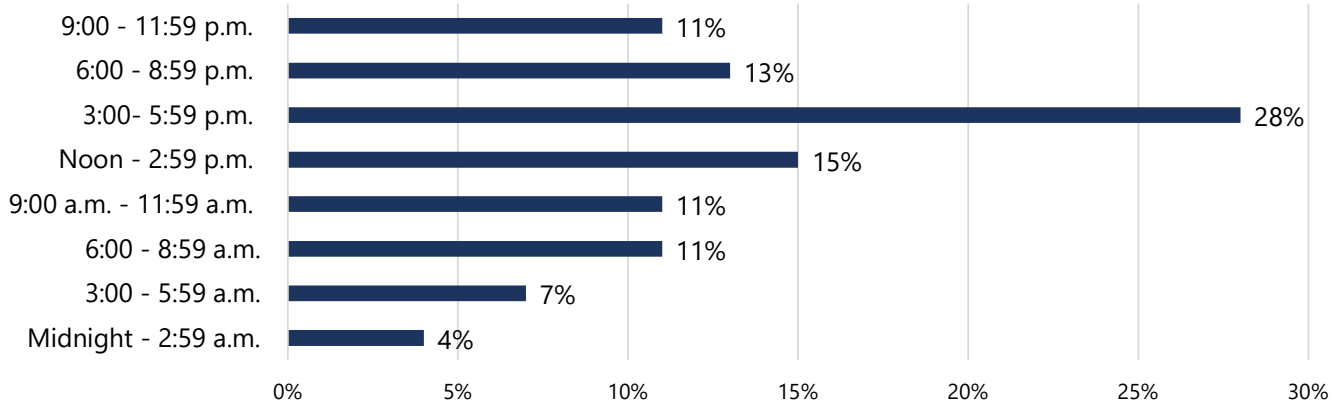
Analyzing FARs data for Oregon's pedestrian fatalities (2016-2020) the majority of pedestrian fatalities were White (73%), Latino (9.5 %), Black (4.6%) and Native American (3.3%).	2016	2017	2018	2019	2020	Total
White Only	57	56	55	61	58	287
All other races	1	1	1	1	1	5
American Indian (includes Aleuts and Eskimos)	2	3	2	2	4	13
Asian Indian	0	1	0	1	0	2
Asian or Pacific Islander, no specific (individual) race	1	0	0	1	0	2
Black	2	3	4	5	4	18
Chinese	1	1	1	0	1	4
Filipino	1	1	0	0	1	3
Japanese	1	0	1	2	1	5
Korean	1	0	1	0	0	2
Multiple Races	0	0	1	0	0	1
Samoan	0	0	1	0	0	1
Latino	5	5	8	13	6	37
Other Asian or Pacific Islander	1	0	0	0	1	2
Unknown	1	1	2	0	1	5
Vietnamese	0	1	2	0	1	4
Total	74	73	79	86	79	391

Source: Fatality Analysis Reporting System (FARS)

Bicyclist Data

Using NHTSA FARs data, an overwhelming 44 percent of bicyclist fatalities occur in the afternoon and evening times, largely between 12 noon and 9:00 p.m. (See Figure 101) in mostly daylight conditions (See Figures 102 and 103). Most bicyclist fatalities occur during the fall and summer months (Figure 104) (2016-2020, FARS Data, 2023)

FIGURE 101: BICYCLIST FATALITIES BY TIME OF DAY



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 102: BIKE FATALITIES DAYTIME VS. NIGHTTIME

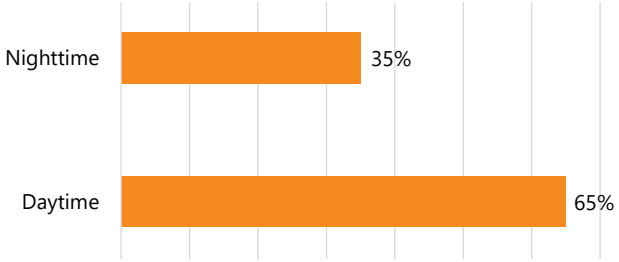
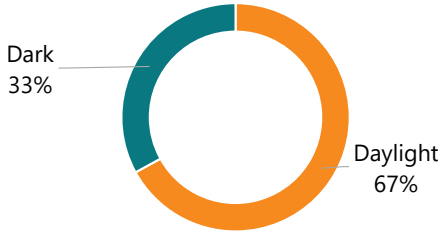


FIGURE 103: BIKE FATALITIES LIGHTING CONDITIONS



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

FIGURE 104: BIKE FATALITIES BY SEASON

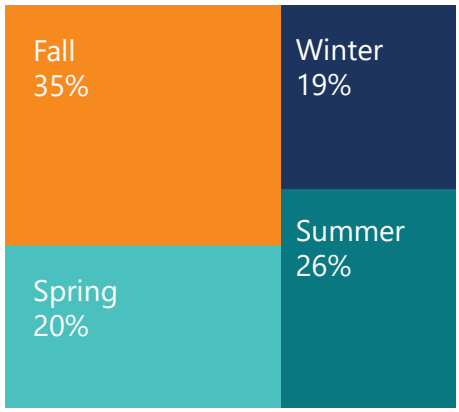
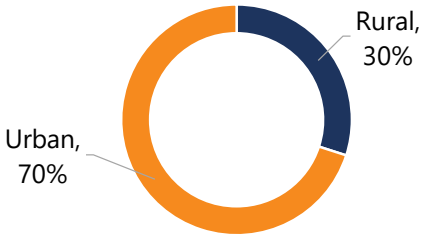


FIGURE 105: BIKE FATALITIES URBAN VS. RURAL



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

TABLE 28: BICYCLIST FATALITIES AND SERIOUS INJURIES 2016- 2020 CARS DATA BY ODOT REGION

Region	Bike Fatalities	Bike Serious Injuries	Total Bike Fatalities and Serious Injuries	% of all Bike Fatalities and Serious Injuries	County with the highest Bike fatalities and serious injuries
Region 1	24	110	134	45%	Multnomah (89)
Region 2	21	83	104	35%	Lane (41)
Region 3	4	29	33	7%	Jackson (16)
Region 4	3	17	20	7%	Deschutes (14)
Region 5	3	5	8	3%	Umatilla (4)

Source: ODOT Statewide Crash Data System (CDS)

TABLE 29: BICYCLE FATALITIES BY RACE AND YEAR

Year	Total	White	Latino	Black	AI/AN	Other Race	Unknown
2016	10	9	1	0	0	0	0
2017	10	6	3	0	1	0	0
2018	9	7	1	0	0	1	0
2019	12	11	0	0	0	0	1
2020	14	9	1	1	3		

Source: Fatality Analysis Reporting System (FARS)

Public Participation Feedback from the 2023 Transportation Safety Conference

Funding for reflective clothing for use with education for pedestrians:

> This has historically and continues to be a high priority request from the public and partners. Education and messaging about the importance of being visible with bright and reflective clothing needs to be paired with having these items available to help in education efforts, particularly for low-income and BIPOC communities where there is a higher vulnerable road user risk. While messaging and education materials continued to be developed and used in outreach and communications, efforts to fund reflective clothing that high-risk pedestrians and bicyclists can wear is not currently possible.

Outreach with Parks and Recreation Departments and Boys and Girls Clubs for classes and events:

> This idea can be incorporated in ODOT regional grassroot efforts.
>
> Education for pedestrians and bicyclists to use new infrastructure enhancements like pedestrian hybrid beacons – Funding these types of projects has now been approved with changes due to BIL regarding expanding eligible projects for 405g funding.

Outreach for Oregon Friendly Driver (OFD) Class:

> There were many ideas about how to incentivize the public to take the OFD class including working with insurance companies to give driver's discounts for completing the Oregon Friendly Driver Course. Others were to find a way to make it required for businesses who have people drive for work to incentivize more people to take the course. Other types of outreach ideas were discussed like working with senior centers to present Oregon friendly driver course. All these ideas for outreach can be included in plans for expanding the OFD program.

Work to help unhoused people regarding their safety as pedestrians – this is a concerning issue for not only Oregon but other states in the West Coast. In 2023, preliminary work was started with listening seessions in the urban Portland Metro areas to better understand how to approach this issue with a focus on pedestrian and bicyclist safety. More work is needed to address this concern.

Conclusion

Many factors besides road user behavior can impact vulnerable road user safety. Parsing out natural environmental, geographic, and built environment factors with human behavior factors involving pedestrian and bicycle fatalities is often difficult and, in some cases, impossible to separate. Although the emphasis of projects for the ODOT pedestrian and bicycle program is focused on road user behavior, it must be acknowledged that there is a more holistic perspective necessary to understanding, mitigating and decreasing vulnerable road user traffic crashes and injuries. Using the newly adopted Safe System Approach is helpful to understand complex relationships with multiple types of factors that can contribute to trends in vulnerable road user safety. Vulnerable road user safety is at the heart of the five intersecting pillars or objectives of the Safe System Approach: Safer People, Safer Roads, Safer Vehicles, and Safer Speeds, and Post-crash Care. Many of the mentioned factors below can be organized into the different safe system approaches and understood to affect VRU safety such as:

a. Lack of multimodal or pedestrian and bicycle infrastructure facilities to make travel safer for VRUs- segments of roads without bicycle lanes or shoulders, no pedestrian refuge islands or pedestrian beacons.

b. Poor lighting — some areas of urban areas lack proper lighting in highly pedestrian and bicyclist trafficked areas.

c. Vehicle design- the size and shape of vehicles may make it difficult to see vulnerable road users, also older vehicles may not have some of the newer pedestrian safety features.

d. Roads not designed for slower speeds for safer active modes of transportation. Roads have been historically designed for fast movement of motor vehicles.

e. Other factors that may affect vulnerable road users' safety include, high set posted speeds, traffic volumes, lack of signs or traffic control devices.

f. Access to post-crash medical care

Given this, with the deeper focus on road user behavior in the ODOT Pedestrian and Bicycle Safety Program, we can affect progress in each of the five Safe System Approach objectives, to achieve higher levels of vulnerable road user safety. There are so many risky road user behaviors that can be addressed through education programs such as decreasing driver speeds, intoxication by road users, distraction by road users, lack of conspicuity, road user impatience, aggressive driving behaviors and not giving right of way.

Despite 2020 being the anomalous year in transportation when stay at home orders in Oregon may explain a decrease in pedestrian and bicyclist crashes, we know from the data, that the severity of serious injury and fatalities for vulnerable road users in Oregon did not decrease. Since pedestrian and bicyclist deaths make up a combined total of 17 percent of the overall traffic crash fatalities for 2020, we can take a deeper dive into the alarming trend of vulnerable road user deaths before the pandemic and why even during and after the pandemic, the trend continues. Given the preliminary data reports of the increasing trend in 2021 and 2022, this is a great opportunity to approach this issue through a Safe System lens.

A focus on continued partnerships with local cities, counties and non-profit organizations who work with communities of need where vulnerable road user risk is high in urban areas especially, is an important step forward. Also using a Safe System Approach framework, ODOT can focus on building relationships with non-traditional partners in traffic safety. For pedestrian vulnerable road users, a special focus on safety in the fall and winter months and when it is darker lighting conditions is a priority to decrease pedestrian fatalities. There can be multiple reasons for why pedestrians are killed more at night and in the fall and winter months such as time change and weather conditions as well as possible increased intoxication levels by road users during the holiday months. These can all be factors in this trend. Working more closely with partners in the highest risk areas of the state would be an important step to understanding these complexities.

Another important trend is the location of vulnerable road users at the time of the crash and better understanding the factors that lead to the crashes where we see higher severity of injury. A better understanding of the behaviors of all road users will help us to approach this issue with education programming that is centered in understanding the behavior and context to the location of the VRU when they are struck. This would require closer relationships with law enforcement who investigate the crashes as well as engagement with community to understand the barriers that vulnerable road users face in navigating Oregon's transportation system. Funding smaller grassroot community projects may not only help communities overcome the barriers they have in accessing safe transportation, but it can also help ODOT to better understand the education needs for specific communities.

In looking more closely at the Safe System Approach to vulnerable road users' safety, a focus on the Safe Speeds component is warranted. Driver speed and increased driver speeds can have a large impact on vulnerable road user safety. Partnering with both traditional partners such as law enforcement as well as non-traditional partners at the city, county, and community local levels can have a positive impact on educating drivers and behavior change. A commitment to working with partners who set speeds or impact land use in areas that are known to have high travel rates of vulnerable road users can have a positive impact on safety of people walking and rolling on principal arterial roadways especially.

Working with partners in the five ODOT regions is also key to better understanding which communities are at highest risk. Especially understanding this by leading with an equitable engagement approach to understanding how race and income can be factors in vulnerable road user risk in Oregon. While we have a long way to go in understanding the overrepresentation of BIPOC communities in vulnerable road user risk, beginning with grass roots and non-traditional relationships can be a key to understanding and planning traffic safety education programming with specific at-risk communities.

Specifically for bicycling safety education programs, it is also important to understanding barriers to safer transportation through a safe system approach. Working with partners to educate road users about new innovations, laws, and infrastructure projects can boost education and awareness for people driving and riding bicycles. Partnering with internal ODOT staff and externally with cities and counties will be helpful in building education programming to bring awareness to all road users regarding bicyclist safety.

Also partnering with different community partners in the state who can tailor education messaging and courses for people driving is warranted. Safety messaging customed designed for different demographics and regional variation is key to delivering safety messages that are meaningful for the target demographic. For example, bicycling safety messages for coastal communities may be quite different than the messaging needed for eastern Oregon. So regional partnerships can help inform ODOT of specific regional messaging needs.

Strategy – Communications and Outreach

PROBLEM 1300.11(B)(4)(I)

Communications Outreach, and Media Messaging Plan will address safe behaviors of all road users in regard to pedestrian and bicyclist safety. Key education and awareness messaging will focus on:

1. Pedestrian safety
    a. Especially winter and fall
    b. At night
    c. Decreasing driver speeds
    d. Visibility of vulnerable road users
    e. Right of way rules
2. Bicycle
    f. Safe passing of a cyclist
    g. Regional messaging for bicycling safety
    h. Safe bicycling tips and rules
    i. Safe driving tips on how to share the road with bicyclists.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communications, Outreach and Media – Uniform Guidelines for State Highway Safety Programs-Pedestrian and Bicycle Safety No. 14

There is no countermeasure for outreach and education; however, research concludes that public engagement is a critical component of any public health strategy. Please see the justification on page 93 of the Triennial HSP.

Education and outreach for ped and bike safety is informed by Highway Safety Program Guideline 14, specifically Section VI Communication Program which states, "The State should enlist the support of a variety of media, including mass media, to improve public awareness of pedestrian and bicyclist crash problems and programs directed at preventing them. Communication programs and materials should be culturally relevant and multilingual as appropriate, and should address issues such as:

- Visibility, or conspicuity, in the traffic system;
- Correct use of facilities and accommodations;
- Law enforcement initiatives;
- Proper street-crossing behavior;
- Safe practices near school buses, including loading and unloading practices;
- The nature and extent of traffic-related pedestrian and bicycle fatalities and injuries;
- Driver training regarding pedestrian and bicycle safety;
- Rules of the road;
- Proper selection, use, fit, and maintenance of bicycles and bicycle helmets;
- Skills training of bicyclists;
- Sharing the road safely among motorists and bicyclists; and
- The dangers that aggressive driving, including speeding, pose for pedestrians and bicyclists.

And Section VII which states: "Outreach efforts should include a focus on reaching vulnerable road users, such as older pedestrians, young children, and new immigrant populations. States should also incorporate pedestrian and bicycle safety education and skills training into school physical education/ health curricula."

Targets Countermeasures will address 1300.11(b)(4)(iii)

Maintain or decrease bicyclist fatalities from the 2016-2020 moving average of 11. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
10	10	9	11	14	11	18	11	11	11

Maintain or decrease pedestrian fatalities of the 2016-2020 moving average of 74. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
71	70	77	82	71	74	87	74	74	74

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
402	$500,000	$500,000	$500,000

Overview of Communications, Outreach and Media Program

This project will fund contracted media design, education material revisions, social media advertising, radio public service announcements and billboards; public attitude, and observed restraint use surveys; as well as TSO direct purchase, reproduction, and distribution of educational and outreach materials.

Education campaigns are one of the only proven countermeasures for pedestrians and bicyclists. The two types of messaging Oregon uses are behavioral, and awareness based. Funding is provided to allow for campaigns statewide and the location of messaging is based on data and diverse population needs.

The countermeasure of the bicyclist and pedestrian communication campaign was informed by Highway Safety Program Guideline number 14 specifically program management, legislation, regulation and policy, enforcement, communication, outreach, diverse populations, data and program evaluation. ODOT contracts with a public relations firm, media, brochures, and advertising are evaluated based on data, problem identification and prior performance.

Strategy – Oregon Friendly Driver Course

PROBLEM 1300.11(B)(4)(I)

The Oregon Friendly Driver course (OFD) is an education outreach program that addresses pedestrian and bicycle safety by educating people who drive to:

a. Know the laws pertaining to pedestrian and bicycle safety and how to apply them.
b. How to be a friendly driver to vulnerable road users even if you are driving right by the law.
c. How to also be a safe pedestrian and bicyclist.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Share the Road Awareness Programs – CTW 2-star citation. Bicyclist 4.2

Driver Training – CTW 1 star citation – Pedestrian 4.5

The countermeasures of the Share the Road Awareness for bicycle safety and driver training for pedestrian safety was informed by Highway Safety Program Guideline number 14 specifically program management, outreach, driver education. While this share the road driver training does not meet the Countermeasures that Work criteria for effectiveness, there are no "effective" countermeasures listed in either the pedestrian or bicycle safety sections of the CTW that focus on driver behavior, even though, driver behavior can have just as much impact on vulnerable road users safety as their own behaviors. Although there is very little research or data to cite, driver awareness education programs can contribute to the overall effectiveness of vulnerable road user safety when combined with other strategies or counter measures. Therefore, just because there has been little evidence that driver training alone may not reduce crash rates, this is no reason not to use this countermeasure in conjunction with other countermeasures that the state is implementing both for infrastructure and non-infrastructure. According to the FHWA's PedSafe Pedestrian Safety Guide and Counter Measure Selection System, a multidisciplinary approach that addresses both pedestrian and driver behavior along with policy and infrastructure change has the potential to have the greatest impact (Pedbikesafe.org) Drivers may not understand state traffic laws or the best safe practices which can lead less crashes and injuries for all road users, especially people walking and bicycling. Driver education can provide correct information about pedestrian and bicycle safety law while also bringing awareness to driver behavior and therefore increase chances of behavior change to reduce vulnerable road user deaths (Pedbikesafe.org).

This driver training is focused on both pedestrian and bicycle safety therefore both Share the Road Awareness programs (Under Bicycle Safety Section of CTW) and Driver Training (Under Pedestrian Section of CTW) were selected. Oregon Friendly Driver is a statewide program that will be administered and coordinated by one prime partner, that will subgrant to other partners in different regions of the state based on a data driven approach to high-risk pedestrian and bicycle safety communities. The partner selected as the prime administrator and coordinator of the project is funded based on a notice of opportunity (NoO). On a triennial basis a NoO goes out to organizations including cities, counties, non-profits, and eligible entities that have expressed interest in traffic safety for vulnerable users.

Maintain or decrease bicyclist fatalities from the 2016-2020 moving average of 11. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
10	10	9	11	14	11	18	11	11	11

Maintain or decrease pedestrian fatalities of the 2016-2020 moving average of 74. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
71	70	77	82	71	74	87	74	74	74

Funding Source	**2024**	**2025**	**2026**
405(g)	$330,000	$330,000	$330,000

Strategy – Pedestrian Safety Enforcement and Education Program

According to Countermeasures that Work traffic enforcement is most effective when it is highly visible and publicized to reinforce the required behavior and to raise the expectation that failure to comply may result in legal consequences. Enforcement campaigns should be aimed at drivers and pedestrians, starting with the communications and outreach that announce, describe, and publicize the traffic safety campaign through community meetings, media coverage, social media, mass emails, and signage.

PROBLEM 1300.11(B)(4)(I)

The Pedestrian Safety Enforcement and Education Program will address road user behaviors by encouraging safe behaviors in regard to pedestrian and bicyclist safety. This program will largely focus on crosswalk safety and enforcement of state crosswalk laws. Driver behaviors such as not giving right of way to pedestrians in a crosswalk, speeding, and distracted driving can be mitigated through this countermeasure.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Enforcement Strategies– CTW 3 stars citation- Pedestrian 4.4

Target Countermeasures will address all four performance measures 1300.11(b)(3)(ii)

Maintain or decrease bicyclist fatalities from the 2016-2020 moving average of 11. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
10	10	9	11	14	11	18	11	11	11

Maintain or decrease pedestrian fatalities of the 2016-2020 moving average of 74. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
71	70	77	82	71	74	87	74	74	74

Funding Source	**2024**	**2025**	**2026**
405(g)	$191,556	$191,556	$191,556

Overview of the Enforcement and Education Program

The Pedestrian Safety Enforcement Program will provide grants to local police departments, sheriff's offices and Oregon State Police to conduct enforcement activities that will maintain and increase compliance with pedestrian and bicycle laws. In addition, law enforcement agencies will receive education training opportunities to increase their knowledge about bicycle and pedestrian safety and state laws.

The countermeasure strategy of the enforcement strategies was informed by Highway Safety Program Guideline number 14 specifically program management, legislation, regulation and policy, enforcement, communication, outreach, diverse populations and program evaluation. Projects are funded based on a grant application sent to all law enforcement agencies, the amount requested by the agency, and previous performance. Law enforcement agencies do not often request pedestrian enforcement funds so all agencies willing to do pedestrian enforcement are funded.

Strategy – Grassroots Partnership Mini-Grants to ODOT Regions 1-5 1300.11(b)(4)(ii)(B)

Partnerships in collaboration with communities and non-profits to address traffic safety issues through grassroots efforts.

Other than enforcement, education campaigns are one of the only proven countermeasures for traffic safety. The Bicyclist and Pedestrian Program uses grant funds to implement program activities and amplify messages from all program areas focusing on overrepresentation in specific areas such as pedestrians, bicycles and impaired driving.

Outreach and education will focus on maintaining and building on partnerships in all region with law enforcement, health educators and programs, traffic engineering, government traffic safety counterparts, injury prevention specialists, communities, neighborhood associations and non-profit organizations. Education and outreach efforts emphasize addressing traffic safety issues through grassroots efforts in collaboration with communities, non-profits and partners.

While the effectiveness of community engagement through grassroots efforts is supported more by qualitative studies rather than quantitative data, numerous researchers have concluded that community engagement is a critical component of any public health strategy.[57] [58] Community engagement serves as "a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. [It] often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs and practices."[59] 1300.11(b)(4)(iii)

PROBLEM 1300.11(B)(4)(I)

The Grassroots Partnership Traffic Safety Education Program will address pedestrian and bicycle safety at a local and community level by partnering with and supporting community led traffic safety projects with an emphasis on pedestrian and bicycle safety. This will address an equitable approach in partnering with communities of most need who have higher risks to their safety as vulnerable road users in the Oregon transportation system. A focus on low-income, BIPOC, and those experiencing houselessness are examples of communities of need that the grassroots projects will help to reduce traffic safety barriers to walking, rolling and biking in Oregon.

Countermeasures and Justification Uniform Guidelines for State Highway Safety Programs – Pedestrian and Bicycle Safety No.14 Section I, II, and VII 1300.11(b)(4)(ii) 1300.12(b)(2)(viii) 1300.11(b)(4)(ii)(B)

Partnerships in collaboration with communities, local cities, counties, non-profits, businesses, organizations, neighborhood associations, and law enforcement to address traffic safety issues through grassroots efforts.

57 O'Mara-Eves A, Brunton G, Oliver S, Kavanagh J, Jamal F, Thomas J. The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. BMC Public Health. 2015 Feb 12;15:129. doi: 10.1186/s12889-015-1352-y. PMID: 25885588; PMCID: PMC4374501

58 Bassler, A. et al., "Developing Effective Citizen Engagement: A How-to Guide for Community Leaders." *Center for Rural America*, 2008.

59 Centers for Disease Control and Prevention (CDC). 2011. *Principles of Community Engagement.* Available at: https://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf

Maintain or decrease bicyclist fatalities from the 2016-2020 moving average of 11. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
10	10	9	11	14	11	18	11	11	11

Maintain or decrease pedestrian fatalities of the 2016-2020 moving average of 74. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
71	70	77	82	71	74	87	74	74	74

Funding Source	2024	2025	2026
402	$500,000	$500,000	$500,000

Overview of the Grassroots Partnership Vulnerable Road User Traffic Safety Education Program

This Program funds grassroots pedestrian and bicycle safety education efforts culturally specific to ODOT Regions through mini grants either by expanding or enhancing existing programs or funding new programs and/or projects to increase the accessibility to education and safe use of bike/pedestrian systems by schools, cities, counties, and other local organizations to be determined and as appropriate. This project provides transportation safety education, outreach, training, program supplies, and/or services to a wide variety of community-based traffic safety programs.

Grassroots projects are focused on traffic safety issues identified by local groups that are specific to their area and/or community e.g., the Chinese Community. Grant funds may be used to expand current local or community pedestrian and bicycle safety efforts including development of pedestrian and bicycle safety curriculum and resources, increasing project capacity by paying staff, or funding to expand training or classes for more participation opportunities. This project provides, funds to develop education and print materials; translation or development of materials that are language and culturally specific; engage in outreach, hire a part-time coordinator and increase training and education efforts in these local communities to address behavior that has been contributing to the rise in pedestrian deaths identified (data-driven) by neighborhoods, community groups, and other local organizations.

Supporting and Contributing Programs to the Bicyclist and Pedestrian Program

Safe Routes to School" refers to efforts that improve, educate, or encourage children safely walking (by foot or mobility device) or biking to school. The Oregon Department of Transportation has two main types of Safe Routes to School programs: Construction and Education and technical assistance. Construction programs focus on making sure safe walking and biking routes exist through investments in crossings, sidewalks and bike lanes, flashing beacons, and the like. Education programs focus on education and outreach to assure awareness and safe use of walking and biking routes. The objectives of the program are:

- To ultimately reach the goal of zero fatalities and injuries for children walking, rolling or bicycling.
- To increase education and construction project opportunities that aid in the ability for children to walk, roll and bicycle safely to and from school.
- To make walking, rolling, and bicycling appealing travel alternatives
- To influence a healthy and active lifestyle
- To facilitate the planning, development and implementation of projects and activities that improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools.

PROBLEM 1300.11(B)(4)(I)

This project addresses decreasing barriers for children and adolescents to have access to safe walking, biking, and rolling to and from school. It helps to increase physical activity, and help others in the community like parents, school staff, and other road users how to help increase safety for kids and adolescents who use the Oregon transportation system.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Safe Routes to School

C-1) Number of traffic fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Funding Source	2024	2025	2026
FHWA	$1,833,333	$1,833,333	$1,833,333

Community Traffic Safety

Link(s) to the Transportation Safety Action Plan

Strategy 3.5.4 Encourage implementation of Safe Communities statewide.

Provides a big-picture approach to injury prevention through citizen input and participation; collaboration with local business and health care; data collection and analysis; and combined injury prevention efforts.

Problem Identification Community Traffic Safety 23 CFR 1300.11(b)(1)(i)(ii)

Every Oregonian deserves a safe, livable community; Oregonians also place a premium on getting involved in their communities to make a difference. These two principles — coupled with research demonstrating that data driven approaches to planning for, and delivering community level traffic safety programs are more effective than stand-alone activities — have led to ongoing commitments to local transportation safety efforts for the last 30 years. Currently, however, some specific and noteworthy problems in both developing and maintaining safe livable communities include:

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall.

Key findings for contributing factors in Oregon's fatal and serious injury crash data:

- Nearly all contributing factors have increasing trends over the 2016-2020 average.
- A little less than half occurred on state highways (49%), holding steady with the 2016-2020 average.
- Crashes on rural roads have increased to 44 percent, up from the 41 percent 2015-2019 average and crashes on urban roads have decreased to 56 percent, down from the 2015-2019 average of 59 percent.
- Consistent with past years, in 2020 the highest percentage of crashes resulted from roadway departure at 40 percent, while 37 percent occurred at intersections.
- Seventeen percent of 2020 fatal and serious injury crashes involved unlicensed drivers.
- Crashes involving impairment accounted for 28 percent of all 2020 fatal and serious injury crashes (upward trend). Poly-substance[60] crashes represent 20 percent of all impaired crashes, up from 14 percent in 2016. Controlled substances or recreational drugs were decriminalized in Oregon in February 2021 (Ballot Measure 110), so it is anticipated that the poly-substance crash trend will only continue upward.
- Crashes involving speed accounted for 22 percent of all 2020 fatal and serious injury crashes.
- Although motorcycles make up only 3.5 percent of registered vehicles in 2020, 14 percent of fatal and serious injury crashes involved a motorcycle. The two most common aggravating factors in motorcycle crashes are speed and impairment. In 2020, 30 percent of all motorcycle fatal and serious injury crashes involved a speeding motorcyclist, while 10 percent involved the use of drugs and/or alcohol by motorcyclists.

60 Poly-substance is defined in ODOT crash data as an active participant (i.e., driver, ped, bicyclists) who had been using both alcohol and drugs; one active participant had been using alcohol, and another had been using drugs, or any such combination as long as both alcohol and drugs were present.

- Crashes involving a pedestrian or bicyclist have continued to increase. Pedestrian deaths have increased from an average of 78 people killed annually between 2016-2020 to 80 people in 2020. Bicycle deaths have increased from an average of 11 in that same time period to 14 in 2020.
- For local communities currently planning or implementing a local Traffic Safety Action Plans, the following have been identified as challenges:
- Volunteerism continues to change. For many Oregon communities, there is no local mechanism for mobilizing and motivating volunteer resources, as well as plans for keeping up with attrition numbers and training requirements.
- Over half of Oregon's fatal and injury crashes occur in the north Willamette Valley in just four counties, significantly impacting overall state crash statistics. Two counties, Gilliam and Sherman, have experienced an average fatal and injury crash rate above 7 per 1,000 people for the past decade. These counties have minimal local resources to address their traffic safety issues.
- While safety is a stated priority for many organizations and governments, when confronted with financial difficulties, safety is often the first area where budget cuts or other changes are made.
- Only a few local governments in Oregon have developed a plan specific to reducing motor vehicle related deaths and injuries, either as a standalone or as part of a transportation system plan; even fewer have undertaken a more comprehensive "4-E" or Safe Systems approach to the problem.
- A traffic safety academy or other systematic approach to training and motivating local volunteers is not currently in place. Efforts to train local government employees are not always well coordinated.
- Three MPOs have now published their required Strategic Highway Safety Plans (Portland Metro, Lane Council of Governments, and Bend MPO).

The following pages represent a series of data visualizations regarding Oregon's diverse local traffic safety problems. The previous Statewide Overview section dives deeply into identifying the problems on Oregon's roadways. As a subset of both region and statewide data and analysis, the community traffic safety program takes full advantage of that work and seeks to identify gaps in our local systems based on partner feedback and communities that are conducting overarching planning efforts to improve the traffic safety picture.

In addition to crash data by location, the following tables detail communities that are known to have active transportation safety groups, have or are working on local plans, and communities with some form of paid staff to address traffic safety issues. Based on extensive research conducted at the national and international level, these three elements position a community to take advantage of and take action on all other traffic safety programs, which will reduce fatalities (and serious injuries).

The map below also provides a visual supplement to the tables, which are the core tool for geolocation as a problem identification approach. Oregon used the tables and map for communities with high volumes of fatal events (typically found in the Willamette Valley/I-5 Corridor), or high rates of fatal events (often found in frontier and rural Oregon), and targeted those currently without plans, programs, or treatments for assistance in solving local traffic safety problems. In order to maintain equity for small communities, some countermeasures will be promoted in all communities in Oregon including a review of past experience working with that community. The map further provides "at a glance" ability to spot adjacent high-rate counties, which was also considered in problem identification.

TABLE 30: JURISDICTIONAL DATA FOR OREGON COUNTIES, 2020

County		Population	Fatalities	Alcohol Involved Fatalities	Fatal and Injury Crashes	F&I Crashes/ 1,000 Pop.	Nighttime Fatal And Injury Crashes
Baker	*	16,910	5	1	88	5.20	11
Benton		94,665	7	0	292	3.08	32
Clackamas	@!	426,515	37	18	1,713	4.02	249
Clatsop		39,455	11	5	267	6.77	27
Columbia	@*	53,280	3	0	206	3.87	35
Coos		63,315	11	6	280	4.42	54
Crook		23,440	2	1	136	5.80	30
Curry		23,005	4	2	100	4.35	19
Deschutes	@	197,015	30	12	791	4.01	89
Douglas	*	112,530	31	15	567	5.04	90
Gilliam		1,990	2	2	37	18.59	10
Grant	@!	7,315	4	1	36	4.92	9
Harney	@!	7,280	2	0	50	6.87	9
Hood River		25,640	4	2	106	4.13	13
Jackson	!	223,240	15	5	1,174	5.26	183
Jefferson		24,105	9	4	131	5.43	19
Josephine		86,560	13	6	470	5.43	61
Klamath		68,075	18	3	481	7.07	83
Lake		8,075	5	2	55	6.81	15
Lane	@!	381,365	30	9	1,512	3.96	211
Lincoln		48,305	17	4	305	6.31	30
Linn		127,320	29	6	814	6.39	132
Malheur	@!	32,105	9	3	212	6.60	49
Marion		349,120	36	8	2,085	5.97	352
Morrow	!	12,825	2	1	50	3.90	8
Multnomah		829,560	83	35	3,643	4.39	664
Polk		83,805	13	4	399	4.76	62
Sherman		1,795	4	2	37	20.61	11
Tillamook		26,530	13	4	196	7.39	36
Umatilla	!	81,495	12	1	362	4.44	60
Union	@!	26,840	3	0	102	3.80	17
Wallowa		7,160	0	0	29	4.05	4
Wasco		27,295	9	5	137	5.02	35
Washington	@#	620,080	23	7	2,441	3.94	367
Wheeler		1,440	2	0	7	4.86	2
Yamhill		108,605	9	5	492	4.53	81
Statewide Total		**4,268,055**	**507**	**179**	**19,803**	**4.64**	**3,159**

Sources: Crash Analysis and Reporting 2020 data, Oregon Department of Transportation, U.S. Department of Transportation, Center for Population Research and Census, School of Urban and Public Affairs, Portland State University, Text in italics based on urban boundary changes per national census.

**=Local Traffic Safety Group # = County/Local Traffic Safety Group ! = Safe Communities Group*
@= Has or is developing a local plan for safety Nighttime fatal and injury crashes that occur between 8 p.m. and 4:59 a.m.

TABLE 31: JURISDICTIONAL DATA FOR OREGON CITIES (POPULATION OVER 10,000), 2020

City		Population Estimate	Fatalities	Alcohol Involved Fatalities	Fatal & Injury Crashes	F&I Crashes /1000 Population	Night-time Fatal and Injury Crashes
Albany	*	54,120	4	0	247	4.56	27
Ashland	*	20,960	0	0	53	2.53	4
Astoria		9,675	0	0	50	5.17	3
Baker City	*	10,010	0	0	20	2.00	0
Beaverton	*	98,255	3	1	600	6.11	74
Bend	!	91,385	3	0	328	3.59	25
Canby	*	16,950	0	0	30	1.77	2
Central Point		18,365	0	0	42	2.29	2
Coos Bay	*	16,700	0	0	52	3.11	3
Cornelius		12,225	1	0	51	4.17	7
Corvallis		58,885	3	0	164	2.79	16
Cottage Grove		10,140	0	0	26	2.56	5
Dallas		16,260	1	0	44	2.71	2
Eugene	!	171,210	4	1	570	3.33	74
Forest Grove		25,180	1	0	62	2.46	8
Gladstone	*	11,905	1	1	32	2.69	5
Grants Pass		37,485	1	1	269	7.18	24
Gresham		111,810	22	10	551	4.93	106
Happy Valley		21,700	0	0	135	6.22	20
Hermiston		18,415	1	1	57	3.10	7
Hillsboro		103,350	4	2	552	5.34	77
Keizer	*	38,580	2	1	112	2.90	16
Klamath Falls	*	22,000	2	1	110	5.00	13
La Grande	*	13,290	0	0	17	1.28	3
Lake Oswego	*	39,115	1	0	50	1.28	9
Lebanon		17,135	0	0	66	3.85	9
McMinnville		33,930	0	0	123	3.63	19
Medford	*	81,465	3	1	508	6.24	59
Milwaukie	*	20,535	1	0	78	3.80	16
Newberg		24,045	0	0	64	2.66	6
Newport		10,285	0	0	71	6.90	3
Ontario	*	11,485	0	0	64	5.57	12
Oregon City		35,570	0	0	164	4.61	30
Pendleton		17,020	2	1	58	3.41	3
Portland	*	657,100	54	31	2,840	4.32	500
Prineville		10,220	0	0	38	3.72	7
Redmond	*	30,600	2	1	110	3.59	12
Roseburg		24,890	3	1	138	5.54	10
Salem	*	167,400	12	3	1,106	6.61	172

TABLE 31: JURISDICTIONAL DATA FOR OREGON CITIES (POPULATION OVER 10,000), 2020

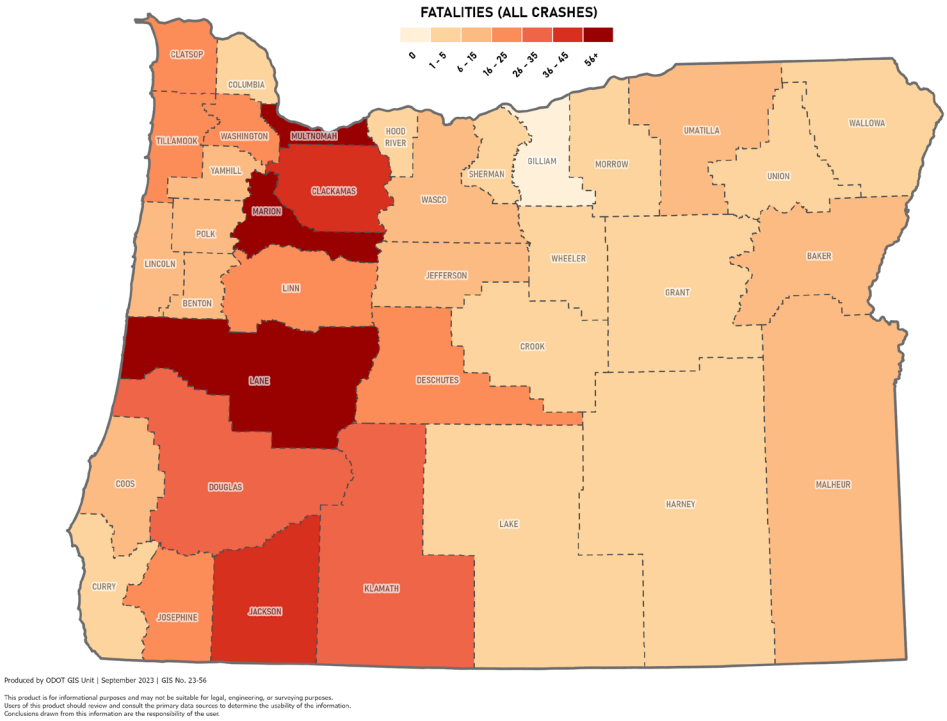
City		Population Estimate	Fatalities	Alcohol Involved Fatalities	Fatal & Injury Crashes	F&I Crashes /1000 Population	Night-time Fatal and Injury Crashes
Sandy		11,075	2	2	61	5.51	8
Sherwood		19,595	0	0	66	3.37	6
Silverton		10,380	0	0	17	1.64	1
Springfield		61,355	2	0	312	5.09	28
St. Helens		13,410	0	0	32	2.39	3
The Dalles	*	14,820	0	0	38	2.56	9
Tigard		53,450	0	0	232	4.34	31
Troutdale		16,185	2	0	80	4.94	13
Tualatin		27,135	1	0	166	6.12	17
West Linn		25,905	1	1	61	2.35	4
Wilsonville		25,635	0	0	94	3.67	9
Woodburn		25,135	1	1	126	5.01	17
Statewide Total		**4,268,055**	**507**	**179**	**19,803**	**4.64**	**3,159**

*Sources: Crash Analysis and Reporting 2020 data, Oregon Department of Transportation, U.S. Department of Transportation, Center for Population Research and Census, School of Urban and Public Affairs, Portland State University Text in italics based on urban boundary changes per national census. *Nighttime F&I Crashes are those fatal and injury crashes that occur between 8 p.m. and 4:59 a.m.*

**= Local Traffic Safety Group #= County/Local Traffic Safety Group ! = Safe Communities Group*
@=Has or is developing a local plan for safety

The following data map provides a quick overview of fatalities in Oregon by County in 2020.

FIGURE 106: TRAFFIC FATALITIES BY COUNTY



Source: NHTSA

Public Participation and Engagement

The community program conducts continuous public engagement through a warm line, and uses that information to identify needed aides, training, and newsletter topics. Additionally, as part of the statewide public engagement, the program found that current offerings were well supported by the public, but also identified multiple areas of improvement. Additional training was requested regarding traffic safety action plan development and use, development and improvement of traffic safety groups, and improved effort to establish nontraditional safety groups. Other input included translated web pages where possible (most are not in the scope of the program, but we can use this to improve those websites that are). Communities asked about mobile speed reader boards that could be shared, this concept will be explored over the coming year, to see if it can be implemented at a reasonable cost. Finally, partners that have or use plans were consulted and it was found that many are coming up on five years and would like to update their plans, or have assistance if they are seeking FHWA funding to do so.

Conclusion

After analyzing the data prepared for the statewide and region programs, and receiving feedback from safety partners, community groups and citizens, for the next three years the Community Traffic Safety Program will focus on development of local agency and volunteer safety activities. Community educational materials may need to be provided in multiple languages as new groups choose to get involved or make inquiries. The program does currently have a 'warm line' provided by a statewide non-profit, but access in other languages is an opportunity area for expansion. As each topical program identifies their best courses of action over the three-year period and materials are created, the challenge becomes making sure those materials are reaching the right audiences. Local safety groups and advocates are one of the best ways to make sure that messages reach the correct audiences.

After talking with community members at PP&E events it became apparent that more needs to be done to meet them where they are for resources, languages, and paid and volunteer workforces.

Local agencies continue to want to plan for safety success, and when local agencies collect data, analyze it, discuss it and develop countermeasures which are assembled into quality local plans, it sets the stage for local success. It has been said, and research indicates that what gets measured gets done. Local agencies that are willing to develop plans with TSO assistance, and/or with the help of FHWA direct funding under the Safe Streets For All program (SS4A) know what their problems and opportunities are, and have a path forward on how to address them.

Once plans are developed, local organizations start looking for ways to coordinate the work to implement the plan. They are often hesitant to commit to a broad spectrum of solutions simultaneously, so assistance with coordination becomes a valuable resource to some of these communities. That said, once the resource person or system is put in place, it provides a hub for exchange of information, and coordination among and between highway safety-oriented work and workers. Resources go further, messages become amplified, and more work gets done. Providing funding to communities willing to coordinate their efforts gives them the head start they need toward success.

Strategy – The Community Traffic Safety Program employs four strategies:

- Provide statewide coordination to local governments and volunteers.
- Provide training to local governments and volunteers.
- Provide assistance developing local government safety action plans which coordinates with the state's Transportation Safety Action Plan.
- Provide assistance with staff and materials for local Safe Communities' Groups

Problem 1300.11(b)(4)(i)

Addresses the need for trained and equipped local professionals and volunteers to implement highway safety projects.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communities that plan for and work on identified transportation safety issues are foundational to the reduction of fatalities and serious injuries. However, many steps are involved in analyzing the data, identifying the priority problem issues, determining the best strategies to address the problems, identifying 'who' is responsible, then subsequent implementation, all at the local level. This transportation safety planning and training is necessary to the success of the State and other local plans. The program will use the research proven strategy of developing and educating local 'grass roots' groups charged with initiating traffic safety programs and encouraging efforts based on proven strategies such as the ones listed in "Countermeasures that Work," the development and implementation of local transportation safety action plans is based on proven strategies and implementing other research proven efforts at the local level.

Research by The Karolina Institute based in Orebro, Sweden indicates, as does the World Health Organization, that the Safe Communities approach results in measurable improvements to mortality and morbidity. In addition, implementation of Null Visionen concepts, as researched by Vagverket/ Trafficverket and FOI (Swedish Defense Research Institute), indicates safety improvement based on systemic approaches. Trafficverket multiple citations, in addition to FOI-SE research. Single citation: [61]

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
402	$1,270,000	$1,270,000	$1,270,000

61 "Linköping: Statens väg-och transportforskningsinstitut, 2001. p. 66-76." Austroads research indicates steady improvement based on implementation of research-based community strategies. Citation: Austroads, Guide to Road Safety Part 1: Introduction and The Safe System, Publication no: AGRS01-21, ISBN: 978-1-922382-59-7, Published: 16 July 2021 (and following series).

Overview of Community Traffic Safety Program

The Community Traffic Safety Program will provide grants to local governments and non-profits to conduct traffic safety efforts that will maintain and increase planning and implementation of data driven transportation safety plans. Funding will allow agencies and organizations to offer enforcement, education, and EMS improvements that are either published in "Countermeasures that Work" or are supported by other publications as deemed appropriate by the local jurisdiction.

Agencies will be encouraged to garner local media coverage of their planned efforts, partnerships, purpose and results. During 2023, fifty local community programs participated in Oregon's safety programs at some level. Many of these agencies plan local safety activities without assistance, however; the smaller organizations do not have dedicated safety program staff and so rely on grant funds to work on traffic safety problems in their communities. A local transportation safety plan is foundational to developing support for local efforts in enforcement, engineering, education and EMS improvement.

Projects are identified by local governments that are encouraged to apply for these grants based on problem identified data. Projects are selected on a first come first serve basis, but high fatal and serious injury event communities are contacted and encouraged to apply. If the number of applicants exceed available funds, preference would be given first to communities with high numbers of fatalities and serious injuries, and then to communities that have no traffic safety plan in place, or that find their plan has run its logical course based on age or completion of elements. Communities that have already received funds from FHWA are allowed to, but not encouraged to apply, to allow the funds to cover more communities statewide.

This countermeasure strategy is foundational work and is informed by several newly uncoordinated elements of the NHTSA Uniform Guidelines for Highway Safety Programs. NHTSA guidelines offer direction to States in formulating their highway safety plans for highway safety efforts that are supported with section 402 and other grant funds, but as of 2023 the guidelines fall short in addressing the need for taking a comprehensive approach to highway safety, and do not encourage cross topical coordination as identified in available and highly detailed research conducted by nations currently more successful than NHTSA and the United States in saving lives and protecting the population. NHTSA has noted that the guidelines provide a framework for developing a highway safety program. By incorporating solid research such as Safe Streets for All done by Austroads (and highlighted in FHWA programming under the current funding program of USDOT), the guidelines serve as an imperfect tool which Oregon has used in tandem with its local governments to assess the effectiveness of their own programs and develop an over-arching approach. NHTSA has encouraged states to use the guidelines to build more optimized and effective highway safety programs. Oregon believes that coordinating actions is much more effective than siloed programs, and has taken the advantage of research provided by Federal Highway Safety Administration, to work with local communities to develop coordinated strategies to be conducted at the state and local level based on NHTSA Uniform Guidelines as identified throughout this plan document and incorporated into this section by reference, but that will be in whole or part be implemented at the local level.

Distracted Driving

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 1.2.2	Implement best practices for ongoing enhancement of safety culture training, information, and tools within ODOT and across agencies and partners.
Strategy 3.1.1	Support a data-driven approach to law enforcement, using data analysis to efficiently deploy enforcement resources to locations or corridors.
Strategy 5.3.1	Collaborate with the media and partner agencies' public information offices to develop information which improves public awareness of safety programs, laws, roles, responsibilities, and expectations. Ensure campaigns take into account Oregon demographics.

There is strong evidence, in Oregon and in other states that laws and enforcement efforts are only successful if they are effectively and continuously publicized, and in conjunction with high visibility enforcement efforts when available. According to the National Highway Traffic Safety Administration (NHTSA), public information programs should be comprehensive, seasonally focused, and sustained.

The Distracted Driving Program works to reduce the incidences of distracted driving, especially with mobile electronic devices, by raising awareness of its dangers through public service ads, media, education and high visibility enforcement. This will be addressed through grant projects with other agency partners.

Distraction occurs when a driver diverts attention to something not related to driving. There are four types of distraction: visual, auditory, manual, and cognitive. Distracted Driving is a dangerous behavior for drivers, passengers, non-occupants, and non- motorized travelers alike.

Problem Identification Distracted Driving 23 CFR 1300.11(b)(1)(i)(ii)

From 2016-2020 there were 2,036 crashes, resulting in 24 fatalities and 1,824 injuries caused by drivers reported to have been using a cell phone at the time of the crash.

From 2016-2020 there were 127 crashes involving a driver aged 16-18 reported to have been using a cell phone at the time of the crash: 0 fatalities and 179 people injured.

From 2016-2020 there were 59,066 convictions for this traffic law violation. ORS 811.507

These crashes continue to be underreported in Oregon, but with the 2017 and 2018 changes to the law, and updated citations and crash data reporting requirements, reported distracted driving crash numbers initially rose before normalizing due to countermeasure efforts. The cultural norm around cell phone use needs to be changed so all Oregonians know it is illegal and culturally not acceptable to use one's cell phone while driving. Public opinion shows most Oregonians know this, but still drive distracted.

During and since the recent pandemic, law enforcement agencies throughout Oregon have struggled, many losing their traffic teams and/or unable to provide certain enforcement activities. TSO is offering grants for both straight and overtime enforcement hours worked by these agencies to combat distracted driving.

TABLE 32: OREGON DRIVER REPORTED TO HAVE USED MOBILE ELECTRONIC DEVICE IN CRASH, FATALITIES, AND INJURIES. 2016-2020

Year	Fatalities	Injuries
2016	9	408
2017	1	353
2018	2	433
2019	5	370
2020	7	260
Total	**24**	**1,824**

Source: ODOT Statewide Crash Data System (CDS)

TABLE 33: OREGON MOBILE ELECTRONIC DEVICE USE CONVICTIONS. 2016-2020

Year	Convictions
2016	10,317
2017	8,748
2018	13,086
2019	16,660
2020	10,255
Total	**59,066**

Source: Oregon Driver and Motor Vehicle Services 2020 Oregon License Issuance and Vehicle Registration (OLIVR) Conviction Report – Property Damage Only (PDO) crashes excluded.

There is strong evidence that high visibility enforcement efforts (HVE) are highly successful in changing improper driver behavior. In addition, the National Highway Traffic Safety Administration (NHTSA) indicates that public information and education programs should be comprehensive, seasonally focused, and sustained. HVE events are conducted in Oregon throughout the year statewide, including Distracted Driving events during April, the National Distracted Driving Awareness Month, and including Distracted Driving Week, and the National Connect to Disconnect program.

Strategy – High Visibility Enforcement for Distracted Driving

PROBLEM 1300.11(B)(4)(I)

Distracted Driving is a dangerous behavior for drivers, passengers, non-occupants, and nonmotorized travelers alike.

From 2016-2020 there were 24,462 crashes resulting in 186 fatalities and 24,126 injuries caused by crashes involving a distracted driver in Oregon. These crashes are underreported, which is evidenced by 59,066 convictions for the same time frame.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

High visibility enforcement – CTW 4 stars citation, High-Visibility Cell Phone/Text Messaging Enforcement, pages 4-14.

According to Countermeasures That Work, results from the NHTSA HVE pilot program suggest handheld cell phone use among drivers dropped 57 percent in Hartford and 32 percent in Syracuse (Chaudhary et al., 2014). The percentage of drivers observed manipulating a phone (e.g., texting or dialing) also declined. Public awareness of distracted driving was already high before the program, but surveys suggest awareness of the program and enforcement activity increased in both Hartford and Syracuse. Surveys also showed most motorists supported the enforcement activity. Similar reductions in cell phone use were observed following the campaign in California (34% reduction) and Delaware (33% reduction), decreases were also noted in comparison communities (Chaudhary et al., 2015; Schick et al., 2014). Although these results are encouraging, the effect of HVE campaigns on crashes is not certain. An analysis of crash data from before and after the enforcement period found no effects of HVE on the incidence of distraction-related crashes (Chaudhary et al., 2015). Note that the evidence for effectiveness is based on community and smaller statewide programs that targeted handheld cell phone use.

There is strong evidence, in Oregon and in other states that laws and enforcement efforts are only successful if they are effectively and continuously publicized, and in conjunction with HVE efforts when available. According to the National Highway Traffic Safety Administration (NHTSA), public information programs should be comprehensive, seasonally focused, and sustained.

Prior to 2015, TSO did not have a lot of data on Distracted Driving incidences in Oregon, so ODOT partnered with Portland State University to conduct the studies below in order to educate and impact legislation and law change, which happened in 2017 and again in 2018. During 2016, ODOT convened a Distracted Driving Task Force with multidisciplinary members who helped update Oregon's law and promoted a way forward to combat distracted driving as documented in their report:[62]

Oregon's law has been ranked the toughest law in the nation.[63]

Bend Distracted Driving Attitudes and Behaviors Survey, 2015: Results from a driving safety campaign implemented in Bend Oregon in April 2015 indicated the majority of respondents reported that their cell phone use while driving Stayed the Same (79.8%), with a small proportion of people Decreased their use (15.5%). The most common reasons for respondents decreasing their cell phone use were Increased Awareness of Safety (20.3%), Driving Less (13.9%) and Less Use in General, Trying to Use Phone Less (13.8%).

Bend surveys also indicated the majority of respondents reported that their text messaging frequency while driving Stayed the Same (83.1%), with a small proportion of people decreasing their texting (11.7%). The most common reasons for respondents decreasing their text messaging were Increased Awareness of Safety (30.0%), Family or Relationship Changes (16.9%), Nothing or No Specific Reason (16.9%) and Job-related Changes (16.2%).

Both studies conducted in Bend and Roseburg, Oregon, were based on NHTSA's Distracted Driving Attitudes and Behaviors report, 2012.[64]

Roseburg Distracted Driving Attitudes and Behaviors Survey, 2016[65]: If respondents reported a change in cell phone use, they were asked to describe why that change occurred. The most common reason was

62 Reducing Distracted Driving in Oregon: An Interdisciplinary Approach to a Statewide Problem, ODOT Distracted Driving Task Force, February 2017

63 Woodworth, Whitney, Study: Oregon has nation's strictest distracted driving laws. November 4, 2019, *www.statesmanjournal.com*.

64 Distracted Driving Attitudes and Behaviors Survey Final Results Report Bend, Oregon 2015.

65 Distracted Driving Attitudes and Behaviors Survey, Final Results Report Roseburg, Oregon 2016 https://www.oregon.gov/odot/Safety/Documents/Roseburg_Distracted_Driving_Survey_Final_Report.pdf.

Fewer People Calling Me (23.6%). The next most common reasons were Driving Less (19.5%), Increased Awareness of Safety (17.0%), Less Use in General (16.3%), Saw a Distracted Driving Campaign (14.0%), and Law that Bans Cell Phone Use (13.5%). The remaining reasons were endorsed by 8.7 percent or fewer respondents.

Similar to the question about cell phone calls, the majority of respondents reported that their text messaging frequency Stayed the Same (81.8%), with a small proportion of respondents reporting a decrease in text messaging while driving (13.8%). Again, a very small proportion of respondents reported an increase in text messaging while driving (3.0%).

Both studies conducted in Bend and Roseburg, Oregon, were based on NHTSA's Distracted Driving Attitudes and Behaviors report, 2012.

Countermeasures and Justification 1300.11(b)(4)(ii)

Communications and Outreach – CTW page 4-17

There is not an evident NHTSA Guideline for this countermeasure.

This countermeasure involves distracted driving communications and outreach campaigns directed to the general public. Since distracted driving is a particular concern among teenage drivers (Foss & Goodwin, 2014; NHTSA, 2012), distracted driving campaigns may specifically target that age group. Some campaigns carry a general "pay attention" message, while others are directed at specific behaviors such as cell phone use by the driver and/or passengers.

Effectiveness Concerns: Based on National Cooperative Highway Research Program (NCHRP) research, there are no studies of any campaign's effects on driver knowledge, attitudes, or behavior (Stutts et al., 2005, Strategies C1 and D2). Though distracted driving outreach campaigns are widespread, there is little information that exists regarding their effectiveness**.**

Meta-analysis of the effect of road safety campaigns on accidents, May 2011[66]

Educating the Public about Distracted Driving and Evaluating Distraction Prevention Technologies, 2022: Distracted Driving Awareness Campaigns and Education

There are other ways to prevent distracted driving and raise awareness regarding this issue. One way is to educate drivers and residents through focused campaigns and education. In 2010 Congress passed a resolution to create a special month devoted to increasing awareness of the dangers of distracted driving. Ever since then, April has been the official Distracted Driving Awareness Month, with safety organizations around the country running programs to help encourage drivers to keep their eyes on the road.

Target Countermeasures will address both performance measures above. 1300.11(b)(3)(ii)

Effectiveness of Road Safety Campaigns

The European Road Safety Decision Support System, developed by the H2020 project SafetyCube, includes road safety communication campaigns aimed at informing, persuading and motivating people to change attitudes and behavior, and ultimately at improving roadway safety. Two meta-analyses on campaigns conducted with various road safety themes showed an association with a reduction of crash occurrence (9%) as well as a favorable change in (observed and self-reported) seat belt use (+25%), yielding behavior (+37%), speeding behavior (-16%) and risk comprehension (+16%). Although

66 Ross Owen Phillips, Pål Ulleberg, Truls Vaa, "Meta-analysis of the effect of road safety campaigns on accidents, Accident Analysis & Prevention," Volume 43, Issue 3, 2011, Pages 1204-1218, ISSN 0001-4575, https://doi.org/10.1016/j.aap.2011.01.002

drunk-driving behavior was found to be reduced by 17 percent, this result was not significant. Also, no significant changes were found for favorable road safety attitudes and knowledge. Often, when road safety campaigns are implemented, they are accompanied by increased enforcement. Accounting for this factor, a decrease in crashes can still be found in a meta-analysis due to education and media campaigns solely; however, the effect was smaller (10% vs. 13% for campaigns combined with enforcement). Kaiser, S., Aigner-Breuss, E. (2017)[67]

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405 (e)	$1,000,000	$1,000,000	$1,000,000

Overview of Program

Awarded agencies will be encouraged to garner local media coverage of their planned efforts, their purpose, and their results. During 2022, 80 local police departments, sheriff's offices and the Oregon State Police participated in Oregon's Distracted Driving HVE program. Many of these agencies enforce distracted driving laws as a matter of routine when working traffic, however; the smaller local police and county departments often do not have dedicated traffic enforcement officers or teams, so rely on the straight and overtime funds awarded to work on traffic safety problems in their communities.

This countermeasure strategy is foundational work and not informed by Uniform Guidelines for Highway Safety Programs. Please see justification under countermeasures and justification.

Using data ODOT-DMV's Transportation Safety Office (TSO) identifies Oregon law enforcement agencies to conduct traffic enforcement projects within their communities. All of Oregon's HVE grant projects are designed to coordinate with national mobilizations and/or state efforts for maximized visibility and effectiveness. High visibility enforcement is a proven countermeasure to reduce traffic violations and risky driving behaviors, and includes public messaging (press releases, press events, some paid media, etc.) in tandem with the scheduled enforcement period to alert motorists of the stepped-up enforcement efforts, and why they're being conducted.

1. Each grant year, a HVE letter of interest is sent to every law enforcement agency in the state. Interested agencies return a completed letter with the HVE grant programs they would like to participate in and a detailed problem statement describing the transportation safety issues that agency and region are seeing. A submitted Letter of Interest does not guarantee the agency will be selected for a traffic enforcement grant award. TSO evaluates requests based on criteria which include: analysis of statewide and local crash data, federal funding availability, problem identification (data-driven need for the project), and the agency's past performance with highway safety grants (as applicable).

67 Kaiser, S., Aigner-Breuss, E. (2017), Effectiveness of Road Safety Campaigns, European Road Safety Decision Support System, developed by the H2020 project SafetyCube. Retrieved from www.roadsafety-dss.eu on 06/20/2023.

Strategy – Education through media for Distracted Driving "Park Your Phone"

PROBLEM 1300.11(B)(4)(I)

Year-round public education is necessary to inform and educate motor vehicle drivers and passengers regarding Oregon law around use of mobile electronic devices while driving, and consequences of using a mobile electronic device while driving.

This counter-measure addresses:

- Use of mobile devices while driving
- Risky Drivers

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(e)	$500,000	$500,000	$500,000

Overview of Program

This project will fund contracted media design, education material, social media advertising, TV, and radio public service announcements, geofencing for NASCAR, Grand Prix and other events, and billboards, as well as TSO direct purchase of or reproduction and distribution of educational and outreach materials. This is conducted statewide throughout the year, especially for Distracted Driving during April, the National Distracted Driving Awareness Month, Week and the National Connect to Disconnect program.

Many of the printed educational materials are grant funded and then distributed directly to the public through law enforcement, ODOT's Driver and Motor Vehicles Division (DMV), and community level special events.

This countermeasure strategy is foundational work and not informed by Uniform Guidelines for Highway Safety Programs. Please see justification under countermeasures and justification.

Educating the Public about Distracted Driving and Evaluating Distraction Prevention Technologies, 2022: Distracted Driving Awareness Campaigns and Education

There are other ways to prevent distracted driving and raise awareness regarding this issue. One way is to educate drivers and residents through campaigns and education. Back in 2010, Congress passed a resolution to create a special month devoted to increasing awareness of the dangers of distracted driving. Ever since then, April has been the official Distracted Driving Awareness Month, with safety organizations around the country running programs to help encourage drivers to keep their eyes on the road.

Target Countermeasures will address both performance measures 1300.11(b)(3)(ii)

Please see performance measure data tables above.

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(e) flex	$500,000	$500,000	$500,000

Overview of Program

Distracted driving campaigns will be conducted statewide throughout the entire year and especially the month of April during the annual National Distracted Driving Awareness Campaign - GARD, TSO's media contractor, and ODOT Communications will assist with media and outreach for the event.

This countermeasure strategy is foundational work and not informed Uniform Guidelines for Highway Safety Programs please see justification under countermeasures and justification.

Driver Education

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 1.1.2	Tailor safety culture marketing and media tools to specific user groups with specific needs (e.g., youth, aging travelers, walkers, motorcyclists, bicyclists, under-invested groups, and different income groups).

Oregon's Driver Education program improves driver behavior through traffic safety education thereby reducing fatal and injury crashes for first time drivers. This is accomplished through coordination of driver education course content, certification of public and private driver education instructors, public information, education programs and resources, and oversight and coordination of driver education providers and train-the-trainer curriculum development. The program is committed to comprehensive driver safety education and increased awareness for young motorists even before the teen driving age and strives to educate teen drivers on safe driving habits.

Program Overview

Oregon's driver education (DE) program has a mission to provide students under the age of 18 with classroom and practical (behind-the-wheel) education necessary for safe and responsible operation of passenger vehicles. The program is governed by Oregon Revised Statutes (ORS 336.790 to 336.820) and Oregon Administrative Rules (OAR Chapter 737-Division 15 and OAR Chapter 735-Division 160).

To accomplish the mission, Oregon developed and continues to use a nationally recognized driver education curriculum that, as closely as possible, mirrors the Novice Teen Driver Education and Training Administrative Standards (NTDETAS), developed by the Association of National Stakeholders in Traffic Safety (ANSTSE) through a sponsorship with the National Highway Traffic Safety Administration (NHTSA). The Oregon Risk Prevention Curriculum, known as the Playbook has been undergoing revision as well and is scheduled for release in July 2023.

The Playbook is taught by State-Certified instructors who are trained through a grant from Oregon Department of Transportation (ODOT) Transportation Safety Office (TSO) to Western Oregon University (WOU). WOU manages a team of Train the Trainers (ToTs) who teach candidate instructors how to deliver the Playbook to students throughout Oregon. The instructor training course is free for Oregon residents although candidates must pay a small materials fee, currently $99. Certified instructors must complete 15 hours of continuing education every two years to maintain certification.

Courses are provided to students through ODOT-Approved driver education programs. These programs can be delivered through public schools, commercial driver training schools and community colleges. All approved providers must complete an application process and be approved prior to offering courses for teens, ages 15-17. Public schools and community colleges only need to be approved through ODOT TSO. Commercial driver training schools must also be certified through Oregon DMV's Third-Party Programs prior to ODOT TSO approval. All providers are subject to routine compliance audits conducted by an ODOT-TSO compliance specialist.

Oregon teens who complete an ODOT-Approved teen driver education course traditionally have fewer citations and are involved in fewer crashes than teens who do not take the course, however driver education is not mandatory in Oregon. There is a need to increase awareness of the program, as well as a continual need for more instructors and provider agencies for the program. In addition, the rural and frontier areas of the state are underserved in instructor courses and teen driver education programs.

Another piece of the program is providing traffic safety education to youth, in Kindergarten through 12th grade. This program is provided through a grant to Trauma Nurses Talk Tough (TNTT), a statewide injury prevention program located at Legacy Emanual Hospital and Health Center. TNTT provides traffic safety education by conducting school presentations and safety promotional events throughout the state. This is accomplished through their network of TNTT nurses working at hospitals and trauma centers all over Oregon. They also provide training to their network in how to deliver these presentations.

Problem Identification

One of the biggest rites of passage for many teenagers is getting their driver license. And one of the leading causes of teen death in the US is motor vehicle crashes. (Centers for Disease Control and Prevention). Teens drive less than all but the oldest adults, but they are overrepresented in fatal and serious injury crashes. In 2021, 3,058 teens (ages 13-19) were killed in the US from injuries sustained in a crash (National Center for Injury Prevention and Control).

Beginning in 2009, teen deaths in Oregon began to trend downward with a low in 2014 of 33. That same year, seven teens were killed in alcohol involved crashes and three crashes involved unrestrained occupants. Unfortunately, that trend has reversed. In 2020, 55 teens were killed in fatal crashes, 13 crashes involved alcohol and 10 deaths were unrestrained occupants.

Oregon's teen drivers make up 4.6 pecent of all licensed drivers in Oregon but are involved in 14.6 percent of fatal and serious injury crashes. In 2020, Oregon Driver and Motor Vehicle Services (DMV) issued 21,291 licenses to teens ages 16-18, yet only 9,437 teens took an ODOT-Approved driver education course (Oregon DMV Issuance Statistics). Some of the leading causes of teen crashes are:

- Driver inexperience
- Other teen passengers
- Nighttime driving
- Not using seat belts
- Distraction, including use of a mobile electronic device
- Reckless driving

One of the ways to combat these risky driving behaviors is through formal driver education. Driver education is not mandatory in Oregon but ODOT DMV's data shows that teens who take driver education are less likely to be involved in a crash or receive a traffic citation.

TABLE 34: DRIVER EDUCATION VS. NON-DRIVER EDUCATION CONVICTIONS 5-YEAR AVERAGE (2018-2022)

Age	Total	With Driver Ed	W/O Driver Ed	DE Teen % of Total
16	516	114	402	22.09%
17	1,231	240	991	19.50%
18	2,509	403	2,107	16.04%
19	3,261	416	2,846	12.74%
20	3,303	278	3,025	8.42%
	10,820	1,450	9,370	
		13.40%	**86.60%**	**100.0 0%**

Source: Oregon Driver and Motor Vehicle Services 2020 Oregon License Issuance and Vehicle Registration (OLIVR) Conviction Report

TABLE 35: DRIVER EDUCATION VS. NON-DRIVER EDUCATION CRASHES 5-YEAR AVERAGE (2018-2022)

Age	Total	With Driver Ed	W/O Driver Ed	DE Teen % of Total
16	860	243	617	28.22%
17	1,511	325	1,186	21.51%
18	1,849	281	1,569	15.17%
19	1,847	177	1,670	9.57%
20	1,724	122	1,602	7.06%
	7,791	1,147	6,644	
		14.72%	**85.28%**	**100.0 0%**

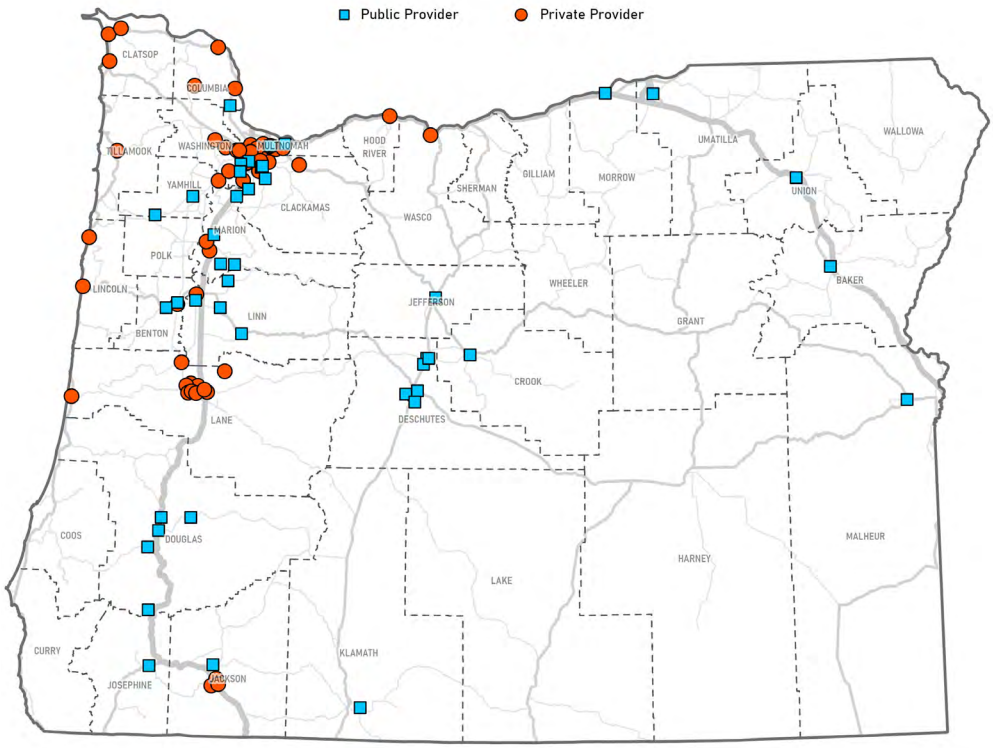
Source: Oregon Driver and Motor Vehicle Services, ODOT Statewide Crash Data System (CDS)

The number of teens taking ODOT-Approved driver education peaked in 2017 at 10,140, which was 34 percent of teens who received provisional licenses in that year. The yearly average number of teens taking driver education, 2018-2022, is 8,645. Part of the decrease is a lack of access and cost. The average cost for a teen driver education course has steadily increased from $299 in 2018 to nearly $400 in 2022. In 2018, Oregon had over 300 state-certified teen driver education instructors. In 2022, there were 254. Decreased instructor numbers equate to decreased opportunities for students to access the courses.

There are geographic barriers as well. ODOT-TSO currently has 45 active providers:

- 5 community colleges
- 22 commercial driver training schools
- 18 public schools/education service districts

FIGURE 107: OREGON DRIVER EDUCATION PROVIDERS



Source: TSO Grant Files, 2023

Oregon has 36 counties, 10 of which are identified as frontier, defined as having six or fewer people per square mile. Thirty-three percent of the population live in rural areas, 2 percent in frontier, and 65 percent in urban areas (Oregon Health & Sciences University). There is a need to increase access to instructor training and teen driver education courses in the rural and frontier areas of the state.

The US Census Bureau reports that Oregon's population as of April 1, 2020, was 4.2 million and has a majority 'white, not Hispanic or Latino' demographic. The Hispanic or Latino population is the second largest racial group making up 14.0 percent of the overall population and 15.3 percent of households speak a language other than English in the home. Ninety-five percent of households have access to a computer and 89.5 percent have access to broadband internet. The median household income in 2021 dollars (2017-2021) was $70,084 but 12.2 percent are at or below poverty level. Sixty-two percent, ages 16+, are in the civilian labor force (US Census Quick Facts, Oregon).

One of the top three priorities in ODOT's 2021-2023 Strategic Action Plan is equity, and emphasizes prioritizing diversity, equity and inclusion by identifying and addressing systemic barriers to ensure all Oregonians benefit from transportation services and investments. With the continued increase in Oregon's Latino population (30% over the last ten years), the driver education traffic safety message must be adjusted to reach this increased population. To date, no marketing of Oregon's non-mandatory youth driver education program has been targeted toward the Latino community. Anecdotally, it has been reported that although Latino teens understand and communicate freely in the English language, their parents often do not. Citation and crash data for the Latino population in Oregon is not readily available. However, the NHTSA webpage Fatality and Injury Reporting System Tool (FIRST) data suggests that 17.4 percent of Hispanic drivers in this age group have the second highest occurrences of drivers killed in fatal crashes only after White, Non-Hispanic drivers – 77.2 percent with Black, Non-Hispanic – 1.8 percent and American Indian, Non-Hispanic / Unknown – 3.7 percent.

TABLE 36: DRIVERS AGES 16-24 KILLED IN FATAL CRASHES BY RACE

Race And Hispanic (Using OMB Guidelines)	Age Group 1																
	0-15					16-24						Total					
	Crash Date (Year)					Crash Date (Year)						Crash Date (Year)					
	2016	2017	2018	2019	Total	2016	2017	2018	2019	2020	Total	2016	2017	2018	2019	2020	Total
Hispanic	0	0	0	0	0	8	9	5	9	7	38	8	9	5	9	7	**38**
White, Non-Hispanic	1	1	1	1	4	41	31	31	32	30	165	42	32	32	33	30	**169**
Black, Non-Hispanic	0	0	0	0	0	1	0	0	1	2	4	1	0	0	1	2	**4**
American Indian, Non-Hispanic/ Unknown	0	0	0	0	0	2	0	0	1	5	8	2	0	0	1	5	**8**
Total	**1**	**1**	**1**	**1**	**4**	**52**	**40**	**36**	**43**	**44**	**215**	**53**	**41**	**37**	**44**	**44**	**219**

Source: Fatality Analysis Reporting System (FARS) Final File Report Generated: Friday, June 16, 2023
*NHTSA Motor Vehicle Crash Data Querying and Reporting: Drivers Killed in Fatal Crashes; Filter selected: Age Group 1: 0-15; or 16-24; Race and Hispanic (Using OMB Guidelines)**: Hispanic; or White, Non-Hispanic; or Black, Non-Hispanic; or American Indian, Non-Hispanic/Unknown; Person Injury Type: Fatal; Person Type: Driver; State: Oregon; Years: 2016-2020*

Open-source searches of the phrases "Oregon car crash," "Oregon teen crash," "Oregon teen accident," "teen crash Oregon," and "Oregon car accident," return daily media reports of crashes involving members of the Latino community. Additionally, our bilingual instructors report that driver education is not commonly considered in the Latino culture. There is a need to increase awareness of Oregon's non-mandatory Driver Education program in the Latino community through targeted messaging in the Spanish language as well as Oregon's need for bilingual driver education instructors. It is hoped that increased awareness will encourage these communities to consider driver education for their teens.

Another underserved population in Oregon are teens currently under the Oregon Dept of Human Services Foster Care. In Federal Fiscal Year 2021, 30.3 percent of the foster care population was teens 13 years and older and the median months in care of youth of all ages was 21.3 months.[68] Teens in foster care are less likely to be able to access teen driver education due to cost and resource availability. The driver education program requires 50 hours of supervised driving practice with a parent or guardian and that is often difficult to achieve. Additional barriers include access to a vehicle and funds for insurance. The Oregon legislature adopted ORS 336.807 which allows ODOT to reimburse DHS for the parent portion of a student's tuition in an approved Driver Education program.

According to the CDC, Traumatic Brain Injury (TBI) is a major cause of death and disability in the US. A TBI is an injury that disrupts the normal function of the brain and can be caused by a bump, blow or jolt to the head or a penetrating head injury. The CDC estimates there were over 69,000 TBI-related deaths in the US in 2021 and affects people of all ages. Data also suggests that racial and ethnic minorities and people living in rural areas may be at greater risk of experiencing long-term effects or death from TBI.

Research indicates that falls and motor-vehicle crashes are some of the most common causes of TBI.[69]

In a report to Congress, the CDC noted that TBI affects all persons, regardless of age, sex, geography, etc. However, if a child experiences a TBI, it could affect brain development resulting in difficulties in learning, self-regulation and social participation. The report also noted that data indicates a higher prevalence of TBI-related disability in rural geographic areas (24%) than urban (15%) and suburban areas (14%). Rural populations are less likely to have access to specialized trauma care, rehabilitation services and long-term rehabilitation facilities.[70]

The 2018-2021 Oregon Health Authority Injury in Oregon data report indicates people ages 10-24 have the highest rates of all groups for emergency department visits related to Motor Vehicle Transport Injuries.[71] The CDC reported that Motor Vehicle Traffic incidents and rates are highest with people ages 15-19, nearly three times as high as drivers ages 20 and older.[72]

Through education and choice, many of these unsafe behaviors can be changed. Research has shown that people are most likely to take preventative action if they feel the threat of health risk to be serious and the steps for prevention are easy and simple (Health Belief Model). Brain injury is devastating and permanent. However, most brain injuries can be prevented through small, simple choices and changes. Prevention programs are needed to reduce the rate of brain and spinal cord injuries in Oregon children and youth.

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68 Oregon Department of Human Services, Office of Reporting, Research, Analytics, and Implementation. September 2022. 2021 Child Welfare Data Book.

69 Centers for Disease Control & Prevention. (n.d.) *Traumatic Brain Injury & Concussion*. Retrieved June 14, 2023, from https://cdc.gov/.

70 Centers for Disease Control & Prevention, National Center for Injury Prevention and Control. Report to Congress on traumatic brain injury in the United States: Epidemiology and rehabilitation. Atlanta (GA): Centers for Disease Control and Prevention; 2015.

71 Oregon Health Authority. (n.d.) Oregon Injury Prevention Dashboard: Demographic Trends: Average Emergency Dept Injury Rate 2018-2021 (Motor Vehicle Transport). Retrieved June 14, 2023, from https://oregoninjurydata.shinyapps.io/injury/

72 Centers for Disease Control & Prevention. November 11, 2022. Teen Driver and Passenger Safety. Retrieved June 14, 2023, from https://cdc.gov.

Public Participation & Feedback from the 2023 Transportation Safety Conference

EXPAND DRIVER EDUCATION TO MORE SCHOOLS / PARTICIPATE IN HEALTH CLASSES

The Driver Education Program Manager met with several citizens who expressed an interest in presenting driver education and other traffic safety messaging in health classes in schools. It was suggested the program educate students about rules of the road for pedestrians, bicyclists, and drivers, provide crash data, information about injuries sustained in crashes and ways to prevent these crashes. It was noted that some driver education is better than no driver education.

MANDATORY DRIVER EDUCATION FOR TEENS (OR FOR THOSE WITH CONVICTIONS OR IN CRASHES)

Most of the participants that came to the Driver Education table spoke in some way in support of mandatory driver education. This would require legislative change and funding. However, it would mitigate many of the barriers that keep students from participating. In conversations with law enforcement personnel, it was also suggested that teens who are involved in crashes or receive traffic citations could be remanded to take driver education as a diversion program. A retired judge suggested the same. There are challenges to implementation as there is not good statewide coverage of driver education programs, something the program is trying to improve.

RECRUIT RETIRED FIRST RESPONDERS AS DRIVER EDUCATION INSTRUCTORS

The Driver Education Program Manager had multiple conversations with citizens about the need for more driver education instructors. Several citizens suggested advertising through listservs of retired first responders to recruit them as driver education instructors. These individuals have often seen the results of poor driving behavior and could provide a unique perspective to students about those results. Individuals who work in the first responder field most often have a desire to serve their communities and providing driver education is an important need.

Conclusion

Based on data and trends identified above, there is an identified need to improve access to driver education throughout the state and specifically in rural and frontier areas. Over the next three years, the Driver Education program will offer adaptive strategy incentives to encourage expansion of current programs into these rural and frontier areas. Oregon has an Adaptive Strategy statute (ORS 336.804) that allows ODOT to offer incentives for providers to offer courses in those areas identified as underserved.

There is an identified need for more driver education instructors and the trainers to train them. The program will continue to provide grant funds to Western Oregon University or other identified organizations to provide master trainers and offer instructor training courses. The Driver Education program will also identify opportunities to advertise through multiple outlets about the need for instructors as well as how to become one and the benefits involved in improving traffic safety for all Oregonians.

There is an identified need to provide driver education to youth in foster care and to provide additional resources to low-income families. The program will continue to work with DHS to provide funds needed for youth to access the ODOT-approved program. And the program will continue to provide fee assistance, through approved providers, to low-income families to help offset the costs involved in their teens taking driver education.

There is an identified need to provide data-driven traffic safety education to youth prior to driving eligibility to train them in safe road user behavior. There is also a need to educate professionals on delivering this education and expanding the network of presenters. ODOT will continue to work with identified partners to provide training necessary to presenters and to expand the outreach of presentations to schools and community events about the importance of traffic safety.

Strategy – Statewide Trauma Care Provider Training

PROBLEM 1300.11(B)(4)(I)

Injury prevention training for trainers to teach children kindergarten through twelfth grade on pedestrian, bicycle and auto safety and the effects of alcohol and drugs.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii) (CTW page 6-21)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. Driver Education uses grant dollars to fund a Trauma Nurses Talk Tough train the trainer program that provides injury prevention education for school and community groups. In addition, the trainers facilitate helmet and child safety seats events in their local areas. While pre-licensure driver education receives 2 stars in Countermeasures that Work, there is no countermeasure that addresses pre-licensure driver education for youth pre driving age. Providing education for youth, kindergarten through 12th grade, allows them to learn the information that will familiarize them with the laws in Oregon regarding safe roadway use, including helmet use, safe biking and walking and safe behavior in vehicles. These activities are in support of national highway safety goals to reduce motor vehicle injuries and fatalities.

The countermeasure strategy of driver education was informed by Highway Safety Program Guideline number 4, specifically program management, enforcement, driving education and training program and program evaluation and data.

Targets Countermeasures will address 1300.11(b)(4)(iii):

C-9) Number of drivers aged 20 or younger involved in fatal crashes (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2017	2018	2019	2020	2021	2017-2021 avg.	2021	2024	2025	2026
40	45	60	59	43	50	43	50	50	50

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$30,000	$30,000	$30,000

Overview of Program

This project provides funding to continue statewide training of trauma care providers with the needed hours to teach the TNTT education program. TNTT's effective presentations address bicycle safety and other wheeled sport safety (skateboards, rollerblades, and scooters), high-risk drivers, safety belt use, impaired driving, cell phone use while driving (including texting/talking on cell phones), speeding and dealing with distractions while driving.

Highway Safety Program Guidelines apply to specific programmatic areas as Statewide Trauma Care Provider Trainer works on injury prevention in numerous areas it is informed by number 14, 17 and 20, program management, public information and education for deterrence, multi-disciplinary involvement, public information, education and outreach, communication, diverse populations, and data and program evaluation. 1300.11(b)(4)(vi)

Supporting and Contributing Projects to the Driver Education Program Strategy – Youth Traffic Safety and Prelicensure Driver Education – Trauma Nurses Talk Tough Youth Safety Education) – State Funded Project

PROBLEM 1300.11(B)(4)(I)

Youth traffic safety education funds fund statewide youth traffic safety and injury causation and prevention educational activities that facilitate knowledge of Oregon's traffic safety laws as well as providing court-ordered classes for drivers charged with DUII, unsafe driving and other risky behaviors.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. Driver Education uses grant dollars to fund a Trauma Nurses Talk Tough youth education program that provides injury prevention education for school and community groups. In addition, the trainers facilitate helmet and child safety seats events in their local areas.

Strategy – Prelicensure Driver Education – Driver Education Reimbursement – State Funded Project

PROBLEM 1300.11(B)(4)(I)

Pre-licensure driver education for teens, ages 15-17, is not mandatory in Oregon. There is a need to encourage teens to take a formal driver education course in order to learn safe driving behaviors prior to provisional licensure. In order to encourage providers to keep this education affordable and accessible, Oregon offers reimbursement to approved providers of up to $210 per eligible student who completes the approved driver education course. This project distributes those state funds through a prescribed process.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. ODOT DMV data identifies that teens who take an approved driver education program have a 21 percent lower crash rate and 57 percent fewer traffic convictions than those who don't.

Strategy – Prelicensure Driver Education – GDL Implementation: Information & Education – State Funded Project

PROBLEM 1300.11(B)(4)(I)

There is a need for driver education curriculum development and revision, using national standards and best practices. There is a need for instructors to deliver curriculum to teens prior to provisional licensure. There is a need for trainers to train instructors who deliver the driver education curriculum and for continuing education opportunities for instructors to maintain and improve their skills as instructors. There is a need for maintenance of the Instructor Database, Registration System and Reporting and Provider Inspection Database.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. ODOT DMV data identifies that teens who take an approved driver education program have a 21 percent lower crash rate and 57 percent fewer traffic convictions than those who don't.

Strategy – Prelicensure Driver Education – Statewide Services: Driver Education – State Funded Project

PROBLEM 1300.11(B)(4)(I)

Pre-licensure driver education for teens, ages 15-17, is not mandatory in Oregon. There is a need to encourage teens to take a formal driver education course in order to learn safe driving behaviors prior to provisional licensure. Oregon contracts with a media contractor to design education and outreach campaigns to recruit instructors and to encourage participation in formal driver education.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communications and Outreach – CTW 3 star citation

The countermeasure of the Driver Education communication campaign was informed by Highway Safety Program Guideline number 4, specifically communication. ODOT contracts with a public relations firm who aid in development of media, brochures and advertising and are evaluated based on data, problem identification and prior performance.

Strategy – Prelicensure Driver Education – Driver Education Reimbursement: Foster Youth – State Funded Project

PROBLEM 1300.11(B)(4)(I)

Pre-licensure driver education for teens, ages 15-17, is not mandatory in Oregon. There is a need to encourage teens to take a formal driver education course in order to learn safe driving behaviors prior to provisional licensure. Teens who are under the care of Oregon's Department of Human Services Foster Youth Program do not readily have access to teen driver education and the funds to participate. There is a need to pay the parent portion of a teen in foster care's tuition for driver education if they choose to participate in the approved program.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. ODOT DMV data identifies that teens who take an approved driver education program have a 21 percent lower crash rate and 57 percent fewer traffic convictions than those who don't.

Strategy – Prelicensure Driver Education – Driver Education: Region 5 Adaptive Strategies – State Funded Project

PROBLEM 1300.11(B)(4)(I)

A vast portion of Oregon's Region 5 area consists of rural and frontier counties. Residents in these counties have less access to the ODOT-Approved driver education program. There is a need to encourage current providers to expand their programs into these rural and frontier parts of the state. This project will provide incentives to current approved providers who wish to expand their programs and provide access to teens residing in rural and frontier portions of Oregon's Region 5 area.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Pre-Licensure Driver Education – CTW 2 star citation

Education campaigns are one of the only proven countermeasures for traffic safety. ODOT DMV data identifies that teens who take an approved driver education program have a 21 percent lower crash rate and 57 percent fewer traffic convictions than those who don't.

Emergency Medical Services

Link(s) to the Transportation Safety Action Plan

Strategy 2.3.10	Support, encourage, and evaluate safety countermeasures for pilot projects and large-scale implementation as appropriate.
Strategy 3.3.1	Identify community needs for funding and training to enhance Emergency Medical Services (EMS) systems and improve response times and services. Recognize and address the differing needs of paid and volunteer providers.
Strategy 3.5.3	Support adequate funding for EMS particularly in rural and remote areas, to the extent that this is the most efficient use of resources to eliminate fatalities and serious injuries.
Strategy 6.2.3	Identify funding needs to optimize emergency medical services and enforcement to minimize injuries post-crash.
Strategy 6.3.2	While complying with Federal safety funding requirements and limitations, promote opportunities to leverage funding sources in order to maximize safety benefits and outcomes.

The Emergency Medical Services program collaborates and works to constantly improve transportation safety related medical care and outcomes associated with EMS/trauma program services.

This program will assist in strengthening Oregon's EMS capabilities statewide through training. This will be done to increase the EMS workforce and workforce knowledge, resulting in decreased response, stabilization, and transport times due to a well-trained robust workforce to reduce fatalities and injury severity levels.

TABLE 37: OREGON'S EMERGENCY MEDICAL SERVICES WORK FORCE

EMS Level	2018	2019	2020
Emergency Medical Responders (EMR)	1,614	1,605	1,222
Emergency Medical Technician (EMT)	5,198	5,159	5,772
Advance/Emergency Medical Technician (A/EMT)	198	197	201
Emergency Medical Technicians-Intermediate (EMT-I)	688	686	706
Paramedics	4,078	4,039	4,238
Total	**11,776**	**11,686**	**12,139**

Source: Oregon Health Authority. The EMS Workforce is required to renew their license every two years.

TABLE 38: OREGON'S AVERAGE EMERGENCY RESPONSE TIME (IN MINUTES)

Oregon's Average Response Times (minutes)	2018	2019	2020
Response time	6	6	5
Time on Scene to stabilize and prepare for transport	15	15	15
Transport time to medical facility	14	14	13
Total Incident time	**36**	**35**	**33**

Source: Oregon Health Authority, reported in minutes

Problem Identification: Emergency Medical Services 1300.11(b)(1)(i)(ii) 1300.11(b)(4)(i)

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall. When looking at the combined numbers, 2020 showed a decrease in fatalities and serious injuries; however, fatalities have been increasing with an average annual increase of 25 per year, representing a 42 percent increase overall. While 2020 represented a brief reprieve from the upward trend, it should be viewed as an outlier, as preliminary 2021 data and initial 2022 fatal crash notifications indicate that these trends continued through 2022.

EMS trainings are much anticipated by Oregon rural emergency responders responding to motor vehicle crashes. These courses are required for Oregon EMS licensure and also required nationally. National training is required of the states to obtain an EMS license. TSO provides rural training opportunities for three EMS conferences. For each conference and the rural EMS training, TSO does an analysis on the counties represented through attendance and the local crash data before committing to training. The EMS practitioners, whether volunteer or an employee, must submit a statement of need for the conference registration fee assistance from TSO. These practitioners are vetted and then awarded; back-ups are also approved for last minute cancellations.

TSO also funds rural EMS training on Pre-hospital Trauma Life Support Training, or PHTLS. There is a huge demand for this training in Oregon, since the last grant year's pilot project. This training is required nationally, yet EMS folks cannot access it due to the need to travel eight or more hours. This training is also focused on rural EMS practitioners, sovereign nations and non-traditional audiences. For example, this year training was delivered in Chiloquin, Oregon, which was advertised and delivered to Native Americans and others responding to motor vehicle crashes on sovereign nations. Formerly the Klamath Tribe, it is now three tribes (1926): Klamath, Modoc and Yahooskin Band of Snake Paiute. This training not only makes volunteers into licensed EMS practitioners, possibly paid, but is also for licensed coordinators and instructors. For example, Oregon now has a new PHTLS Instructor in Klamath Falls, among other new instructors and coordinators throughout the state that will now be able to train as well. The training is very strict nationally in the ratio of professionals used to train, and the number of EMS practitioners that respond to motor vehicle crashes. There was also training conducted for Scappoose Fire Department this year.

Emergency Responder Training addresses the continuing education and recertification requirements for Emergency Medical Technicians (EMT) at all levels. With so many proficiencies to maintain to treat the larger population of patients, EMT's find it a challenge to obtain training and maintain skills to treat patients.

Traffic crashes contribute heavily to the patient load of Oregon hospitals and EMS agencies. During the last recession many larger hospitals had to make budget cuts and their foundations suffered financially which has continued to present day. Smaller rural community hospitals faced even more severe budget

constraints that also continue to impact their ability to obtain necessary training and equipment. Oregon Administrative Rules determine continuing education units and licensure requirements for Emergency Medical Technicians (EMT) of all levels.

Rural crashes can be more severe than other crashes because they often involve higher rates of speed and longer emergency response times. Sixty-five percent of the state's population live in urban areas, 33 percent in rural and 2 percent live in frontier areas, defined as a county with six or fewer people per square mile; decreasing response times in these areas is critical in reducing motor vehicle fatalities. A cohesive EMS system is essential to ensuring positive patient outcomes. The stabilization and long-distance transport of motor vehicle crash patients to facilities that can provide the appropriate level of trauma care is critical to reducing the health and financial impact of these injuries.

Trauma patients are of particular concern for rural/frontier counties where motor vehicle crash patients may require a higher level of care than what the rural hospital or facility can provide. The location of these crashes can seriously extend response times and delay adequate care needed in that critical 'golden hour' after a serious crash injury. Every effort needs to be made to increase and strengthen Oregon's EMS workforce to shorten response times by having a better trained workforce and the resources they need.

EMS agencies were significantly impacted by the COVID pandemic beginning in 2019, the wildfires of 2020, and the ice storm in February of 2021. The conferences and rural EMS training events resumed in 2023.

During 2024-2026, TSO plans to fund mini grants for rural and frontier EMS agencies to attend EMS conferences and will also provide Prehospital Trauma Life Support (PHTLS) training to rural/frontier EMS crash responders, along with other potential training that might become available. This training will build and educate Oregon's EMS workforce, ideally resulting in lower response times especially in rural and frontier areas. Oregon plans to increase the number of emergency response trainings for rural and frontier EMS personnel to earn Continuing Education Units (CEU) in order to increase and/or maintain the EMS workforce, maintain or reduce response, scene and transport times by increasing EMS personnel knowledge and provide EMS training to rural and frontier EMS providers through conferences, emergency responder training, i.e., Prehospital Life Support Training and other EMS trainings that may become available.

Trends

Emergency Medical Responder (EMR) Renewal Application Trends: In even numbered years, Emergency Medical Responders are required to renew their license during April, May, or June. In a typical year, the Oregon EMS and Trauma Systems office receives about 1,100 renewal applications, and issues about 1,072 licenses. This year the volume of applications was noticeably lower, with just 925 applications received and 886 licenses issued. This reflects an 18 percent decrease in EMR renewal applications issued from previous years. This drop in renewal applications was a distributed across all regions of the state. Most had fewer EMR renewal applicants than in previous years, except for Area Trauma Advisory Board (ATAB) Region 3, which saw an increase. ATABs 1, 2 and 6 experienced consistent decreases in the number of renewal applications this cycle. Initial EMR applications have remained high in 2022. In a typical year, about 206 EMR initial licenses are issued. In 2022, 210 EMR initial applications have been issued to date. Combining initial and renewal applications, the total number of EMRs with active licenses in Oregon still shows an overall decrease. (Per OHA EMS Update October 2022).

To increase the numbers of EMS providers in the workforce and maintain response times, rural EMS providers must be trained to renew their licenses, hone their skills which will maintain and/or reduce response times by a better trained workforce.

Countermeasures and Justification: Emergency Responder Training 1300.11(b)(4)(i) 1300.12(b)(2)(viii)

Training

Identifying first responders and ensuring they complete proper training is essential during the planning phase. Training and education for first responders include formal training and certifications as well as familiarity with emergency response protocols, including communication processes and specific responsibilities. https://www.ruralhealthinfo.org/toolkits/emergency-preparedness/3/first-responders

Project Selection

Oregon TSO funds registration fees for rural EMS practitioners to attend three local EMS conferences throughout the year. Rural applicants send in their statement of need which is reviewed and used to award financial assistance. Alternates are chosen to ensure classes are full even if there are last minute cancellations. In 2021 and open bid process received one application that in FFY22 was built into a project with plans to expand it in the next three years to include bordering states. This training creates new instructors and coordinators in all areas of the state. Training is provided on request by rural organizations and once coordination and training is completed, participants are evaluated on their increase in knowledge and the training overall. The feedback has been very positive, and the training is in such demand, Oregon will attempt to provide as many trainings as possible throughout the next triennial.

In addition to Oregon's EMS certification and training requirements, NHTSA also ranks the Communications, Training, Outreach and Education efforts from Countermeasures that Work (CTW) as a 3-star citation, *not in the EMS program, but for other programs.*

The countermeasure strategy of emergency responder training was informed by Highway Safety Program Guideline number 11, resource management, human resources and training, transportation, facilities, communications, trauma services, public information and education, medical direction and evaluation.

OHA Initial License Application Requirements

Oregon Health Authority's (OHA) Emergency Medical Services and Trauma Systems Program licenses are required for the following professions in the state of Oregon: Emergency Medical Responders, Emergency Medical Technicians, Advanced EMT (AEMT), EMT-Intermediate (EMT-I) and Paramedics.

Applicants for an initial license must meet the requirements for licensure in Oregon outlined in ORS 682 and OAR 333-265. https://www.oregon.gov/oha/ph/providerpartnerresources/emstraumasystems/emstrainingcertification/Pages/index.aspx

EMS Minimum Continuing Education Requirements

OAR 333-265-0105, 333-265-0110 and 333-265-0160 Oregon Licensed Emergency Medical Services Providers. https://www.oregon.gov/oha/PH/PROVIDERPARTNERRESOURCES/EMSTRAUMASYSTEMS/Documents/APPENDIX1.pdf

Targets Countermeasures will address 1300.11(b)(4)(i)

C-1) Number of traffic fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
498	439	502	493	508	488	599	488	488	488

Statewide in 2020, there were 38,141 total crashes, 460 fatal crashes and 19,343 injury crashes, with 507 persons killed and 27,998 persons injured.

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$200,000	$200,000	$200,000

Highway Safety Improvement Program

Link(s) to the Transportation Safety Action Plan

Strategy 6.1.3	Apply proven countermeasures to address the contributing factors and reduce severity.
Strategy 6.1.4	Use benefit-cost analysis (or similar) to select measures and projects with the greatest potential to reduce fatalities and serious injuries.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was signed into law on August 10, 2005, (Public Law 105-99) established the Highway Safety Improvement Program (HSIP) as a core Federal-aid program. The Bipartisan Infrastructure Law (BIL) continues the HSIP to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.

Problem Identification Highway Safety Improvement Program

23 CFR 1300.11(b)(1)(i)(ii)

The purpose of the Highway Safety Improvement Program (HSIP) is to achieve a significant reduction in fatalities and serious injuries on all public roads. HSIP requires a data-driven, strategic approach to improving highway safety that focuses on performance. ODOT developed the All Roads Transportation Safety (ARTS) Program to achieve the goals of the HSIP using a data-driven, jurisdictionally-blind process. The majority of the funding for the ARTS Program comes from the Highway Safety Improvement Program (HSIP).

The ARTS program takes into account safety on all roads in Oregon, regardless of jurisdiction. It aims to address the most critical safety needs, whether they are on state highways, city streets, county roads, Tribal roads, or other public facilities.

To identify potential safety projects, the ARTS program uses a data-driven process. Crash records with geocoordinates are analyzed to pinpoint locations where a significant number of crashes occur or where severe crashes are prevalent on the roadway network. By plotting each crash and its attributes on a map, the program can evaluate hot spot locations and identify systemic corridors that require attention.

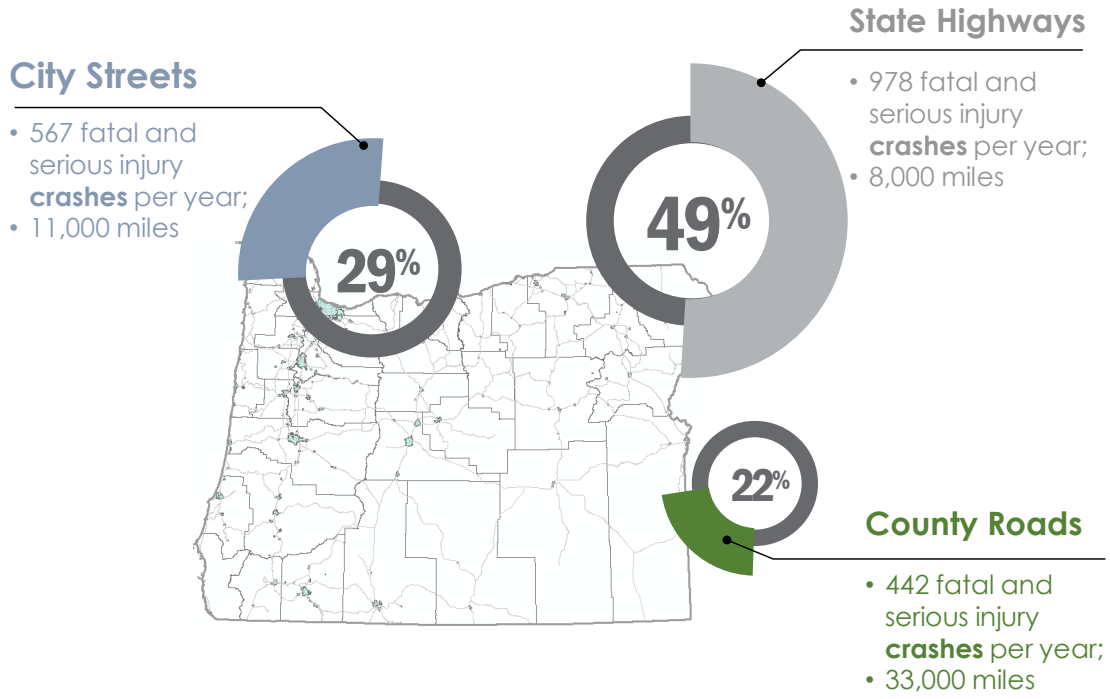
This data-driven approach helps prioritize safety projects and allocate resources effectively to areas with the greatest need. With limited funds, project selection can suffer from subjective opinions and crash variability (i.e., short term spike in crashes). Low funding statewide coupled with increasing project costs as well as low levels of law enforcement and changes in driver behavior are some of the challenges statewide. To most effectively use limited funds, projects should continue to be prioritized using the cost of the project and the estimated reduction in fatal and serious injury crashes.

Based on the 2016 through 2020 crash data:

- The five-year average for fatalities and serious injuries has been steadily increasing from 2,046 in 2016 to 2,272 in 2020. About half of all fatal and serious injury crashes occur on State highways. State highways have the highest rate of fatal and serious injury crashes per mile whereas city streets and county roads have the highest rates per Vehicle Mile Traveled (VMT).

- Rural low volume roads with narrow or no shoulders and steeper roadside areas typically present higher risk; while they have lower overall number of crashes, they typically have a higher rate of high severity crashes. On rural roads, roadway departure crashes account for almost 70 percent of fatalities and serious injuries.
- Urban intersections account for the vast majority of all intersection crashes; however, crashes at rural intersections are more likely to result in a fatal or suspected serious injury. Half of all intersection fatalities occur at intersections connecting with state highways.
- Pedestrian and bicycle crashes, while typically more urban, are less frequent than motor vehicle crashes but represent a large percentage of traffic fatalities. Statewide, about half of all pedestrian and bicycle fatalities occur on local roads.

FIGURE 108: 2016-2020 FATAL AND SERIOUS INJURY CRASHES BY ROADWAY TYPE



Source: ODOT Statewide Crash Data System (CDS)

TABLE 39: OREGON HIGHWAYS, FATALITIES AND SERIOUS INJURIES (F & A) 2016-2020

Public Roads by Jurisdiction	State Highways		Urban & Suburban Non-State Streets		Rural Non-State Roads		All Roadways	
	Average	Per VMT*	Average	Per VMT*	Average	Per VMT*	Average	Per VMT*
All F&A	1,152	5.91	745	12.03	374	5.67	2,272	7.03
Roadway Departure F&A	535	2.74	181	2.92	267	4.05	983	3.04
Intersections F&A	320	1.64	404	6.53	62	0.94	786	2.43
Pedestrians and Bicyclists F&A	100	0.51	154	2.49	10	0.15	264	0.82

*Source: ODOT Statewide Crash Data System (CDS), *Fatalities and serious injuries per one hundred million vehicle miles traveled (non-state VMT is 40% of total, best estimate is that it is almost evenly split between urban and rural)*

Roadway Departure Crash – a crash not related to an intersection, which occurs after a vehicle crosses an edge line, a centerline, or otherwise leaves the traveled roadway.

Intersectional Crash – a crash which occurs within the limits of the intersection of two or more roads; or a crash which occurs outside the intersection but is generally within 50 feet and a direct result of some maneuver at or because of the intersection.

Pedestrian and Bicyclist Crash – a crash in which a pedestrian or pedal cyclist was struck by a motor vehicle.

Fatalities and Serious Injuries (F&A) – Number of people killed (Fatalities) and seriously injured (Serious Injury A) in crashes.

Trends

Oregon, like the rest of the nation, experienced tenuous times related to the pandemic and its negative effects on employment, health, and society in general. In the first half of 2020, fatal crashes were significantly lower (than in the first half of 2019) because of COVID restrictions, but towards the second half when travel picked up there was a significant increase and the fatality total for 2020 was close to the 2019 total.

Law enforcement resources continue to be more stretched than usual, with a higher number of officers retiring or leaving the profession, and a shrinking recruitment pool. Our public safety partners, including law enforcement officers, have been tasked with stepping in to conduct more emergency and community response related to the pandemic and changing economy. The resources that the police normally dedicate to traffic patrol were already challenged, and prior levels of traffic safety enforcement were not maintained in 2020 (nor in 2021) due to reassignment to Covid, community support and other duties. Drivers are becoming accustomed to the new normal and vehicle travel has returned back to pre-pandemic levels. In Oregon, a total of 36.8 billion vehicle mileage travelled (VMT) was reported for year 2021, a 14 percent increase from year 2020 and a 2 percent increase from year 2019. Several factors affected the traffic fatality numbers in 2020, including:

- Continued increases in crashes involving impairment, increases in crashes flagged for speed, and the reduced number of traffic law enforcement resources available. Fatal crashes involving impairment from poly-substances (alcohol plus drugs); excessive speed; and/or not wearing a safety belt are among the common causes of motor vehicle fatalities in Oregon.
- In Oregon, between 2016 and 2020:
- Almost half (49%) of fatalities and serious injuries occurred on city and county roads. Specifically, more than half of pedestrian and bicyclist involved fatalities and serious injuries occurred on local roads.
- 43 percent of all fatal and serious injury crashes were flagged as roadway departure.
- 35 percent of all fatal and serious injury crashes occurred at or were related to an intersection.
- 14 percent of all fatal and serious injury crashes involved a motorcycle.

Conclusion

While the HSIP program does not receive grant funding for projects, ODOT continues to employ a multi-pronged approach to reduce fatal and serious injury crashes. Through the All Roads Transportation Safety (ARTS) Program, which was developed to achieve the goals of the HSIP, ODOT continue to use a data-driven, jurisdictionally-blind process to identify potential safety projects (infrastructure).

Strategy

The Highway Safety Improvement Program employs the following strategies:

- Improve the reporting, accuracy, and usefulness of the Project Safety Management System.
- Continue to develop a safety tracking mechanism/performance measuring to enable ODOT to track effectiveness of ODOT safety projects.
- Continue to monitor, update and investigate existing and new Crash Reduction Factors for inclusion in the Crash Reduction Factor (CRF) list.
- Implement recommendations from FHWA's review of the HSIP plan ("A Review of Oregon's All Road Transportation Safety Program, November 2020").
- Evaluate and suggest further changes to the ARTS Safety program and guidance based on the implementation of the 2027-2030 STIP.
- Develop an All Roads Transportation Safety Manual (ARTS) to support the region staff, local agencies and consultant support teams.
- Investigate new methods to evaluate the cost effectiveness of bicycle and pedestrian safety projects. Explore new methods and approaches to help flag locations where speeding and vulnerable road users are critical elements to improving safety.
- Develop a Vulnerable Road User (VRU) safety plan.
- Integrate a Safety System Approach (SSA) for the Intersection Safety Implementation Plan update.
- Develop a Wrong Way Driving (WWD) Implementation plan pilot in one region that includes implementable strategies and measures for reducing WWD crashes.
- Research risks of pedestrian and bicycle crashes to further explore improving project selection for bike and pedestrian safety projects.
- Continue to work with Transportation Development Division (TDD) to incorporate any new locations from updated safety plans into TransGIS (or incorporate in new crash reporting tool above).
- Continue to investigate new tools and methods to help visualize crash data to aid in identifying potential project locations as well as selecting safety countermeasures.
- Evaluate developing a statewide Older Driver Safety Plan that includes implementable strategies and measures as well as outreach and support to local jurisdictions.
- Evaluate Older Driver, Vulnerable Road Users (VRU) and High Risk Rural Roads (HRRR) measures to determine if Federal penalties occur.
- Develop and implement an Intersection Control Evaluation (ICE) Plan along with guidance.
- Provide training on the update to the Safety Investigations Manual (SIM) & SIM tool.
- Update Highway Safety Manual (HSM) predictive worksheets using more recent crash data.
- Evaluate, refine and update the ARTS Safety program and guidance based on the implementation of the 2027-2030 STIP.
- Continue to investigate new tools and methods that support the processes and methods outlined in the ARTS program guidelines.
- Develop and implement internal training for Regions and HQ staff on applications for safety data tools.
- Implement the Highway Safety Manual (HSM) and supporting software in ODOT (this is anticipated to take 2 to 5 years), including:
  - Conduct and evaluate existing research for HSM implementation.
  - Evaluate HSM analysis tools for possible development.
- Improve coordination and communication between and within ODOT and local agencies responsible for safety, including:

- Provide training for local agency staff on Safety process, data analysis and the use of new SPIS/ OASIS for all public roads.
- Continue to improve coordination and communication with local agencies responsible for safety.
- Work with Traffic Safety Office (TSO) to develop local Safety plans for counties.
- Expand reporting capabilities to enhance usefulness of crash data to local agencies.
- Continue collecting the Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements (FDE).

- Continue to investigate new technologies and expand the use of proven engineering measures for improving safety.
- Participate in national research and pooled fund studies that support and implement safety improvements, such as low-cost countermeasures.

Countermeasures and Justification

ODOT's CRF Appendix was developed to provide safety practitioners, intending to use HSIP funding, with a list of effective countermeasures that are appropriate improvements to many common safety issues. The countermeasures in the manual are strategies intended to reduce crash frequency or severity on roadways statewide. For road safety engineers, this is typically a physical change to the infrastructure of a road section or intersection, such as the addition of signs, signals, or markings, or a change in roadway design. Where not otherwise specified, ODOT uses some of the following references to develop the safety countermeasure list:

- The Crash Modification Factors (CMF) Clearinghouse
- FHWA's Proven Safety Countermeasures (PSC)
- Highway Safety Manual (HSM), First Edition, 2010
- FHWA Desktop Reference for Crash Reduction Factors (CRF)
- Manual for Selecting Safety Improvements on High Risk Rural Roads

Oregon Department of Transportation: Highway Safety : Engineering : State of Oregon

Targets Countermeasures will address 1300.11(b)(4)(iii)

To maintain the average number of roadway departure fatalities and serious injuries from the 2016-2020 average of 983.									
Actual					**5-year average**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
1047	979	926	1016	948	983.2	1246	983	983	983

To maintain the average number of intersection fatalities and serious injuries from the 2016-2020 average of 786.									
Actual					**5-year average**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
877	717	749	869	720	786.4	1,142	786	786	786

To maintain the average number of pedestrian and bicycle (non-motorized) fatalities and serious injuries from the 2016-2020 average of 264.									
Actual					**5-year average**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
282	257	250	261	270	264	289	259	259	259

Impaired Driving

Link(s) to the Transportation Safety Action Plan

Strategy 3.1.1	Support a data-driven approach to law enforcement, using data analysis to efficiently deploy enforcement resources to locations or corridors.
Strategy 3.1.2	Support a high-visibility enforcement program increasing traffic, bicycle and pedestrian law enforcement capabilities (priority and funding).
Strategy 3.1.4	Engage law enforcement in community safety activities such as teaching education classes on safer behaviors.
Strategy 3.1.5	Conduct education and outreach to law enforcement to increase understanding and enforcement of traffic, commercial vehicle, pedestrian, and bicycle laws.

The Impaired Driving program continues a strong commitment to effective, coordinated partnerships across the spectrum of law enforcement, prosecutorial, treatment, prevention, and education resources in Oregon. Key programs include high visibility enforcement, enhanced accountability for offenders, specialty/treatment courts, improved DUII training for officers, prosecutors, and judges, Drug Recognition Expert training, and community awareness campaigns to promote safety and good decision-making when it comes to impairing substances and driving. These efforts are all guided by nationally identified best practices and countermeasures, state and local data to include fatal crash numbers, arrest and adjudication, recidivism, compliance, and survey results.

Problem Identification Impaired Driving 23 CFR 1300.11(b)(1)(i)(ii)

In 2020 there were 11,654 people killed in alcohol-impaired driving crashes, which accounted for 30 percent of all motor vehicle traffic fatalities in the United States in 2020. This represents an increase in alcohol-impaired driving fatalities of 14.3 percent from 2019 to 2020, compared to a 6.8 percent increase in overall fatalities from 2019 to 2020.

Alcohol-impaired-driving fatalities in the past 10 years increased from 9,865 in 2011 to 11,654 in 2020, an 18 percent increase. The national rate of alcohol-impaired-driving fatalities in motor vehicle crashes in 2020 was 0.40 per 100 million vehicle miles traveled (VMT), up from 0.31 in 2019. The alcohol-impaired driving fatality rate in the past 10 years has increased by 21 percent, from 0.33 in 2011 to 0.40 in 2020.

In 2020 there were 76 people killed in alcohol-impaired driving crashes, which accounted for 23 percent of all motor vehicle traffic fatalities in Oregon in 2020. This represents a decrease in alcohol-impaired driving fatalities of 10 percent from 2019 to 2020, compared to a 2 percent decrease in overall fatalities from 2019 to 2020.

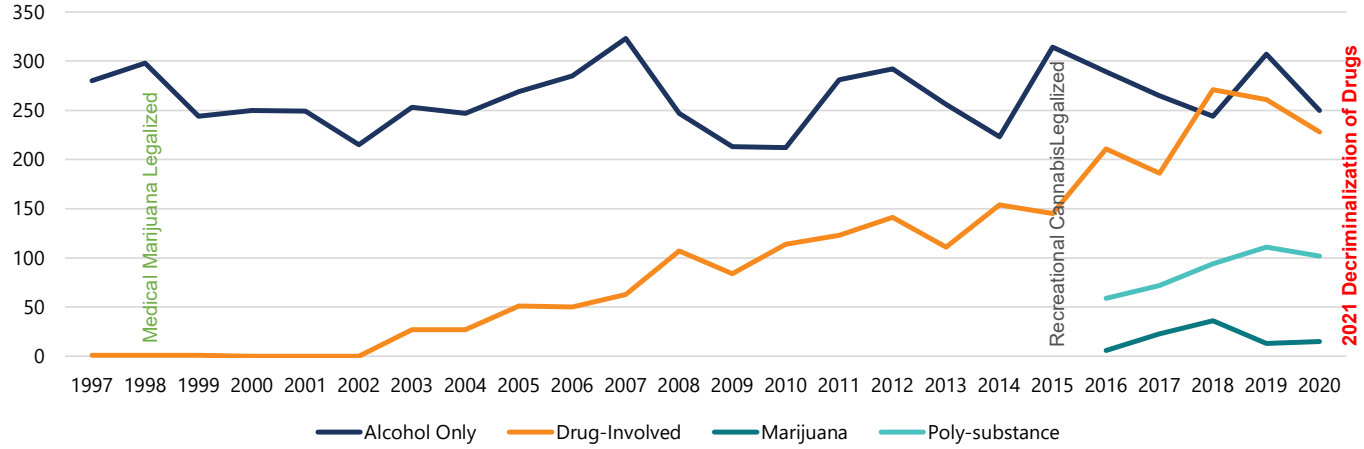
Alcohol-impaired-driving fatalities in the past 10 years decreased from 123 in 2011 to 76 in 2020, a 38 percent decrease contrary to the national increase during the same time period. The Oregon rate of alcohol-impaired-driving fatalities in motor vehicle crashes in 2020 was 0.59 per 100 million vehicle miles traveled (VMT), up from 0.48 in 2019. The alcohol-impaired driving fatality rate in the past 10 years has increased by 69 percent, from 0.35 in 2011 to 0.59 in 2020.

While nationally, alcohol impaired driving fatalities have increased, Oregon saw a far steeper fatality rate increase over the ten-year period when compared to the national rate. However, alcohol-impaired fatalities are only one piece of the impaired driving problem in Oregon, a closer look reveals a much bleaker story.

Currently, 37 states and the District of Columbia have legalized medical marijuana, and twenty-two states (including Oregon) and the District of Columbia have legalized recreational marijuana. However, Oregon remains the only state that has decriminalized the possession of small amounts of all drugs for personal use, including cocaine, heroin, LSD, methamphetamine, oxycodone, and fentanyl.

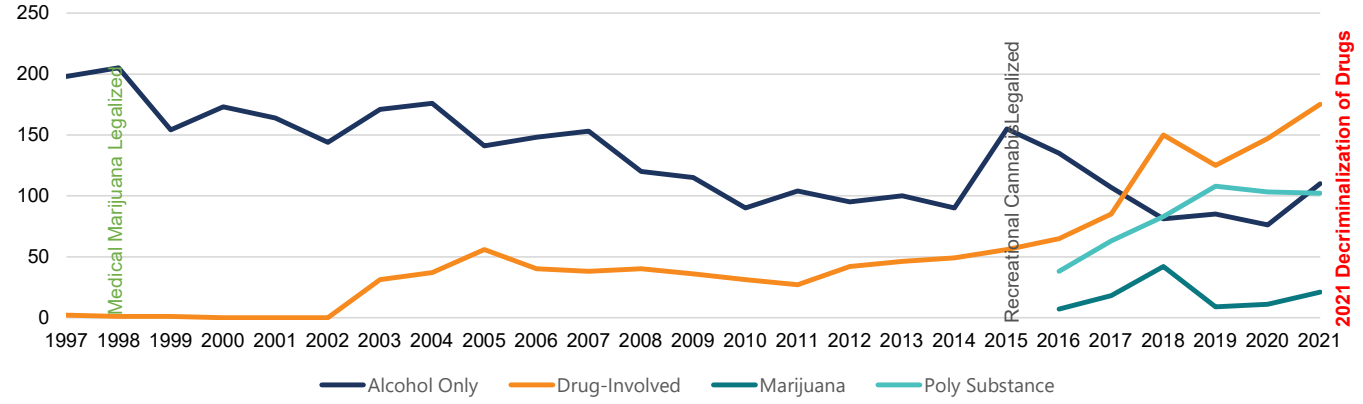
Prior to 2003, the ODOT Crash Analysis Reporting unit identified only three drug-involved crashes, one each year from 1997 – 1998. These crashes resulted in four fatalities and four serious injuries. It should be noted that data prior to 2003 for drug use and prior to 2016 for marijuana use is too sparse to be reliable.[73] While the number of serious crashes related to drug impairment from that time period is clearly underreported, there is no doubt the problem has increased significantly over the past ten years.

FIGURE 109: SUBSTANCE INVOLVED CRASHES 1997 – 2020



Source: ODOT Statewide Crash Data System (CDS)

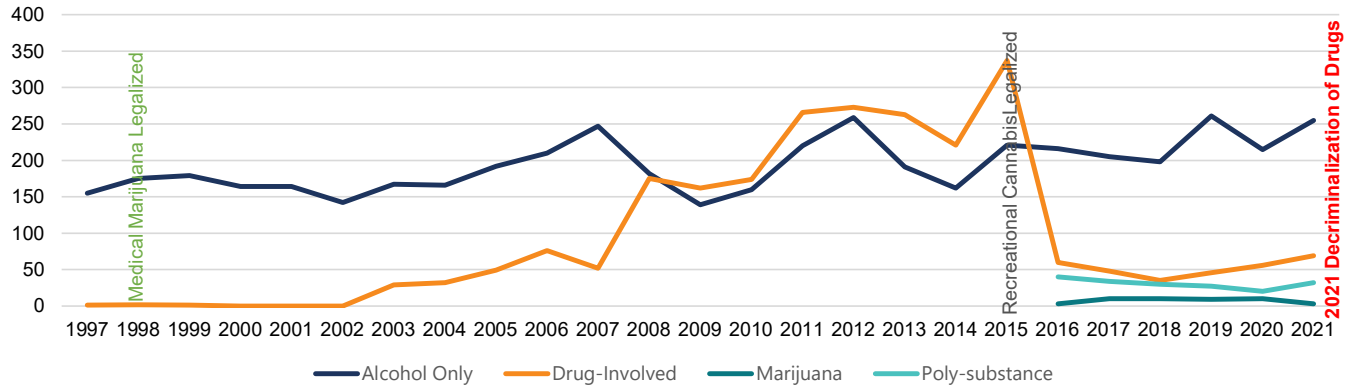
FIGURE 110: SUBSTANCE INVOLVED FATALITIES 1997 – 2021



Source: ODOT Statewide Crash Data System (CDS)

73 Prior to 2003, ODOT's Crash Data System had a single code available for "DUII," which represented both alcohol and drug involvement, but did not specify which. Also police reporting at the time on drug involvement was minimal so the field predominately represented alcohol DUII. The 2002-2024 conversation and expansion of the Crash Data System added new "drug-specific" data elements, which was the start of ODOT's Crash Analysis Unit (CAR's) ability to report on crashes involving drug use and the timing coincided with greater availability of law enforcement reporting specific to drug-involvement in crash reports, due to expanded availability of drug-recognition experts. For these reasons for years 2003 and onward there has been improved reporting on drug-involvement in traffic crashes.

FIGURE 111: SUBSTANCE INVOLVED SERIOUS INJURIES 1997 – 2021



Source: ODOT Statewide Crash Data System (CDS)

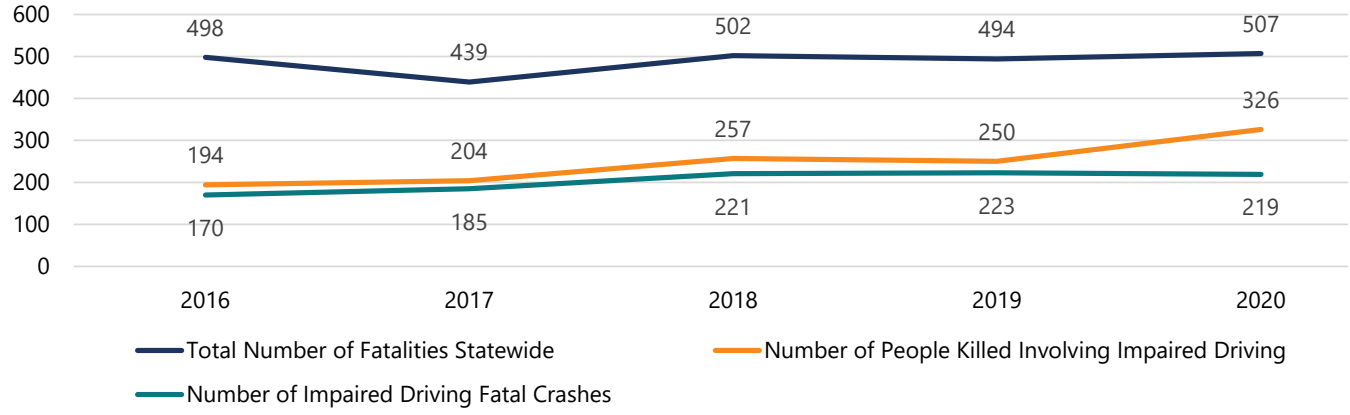
In 2021, fatalities as a result of substance involved crashes increased 11 percent, while drug-involved fatalities increased 19 percent from 2020 to 2021.

TABLE 40: OREGON ALCOHOL AND DRUG FATALITIES 2016-2020

	2016	2017	2018	2019	2020	2016-2020 Average
Total Number of Fatalities Statewide	498	439	502	494	507	488
Number of People Killed Involving Impaired Driving	194	204	257	250	326	290
Alcohol Impaired with BAC .08+ fatalities (FARS)	152	144	157	171	191	163
Alcohol Impaired with BAC.08+ fatalities (CARS)	126	112	103	129	112	116
Alcohol Involved (CARS) fatalities with BAC .01+	173	170	164	193	179	176
Drug and Alcohol Impaired	38	63	83	108	103	79
Number of People Injured Involving Impaired Driving	1,683	1,542	1,690	1,599	1,305	1,564
Number of Impaired Driving Fatal Crashes	170	185	221	223	219	225

Source: ODOT Statewide Crash Data System (CDS)
NOTE: Alcohol and Drug use data for 2020 is under-reported due to decreased availability of forensic lab test results. Data is preliminary and expected to change as late reports are received.

FIGURE 112: OREGON IMPAIRED DRIVING FATALITY OUTCOMES 2016 – 2020

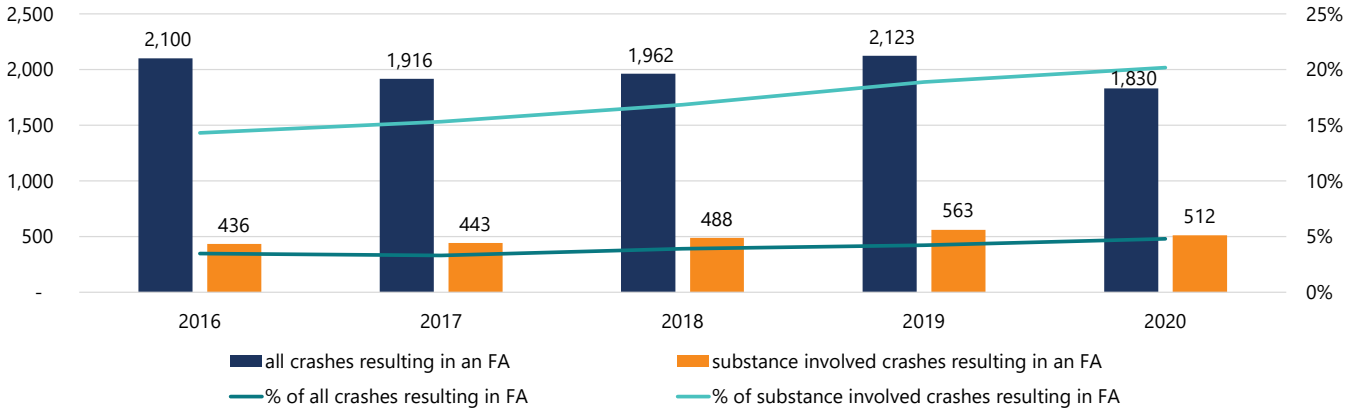


Source: ODOT Statewide Crash Data System (CDS)

Analysis of Substance-Involved Crashes

From 2016 – 2020, an average of 4 percent of all crashes resulted in fatalities and/or serious injuries. While 6 percent of all crashes were substance-involved, 25 percent of fatal and serious injury crashes were substance-involved. While all crashes resulting in fatalities and serious injuries have been trending downward, the percentage of substance-involved crashes that contribute to fatalities and serious injuries is trending upward.

FIGURE 113: COMPARISON OF ALL CRASHES VS. SUBSTANCE INVOLVED CRASHES RESULTING IN FATALITIES AND SERIOUS INJURIES

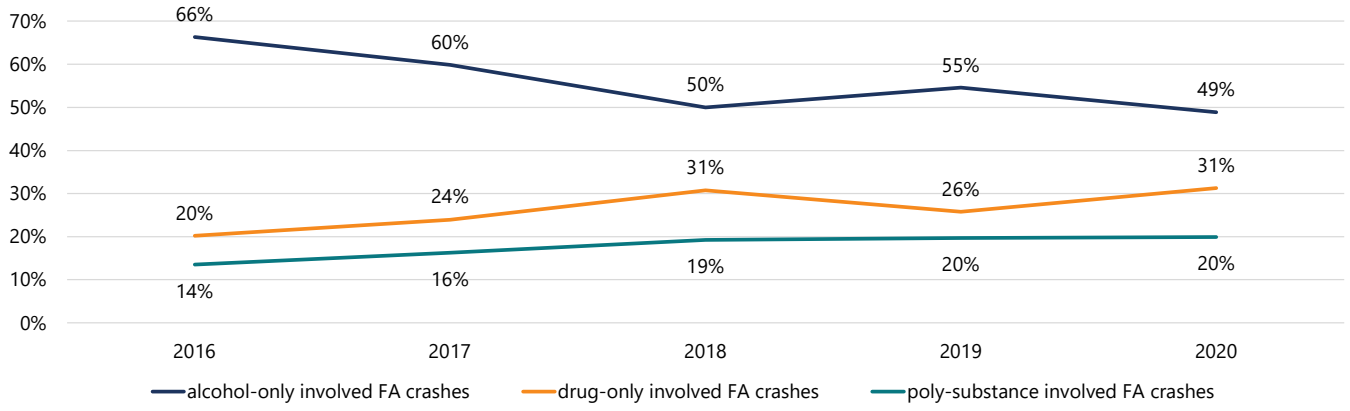


Source: ODOT Statewide Crash Data System (CDS)

Since 2016, drug-involved and poly-substance crashes are accounting for a higher percentage of all substance-involved fatal and serious injury crashes, while alcohol-involved crashes resulting in fatalities and serious injuries are declining.

According to the data analysis, between 2016 and 2020, there were 2,442 substance-involved crashes that resulted in fatalities and/or serious injuries. Fifty-nine percent of these crashes resulted involved roadway or lane departure, 51 percent occurred in an urban environment, 15 percent involved pedestrians and 11 percent involved a motorcyclist, 44 percent involved an aggravating factor along with the substance use, with 37 percent involving speed[74].

FIGURE 114: PERCENTAGE OF SUBSTANCE-INVOLVED CRASHES BY IMPAIRMENT

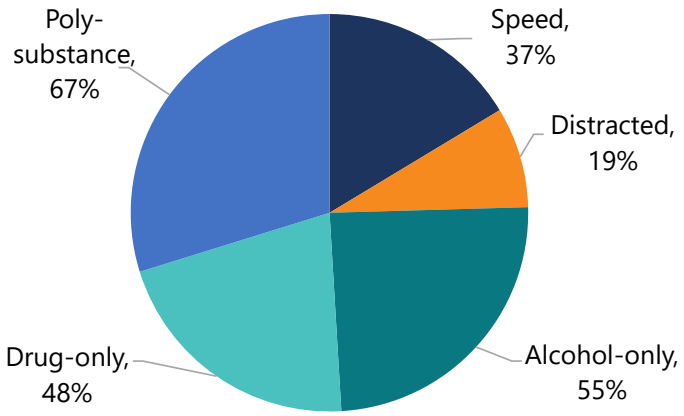


Source: ODOT Statewide Crash Data System (CDS)

74 Due to overlapping factors the numbers do not add up to 100 percent.

In 2019, substance-involved crashes accounted for 26 percent of all fatal and serious injury crashes. In 2020, that increased to 28 percent.

FIGURE 115: SUBSTANCE-INVOLVED CRASHES BY IMPAIRMENT AND AGGRAVATING FACTORS 2016-2020



Source: ODOT Statewide Crash Data System (CDS)

The most significant changes to aggravating factors for substance-involved crashes in the most available data were a decrease of alcohol-only crashes, an increase in drug-only crashes, and an increase in roadway departure events.

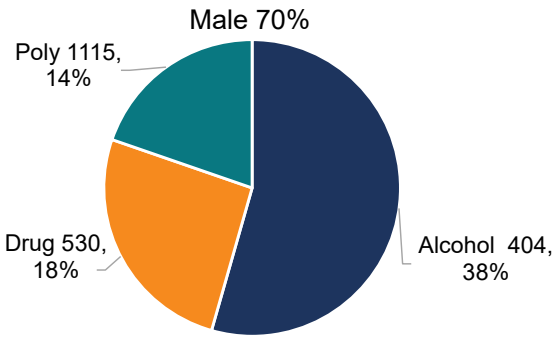
TABLE 41: PERCENTAGE INCREASE FROM 2019-2020 OF SUBSTANCE-INVOLVED CRASHES BY CHARACTERISTICS AND AGGRAVATING FACTORS

How to read this table: In 2019, 26 percent of substance-involved crashes were drug-only, in 2020 that increased 5 percent to 31 percent.

Characteristics/Aggravating Factors	2019	2020	% increase/decrease
Alcohol-only	55%	49%	6%
Drug-only	26%	31%	5%
Poly-substance (alcohol & drug involved)	20%	20%	-
All aggravating factors	43%	45%	2%
Speed	35%	36%	1%
Distracted Driving	7%	9%	2%
Urban	51%	52%	2%
Roadway Departure	58%	62%	4%
Pedestrian Involved	14%	15%	1%
Motorcyclist Involved	11%	11%	-

Source: ODOT Statewide Crash Data System (CDS)

FIGURE 116: SUBSTANCE-INVOLVED DEATHS AND SERIOUS INJURIES - SEX[75]



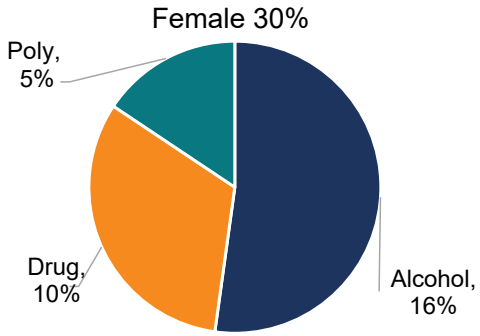


FIGURE 117: SUBSTANCE-INVOLVED DEATHS AND SERIOUS INJURIES - PARTICIPANT TYPE[76]

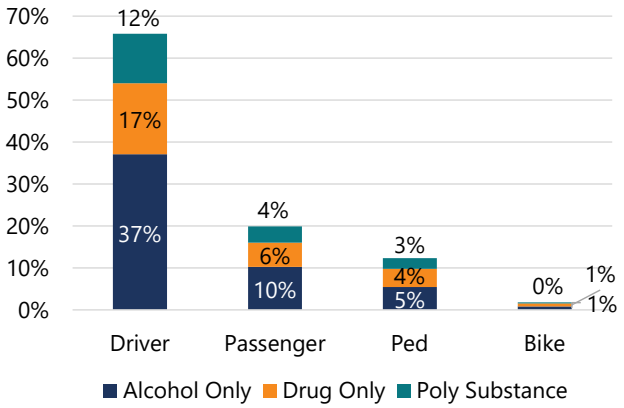


FIGURE 118: PEOPLE KILLED IN ALCOHOL INVOLVED CRASHES WITH A LEAST ONE DRIVER WITH A BAC .01-.15 BY RACE[77]

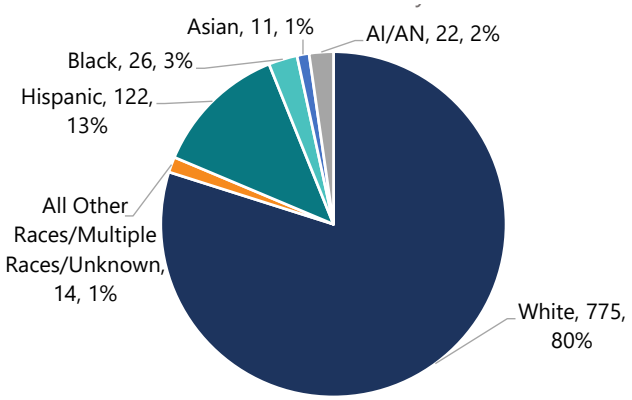
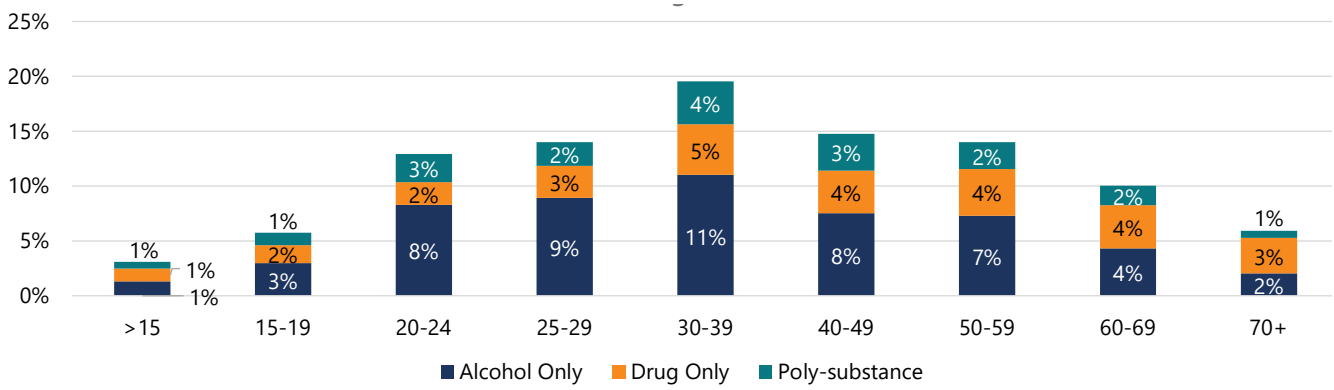


FIGURE 119: SUBSTANCE-INVOLVED DEATHS AND SERIOUS INJURIES - AGE



Source: ODOT Statewide Crash Data System (CDS), Fatality Analysis Reporting System (FARS)[78]

75 Does not include four participants whose sex was unknown.

76 Does not include four participants other and parked car.

77 Race data is FARS data and includes 970 fatalities, this does not match up with CARS data fatalities because it likely includes any alcohol involved crash, whereas due to the increasing drug and poly-substance impairment fatalities and serious injuries are broken out to illustrate the problem specific to Oregon fatalities in these categories are 879.

78 Poly-substance - Both alcohol and drugs were present which can mean: an active participant (i.e. driver, pedestrian, bicyclist) had been using both alcohol and drugs; one active participant had been using alcohol and another has been using drugs; any such combination - as long as both alcohol and drugs were present.

From 2019 - 2020, substance-involved fatalities increased 2 percent, however, for the first time since 2014, alcohol and drug (both substances involved) fatalities saw a decrease of 5 percent. While alcohol-only fatalities (fatality is one person rather than one crash) have been trending downward since 2015 (51%), total substance-involved fatalities have been trending upward (34%) over the same time period.

A closer look at Oregon counties reveals that some areas are driving the increase in substance-involved fatalities and serious injuries, while others are seeing increases in drug involved or poly-substance.

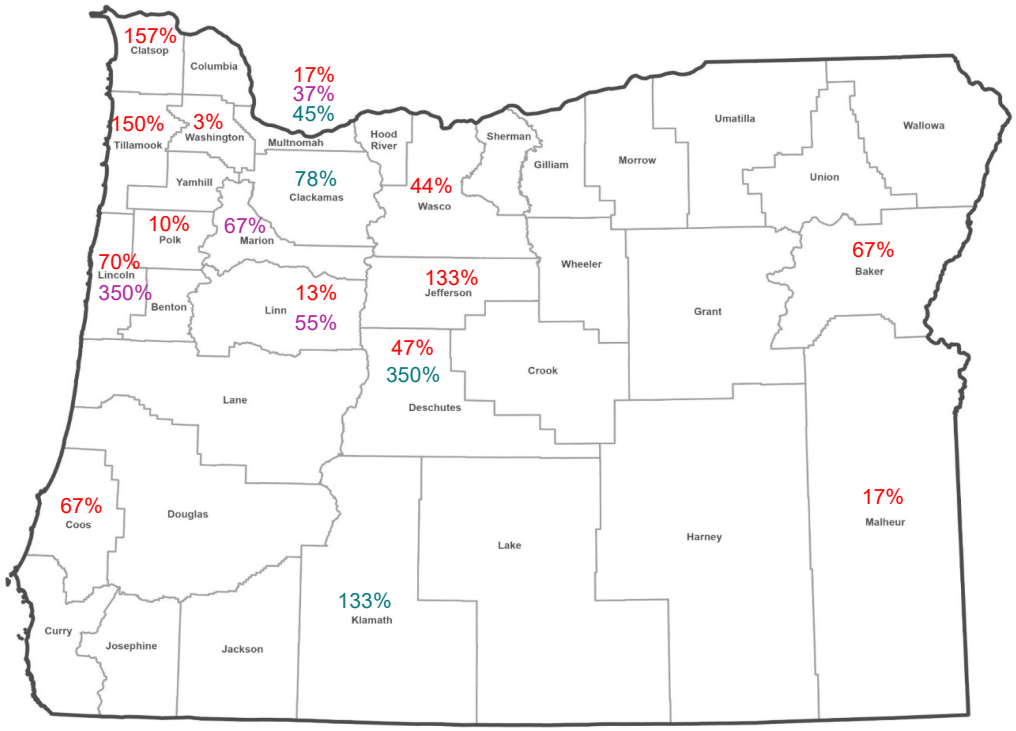
The map below indicates the greatest increases in substance involved fatalities and serious injuries by county the percentage is the increase from 2019 to 2020 the color indicates in which substance category.

RED indicates an increase in substance involved fatalities and serious injuries.

PURPLE indicates an increase in drug involved fatalities and serious injuries.

AQUA indicates an increase in poly-substance involved fatalities and serious injuries.

FIGURE 120: GREATEST 2019 – 2020 INCREASES IN SUBSTANCE-INVOLVED FATALITIES AND SERIOUS INJURIES BY COUNTY AND SUBSTANCE CATEGORY



Source: ODOT Statewide Crash Data System (CDS)

Oregon Impaired Driving Laws

Oregon's impaired driving laws, defined in Oregon Revised Statutes Chapter 813, are robust and prohibit operation of a vehicle by a person who is under the influence of liquor, cannabis, psilocybin, a controlled substance, an inhalant, or any combination thereof. A per se impairment threshold is set at .08 percent by weight of alcohol in a person's blood, and by statute, that threshold applies if a person provides a breath or blood sample within two hours of driving if there was no intervening drinking. A vehicle is broadly defined such that bicycles and other self-propelled mechanical devices that can convey a person from place to place, and impaired operation subjects a driver to enforcement under Oregon's DUII statutes. Operation has also been determined by State courts to include manipulation of any of the vehicle's controls, however briefly and regardless of intent, that affects movement of that vehicle.

Notably absent from Oregon's current DUII statutes are provisions that make it unlawful for a vehicle operator to be impaired by non-controlled substances. This deficiency has limited the state's ability to prosecute drivers impaired solely by these substances. Additionally, in many cases impaired drivers who are determined by toxicology to have prohibited substances and non-prohibited substances present are not successfully prosecuted as the amount of impairment caused by one cannot be distinguished from the other.

The Governor's Advisory Committee on DUII (GAC – DUII) and the Oregon District Attorney's Association have actively sought to amend Oregon's impaired driving laws so as to prohibit driver impairment by any substance, and favorable legislation is likely to pass in 2023. The GAC – DUII is likely to continue working to improve legislation on this topic and others in the coming years.

Oregon requires Ignition Interlock Device (IID) installation in a number of situations, including after DUII convictions, and during DUII Diversion agreements. IID compliance is generally monitored by approved vendors throughout the state and is overseen by a specialized unit within the Oregon State Police (OSP). IID violations, including failure to install a device, tampering with a device, and soliciting another person to provide a sample are all treated as infractions, rather than crimes, under state law. This limitation has prevented law enforcement from taking action against offenders unless the offense occurred in their presence, even when it was captured on an IID's required camera system. OSP has a very limited number of troopers available to conduct compliance checks on offenders and vendors, and to answer program inquiries. As a result, Oregon IID compliance rates have averaged a mere 21 percent since 2020.

The National Highway Transportation Safety Board (NTSB) issued Safety Recommendation H-13-9 to Oregon which encouraged the state to incorporate an IID requirement with its Implied Consent Law. The existing Implied Consent process in Oregon does not make any direct reference to IID, however, installation of an IID is a requirement for a driver to obtain a hardship permit during an Implied Consent suspension of their driving privileges. ODOT TSO is studying other states' Implied Consent processes to identify ways IID may be incorporated and will make recommendations to the GAC – DUII for possible legislative concepts.

High Visibility Enforcement

Oregon's significant problem with fatal and serious injury crashes related to impaired driving indicates a pressing need for high visibility enforcement strategies. Impaired driving, which includes driving under the influence of alcohol, drugs, or a combination of both, poses severe risks to public safety, causing crashes, injuries, and fatalities. Addressing this issue requires a comprehensive approach, focusing on enforcement measures that increase deterrence and improve road safety.

Research has consistently shown that high visibility enforcement campaigns play a crucial role in reducing impaired driving incidents. These campaigns involve deploying law enforcement officers in highly visible ways, such as saturation patrols, to detect and apprehend impaired drivers. The visibility of enforcement actions, to include pre- and post-operation media releases, creates a sense of risk and consequence, serving as a deterrent for potential offenders and increasing compliance with traffic laws.

Relevant data highlights the gravity of the impaired driving problem in Oregon:

1. Alcohol-Impaired Driving: a) In 2020, alcohol-related fatalities accounted for 32 percent of all traffic fatalities in Oregon. b) From 2016 to 2020, an average of 161 alcohol-involved fatal crashes occurred annually in Oregon.[79]

79 Oregon Department of Transportation, "Crash Summary," 2020

1. Drug-Impaired Driving: a) In a study conducted by the Pacific Institute for Research and Evaluation, it was found that approximately 26 percent of drivers in Oregon tested positive for drugs in their system during weekend nighttime hours. b) The study also revealed that marijuana was the most frequently detected drug among impaired drivers, with 14 percent of drivers testing positive for THC, the active component of cannabis.[80]

Law Enforcement Training

Comprehensive law enforcement training plays a pivotal role in effectively addressing Oregon's impaired driving problem. Research and data emphasize the significance of equipping law enforcement officers with specialized training, such as Drug Recognition Expert (DRE) and Advanced Roadside Impaired Driving Enforcement (ARIDE) to compliment basic Standardized Field Sobriety Testing (SFST), and Intoxilyzer training, to enhance their ability to detect, apprehend, and deter impaired drivers. By providing officers with the necessary skills and knowledge, Oregon can strengthen its enforcement efforts and improve road safety.

1. Standardized Field Sobriety Testing (SFST) training is essential for enabling officers to accurately assess a driver's impairment level based on physical and cognitive indicators. SFST training provides officers with a standardized approach to evaluate a driver's coordination, balance, and divided attention, ensuring reliable evidence for impaired driving arrests. Proper SFST administration increases accuracy in identifying impaired drivers and strengthens the prosecution of impaired driving cases.[81]
2. Training in the operation and interpretation of Intoxilyzer instruments is crucial for officers responsible for conducting breath alcohol testing. Intoxilyzers provide objective measures of alcohol impairment, aiding officers in making informed decisions following a probable cause arrest for DUII. Proper training ensures accurate readings, enhances the reliability of breath alcohol tests, and strengthens enforcement efforts related to alcohol-impaired driving.[82]
3. ARIDE training is crucial in equipping officers with the knowledge and skills to identify and address both alcohol and drug impairment. This training focuses on enhancing officers' ability to detect signs of impairment, conduct field sobriety tests, and make appropriate arrest decisions. ARIDE provides officers with a broader understanding of impaired driving, bridging the gap between SFST and DRE training, thereby improving their ability to effectively enforce impaired driving laws.[83]
4. Research and data highlight the importance of DRE training in identifying individuals impaired by drugs. The Drug Evaluation and Classification Program, which trains officers to become certified DREs, has demonstrated effectiveness in accurately identifying drug-impaired individuals through standardized evaluations and clinical assessments. DRE training enhances officers' ability to detect drug impairment that may not be readily apparent, ensuring a comprehensive approach to impaired driving enforcement.[84]

Commercial Motor Vehicle Training

Prior to 2020, Oregon had a two-tiered approach for monitoring compliance with State impaired driving laws and related Federal regulations for commercial motor carriers. The state previously maintained a sizable cadre of law enforcement personnel who were trained and certified as commercial motor vehicle (CMV) inspectors. These officers could stop CMVs on Oregon highways and conduct standardized inspections of the vehicles and their drivers. This helped maintain a credible threat of

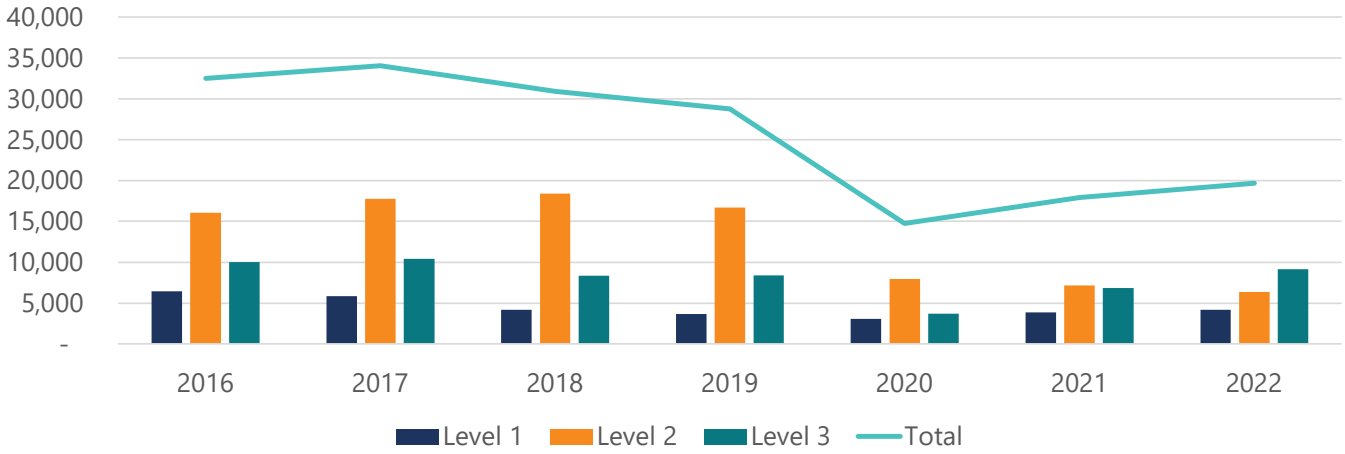
80 Oregon Department of Transportation, "Impaired Driving: Drugs and Alcohol Crash Facts," 2019
81 National Highway Traffic Safety Administration, "SFST Validation Study," 2006
82 National Highway Traffic Safety Administration, "Intoxilyzer 8000 Operator's Manual," 2021
83 National Highway Traffic Safety Administration, "Advanced Roadside Impaired Driving Enforcement (ARIDE) Program," 2015
84 National Highway Traffic Safety Administration, "Drug Evaluation and Classification Program," 2020

detection and arrest for CMV drivers who might otherwise have been willing to use intoxicants in violation of State and Federal law.

Federal regulations provide significant restrictions against mere possession of drugs or alcohol within a CMV, which allows inspectors to place drivers out of service even when there is not probable cause to arrest the driver for DUII. Law enforcement in Oregon has been supported by ODOT Motor Carrier Enforcement Officers and Safety Compliance Specialists who have the authority to conduct the same inspections when a CMV enters designated scale sites.

An overwhelming majority of Oregon's law enforcement truck inspectors were decertified in 2020 upon discovery of a training deficiency. Most law enforcement agencies have been unable to support the staffing hardships it would require to get their officers recertified, and most truck inspection work in Oregon has fallen to ODOT Commerce and Compliance employees. ODOT staff do not have authority to make stops of CMVs on the highway, and they must instead rely on scale site inspections. They also have other enforcement limitations since they are not sworn peace officers. As a result of law enforcement officers no longer having to stop enough CMVs to complete the requisite number of inspections to maintain their certifications, traffic stops involving CMVs appear to be down, eroding the credible threat of detection for impaired drivers.

FIGURE 121: OREGON TRUCK INSPECTIONS BY LEVEL



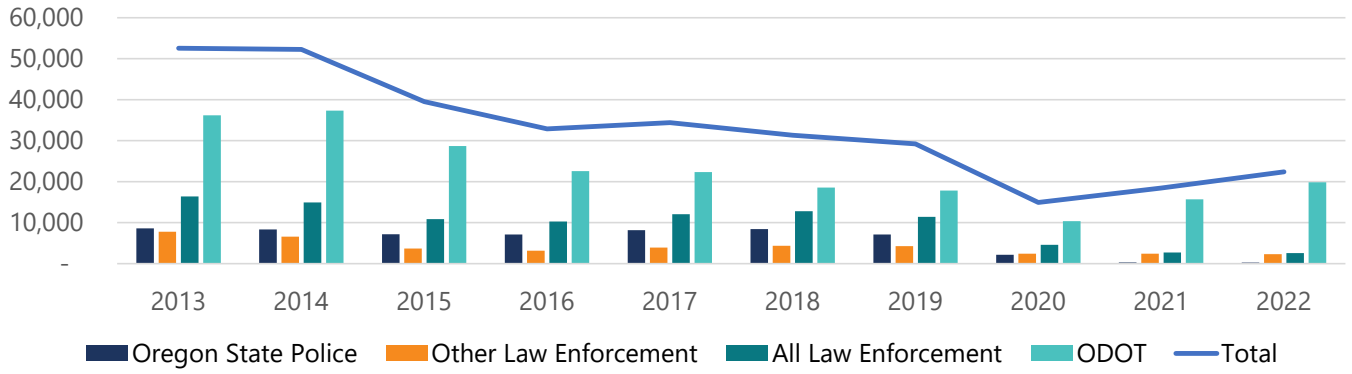
Source Oregon Department of Transportation Commerce and Compliance Division

Although they have the authority to take action to place impaired CMV drivers out of service, ODOT staff have not received meaningful training with regard to identifying drug and alcohol impairment. State data indicates CMV-related fatalities have increased in recent years[85], and impairment is a common theme among CMV drivers involved in serious crashes.

Oregon law enforcement does not get training specific to interaction with CMV drivers as part of the curriculum provided at the state's only basic police academy. The resultant lack of traffic stops of CMVs by rank-and-file law enforcement has minimized opportunities for officers to identify impaired drivers in this category of vehicles. Supplemental training for law enforcement would help demystify the trucking industry for officers who may observe the same indicators of impaired driving they would commonly stop passenger vehicles for. Targeted enforcement events such as *Operation Trucker Check,* which pair DREs with certified truck inspectors to evaluate CMV drivers, have been used in Oregon in the past to identify impaired drivers and create a credible threat of arrest among the CMV driver community. These operations were paused in Oregon during the COVID-19 pandemic and a co-occurring series of wildfires which severely limited law enforcement resources available to participate.

85 ODOT CAR Unit – Initial Motor Vehicle Traffic Fatalities 2021 – 2023 https://www.oregon.gov/odot/data/pages/crash.aspx

FIGURE 122: OREGON TRUCK INSPECTIONS BY AGENCY



Source Oregon Department of Transportation Commerce and Compliance Division

Media

Media campaigns serve as a powerful tool for raising awareness, educating the public, and influencing behavior change regarding impaired driving. Numerous studies have demonstrated the effectiveness of media campaigns in reducing impaired driving incidents and promoting responsible behavior. These campaigns typically employ a combination of television, radio, print, digital platforms, and social media to disseminate messages targeting various demographics and communities. By employing evidence-based strategies, such as creating emotionally impactful content and using persuasive communication techniques, media campaigns can effectively engage audiences, increase knowledge about the risks of impaired driving, and promote safer alternatives.

However, an important aspect to consider is the linguistic diversity within Oregon's population, especially the significant number of Spanish-speaking residents. Limited availability of prevention messaging in languages other than English poses a barrier to reaching and effectively communicating with this specific audience. According to relevant data:

1. Spanish-Speaking Population in Oregon: a) As of 2020, Oregon had approximately 561,000 Spanish speakers, accounting for around 13 percent of the state's population.[86] b) Among the Spanish-speaking population in Oregon, there is a higher risk of impaired driving incidents due to factors such as cultural differences, language barriers, and limited access to prevention resources.[87]

To effectively address impaired driving in Oregon and ensure the inclusion of non-English-speaking Oregonians, it is crucial to develop media campaigns that feature prevention messaging in languages other than English, with an emphasis on Spanish. By tailoring the content to the specific needs, cultural context, and language preferences of the Spanish-speaking population, these campaigns can increase their reach and impact.

Implementing media campaigns that address impaired driving and cater to diverse linguistic communities will enhance the effectiveness of prevention efforts, increase awareness, and encourage responsible behavior among all residents of Oregon. By allocating resources to develop and disseminate prevention messaging in languages such as Spanish, Oregon can better engage with the community, mitigate language barriers, and foster a safer environment for everyone on the road.

Impaired driving offenders come from every demographic of society in Oregon, and media campaigns must target diverse audiences, while concentrating on those most likely to engage in risky behaviors. Media messaging that targets risky driver demographics such as college sports venues holds significant

86 United States Census Bureau, "Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over," 2020
87 Oregon Department of Transportation, "Spanish-Speaking Community Impaired Driving Assessment," 2018

value in addressing demographics that are likely to engage in impaired driving behaviors. Research and data highlight the influence of college sports events on high-risk populations, such as college students, and the potential to leverage these venues to promote responsible behavior and reduce impaired driving incidents.

1. College students attending sports events represent a demographic that is particularly susceptible to engaging in risky drinking and impaired driving behaviors. Studies have consistently shown that college students have higher rates of alcohol consumption and are more likely to engage in impaired driving. College sports venues provide an ideal platform to target this high-risk population and raise awareness about the dangers of impaired driving.[88]
2. College sports events have a significant influence on social norms and behavior among attendees. These events create a sense of community, excitement, and camaraderie among college students and other spectators. Leveraging this influential setting to deliver media messaging can effectively capture attention and convey impactful prevention messages. By integrating prevention messaging into the college sports environment, it becomes possible to reshape attitudes and norms related to impaired driving, promoting responsible decision-making.[89]
3. Targeted media messaging at college sports venues can be tailored to address the specific concerns and behaviors of the demographic most likely to engage in impaired driving. Messages can emphasize the negative consequences of impaired driving, provide alternatives such as designated drivers or rideshare services, and promote responsible alcohol consumption. By aligning the messaging with the interests, values, and social norms of college students, it becomes more impactful and likely to drive behavior change.[90]

Implementing media messaging campaigns at college sports venues in Oregon is a valuable approach to address demographics likely to engage in impaired driving. By leveraging the influence of college sports events and tailoring messages to resonate with college students, prevention efforts can effectively promote responsible behavior, raise awareness about the risks of impaired driving, and ultimately reduce impaired driving incidents among this high-risk population. Such initiatives contribute to creating a safer environment both on and off the road, fostering a culture of responsible decision-making and positive social norms among college students in Oregon.

Prosecutor Training

Effective training for prosecutors handling impaired driving cases is essential in Oregon. Research and data underscore the challenges posed by drug Driving Under the Influence of Intoxicants (DUII) cases, the lack of experience among most DUII prosecutors, and the constant changes to DUII statutory and case law. These challenges highlight the urgent need to equip prosecutors with the necessary knowledge and skills to resolve cases in an effective manner. By providing comprehensive training, Oregon can enhance the prosecution of impaired driving cases, ensure just outcomes, and promote road safety.

1. Research indicates the complexity and challenges involved in prosecuting drug DUII cases. Drug impairment can be difficult to identify and measure due to the absence of per se impairment limits and the variability of drug effects on individuals. A study by the National Highway Traffic Safety Administration (NHTSA) highlights the challenges in detecting drug-impaired driving and the need for specialized training for prosecutors to understand drug impairment and effectively

88 Journal of American College Health, "College Student Alcohol Consumption and Awareness of Statewide Legislative Initiatives at Collegiate Football Games," 2018

89 International Journal of Environmental Research and Public Health, "Designing Health Messages for College Students: Impacts of Emotional and Rational Appeals on Problem Drinking and Condom Use," 2018

90 Journal of American College Health, "Designing and Implementing Alcohol Interventions in College Athletics," 2019

present evidence in court.[91]

2. The lack of experience among many DUII prosecutors is a recognized issue. A survey conducted by the Oregon Prosecutors Association revealed that a significant percentage of prosecutors handling DUII cases have limited experience in prosecuting impaired driving offenses. The survey emphasized the need for specialized training to bridge the knowledge gap and equip prosecutors with the necessary skills and expertise.[92]
3. DUII statutory and case law undergo frequent changes, necessitating ongoing training for prosecutors. Changes in legislation, court rulings, and scientific advancements impact the legal standards and procedures for prosecuting impaired driving cases. The Oregon Judicial Department acknowledges the dynamic nature of DUII laws and the need for prosecutors to stay updated to ensure effective case handling.[93]

To address Oregon's need for effective training for prosecutors handling impaired driving cases, comprehensive and specialized training programs are necessary. These programs should focus on the unique challenges of drug DUII cases, provide in-depth knowledge of DUII laws and procedures, and ensure prosecutors are continually updated on changes in DUII statutory and case law.

Investing in robust training initiatives will enhance the competence and expertise of prosecutors, leading to improved case outcomes, consistent application of the law, and increased deterrence of impaired driving. Ongoing training will foster a deeper understanding of drug impairment, empower prosecutors to present evidence effectively, and contribute to the overall effectiveness of the criminal justice system in addressing impaired driving offenses.

Judicial Training and Court Monitoring

To effectively address Oregon's impaired driving problem, there is a critical need for comprehensive measures, including judicial training, the continuation of a state judicial outreach liaison program, and court monitoring. Research and data emphasize the importance of these initiatives in promoting consistent and effective adjudication, enhancing judicial understanding of impaired driving laws and issues, and ensuring fair and just outcomes in impaired driving cases.

1. Research indicates the significance of judicial training to improve outcomes in impaired driving cases. A study conducted by the National Center for State Courts highlights the benefits of specialized training for judges, including a deeper understanding of impaired driving laws, updated knowledge on evolving legal standards and scientific advancements, and the ability to make well-informed decisions. Specialized training helps judges apply the law accurately, make informed determinations, and impose appropriate penalties, ultimately promoting road safety.[94]
2. The employ of a state judicial outreach liaison (SJOL) can play a crucial role in fostering effective communication and collaboration between the judiciary and other stakeholders involved in addressing impaired driving. This liaison can serve as a resource for judges, providing updates on impaired driving laws, disseminating research findings, and facilitating ongoing judicial training. A state judicial outreach liaison helps ensure that judges have access to the latest information, resources, and best practices related to impaired driving, thus promoting consistent and informed decision-making.
3. Court monitoring programs have proven effective in promoting accountability and consistency in the adjudication of impaired driving cases. Monitoring can help identify systemic issues, inconsistencies in sentencing practices, and areas for improvement in court processes. Data

91 National Highway Traffic Safety Administration, "Understanding the Limitations of Drug Test Information," 2017
92 Oregon Prosecutors Association, "Prosecutor Survey Report," 2018
93 Oregon Judicial Department, "Oregon Revised Statutes - Driving Under the Influence of Intoxicants," 2021
94 National Center for State Courts, "Impaired Driving: Judicial Outreach & Education," 2020

collected through court monitoring initiatives provide valuable insights for policy development, training enhancements, and addressing any disparities or inefficiencies in the adjudication of impaired driving cases.[95]

To address Oregon's impaired driving problem comprehensively, it is imperative to implement judicial training programs, maintain a state judicial outreach liaison position, and implement court monitoring initiatives. These measures enhance judicial understanding of impaired driving laws, promote consistency in decision-making, and improve the overall effectiveness of the judicial system in addressing impaired driving offenses.

Multidisciplinary Training

A multidisciplinary approach is crucial for effective impaired driving prevention in Oregon. Research and data underscore the significance of collaboration and networking across disciplines to address the complex factors contributing to impaired driving. An annual conference that facilitates cross-disciplinary communication and knowledge exchange can enhance the implementation of evidence-based strategies, foster collaboration, and improve the overall impact of impaired driving prevention efforts.

1. Research consistently demonstrates the need for a multidisciplinary approach to address the multifaceted nature of impaired driving. Factors such as alcohol and drug use, driver behavior, vehicle safety, public awareness, and policy interventions necessitate collaboration among various disciplines, including law enforcement, public health, transportation, education, and advocacy. A multidisciplinary approach allows for comprehensive strategies that leverage the expertise and resources of diverse stakeholders.[96]
2. Networking and collaboration across disciplines are vital to facilitate information sharing, exchange of best practices, and coordination of efforts. A study by The Community Guide found that collaborative efforts, including networking and partnerships among stakeholders, result in more effective impaired driving prevention programs. Effective networking enables professionals to learn from one another, leverage collective knowledge, and implement evidence-based interventions with greater impact.[97]
3. An annual conference dedicated to impaired driving prevention can serve as a platform for networking, knowledge exchange, and collaboration among professionals from diverse disciplines. Such conferences offer opportunities to share research findings, best practices, innovative strategies, and policy updates. A study evaluating the effectiveness of a traffic safety conference demonstrated the positive impact of these gatherings on knowledge gain, professional networking, and subsequent implementation of evidence-based practices.[98]

To enhance impaired driving prevention efforts in Oregon, it is imperative to foster a multidisciplinary approach and improve networking across disciplines. An annual conference dedicated to impaired driving prevention can play a vital role in facilitating collaboration, knowledge exchange, and the implementation of evidence-based strategies. By bringing together professionals from various fields, such a conference can improve communication, build partnerships, and strengthen the collective efforts to combat impaired driving.

Investing in initiatives that promote networking and knowledge exchange, such as an annual

95 National Highway Traffic Safety Administration, "Court Monitoring: A Promising Practice for Reducing Impaired Driving Recidivism," 2018
96 National Academies of Sciences, Engineering, and Medicine, "Getting to Zero Alcohol-Impaired Driving Fatalities: A Comprehensive Approach to a Persistent Problem," 2018
97 The Community Guide, "Preventing Excessive Alcohol Consumption: Impaired Driving," 2020
98 Journal of Traffic Medicine, "The Impact of Traffic Safety Conference Participation on Road Safety Professionals," 2016

conference, can lead to improved collaboration, enhanced implementation of evidence-based practices, and more comprehensive impaired driving prevention strategies. Ultimately, this multidisciplinary approach will contribute to reducing impaired driving incidents, saving lives, and promoting safer roadways in Oregon.

Treatment

Impaired Driving is a complex, multi-faceted problem that involves many disciplines including law enforcement, drug task forces, courts, parole and probation, victim impact panels, prosecution, prevention, Division of Motor Vehicle Services (ODOT-DMV), public health, hospitals, the Oregon Liquor and Cannabis Commission (OLCC), Department of Public Safety Standards and Training (DPSST), traffic engineers and investigators, commercial motor vehicle regulatory enforcement, non-profit organizations, and evaluation and treatment providers working collaboratively to reverse the trend of increasing fatalities and serious injuries due to impaired driving.

In *Countermeasures that Work,* NHTSA identifies alcohol and drug treatment as a strategy to reduce impaired driving, and it has a five-star effectiveness rating.[99] [100] Many first-time DUII offenders, and the majority of repeat offenders are dependent on alcohol (or drugs) and/or have substance abuse problems.[101]

In a 1995 review of studies evaluating treatment effectiveness, Wells-Parker et al. found that, on average, treatment reduced DUII recidivism and alcohol-related crashes by 7 to 9 percent. Treatment appears to be most effective when combined with other sanctions, and when offenders are monitored closely to ensure both treatment and sanction requirements are met.[102]

The Centers for Disease Control states that treatment is most effective when combined with other sanctions and when offenders are closely monitored.[103]

Based on the data from Oregon Alcohol and Other Drug Screening Specialists (ADSS) monthly reports, approximately:

- 46 percent of people screened reported having one DUII
- 32 percent of people screened reported having 2 DUIIs
- 14 percent of people screened reported having 3 DUIIs
- 8 percent of people screened reported having 4 DUIIs

99 Countermeasures that Work, p. 22

100 Osilla KC, Kulesza M, Miranda J. Bringing alcohol treatment to driving under the influence programs: Perceptions from first-time offenders. Alcohol Treat Q. 2017;35(2):113-129. doi: 10.1080/07347324.2017.1288484. Epub 2017 Mar 20. PMID: 28943712; PMCID: PMC5606326

101 White, W. L., & Gasperin, D. L. (2007). The "hard core drinking driver": Identification, treatment and community management. *Alcoholism Treatment Quarterly, 25*(3), 113–132. https://doi.org/10.1300/J020v25n03_09

102 Dill, P. L., & Wells-Parker, E. (2006). Court-mandated treatment for convicted drinking drivers. *Alcohol Research & Health*, 29, 41-8. www.ncbi.nlm.nih.gov/pmc/articles/PMC6470906/

103 The Guide to Community Preventive Services (The Community Guide), Motor Vehicle-Related Injury Prevention, at www.thecommunityguide.org , and National Highway Traffic Safety Administration (2018) Countermeasures that work: a highway safety countermeasures guide for State Highway Safety Offices, Ninth edition, at www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_countermeasures-that-work-a-highway-safety-countermeasures-guide-.pdf

The Oregon Health Authority (OHA) has the responsibility of collating and aggregating this data, and cautions that due to issues with the Measures and Outcomes Tracking System (MOTS), such as providers not reporting at all, inaccurate information reported, and OHA's inability to client-match with Law Enforcement Data Systems (LEDS), they are unable to identify true first-offenders or DUII recidivism rates, which is a problem with the system in and of itself.

Although unreliable, Oregon data that indicates high rates of recidivism is supported by research, as both national and state-specific data suggests that rates of recidivism remain high. For instance, in California, about 24 percent of individuals with a first-time offense and 36 percent of individuals with three or more offenses recidivate within ten years.[104] In California, about 8 percent of alcohol-related fatal crashes involved a driver with a previous DUII conviction.[105] These statistics and Oregon's own data underscore the need to intervene among individuals with a DUII offense to effectively reduce the chances of future drinking and driving behaviors.[106]

One study found that more than 60 percent of DUII repeat offenders have other psychiatric disorders in addition to alcohol-related problems, such as post-traumatic stress disorder, anxiety disorders and bipolar disorders[107], which is a substantially higher rate than the approximate 30 percent for the general population.

Most individuals arrested for DUII are mandated to attend an alcohol education program to reinstate their driver's license and/or satisfy court sanctions. These programs consist of education classes and process groups that may be didactic in nature (e.g., lectures or films about the consequences of drinking and driving) and according to three studies, may not effectively treat alcohol use disorders (AUDs) and related consequences.[108] [109] [110]

Individuals who have been arrested for DUII commonly do not access AUD treatment[111] and may require more intensive services. Compared to first-time DUII offenders, repeat offenders are more likely to suffer from psychological distress, and to have higher levels of alcohol use-related problem severity.[112] Also, there is evidence that the risk for AUDs remains elevated even fifteen years after a first DUII.[113] Research suggests that more intensive behavioral approaches may be needed to address these underlying characteristics and prevent future DUII recidivism.[114]

Currently, Oregon does not have a standardized assessment for DUII offenders. Research states that part of the assessment process is determining the likelihood that an offender will continue to drive impaired. Under a cooperative agreement with NHTSA, the American Probation and Parole

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104 California Department of Motor Vehicles. Annual Report of the California DUII Management Information System 2014

105 National Highway Traffic Safety Administration. Traffic Tech: Technology Transfer Series. 2000 Repeat DWI offenders are an elusive target from http://www.nhtsa.gov/people/outreach/traftech/pub/tt217.html

106 Osilla et al. 2017

107 Shaffer, H. J., Nelson, S. E., LaPlante, D. A., LaBrie, R. A., Albanese, M., & Caro, G. (2007). The epidemiology of psychiatric disorders among repeat DUII offenders accepting a treatment- sentencing option. *Journal of Consulting and Clinical Psychology*, 75, 795-804.

108 Davis DA, Thomson MA, Oxman AD, Haynes RB. Changing physician performance. A systematic review of the effect of continuing medical education strategies. *JAMA*. 1995;274(9):700–705

109 Kaminer Y, Burleson JA, Goldberger R. Cognitive-behavioral coping skills and psychoeducation therapies for adolescent substance abuse. The Journal of Nervous and Mental Disease. 2002;190(11):737–745. doi: 10.1097/01.NMD.0000038168.51591.B6

110 Miller William R, Wilbourne PL, Hettema J. What works? A summary of alcohol treatment outcome research. In: Hester RK, Miller WR, editors. *Handbook of alcoholism treatment approaches: Effective alternatives*. 3rd. Boston: Allyn and Bacon; 2003. pp. 13–63.

111 Osilla et al., 2015

112 McCutcheon VV, Heath AC, Edenberg HJ, Grucza RA, Hesselbrock VM, Kramer JR, et al.Bucholz KK. Alcohol criteria endorsement and psychiatric and drug use disorders among DUII offenders: greater severity among women and multiple offenders. Addict Behav. 2009;34(5):432–439. doi: 10.1016/j.addbeh.2008.12.003.

113 Lapham SC, Stout R, Laxton G, Skipper BJ. Persistence of addictive disorders in a first-offender driving while impaired population. *Archives of General Psychiatry*. 2011;68(11):1151–1157. doi: 10.1001/archgenpsychiatry.2011.78.

114 Nochajski TH, Stasiewicz PR. Relapse to driving under the influence (DUII): A review. *Clinical Psychology Review.* 2006;26(2):179–195. doi: 10.1016/j.cpr.2005.11.006.

Association developed a screening tool – the Impaired Driving Assessment (IDA) – to determine an offender's risk of recidivism and to help determine the most appropriate and effective community supervision program to reduce that risk.[115] Pilot testing of the IDA revealed that probation failure is commonly associated with extensive prior legal histories, mental health problems, and higher levels of alcohol/drug use.

Countermeasures that Work states that even the best of the many assessment instruments currently in use are subject to error. Research found that none of the assessment instruments studied correctly identified more than 70 percent of offenders who were likely to recidivate. However, the assessment process itself can have therapeutic benefits,[116] and is an integral part of the countermeasure alcohol assessment and treatment.

The Oregon Health Authority states that research shows that the presence of a substance use disorder may not be the primary indicator of whether or not someone with a DUII will re-offend, but rather the four criminogenic indicators (meaning causing or likely to cause criminal behavior) are:

- **Antisocial Cognition** - attitudes, values, beliefs, rationalizations, a personal identity that is favorable to crime.
- **Antisocial Personality** - impulsive, adventurous pleasure-seeking, weak self-control, weak anger management skills, disregard for safety of self/others, disregard for right and wrong.
- **Antisocial Associates** - association with pro-criminal peers and relative isolation from anti-criminal peers.
- **Family/Marital Issues** - poor quality of relationships in combination with neutral expectations with regard to crime and/or pro-criminal expectations.

The Oregon Health Authority asserts that Cognitive Behavioral Therapy (CBT) has been shown to be the most effective intervention to address criminogenic risk factors, and this is supported by research[117], and is part of the Oregon DUII Modernization Plan. However, treatment providers state that 90 days is not enough treatment/monitoring time for CBT to be most effective. Research also asserts that treatment is most effective when combined with other sanctions and close monitoring.

Ignition Interlock Devices (IIDs), while installed, stop alcohol-impaired motorists from driving, but unless motorists change their attitudes and behaviors, they may simply continue driving impaired once the devices are removed.[118] Florida passed legislation in 2008 to address this problem by mandating treatment for DUII offenders in interlock programs who commit four or more interlock violations. These offenders are required to attend eight to twelve weeks of treatment from certified substance abuse counselors/programs, which includes personalized treatment plans involving individual or group therapy.

One study examined the effectiveness of combining mandated treatment with interlock devices on recidivism among interlock offenders with three or more interlock violations. Compared to a control group that had interlocks but only one or two interlock violations, those with three violations that received treatment showed a significant (32 percent) reduction in recidivism after the interlock devices were removed. This improvement was not significantly different for women than for men, nor for

115 Lowe, N. (2014, May). Screening for risk and needs using the impaired driving assessment (Report No. DOT HS 812 022). National Highway Traffic Safety Administration. www.nhtsa.gov/staticfiles/nti/pdf/812022-Screening_for_Risk_and_Needs.pdf

116 Chang, I., Gregory, C., & Lapham, S. C. (2002). *Review of screening instruments and procedures for evaluating DWI (Driving while intoxicated/impaired) offenders*. https://pdfs.semanticscholar.org/70a9/e92f9b4d838476b9e0de726480c383318f98.pdf?_ga=2.167591032.75762146.1570474381-1703944869.1510587726

117 Osilla et al., 2015

118 Elder, R. W., Voas, R., Beirness, D., Shults, R. A., Sleet, D. A., Nichols, J. L., & Compton, R. (2011). Effectiveness of ignition interlocks for preventing alcohol-impaired driving and alcohol-related crashes: A community guide systematic review. *American Journal of Preventative Medicine*, 40(3), 362-376. www.thecommunityguide.org/sites/default/files/publications/mvoi-AJPM-evrev-aid-massmedia.pdf

Hispanics and Blacks than for Whites. However, the additional treatment was much less effective for drivers under 25.

While Oregon Treatment Providers agree with the effectiveness of CBT, they have identified systematic problems with Oregon's DUII statutory evaluation and treatment requirements that reduce the effectiveness of the treatment countermeasure.

Providers have identified that the number of requirements, the timeline in which they need to be completed and the organizations to which they need to be reported as defined by the Oregon Revised Statutes for people who have been convicted of DUII are confusing and difficult to follow. In addition, the fact that there are two sets of requirements by two different entities the state and DMV complicate the process. There is a need for a manual, video, or class about what to expect as a person goes through the DUII process and the consequences of not completing the process.

According to treatment providers, DUII outcomes would be improved by:

- Research that looks at the entire process, analyzes the gaps in the process and makes recommendations for improvement.
- A better timeline for completing the DUII process. Although providers recognize the value in CBT, the limitation is in the state's requirement that is be completed in 90 days (minimum), which is not enough treatment and/or monitoring time for CBT to be most effective.
- A video that all DUII offenders are required to watch that explains the process and the requirements to help people better navigate the complicated process.
- A standardized evidence based DUII curriculum that is used statewide.

Anecdotally, providers and ADSS staff indicate outcomes are also dependent on income. For example, all offenders are required to pay a $150 fee for their alcohol and other drug screening, but this is an out-of-pocket expense, and insurance does not cover it. The Oregon Health Plan (OHP) also does not cover this expense, and there are no subsidies or options to help people who are indigent pay for the assessment, which results in a delay in getting assessed while they save the money. Failure to participate in this screening will eventually cause a first-time DUII offender to have their diversion agreement revoked, which leads to an automatic conviction and the resultant legal penalties.

The system is inequitable based on income. A DUII can cost a person up to $10,000 out of pocket for all legal, evaluation, and treatment expenses. However, if a person is on the Oregon Health Plan (Medicaid), all out-of-pocket treatment expenses except the ADSS evaluation are covered by OHP. According to providers, the rate of no-shows by OHP clients are significantly higher than clients covered by private insurance. This deficit is understood to be directly related to the OHP clients' perception they do not have a financial stake in the process since their fees are covered by an outside entity. A client's failure to participate in the assessment process precludes them from being referred to education and/or treatment required as part of their diversion agreements or conditions of probation, therefore, poverty plays a part in the outcome with people in higher income brackets having better outcomes.

In Oregon, no one is disqualified from DUII services due to their immigration status, and all DUII service providers can be reimbursed for necessary translation services; however, undocumented immigrants are not eligible for OHP, and therefore there is no insurance to reimburse the provider for either translation or treatment services, making them inaccessible to undocumented community members.

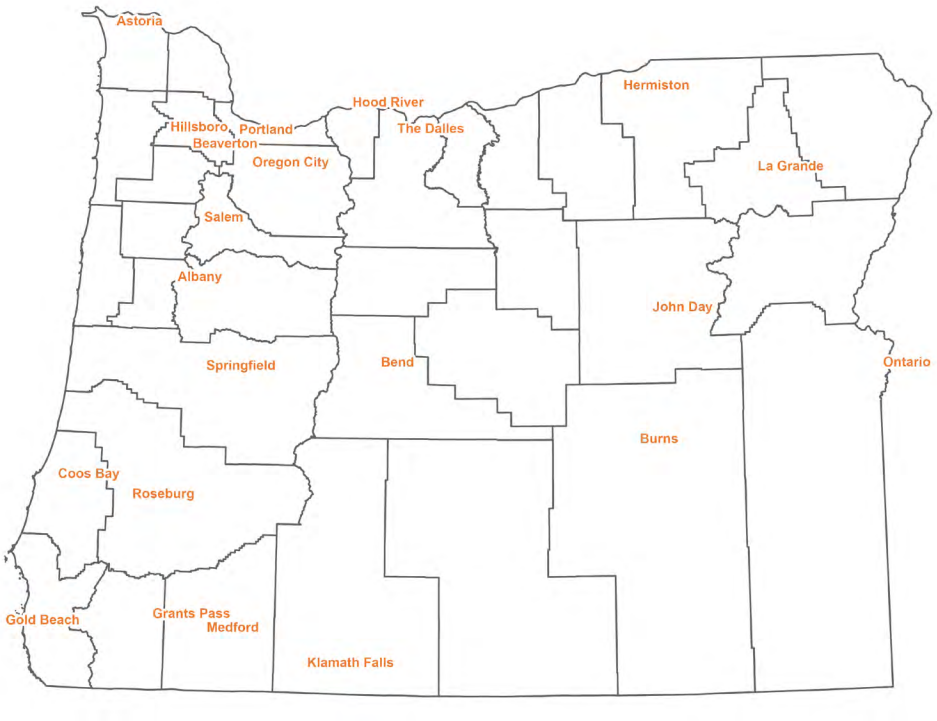
While there is an Intoxicated Driver Program Fund that provides financial assistance for people who are at or below 225 percent of the federal poverty level and thus not eligible for Medicaid, it only covers treatment services, not DUII education. In addition, someone at or below the 225 percent federal poverty level may not be able to afford the ADSS evaluation, which places both the treatment and education options out of reach.

Public Engagement and Participation

Oregon has maintained a statewide task force focused on impaired driving since its creation by Executive Order in 1983. This multi-disciplinary group, the Governor's Advisory Committee on DUII (GAC – DUII), consists of voting members appointed by the Governor's Office, and non-voting liaison members who provide information relevant to committee business. The ODOT TSO Impaired Driving Program Manager serves as staff support to the committee to assist with agenda creation, furnishing materials to members, and other logistical functions. The committee meets monthly to discuss contemporary impaired driving challenges and opportunities, and it monitors the work of TSO in addressing them.

Between June 2022 and April 2023, ODOT TSO Regional Transportation Safety Coordinators hosted a total of 22 meetings attended by multidisciplinary partners to discuss impaired driving challenges in their local communities. The TSO Impaired Driving Program Manager attended these meetings in Hermiston, La Grande, Ontario, Burns, John Day, Klamath Falls, Bend, The Dalles, Beaverton, Oregon City, Portland, Hillsboro, Hood River, Roseburg, Coos Bay, Gold Beach, Medford, Grants Pass, Springfield, Salem, Astoria, and Albany to learn more about these communities' needs, and to offer funding support where appropriate.

FIGURE 123: LOCATIONS OF REGIONAL IMPAIRED DRIVING MULTI-DISCIPLINARY MEETINGS 2022 AND 2023



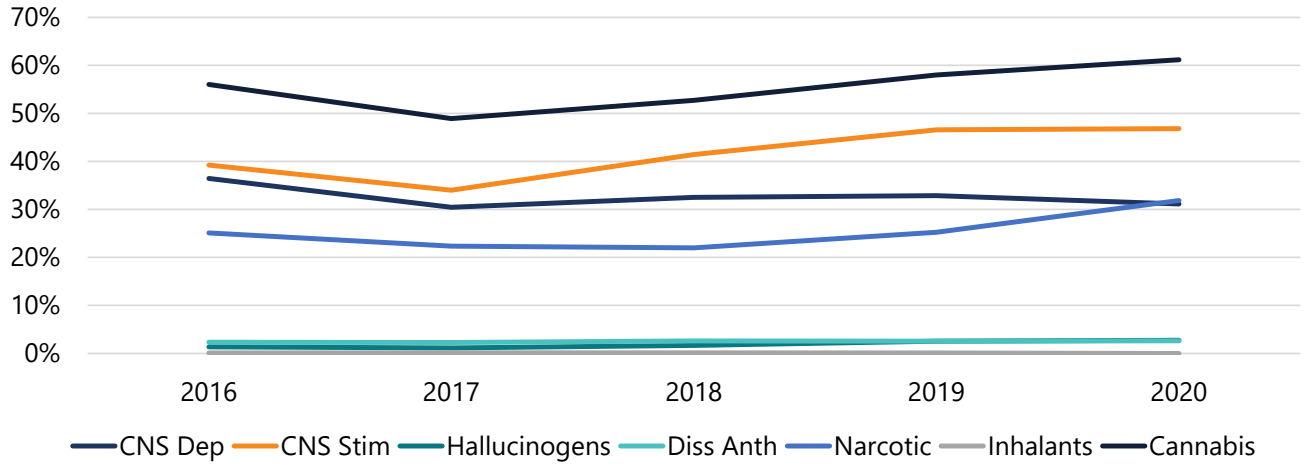
A common theme among law enforcement representatives was that their staffing levels had suffered in the wake of the COVID-19 pandemic and the political fallout from critical incidents elsewhere in the country and their related protests. Many law enforcement agencies that previously had dedicated traffic safety officers had reduced or eliminated those positions to meet minimum staffing demands and to answer priority calls for service. Despite these reductions in traffic-focused positions, many agencies had still been forced to impose mandatory overtime on their officers, leaving them without appetite for voluntary overtime, like conducting high visibility enforcement patrols for traffic violations. Police leadership around the state expressed interest in continuing their participation in grant-funded HVE patrols in a straight-time capacity, which would give them the ability to be more flexible with those assignments, and to allow them to assign the most qualified officers to the activities.

Impaired Driving Trends

Oregon has experienced a 20 percent increase in alcohol-impaired driving fatalities from 2016 – 2020. Although the nationwide trend of alcohol-impaired fatalities per 100 million vehicle miles traveled has followed a similar upward trajectory during that time period, Oregon has outpaced the national average by at least 14 percent. Oregon's impaired driving problem has been compounded by an increase in drug and poly-substance related crashes and their resultant serious physical injuries and deaths.

While nationwide enforcement efforts have been hampered in recent years by the COVID-19 pandemic and new challenges in the law enforcement industry, Oregon has simultaneously struggled under the weight of legislation that increased drivers' access to impairing substances. Ballot Measure 91 legalized possession of cannabis for recreational use in 2015, and Ballot Measure 110 decriminalized user quantities of hard drugs such as methamphetamine, heroin, cocaine, and psilocybin mushrooms in early 2021. Each of these changes to Oregon's drug laws saw increases to the number of drivers involved in drug DUII incidents.

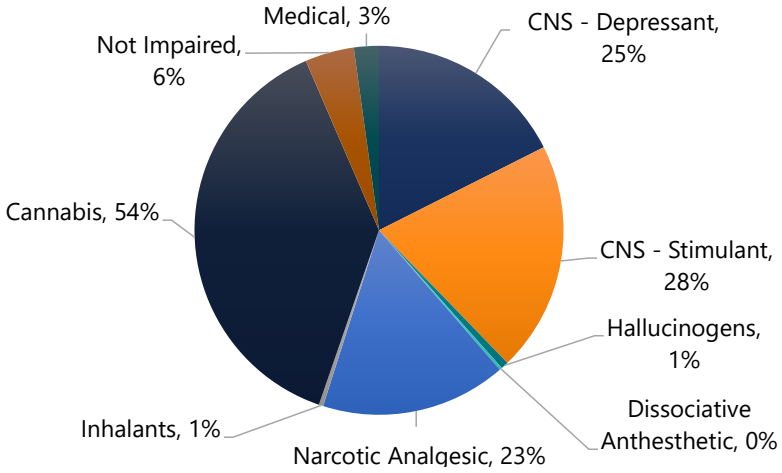
FIGURE 124: DRUG CATEGORIES CONFIRMED IN OREGON TOXICOLOGY 2016 – 2020



Source: Oregon State Police

Oregon Drug Recognition Experts (DREs) have identified each of the seven drug categories consistently as a percentage of overall evaluations conducted from 2016 – 2020. There has been a slight increase in Central Nervous System Stimulant opinions, and a similar decrease in cannabis opinions over that period of time.

FIGURE 125: PERCENTAGE OF EVALUATIONS WITH CATEGORIES CALLED BY OREGON DREs 2016 – 2020



Source: Oregon State Police

Strategy – High Visibility Enforcement for Impaired Driving

PROBLEM 1300.11(B)(4)(I)

From 2019 - 2020, substance-involved fatalities increased 2 percent, however, for the first time since 2014[119], alcohol and drug (both substances involved) fatalities saw a decrease of 5 percent. While alcohol-only fatalities (fatality is one person, rather than one crash) have been trending downward since 2015 (51%), total substance-involved fatalities have been trending upward (34%) over the same time period.

For the second time in seven years, substance-involved fatalities have overtaken serious injuries; the first time was in 2018. However, since 2014, drug-only and alcohol/drug-combination fatalities were more common than serious injuries, excepting the year 2016 in the alcohol and drug (two substances) category. In recent years, fatalities in these categories have far overshadowed serious injuries.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

High visibility enforcement – CTW 4 stars citation

According to the Countermeasures That Work, the most effective strategy that is allowed by Oregon law is High Visibility Enforcement (HVE). State-level enforcement campaigns from seven states were found effective in reducing 11 to 20 percent of total alcohol related fatalities when enforcement and paid media were combined (National Academies of Sciences, Engineering, and Medicine, 2018). Researchers found that 58 percent of high visibility enforcement efforts related to alcohol-involved driving reduced the number of crashes and prohibited driving behaviors observed within the enforcement area.[120]

119 2014 was the first year that the data was broken out into these categories.

120 Taylor, C. L., Byrne, A., Coppinger, K., Fisher, D., Foreman, C., & Mahavier, K. (2022, June). Synthesis of studies that relate amount of enforcement to magnitude of safety outcomes (Report No. DOT HS 813 274-A). National Highway Traffic Safety Administration.

Targets the Countermeasures will address 1300.11(b)(4)(ii)

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2022	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(d)	$1,459,000	$1,459,000	$1,459,000
402	$2,522,200	$10,000	$10,000
164	$781,000	$781,000	$781,000

Overview of Program

The Impaired Driving Program will provide grants to local police departments, sheriffs' offices, and the Oregon State Police to conduct enforcement activities that will promote compliance with Oregon's impaired driving laws. Funding will be conditional on agency participation in High Visibility Enforcement (HVE) during the Labor Day and Christmas/New Years National enforcement campaigns, and during other times when additional DUII enforcement coverage is data driven and deemed appropriate by the local jurisdiction.

Agencies will be required to notify the public of planned HVE events and their results through media releases. During 2023, 73 municipal and county law enforcement agencies, and the Oregon State Police, participated in Oregon's impaired driving HVE program. These agencies enforce impaired driving laws as a matter of routine patrol operations; however, most agencies do not have dedicated DUII enforcement officers, and so rely on federal funds to address this specific problem in their communities.

The countermeasure strategy of high-visibility enforcement was informed by Highway Safety Program Guideline number 8, specifically program management and strategic planning, prevention, criminal justice system, communication program, alcohol and other drug misuse screening, assessment, treatment, and rehabilitation, and program evaluation and data. Projects are funded based on a grant opportunity notice and letter of application sent to all law enforcement agencies. Receipt by TSO of these letters from interested agencies include the type and amount of grant funds being requested and a description of the data-driven problem. Award decisions are also partially based on previous performance.

Strategy – Mass Media Campaigns for Impaired Driving

PROBLEM 1300.11(B)(4)(I)

Year-round public education is necessary to inform and educate motor vehicle drivers and

passengers regarding Oregon laws on impaired driving, making good choices, the effects of impairing substances, and consequences of substance related crashes and driving under the influence.

Countermeasures and Justification 1300.11(b)(4)(ii)

Mass Media Campaigns – CTW 3 star citation

Targets for the Countermeasures used will address performance measures 1300.11(b)(3)(ii)

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(d)	$200,000	$200,000	$200,000
164	$449,000	$449,000	$449,000

Overview of Program

This project will fund contracted media design, education material revisions, social media advertising, radio public service announcements and billboards, as well as TSO direct purchase, reproduction, and distribution of educational and outreach materials.

Aside from enforcement, mass media campaigns are one of the more effective proven countermeasures for impaired driving. The two types of messaging Oregon uses are behavioral- and awareness-based. Funding is provided to allow for campaigns statewide and the location of messaging is based on data and diverse population needs.

The countermeasure of the impaired driving mass media campaign was informed by Highway Safety Program Guideline number 8, specifically program management, prevention, laws, enforcement, communication, outreach, diverse populations, data and program evaluation. ODOT contracts with a public relations firm, where educational media, brochures and advertising are evaluated based on data, problem identification and prior performance.

Strategy – Training

PROBLEM 1300.11(B)(4)(I)

Impaired driving investigations are complex and mired in nuance created by statutory language and frequent updates in case law. Best practices for impaired driving investigations call for standardized practices that must be applied to circumstances that are often anything but standardized. While alcohol impairment has long been studied and understood by law enforcement, emerging drug trends have brought new challenges to the contemporary enforcement environment. Law enforcement has to be consistently trained, and that training must be frequently updated in order for them to be successful in identifying, arresting, and prosecuting impaired drivers.

Similarly, prosecutors must receive effective training on impaired driving to be successful in holding offenders accountable. Prosecution professionals must stay abreast of statutory and case law updates, and they must develop and maintain a working understanding of impaired driving topics, to include knowledge of alcohol and drug impairment. They also must be effective at eliciting the right information from witnesses to explain the prosecution's theory to judges and juries in order to overcome biases and secure convictions.

Oregon has regulatory enforcement resources at the Department of Transportation that are dedicated to monitoring commercial motor carriers' compliance with state and federal law. These resources include non-sworn staff who are certified to inspect CMVs and their drivers at ports of entry and other scale sites. Although ODOT truck inspectors can enforce federal drug and alcohol regulations for CMV drivers, there has not been consistent formal training provided to identify signs of impairment.

Although training for enforcement personnel is critically important, there are several other opportunities to train members of the public to reduce incidences of impaired driving. Many Oregon employers have staff who drive non-CMVs as part of their official duties, but comprehensive training to identify employee impairment can be difficult to obtain. Similarly, education professionals need to be able to identify signs of impairment from students who may not otherwise have the life experience to understand the dangers that impairment would cause if they were to drive, such as to or from school or a sanctioned event.

Impaired driving prevention requires participation among partners from many professional disciplines, including education/outreach, law enforcement, prosecution, treatment, advocacy, alcohol and cannabis regulation, and others. These disciplines' knowledge is often siloed and difficult to access for partners from other fields, which limits collaboration toward common goals.

Countermeasures and Justification 1300.11(b)(4)(ii)

Although training for law enforcement and prosecutors is not listed in CTW as a proven countermeasure, NHTSA Highway Safety Program Guideline No. 8 states "participating officers should receive training in the latest law enforcement techniques, including Standardized Field Sobriety Testing, and selected officers should receive training in… Drug Evaluation and Classification (DEC)." It also says "States should implement a comprehensive program to… deliver training and technical assistance to prosecutors handling impaired driving cases throughout the State."

Target Countermeasures will address 1300.11(b)(3)(ii)

Increase the number of certified Drug Recognition Experts in Oregon by 10 percent from the current 2023 number of 172.									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2016	2017	2018	2019	2020	2016-2020 avg.	2023	2024	2025	2026
220	219	212	194	167	202	172	180	188	199

Increase the number of law enforcement officers who complete ARIDE training annually by 10 percent from the 5-year average of 180.									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2016	2017	2018	2019	2020	2016-2020 avg.	2023	2024	2025	2026
213	142	222	204	118	180	113	186	192	198

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
405(d)	$365,000	$365,000	$365,000
164	$140,000	$140,000	$140,000

Overview of Program

The Impaired Driving program will provide grants to fund training to law enforcement, prosecutors, and other partners in topics related to their discipline to improve their ability to prevent, adjudicate and respond to incidences of impaired driving in Oregon. This will include specialized training for detection of drug impairment, and skills needed for effective prosecution of DUII-drug cases.

Projects are funded based on the identified ongoing need for continuous training for new and experienced participants in impaired driving enforcement and prosecution. These projects will be completed by agencies with a history of providing excellent training to participants in Oregon's efforts to combat impaired driving.

Strategy – Deterrence: Prosecution and Adjudication

PROBLEM 1300.11(B)(4)(I)

The challenges of Oregon's legal environment for DUII prevention are not limited to law enforcement agencies. Prosecutors must constantly adapt to changing laws and court rulings, while being mindful of public attitudes that might affect jury behavior during impaired driving litigation. In order for prosecutors to effectively present cases, they must fully understand the complex material likely to be discussed when handling even routine DUIIs. They must also be able to count on law enforcement to preserve and collect the most effective evidence in these cases, such as proof of a suspect's blood alcohol concentration. Similarly, judges must be kept abreast of changes to impaired driving law, which can be affected by appeals at the state and national level. Courts also require effective tools by which to hold offenders accountable after adjudication so as to improve their chances of recovery and reduced rates of recidivism.

Countermeasures and Justification 1300.11(b)(4)(ii)

Deterrence: Prosecution and adjudication

DUII Court – CTW 4 star citation

Target Countermeasures will address 1300.11(b)(3)(ii)

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
405(d)	$700,000	$700,000	$700,000
164	$160,000	$160,000	$160,000

Overview of Program

Grant projects will be funded to provide Oregon with two Traffic Safety Resource Prosecutors (TSRP) who help train prosecuting attorneys and law enforcement personnel on Oregon's DUII legal environment, while also being available to provide technical guidance or direct assistance on

complex DUII cases. A State Judicial Outreach Liaison will also be funded to identify topics that need better communication between law enforcement, prosecution, and Oregon's judiciary. Work will also continue toward the creation of a statewide DUII electronic search warrant platform, which will improve evidence collection, leading to more just outcomes in DUII cases, and court monitoring projects will be funded to ensure offenders are being properly held accountable in post-adjudication settings.

Strategy – Outreach and Education

PROBLEM 1300.11(B)(4)(I)

Oregon does not have a centralized system by which DUII offenders can have their cases tracked from arrest to the completion of post-adjudication outcomes, and it is often difficult for law enforcement, prosecutors, and the courts to correctly identify when an offender has prior DUII arrests. This deficiency in tracking individual offenders extends to Oregon's court system which is also not able to easily identify DUII convictions from municipal and justice courts who do not participate in the state's court computer system. The lack of a unified court system makes it difficult to identify trends in adjudication outcomes, or to isolate inconsistent handling of DUII cases from court to court, or offender to offender.

Countermeasures and Justification 1300.11(b)(4)(ii)

Although there is no specific countermeasure with an effectiveness rating for communications and outreach, CTW Chapter 1, Section 5, Page 1-57 states "Communications and outreach strategies seek to inform the public of the dangers of driving while impaired by alcohol or drugs and to promote positive social norms of not driving while impaired. As with prevention and intervention, education through communications and outreach strategies is especially important for youth under 21 years old. Education may occur through formal classroom settings, social media, news media, paid advertisements and PSAs, and a wide variety of other communication channels such as posters, billboards, web banners, and the like. Communication and outreach strategies are critical parts of many deterrence and prevention strategies."

Target Countermeasures will address 1300.11(b)(3)(ii)

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Overview of Program

Grant projects will be funded to create media messaging to raise public awareness and educate Oregonians about impaired driving. Media campaigns will be targeted toward geographic and/or demographic sectors that are overrepresented in Oregon DUII crashes, to include the Portland Metropolitan area, attendees and viewers of major Oregon collegiate activities, and Oregon's Spanish-speaking communities. ODOT TSO will use NHTSA media messaging in addition to creative materials designed specifically to address the needs of Oregonians.

Projects are funded based on review of crash data which indicated the communities most-affected by fatal and serious injury impaired driving crashes. This includes messaging that targets specific subcategories of impaired driving events, such as impaired motorcycle riding and impaired driving in urban/pedestrian-heavy areas.

Strategy – Court Monitoring

COUNTERMEASURES AND JUSTIFICATION 1300.11(B)(4)(II)

Court Monitoring – CTW 3 star citation

Target Countermeasures will address 1300.11(b)(3)(ii)

C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
152	144	157	171	183	163	215	215	215	215

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(d)	$136,000	$136,000	$136,000

Overview of Program

The impaired driving program will provide funds for court monitoring of DUII cases in select counties. These programs will allow DUII offenders to be tracked through the adjudication and post-adjudication process to ensure they are held accountable and provided access to the resources they need to be successful in avoiding recidivism. Court monitors will seek to identify trends and inconsistencies in the DUII adjudication process and make recommendations to the appropriate court official for how to achieve more just outcomes.

The court monitoring project was selected on information submitted to ODOT TSO by Mothers Against Drunk Driving (MADD) which identified potentially disparate outcomes in DUII cases in three large Oregon counties, and a plan for tracking and reporting those outcomes.

Judicial Outreach

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1 Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.

Provides outreach and training for judges, prosecutors, and court clerks/administrators relating to transportation safety issues. Provides resources to enhance court processes and policies related to implementation of electronic citation data for criminal and traffic offenses.

Problem Identification

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall. When looking at the combined numbers, 2020 showed a decrease in fatalities and serious injuries; however, fatalities have been increasing with an average annual increase of 25 per year, representing a 42 percent increase overall. While 2020 represented a brief reprieve from the upward trend, it should be viewed as an outlier, as preliminary 2021 data and initial 2022 fatal crash notifications indicate that these trends continued through 2022. The criminal justice system plays a critical role in deterring unsafe driving behaviors and assigning appropriate consequences for impaired driving and other traffic offenses. From arrest through prosecution and sentencing, it is important that all citizens are aware of the efforts being made within the criminal justice system to reduce traffic fatalities. To that end, peer-to-peer training, education, and outreach have been found to be most effective in promoting proven and promising practices.[121]

More than 315 judges preside over Oregon's State legal system, which consists of 36 Circuit Courts, 28 Justice Courts, and 135 Municipal Courts. Oregon employs more than 430[122] prosecutors and approximately 600 contracted full-time public defense attorneys.[123]

With seventy to eighty percent of traffic offenses being processed through Oregon's Municipal Courts, traffic is the main caseload for municipal courts; the exception being Multnomah County Circuit Court, which has the busiest traffic docket in the state, as the City of Portland does not have a municipal court.

The primary challenge with municipal and justice courts is that they do not have a uniform judicial system, so each judge is responsible for obtaining any training they need to fulfill their Minimum Continuing Legal Education (CLE) activities. Judges and justices who are licensed attorneys are required to complete a minimum of 60 CLEs every three years to maintain their certification. Although rare, some Oregon justice courts do not require their justice of the peace to be a licensed attorney. Courts may have more than one judge, which allows for inconsistency in adjudication; judges may also choose to do their required CLEs in any field, there is no requirement for CLEs in traffic or traffic case law.

Each year there are significant changes in Oregon Case Law due to new rulings by appellate judges.

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121 Axel, N. E., Knisely, M. J., McMillen, P., Weiser, L. A., Kinnard, K., Love, T., & Cash, C. (2019, March). Best practices for implementing a state judicial outreach liaison program. Revised March 2019. (Report No. DOT HS 812 676). Washington, DC: National Highway Traffic Safety Administration.

122 This number was provided by the Oregon District Attorneys Association and is the number of District Attorneys and Deputy District Attorneys and does not include municipal and justice court prosecutors.

123 American Bar Association and Moss Adams, LLP (2022, January). The Oregon Project; An Analysis of the Oregon Public Defense System and Attorney Workload Standards.

The Oregon Appellate Court and the Oregon Supreme Court are very active in issuing opinions that significantly impact DUII laws in Oregon. As a result of this, there is a vital need for providing judges, prosecutors and law enforcement with continuous legal updates and training to comply with court opinions. This has been especially necessary in the last five to seven years due to several opinions that have impacted DUII procedures and necessitated a statutory rewrite of Oregon DUII law. Funding an annual judicial educational conference provides judges in Oregon an opportunity to fulfill their CLEs in topics that support and further traffic safety. Without this conference judges would not have easy options for obtaining specific traffic related training. The conference also provides an opportunity to learn about best practices. It is also an opportunity that allows "scenario- what would do you?" discussions that are productive and informative.

Training opportunities with a traffic safety focus for judges are limited. The American Bar Association used to provide a traffic academy through the judicial branch, but it is no longer offered. The National Judicial College does occasionally offer free courses and CLEs, however, most courses have a fee. A two-day drugged driving course costs $1,300, not including travel, lodging or food. Many municipalities do not have the training budget to offer to their judges.

The ODOT funding for the Judicial Education Conference makes it the most affordable CLE Conference in the state and offers 15-20 CLEs annually. If a judge is only able to attend Judicial Education Conference, they can keep up on their CLE requirements as well as receive specific updates on traffic case law and legislative updates. Offering the conference gives judges an opportunity to fulfill their CLEs in topics that further the Transportation Safety Office mission of reducing fatalities and serious injuries on Oregon roadways.

TABLE 42: JUDICIAL OUTREACH 2018 – 2022

	2018	2019	2020	2021	2022	2018 – 2022 Avg
No. of Judges trained during offered training sessions	65	68	50	0	65	50
No. of Court Staff/Administrators trained	16	22	18	0	20	15
No. of Prosecutors trained	107	73	61	25	150	83
Combined total of CLE* Credits Approved	60	56	33	22	49	44

*Sources: Transportation Safety Office Grant Files, 2018-2022. *CLE is short for the MCLE which means Minimum Continuing Legal Education activities. For Judges and Prosecutors that are active members of the Oregon State Bar, there is a minimum number of continuing legal education credits required to maintain certification as a licensed attorney. More information about MCLE rules can be found at MCLE Rule 3.2 and 5.5 at OSB's webpage* http://www.osbar.org/_docs/rulesregs/mclerules.pdf

Strategy – Training

PROBLEM 1300.11(B)(4)(I)

The annual Judicial Education Conference provides Oregon judges an opportunity to fulfill their CLE requirements in topics that support and further traffic safety. Without this conference some judges would not have an opportunity to participate in specific traffic adjudication education. In line with NHTSA's recommendation for peer-to-peer training, education and outreach, the conference is organized and facilitated in collaboration with the Oregon Municipal Judges Association, the Oregon Justice of the Peace Association, and ODOT's Transportation Safety Office, with funding provided by ODOT to offset some of the conference costs.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communications, Training, Outreach and Education – Countermeasures that Work (CTW) 3-star citation.

Although CTW does not specifically mention judicial or prosecutor training, NHTSA does mention the value of peer-to-peer training, education, and outreach in the publication "Best practices for implementing a state judicial outreach liaison program." (Axel 2019). This countermeasure was chosen based on NHTSA's Highway Safety Program Guidelines, March 2009, that states' training and education are essential to support and maintain the delivery of traffic law-related services by the judicial branch of government. Additionally, to be effective adjudicators and serve the needs of the public, judges must receive regular education and training of the highest caliber. Judicial education and training should be promoted and, where appropriate, presented by the SHSO or other training entities with experienced faculties in the area of traffic safety, including law and procedure. Judicial education and training should be:

- Adequately funded and where possible compulsory as a requirement to maintaining service in office;
- Provided by State or nationally based judicial education and training entities with experienced faculties in the area of traffic-related law and procedure;
- Inclusive of education components consistent with models developed by the American Bar Association, for example the Code of Judicial Ethics and the Rules of Professional Conduct;
- Inclusive of case management components so as to foster productivity and the prompt and efficient disposition of cases;
- Specialized as to curriculum so as to address the needs of both statutory and administrative judges as well as hearing officers; and
- Assessed regularly so as to ensure that education components address specialized traffic enforcement skills, techniques, or programs such as DWII/Drug Courts.

This countermeasure was chosen based on NHTSA's Highway Safety Program Guidelines, March 2009, that states' training and education are essential to support and maintain the delivery of traffic law-related services by the judicial branch of government. To be effective adjudicators, and serve the needs of the public, judges must receive regular education and training of the highest caliber. Judicial education and training should be promoted and, where appropriate, presented by the SHSO or other training entities with experienced faculties in the area of traffic safety, including law and procedure.

Targets the countermeasure will address

C-1) Number of traffic fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
498	439	502	493	508	488	599	488	488	488

The target is set to maintain based on the FY2023 target submitted to NHTSA. This aligns with Oregon's SHSP [TSAP] and HSIP per CFR 23 1300.11 (2)(c) (iii) State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP. These performance measures shall be based on a 5-year rolling average that is calculated by adding the number of fatalities or number of serious injuries as it pertains to the performance measure for the most recent 5 consecutive calendar years ending in the year for which the targets are established. The CRF may be used, but only if final FARS is not yet available. The sum of the fatalities or sum of serious injuries is divided by five and then rounded to the tenth decimal place for fatality or serious injury

numbers and rounded to the thousandth decimal place for fatality rates.

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$35,000	$40,000	$40,000

Overview of Program

Provides outreach and training for judges, prosecutors, and court clerks/administrators relating to transportation safety issues, traffic law updates, and best practices.

The countermeasure strategy of training was informed by Highway Safety Program Guideline number 7, specifically program management, training and education, data and program evaluation.

Oregon began its Judicial Outreach Liaison program three years ago. Nationally, the American Bar Association's (ABA) Judicial Division selects judges from NHTSA's ten regions to further the continuing education outreach efforts of the ABA. These efforts are targeted within each NHTSA region and serve to educate and mobilize support for evidence-based programs and practices that have been proven to be effective in reducing recidivism in impaired driving cases.

The State Judicial Outreach Liaisons (SJOLs) are active or retired judges who function as teachers, writers, consultants, and subject matter experts. The state judicial outreach liaison plays a crucial role in fostering effective communication and collaboration between the judiciary and other stakeholders involved in addressing impaired driving. This liaison can serve as a resource for judges, providing updates on impaired driving laws, disseminating research findings, and facilitating ongoing judicial training. A state judicial outreach liaison helps ensure that judges have access to the latest information, resources, and best practices related to impaired driving, thus promoting consistent and informed decision-making.

A State Judicial Outreach Liaison will continue to be funded to identify topics that need better communication between law enforcement, prosecution, and Oregon's judiciary. Please see more on this project in the 'Impaired Driving' program chapter.

Strategy

Continue support for increased judicial and prosecutorial outreach and education on DUII and Drug DUII issues. Use the State Judicial Outreach Liaison (SJOL) to increase these educational opportunities.

Motorcycle and Moped Rider Safety

Link(s) to the 2021 Transportation Safety Action Plan

Strategy 1.2.1	Provide transportation and safety leaders and staff with training, information, and education on proven methods to integrate safety into all aspects of the planning, programming, project development, construction, operations, and maintenance processes.
Strategy 1.2.2	Implement best practices for ongoing enhancement of safety culture training, information, and tools within ODOT and across agencies and stakeholders.
Strategy 2.1.1	Enhance crash data quality using a coordinated effort with ODOT and partner agencies and stakeholders.
Strategy 2.2.1	Update ODOT manuals, guides, processes, and procedures, etc., to include quantitative safety analysis in planning, project development and design, programs and maintenance activities and prioritization.
Strategy 2.3.1	Implement Practical Design and/or other proven and innovative approaches to address transportation safety issues for all system users.
Strategy 3.1.4	Engage law enforcement in community safety activities such as teaching education classes on safer behaviors.
Strategy 3.5.1	Explore methods to distribute and implement safety programs and funding between urban and rural communities to eliminate fatalities and serious injury crashes.
Strategy 3.5.2	Provide transportation safety educational opportunities for people of all ages, ethnicities, and income levels.
Strategy 4.3.1	Develop statewide resources to share best practices, tools, and training for statewide and systemwide deployment of appropriate safety technology.
Strategy 5.2.5	Participate in Federal rulemaking and guidance development programs to maximize opportunities to achieve the TSAP vision.
Strategy 5.3.1	Collaborate with the media and agency public information offices to develop information which improves public awareness of safety programs, laws, roles, responsibilities, and expectations. Ensure campaigns consider Oregon demographics.
Strategy 5.3.2	Work with educators in the state's public school system (including community colleges and other locations where transportation disadvantaged groups such as recent immigrants, newly licensed adult drivers, English as Second Language populations, etc., are likely to receive education) to improve awareness and understanding of transportation laws, roles, and responsibilities through programs such as Safe Routes to School.

Overview of the Program

The Motorcycle and Moped Rider Safety Program continues to focus on maintaining/reducing rider deaths through; crash data analysis and trend/crash causative factor identification, the subsidization of a NHTSA recognized mandatory motorcycle rider training program , motorist awareness messaging, identification of motorcyclist-specific construction and maintenance practices impacting riders, encouraging riders to wear protective riding gear at all times, and promotion of sober riding, and compliant riding in relation to posted speeds through positive social norming media and training campaigns.

In partnership with the Governor's Advisory Committee on Motorcycle Safety, riding interest groups, political action committees, manufacturers, associations, training providers, and internal and external peers/groups, the program continues to work toward minimizing preventable rider deaths, multi-vehicle crashes, roadway departure crashes, and safe and equitable state-provided or subsidized training services. These efforts are primarily guided by the 2021 Oregon Transportation Safety Action Plan and the specific strategies and actions listed above.

Multiple factors continue to contribute to a general increase year over year to preventable riders' deaths in Oregon and it will primarily take riders — at the individual and group level — to turn this trend around. The Oregon Motorcycle and Moped Rider Safety Program is dedicated to lead and support the need for riders to reverse the trend of increasing rider fatalities on Oregon roadways.

Problem Identification: Motorcycle and Moped Rider Fatalities 23 CFR 1300.11(b)(1)(i)(ii)

Through analysis of crash data, leading causative factors in Oregon motorcycle and moped rider deaths continue to include speeding/riding too fast for conditions, and riding impaired (alcohol only, alcohol and drugs, drugs only). Additional common factors in many of these fatal crashes include riding unendorsed, riding without a helmet (or unknown helmet use), roadway departure, following too close/failure to avoid, improper overtaking, riding left of center, and right of way violations. Annually, a small but consistent number of riders in Oregon collide with wildlife, livestock, or domesticated animals which also contributes to the total count of rider deaths each year. Consistently, the majority of these preventable crashes are related to rider choices, and by providing equitable access to training, timely enforcement, safe transportation systems, ongoing improvements to the rider safety program through data analysis followed by program adjustments, and positive peer-rider interactions/modeling coupled with setting high expectations of safe and compliant riding behaviors, ODOT and its partners will work to reverse the trend of more rider deaths.

TABLE 43: ANALYSIS OF CRASHES BETWEEN 2016-2020 INVOLVING PEOPLE WHO RIDE MOTORCYCLES AND MOPEDS

Motorcycle Crashes on Oregon Roads	2016	2017	2018	2019	2020	2016-2020 Average
Motorcycle Fatal Crashes	55	56	85	56	71	65
Motorcycle Serious Injury Crashes	250	199	232	240	193	233
Motorcyclist Fatalities	54	53	81	53	67	64
Percent alcohol impaired (.08 BAC or higher) and/or drug impaired fatalities	33%	51%	46%	53%	44%	45%

Source: ODOT Statewide Crash Data System (CDS)

From 2016-2020, between 12 and 17 percent of all Oregon traffic violence fatalities involved a motorcycle or moped rider who died in a crash. This demonstrates that motorcycle and moped riders continue to be overrepresented in crashes in Oregon when you compare the number of fatalities (by mode) to their percentage of all registered passenger vehicles in Oregon. Motorcycle/moped registrations typically range between 3 and 4 percent of all registered passenger vehicles in Oregon annually.

TABLE 44: TRAFFIC SAFETY PERFORMANCE MEASURES FOR OREGON

Core Outcome Measures		Year									
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Traffic Fatalities	Total (C-1)	337	313	357	446	498	439	502	493	507	599
	Rural	229	199	237	282	309	237	286	280	284	344
	Urban	108	114	120	163	189	202	216	213	223	255
	Unknown	0	0	0	1	0	0	0	0	0	0
Motorcyclist Fatalities	Total (C-7)	51	34	46	61	55	57	85	57	67	84
	Helmeted	46	32	41	57	46	48	73	46	54	76
	Unhelmeted (C-8)	4	2	4	3	4	3	4	8	5	5
	Unknown	1	0	1	1	5	6	8	3	8	3

Source: Fatality Analysis Reporting System Data, (FARS), State Traffic Safety Information, Federal Highway Administration - Traffic Safety Facts Annual Report Tables (nhtsa.gov)

TABLE 45: REGISTERED MOTORCYCLES AND PASSENGER VEHICLES

Year	Registered Motorcycles	Registered Passenger Vehicles
2012	127,037	3,306,383
2013	127,566	3,344,749
2014	128,416	3,401,138
2015	130,621	3,481,291
2016	132,065	3,596,202
2017	133,318	3,623,452
2018	131,866	3,522,284
2019	128,377	3,661,831
2020	118,345	3,391,305
2021	123,579	3,471,272
2022	122,189	3,337,554

Source: 2022 Department of Motor Vehicles statistics for Governor's Advisory Committee – Motorcycle Safety.

TABLE 46: OREGON FATALITIES BY PERSON TYPE

Person Type		2017		2018		2019		2020		2021	
		No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
Motorcyclists	Total Motorcyclists	57	13	85	17	57	12	67	13	84	14
Total	**Total**	**439**	**100**	**502**	**100**	**493**	**100**	**507**	**100**	**599**	**100**

*Source: Federal Highway Administration. *Sum of Percents May Not = 100 Due to Individual Cell Rounding Data Source: FHWA*

TABLE 47: OREGON MOTORCYCLIST FATALITIES BY AGE

Year	Age						Total
	<20	20-29	30-39	40-49	50-59	>59	
2017	1	8	6	13	12	17	**57**
2018	0	17	17	15	11	25	85
2019	2	5	9	10	17	14	**57**
2020	1	9	15	16	13	13	**67**
2021	1	13	18	18	9	25	**84**

Source: Federal Highway Administration

TABLE 48: OREGON MOTORCYCLIST FATALITIES PER 100,000 REGISTERED MOTORCYCLES

Year	Motorcyclist Fatalities	Total Motorcycle Registrations*	Motorcyclist Fatalities Per 100,000 Motorcycle Registrations
2017	57	142,738	39.93
2018	85	133,760	63.55
2019	57	134,899	42.25
2020	67	123,617	54.20
2021	84	134,213	62.59

*Source: Federal Highway Administration. *Data presented above for "Total Motorcycle Registrations" is not accurate. For accurate Total Motorcycle Registration data see -* 2022 DMV STATISTICS FOR GOVERNOR'S ADVISORY COMMITTEE - MOTORCYCLE SAFETY

90 percent of the riders who were killed during this same time period were male and 10 percent were female. Both the land use (urban/rural) where the crashes occurred as well as the crash being a single vehicle, or a multi-vehicle crash were almost identical and equal in the respective distributions with nearly 50 percent for each respective category.

Additional data of motorcycle/moped rider involved crashes in Oregon assessed for consideration of problem identification and countermeasure selection.

TABLE 49: ETHNICITY – RIDERS KILLED AND HELMET USE

Helmet Description	Korean	Latino	Al/ AN	Filipino	Vietnamese	Other Indian	Unknown	Black	White	Total
Helmet Use by Race 2016 Motorcycle Fatalities FARS data										
DOT-Compliant Helmet	1	1	0	0	0	0	0	0	41	43
Helmet Other than DOT-Compliant	0	0	0	0	0	0	0	0	2	2
Helmet Unknown if DOT-Compliant	0	0	1	0	0	0	0	0	2	3
No Helmet	0	0	0	0	0	0	0	0	4	4
Not Reported	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	4	4
Total MC Fatalities										**57**

Helmet Description	Korean	Latino	AI/ AN	Filipino	Vietnamese	Other Indian	Unknown	Black	White	Total
Helmet Use by Race 2017 Motorcycle Fatalities										
DOT-Compliant Helmet	0	1	0	0	0	0	0	0	40	41
Helmet Other than DOT-Compliant	0	0	0	0	0	0	0	0	1	1
Helmet Unknown if DOT-Compliant	0	0	0	0	0	0	0	0	5	5
No Helmet	0	0	0	0	0	0	0	0	3	3
Not Reported	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	5	5
Total										**56**
Helmet Use by Race 2018 Motorcycle Fatalities										
DOT-Compliant Helmet	0	1	1	0	0	0	0	0	20	22
Helmet Other than DOT-Compliant	0	0	0	0	0	0	0	0	1	1
Helmet Unknown if DOT-Compliant	0	0	1	1	1	1	1	0	45	50
No Helmet	0	0	0	0	0	0	0	0	4	4
Not Reported	0	0	0	0	0	0	0	0	5	5
Unknown	0	0	0	0	0	0	0	0	3	3
Total										**85**
Helmet Use by Race 2019 Motorcycle Fatalities										
DOT-Compliant Helmet	0	0	1	0	0	0	0	0	14	15
Helmet Other than DOT-Compliant	0	0	0	0	0	0	0	0	1	1
Helmet Unknown if DOT-Compliant	0	0	0	0	0	0	1	0	33	34
No Helmet	0	0	0	0	0	0	0	0	3	3
Not Reported	0	0	0	0	0	0	0	2	0	2
Unknown	0	0	0	0	0	0	0	0	1	1
Total										**56**

Helmet Description	Korean	Latino	AI/ AN	Filipino	Vietnamese	Other Indian	Unknown	Black	White	Total
Helmet Use by Race 2019 Motorcycle Fatalities										
DOT-Compliant Helmet	0	0	1	0	0	0	0	1	5	7
Helmet Other than DOT-Compliant	0	0	0	0	0	0	0	0	1	1
Helmet Unknown if DOT-Compliant	0	3	2	0	0	0	0	1	46	52
No Helmet	0	0	0	0	0	0	0	0	1	1
Not Reported	0	1	0	0	0	0	0	1	5	7
Unknown	0	0	0	0	0	0	0	0	2	2
Total										**70**

Source: Fatality Analysis Reporting System Data, (FARS)

Overview of Oregon Motorcycle/Moped Rider Crashes

FIGURE 126: MOTORCYCLE FATALITIES 2012-2021

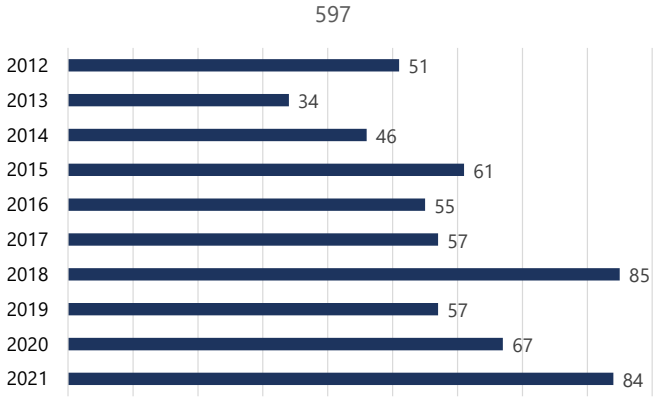


FIGURE 127: MOTORCYCLE FATALITIES AGE GROUP

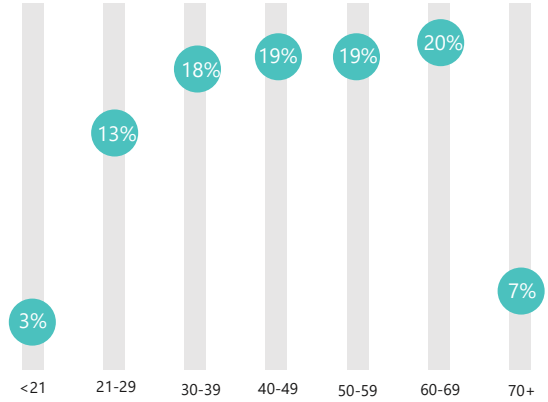


FIGURE 128: MOTORCYCLE FATALITIES SEASON

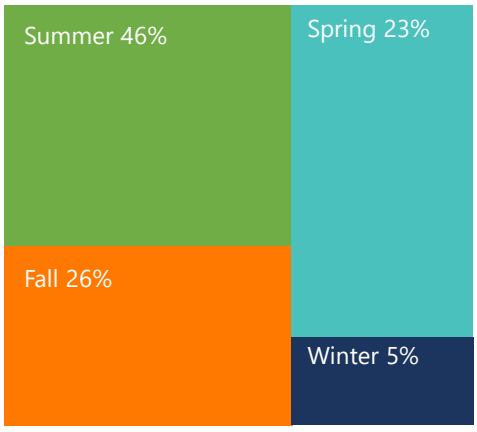


FIGURE 129: MOTORCYCLE FATALITIES RURAL VS. URBAN

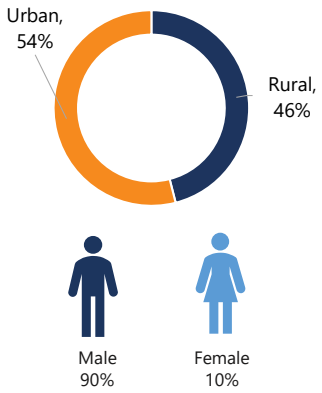
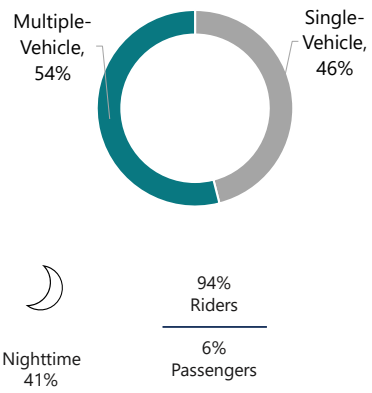


FIGURE 130: MOTORCYCLE FATALITIES SINGLE-VEHICLE VS. MULTIPLE-VEHICLE



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

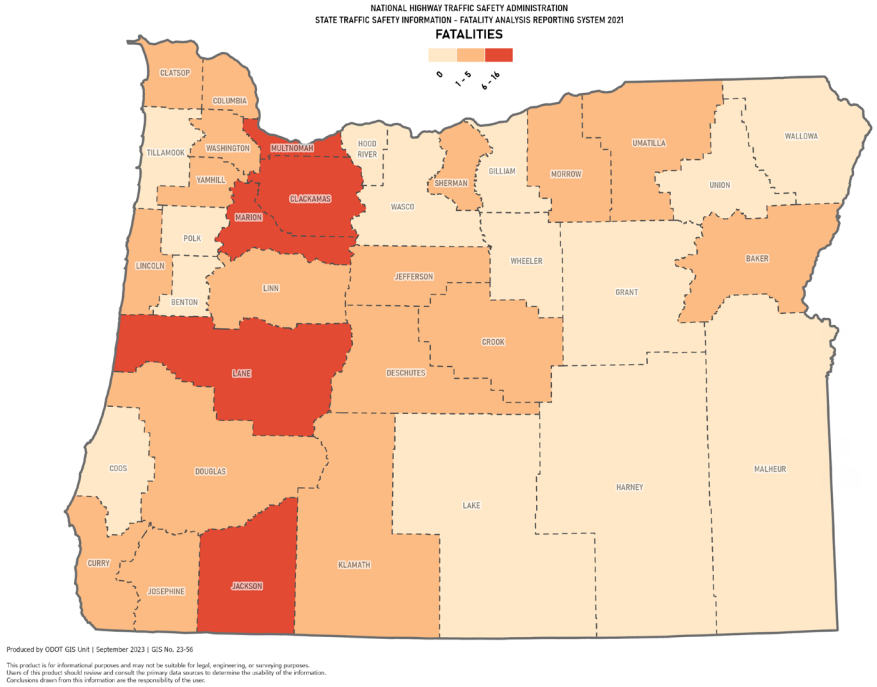
A representative example (final Oregon crash data for calendar year 2020) of the locations where the majority of *multi-vehicle crashes involving motorcycles* occurred are sorted by frequency of occurrence and by County below:

TABLE 50: FINAL STATE CRASH DATA - 2020 MC/MULTI VEHICLE CRASHES BY COUNTY

County	# of Motorcycle Crashes (MCC) involving multiple vehicles	County	# of Motorcycle Crashes (MCC) involving multiple vehicles
MULTNOMAH	61	MALHEUR	6
CLACKAMAS	37	WASCO	6
LANE	34	UMATILLA	5
WASHINGTON	33	LINCOLN	5
JACKSON	28	HOOD RIVER	4
MARION	25	COLUMBIA	3
DESCHUTES	16	CROOK	3
DOUGLAS	14	TILLAMOOK	3
LINN	11	HARNEY	2
JOSEPHINE	10	JEFFERSON	2
YAMHILL	10	GRANT	1
KLAMATH	8	WALLOWA	1
BENTON	7	UNION	1
CLATSOP	7	WHEELER	1
COOS	6	CURRY	1
POLK	6	BAKER	1

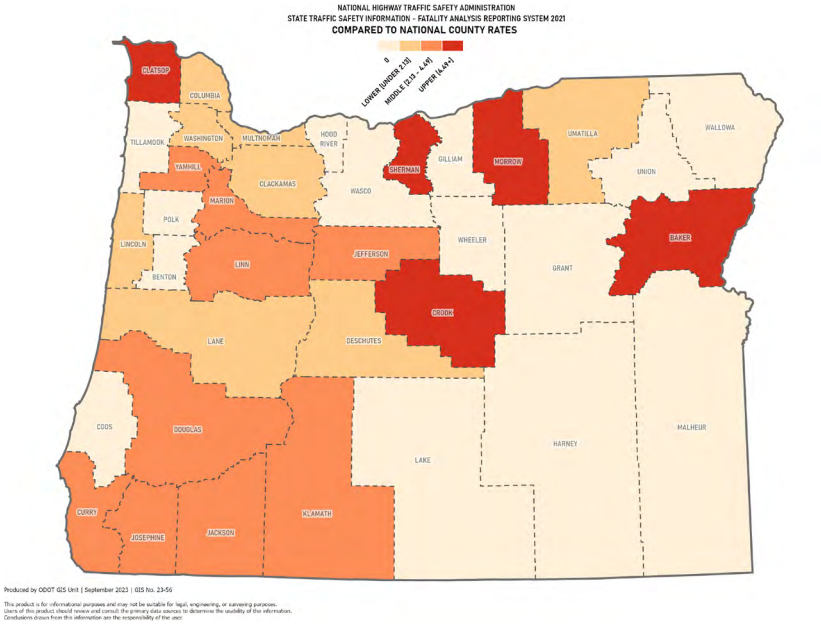
Source: ODOT Statewide Crash Data System (CDS)

FIGURE 131: LOCATION OF FATAL MOTORCYCLIST CRASHES BY COUNTY (2021)



Source: Fatality Analysis Reporting System Data, (FARS)

FIGURE 132: MOTORCYCLIST TRAFFIC FATALITIES BY COUNTY COMPARED TO NATIONAL COUNTY RATES



Source: Fatality Analysis Reporting System Data, (FARS)

TIME AND DATE OF FATAL CRASHES

Sixty-three percent of the fatal crashes occurred between noon and just before 9 p.m., with 80 percent of those crashes occurring between the months of May and October.

FIGURE 133: MOTORCYCLE FATALITIES 2012-2021

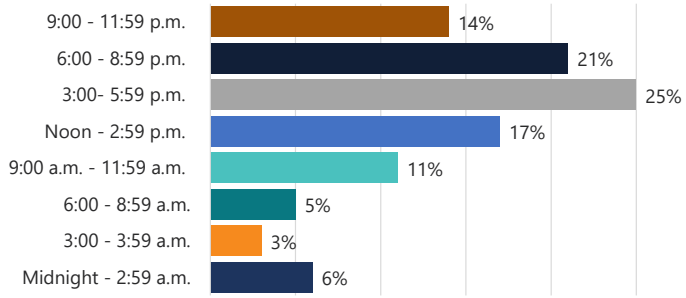


FIGURE 134: MOTORCYCLE FATALITIES AGE GROUP

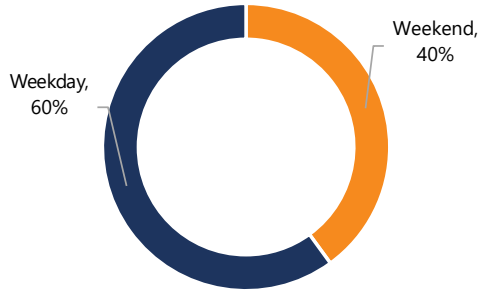


FIGURE 135: MOTORCYCLE FATALITIES BY MONTH

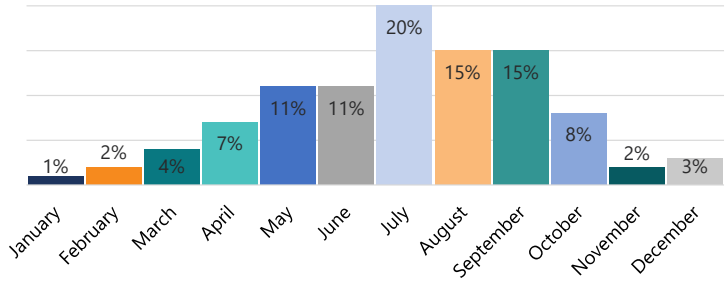
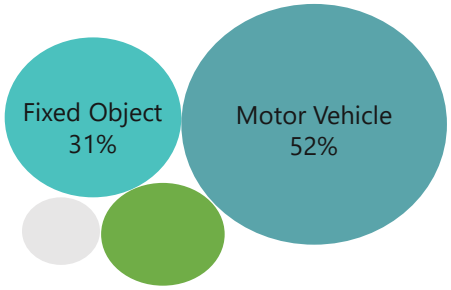


FIGURE 136: MOTORCYCLE FATALITIES MOST HARMFUL EVENT

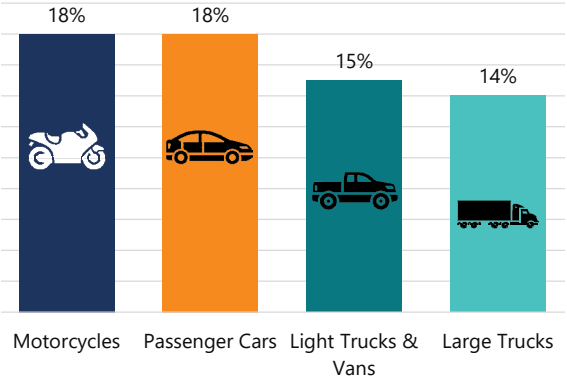


Source: Data Visualization – Fatality Analysis Reporting System (FARS)

PREVIOUS VIOLATION AND CRASH HISTORY OF RIDERS INVOLVED IN FATAL CRASHES

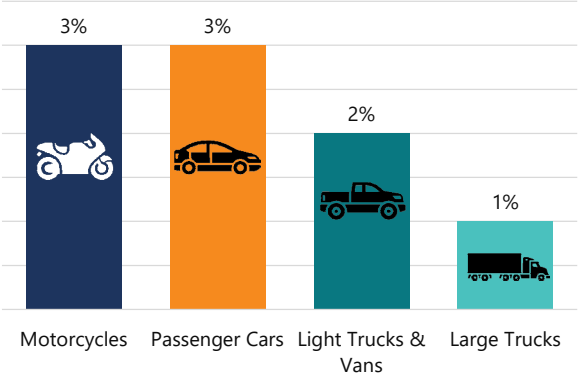
18 percent of the riders fatally killed had previously been involved in a recorded crash.

FIGURE 137: PREVIOUS DRIVING RECORDS OF MOTORCYCLE RIDERS AND DRIVERS OF OTHER VEHICLES INVOLVED IN FATAL CRASHES



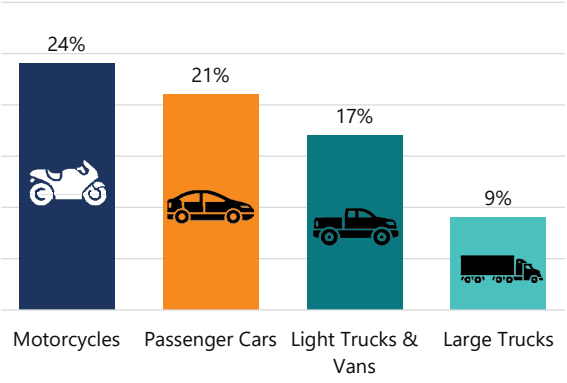
Three percent had previously been convicted of DWII.

FIGURE 138: PERCENTAGE OF MOTORCYCLE RIDERS AND DRIVERS OF OTHER VEHICLES INVOLVED IN FATAL CRASHES THAT HAD A PREVIOUS DUII CONVICTION



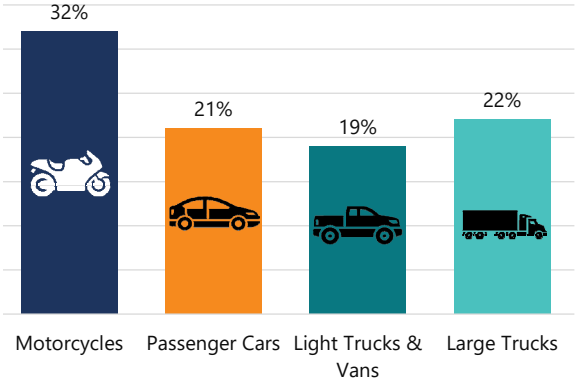
24 percent had recorded suspensions or revocations.

FIGURE 139: PREVIOUS DRIVING RECORDS OF MOTORCYCLE RIDERS AND DRIVERS OF OTHER VEHICLES INVOLVED IN FATAL CRASHES - RECORDED SUSPENSIONS/ REVOCATIONS



32 percent had previous convictions for speeding on their driving/riding record.

FIGURE 140: PREVIOUS DRIVING RECORDS OF MOTORCYCLE RIDERS AND DRIVERS OF OTHER VEHICLES INVOLVED IN FATAL CRASHES - SPEEDING CONVICTIONS



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

Speed

Speeding or riding too fast for conditions continues to be a causative factor in fatal motorcycle crashes. The data shows that 32 percent of riders with previous convictions for speeding were eventually involved in a fatal crash. The Motorcycle Safety Foundation has conducted surveys of training course participants which demonstrate that riders that have previous traffic violation convictions or had been involved in crashes prior to the training tend to also be involved in more crashes and be cited more often following the training course in comparison to their peer training group participants without those histories.

MOTORCYCLE RIDERS FATAL CRASH CHARACTERISTICS

FIGURE 141: MOTORCYCLE RIDERS INVOLVED IN FATAL CRASHES BY AGE GROUP AND SPEEDING

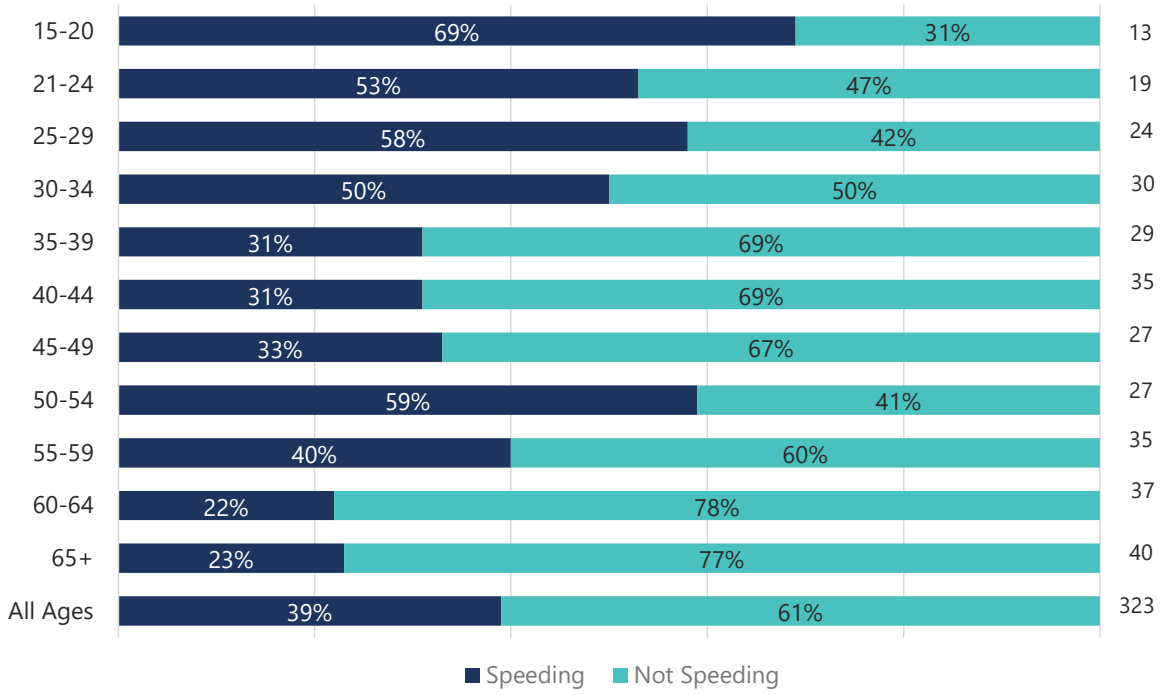


FIGURE 142: MOTORCYCLE RIDERS INVOLVED IN FATAL CRASHES BY ENGINE SIZE

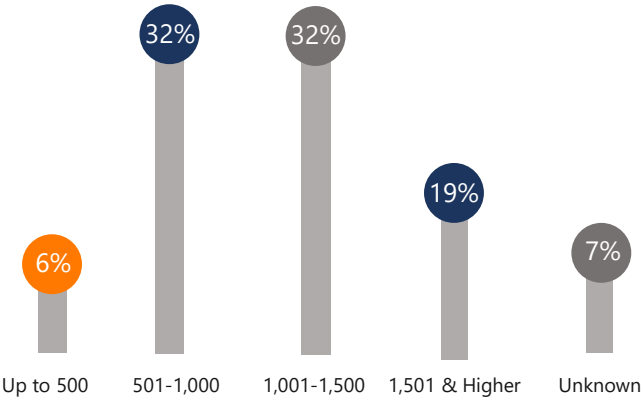
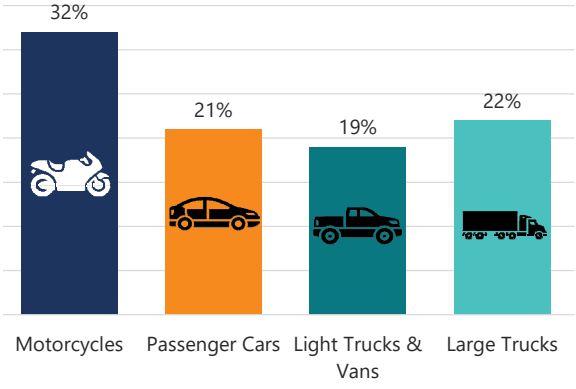


FIGURE 143: PREVIOUS DRIVING RECORDS OF MOTORCYCLE RIDERS AND DRIVER OF OTHER VEHICLES INVOLVED IN FATAL CRASHES - SPEEDING CONVICTIONS



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

No Helmet or Unknown Helmet

On average, unhelmeted or unknown helmeted rider fatalities represented 7 percent and 9 percent of all rider fatalities respectively. Statistically, helmet use has been demonstrated to reduce fatal results when involved in a motorcycle crash (Research Note: Motorcycle Helmet Use in 2020—Overall Results (dot.gov).

TABLE 51: TRAFFIC SAFETY PERFORMANCE MEASURES FOR OREGON

Core Outcome Measures		Year									
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Traffic Fatalities	Total (C-1)	337	313	357	446	498	439	502	493	507	599
	Rural	229	199	237	282	309	237	286	280	284	344
	Urban	108	114	120	163	189	202	216	213	223	255
	Unknown	0	0	0	1	0	0	0	0	0	0
Motorcyclist Fatalities	Total (C-7)	51	34	46	61	55	57	85	57	67	84
	Helmeted	46	32	41	57	46	48	73	46	54	76
	Unhelmeted (C-8)	4	2	4	3	4	3	4	8	5	5
	Unknown	1	0	1	1	5	6	8	3	8	3

Source: Fatality Analysis Reporting System Data, (FARS), State Traffic Safety Information, Federal Highway Administration

TABLE 52: OREGON MOTORCYCLIST FATALITIES BY HELMET USE AND LIVES SAVED ESTIMATES[124]

Year	Fatalities					Lives Saved Estimates**	
	Total	Helmeted	Unhelmeted	Unknown Helmet Use	Percent Known Helmeted*	Lives Saved at Current Helmet Use	Additional Lives Savable at 100% Helmet Usage
2017	57	48	3	6	94	32	1
2018	85	73	4	8	95		
2019	57	46	8	3	85		
2020	67	54	5	8	92		
2021	84	76	5	3	94		

**Percent Based Only Where Helmet Use Was Known*
***Lives Saved Estimates (Sum of columns may not equal other published numbers due to rounding)*
***2018 - 2021 Lives Saved Data is Currently Not Available*

124 National Highway Traffic Safety Administration. "Universal Helmet Laws Reduce Injuries and Save Lives," www.onenhtsa.gov. Accessed 21 June 2023 https://one.nhtsa.gov/people/injury/pedbimot/motorcycle/safebike/reducing.html

FIGURE 144: MOTORCYCLISTS IN FATAL CRASHES BY HELMET USE

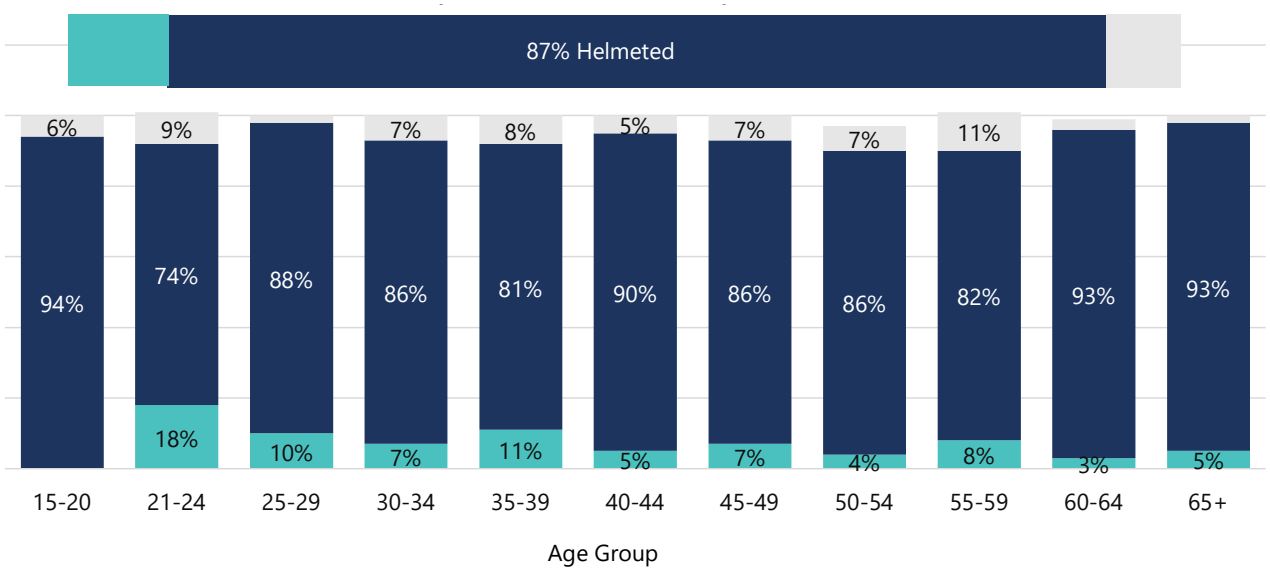


FIGURE 145: MOTORCYCLISTS IN FATAL CRASHES CRASH TYPE SINGLE -VEHICLE

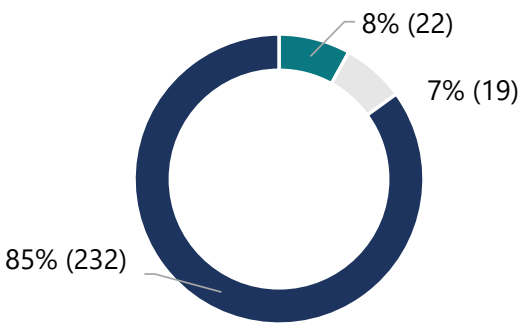
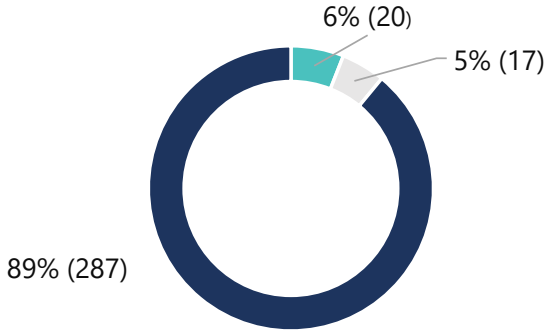


FIGURE 146: MOTORCYCLISTS IN FATAL CRASHES CRASH TYPE MULTIPLE-VEHICLE



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

Impairment

TABLE 53: MOTORCYCLE FATAL AND SERIOUS INJURY CRASHES AND IMPAIRMENT

Motorcyclists on Oregon Roads - The Crashes	2016	2017	2018	2019	2020	2016-2020 Average
Motorcycle Fatal Crashes	55	56	85	56	71	65
Motorcycle Serious Injury Crashes	250	199	232	240	193	233
Motorcyclist Fatalities	54	53	81	53	67	64
Percent alcohol impaired (.08 BAC or higher) and/or drug impaired fatalities	**33%**	**51%**	**46%**	**53%**	**44%**	**45%**

Source: ODOT Statewide Crash Data System (CDS)

MOTORCYCLE RIDERS AND THEIR ALCOHOL INVOLVEMENT

FIGURE 147: MOTORCYCLE RIDERS KILLED BY AGE GROUP AND THEIR BACS

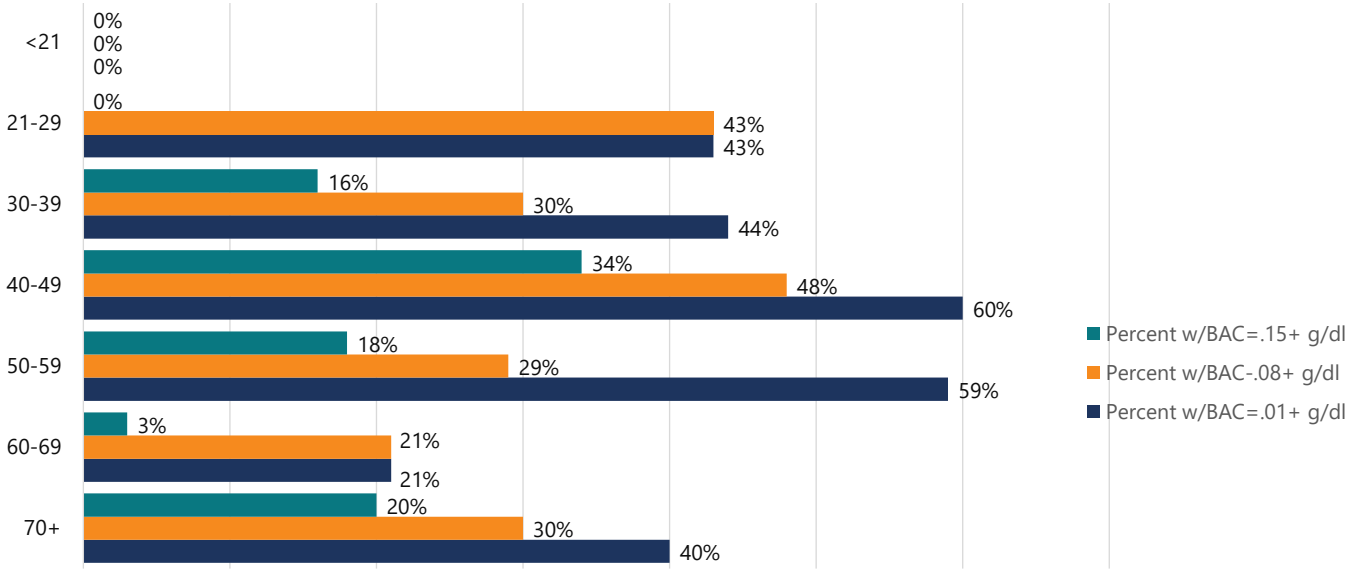
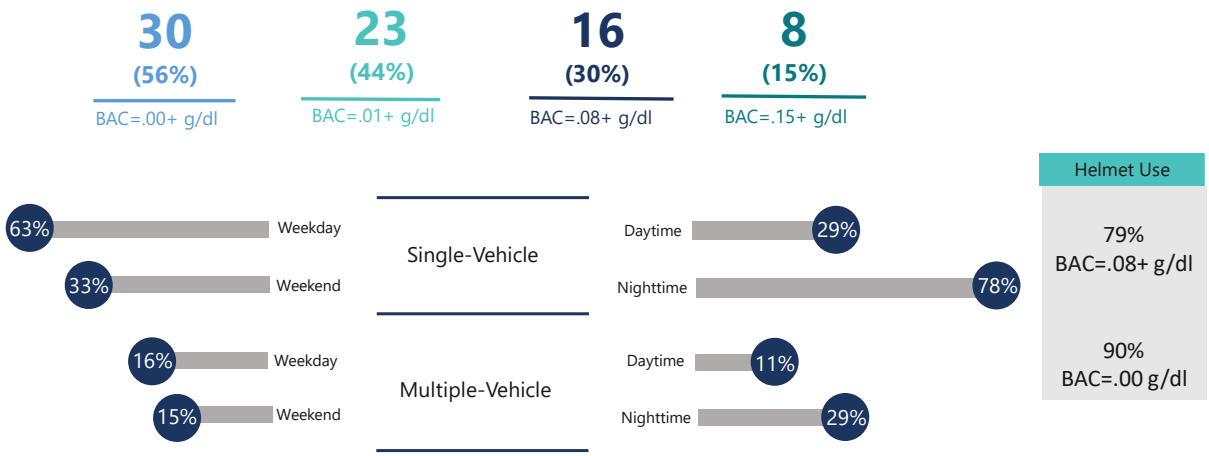


FIGURE 148: ALCOHOL-IMPARIED (BAC= .08+G/EL) MOTORCYCLE RIDERS KILLED, BY CRASH TYPE, DAY OF THE WEEK AND TIME OF THE DAY



Source: Data Visualization – Fatality Analysis Reporting System (FARS)

2019 data is chosen as the table above does not allow multiple year runs in one query and it is representative of historic BAC data (prior to Covid-19). The table does not represent riders killed that had substances in their blood system at the time of their death that may have contributed to impairment.

Consistently, alcohol and drugs continue to be found in a significant number of riders' blood following their fatal crash, which likely contributed to the circumstances related to being involved in the crash. In many of contributing factor crash scenarios listed below, year over year approximately half of the fatal crashes involved some level of impairing substance in the rider's blood at the time of their death.

TABLE 54: 2020 MOTORCYCLE CRASHES BY CONTRIBUTING FACTOR

10. CRASHES BY CONTRIBUTING FACTOR	All	Fatal	Injury
1. Speed too fast	198	30	164
2. Failed to yield	166	12	134
3. Passed stop sign	16		15
4. Disregard traffic signal	25	1	19
5. Drove left of center	29	7	19
6. Improper overtaking	40	4	31
7. Follow Too Close/FailAvd	102	5	77
8. Made improper turn	67	2	53
9. Had been drinking	59	20	39
10. Other improper driving	276	20	236
11. Mechanical defect	12		10
12. All Other Causes	100	2	93
Totals	**1,090**	**103**	890

Source: ODOT Statewide Crash Data System (CDS)

TABLE 55: RIDING UN-ENDORSED

Crash Date by License: Compliance with Class of Vehicle		January		February		March		April		May		June		July		August		September		October		November		December		Total	
		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle		Involving A Motorcycle	
		Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total	Yes	Total
2016	Not Licensed	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	No valid license for this class vehicle	1	1	0	0	0	0	0	0	1	1	2	2	1	1	1	1	0	0	0	0	2	2	0	0	8	8
	Total	1	1	0	0	0	0	0	0	1	1	3	3	1	1	1	1	0	0	0	0	2	2	0	0	9	9
2017	Not Licensed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	2	2
	No valid license for this class vehicle	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	3	3	0	0	0	0	0	0	6	6
	Total	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	4	4	0	0	0	0	0	0	8	8
2018	Not Licensed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	No valid license for this class vehicle	0	0	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	8
	Total	0	0	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	9	9
2019	No valid license for this class vehicle	0	0	0	0	2	2	0	0	0	0	2	2	2	2	7	7	3	3	0	0	0	0	0	0	16	16
2020	Not Licensed	0	0	1	1	1	1	1	1	1	1	0	0	2	2	1	1	0	0	1	1	0	0	0	0	8	8
	No license required for this class vehicle	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	No valid license for this class vehicle	0	0	0	0	0	0	0	0	0	0	3	3	3	3	2	2	3	3	3	3	1	1	0	0	15	15
	Total	0	0	1	1	1	1	1	1	1	1	3	3	6	6	3	3	3	3	4	4	1	1	0	0	24	24
Total	Not Licensed	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	0	0	1	1	12	12
	No valid license for this class vehicle	1	1	1	1	2	2	1	1	2	2	2	2	8	8	11	11	10	10	4	4	4	4	0	0	53	53
	Total	1	1	2	2	3	3	2	2	3	3	10	10	11	11	13	13	11	11	4	4	4	4	0	0	66	66

Source: Fatality Analysis Reporting System Data, (FARS)

Public Engagement

Public engagement regarding motorcycle and moped rider safety issues included; soliciting feedback/guidance/suggestions from attendees at the 2023 TSO Conference held in Grand Ronde, Oregon; seeking and receiving guidance and suggestions from the Governor's Advisory Committee on Motorcycle Safety; consideration of customer feedback/complaints related to the current training program; conversations with law enforcement officers and peers involved in transportation safety; review of the annual Transportation Safety Office Public Opinion Survey results, and consideration of driver and rider suggestions/recommendations provided directly to the program manager. In summary, the public engagement suggestions and recommendations, coupled with the data analysis of the fatal motorcycle and moped rider crashes between 2016-2020 as well as the TSAP Action items have led to the prioritization of supporting countermeasures related to training, education, licensure, and motorist awareness of riders.

Examples of feedback received and where it was received:

1. TSO Conference - Grand Ronde, Oregon:
    - Fix Potholes on County Roads & State Highways
    - Increase Fine for Traffic Violations on M.C. That has Passenger on Board, Similar to School Zone, Construction, ETC.
    - Identify curve related corridors – Signing – High Friction Surface Treatments
    - Increase availability of endorsement classes
    - Windshield wipers / headlights on law of advertising campaign
    - Increase visibility of MC Riders
        - Headlights that "pulse"
        - Bigger taillights
        - Hi-Vis equipment
    - There's a motorcycle map to identify curvy/scenic/fun roads
    - Please No Driving motorcycles splitting lanes – Dangerous (second note on same = (Agree!))
    - Partner with Wash DOT on New DUI/Motorcycle Campaign –
    - Motorcycle Safety
    - Motorcycle Groups
    - Retailers
    - Safety Foundation
    - Team Oregon Department of Transportation Community Colleges
    - Ins. Companies
    - Schools
    - Motorcycle Safety
    - Increase/diversify training providers in Oregon.
    - Get Motorcycle Safety Foundation to teach courses in Oregon
    - Require more advanced motorcycle training.
    - A significant portion of motorcyclists do not have the training or skill to perform emergency maneuvers effectively.
        - Or non-emergency
2. 2023-03-16_GAC_MS_DRAFT_Minutes.pdf (oregon.gov)

3. May Motorcycle Safety Awareness Rally feedback
   - "the way" versus "a way"
   - Covering the front brake with one, two or three fingers
   - Direct messaging to people with addiction – direct them where to get help before they become riders
   - Peer programs versus State messages
   - Additional training providers / alternatives
4. Manufacturers / Training Providers /rider recommendations/feedback
   - Owner's manuals, training, co-messaging, road maintenance practices, crash investigation concerns, enforcement
5. Student/rider complaints/comments regarding training

Pre-course information, customer experience, learning styles, "the way"

6. Law enforcement officer/ transportation safety peer comments / suggestions

Co-messaging partnerships, elude, equipment compliance, law compliance, crash investigation training

7. TSO Annual Public Opinion Survey

Train riders to comply with laws, no special treatment

Conclusion

In addition to the identified countermeasure activities identified below, grant funded projects under the Motorcycle Program are geared toward achieving the TSAP performance metrics which were developed with public participation and engagement in collaboration with internal and external partnerships. The five performance metrics are:

1. Provide information to increase awareness among motorcycle drivers that most motorcyclist-involved crashes involve speed, impairment, and roadway departure.
2. Provide education and enforcement focused on impaired motorcycle riding and its impact on all road users.
3. Increased awareness of motorcycles among the general public through education and outreach.
4. Train engineers, planners, and maintenance personnel to adopt and implement road surface maintenance practices across jurisdictions that reduce hazards for people operating motorcycles.
5. Modify Oregon's helmet definition to match federal regulations.

The TSAP activities identified above as action items for the Oregon Motorcycle/Moped Rider Safety Program align with certain NHTSA recognized countermeasure strategies that address the prevalent causative crash factors tied to Oregon fatal motorcycle and moped crashes (as indicated by the data).

Strategy – Training and Education for Motorcycle Safety and Rider Licensure

PROBLEM 1300.11(B)(4)(I)

Based on analysis of the crash data, fatal motorcycle and moped crashes in Oregon frequently share some common factors involving speed/too fast for conditions, impairment, riding without a helmet, and riding unendorsed. When discussed with partners — in combination with review of historic and current research related to motorcycle rider safety — training and education continue to be cited as a countermeasure designed to address these common crash factors.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

Training and education for Motorcycle Safety addresses three problems: the need for formal training on basic motorcycle operational skills, training and education on safety gear proven to reduce serious injuries and fatalities (specifically the use of helmets), as well as providing information to riders covering the leading causative factors in motorcycle crashes (like speed and impairment) and strategies to avoid them. Oregon law mandates completion of an approved training course prior to the issuance of an endorsement. Currently, there is only one approved training curriculum, approved by the OTSC and DMV, which is only delivered by a single provider at this time. Until another curriculum is approved, ODOT will continue to subsidize the only provider with an approved curriculum. ODOT continues to work on identifying additional opportunities for Oregonians to complete mandatory training. As new curriculums are approved, funding for those programs may be offered (depending on the vendor's interest in receiving federal and or state subsidies).

Justification

NHTSA (based on publicly and privately funded research related to formal motorcycle training programs recognized as meeting the national training standards) encourages people to complete a formal training program. The formal training programs address skill development, causative factors, safety gear selection and use, and the need to ride in a compliant manner.

Rider licensure promotion is intended to address the problem that on average 20 percent or more of rider fatalities annually are unendorsed. In Oregon mandatory training completion is required prior the issuance of an endorsement.

> "THE TOPIC
>
> Road Ready
>
> MAKE SURE YOU ARE PROPERLY LICENSED
>
> Driving a car and riding a motorcycle require different skills and knowledge. Although motorcycle-licensing regulations vary, all states require a motorcycle license endorsement to supplement your automobile driver's license. To receive the proper endorsement in most states, you'll need to pass written and on-cycle skills tests administered by your state's licensing agency. Some states require you to take a state-sponsored rider education course. Others waive the on-cycle skills test if you've already taken and passed a state-approved course. Either way, completing a motorcycle rider education course is a good way to ensure you have the correct instruction and experience it takes to ride a motorcycle. Contact your state motor vehicle administration to find a motorcycle rider-training course near you."

Of the motorcycle operators involved in fatal crashes in 2021, 36% were riding without valid motorcycle licenses.

RIDE RESPONSIBLY

Experienced riders know local traffic laws - and they don't take risks. Obey traffic lights, signs, speed limits, and lane markings; ride with the flow of traffic and leave plenty of room between your bike and other vehicles; and always check behind you and signal before you change lanes. Remember to ride defensively. The majority of multi-vehicle motorcycle crashes generally are caused when other drivers simply didn't see the motorcyclist. Proceed cautiously at intersections and yield to pedestrians and other vehicles as appropriate. You can increase your visibility by applying reflective materials to your motorcycle and by keeping your motorcycle's headlights on at all times, even using high beams during the day.

BE ALCOHOL AND DRUG FREE

Alcohol and drugs, including some prescribed medications, negatively affect your judgment, coordination, balance, throttle control, and ability to shift gears. These substances also impair your alertness and reduce your reaction time. Even when you're fully alert, it's impossible to predict what other vehicles or pedestrians are going to do. Therefore, make sure you are alcohol and drug free when you get on your motorcycle. Otherwise, you'll be heading for trouble.

Source - Motorcycle Safety: Helmets, Motorists, Road Awareness | NHTSA

It is assumed that mandatory training results in better skills and increased knowledge in crash avoidance strategies. Training is also believed to influence rider choice on safety gear selection/use and this countermeasure is selected to reduce the incidents of fatal crashes involving un-helmeted or unknown-helmeted riders.

Justification:

NHTSA (based on publicly and privately funded research) recommends the use of a DOT compliant helmet and other associated protective riding gear.

> "THE TOPIC
>
> On the Road
>
> If you're ever in a serious motorcycle crash, the best hope you have for protecting your brain is a motorcycle helmet. Always wear a helmet that meets U.S. Department of Transportation (DOT) Federal Motor Vehicle Safety Standard (FMVSS) 218. Look for the DOT symbol on the outside back of the helmet. Snell and ANSI labels located inside the helmet also show that the helmet meets the standards of those private, non-profit organizations. Learn more about choosing the right helmet."
>
> Arms and legs should be completely covered when riding a motorcycle, ideally by wearing leather or heavy denim. In addition to providing protection in a crash, protective gear also helps prevent dehydration. Boots or shoes should be high enough to cover your ankles, while gloves allow for a better grip and help protect your hands in the event of a crash. Wearing brightly colored clothing with reflective material will make you more visible to other vehicle drivers."

Source: Motorcycle Safety: Helmets, Motorists, Road Awareness | NHTSA

Target Countermeasures will address 1300.11(b)(4)(iii)

Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
57	85	57	67	84	70	70	70	70	70

Maintain or reduce un-helmeted motorcyclist fatalities at the 2017-2021 average of 5 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(f)	$45,963	$45,963	$45,963

Overview of Program

Promotes safe motorcycle riding through beginning, intermediate and experienced motorcycle safety program rider training courses and public information and education programs.

Problem 1300.11(b)(4)(vi)

Riders continue to be involved in fatal crashes due to lack of training, riding above the posted speeds or riding at a speed inappropriate for the conditions, riding impaired, riding without a DOT-compliant helmet, and riding without an understanding on how to avoid the primary causative factors related to fatal crashes.

Strategy – Rider Training and Licensure

COUNTERMEASURES AND JUSTIFICATION 1300.11(B)(4)(II) 1300.12(B)(2)(VIII)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

The countermeasure strategy of training and education for motorcycle safety was informed by Highway Safety Program Guideline number 3 - specifically the program management, motorcycle protective equipment, motorcycle operator licensing, rider training, motorcycle operation under the influence, legislation, regulation and policy, and program evaluation sections. Currently, there is only one training provider approved in Oregon to implement this project. Public engagement feedback has consistently encouraged ODOT to increase the training opportunities and options for Oregonians.

Overview of Program

The countermeasure strategy of Motorcycle Helmet Use Promotion Programs for motorcycle safety and Universal Motorcycle Helmet Use Laws was informed by Highway Safety Program Guideline number 3 - specifically motorcycle protection equipment, program management, legislation, regulation and policy, enforcement, and program evaluation.

Problem 1300.11(b)(4)(vi)

Annually on average, unhelmeted, or unknown helmeted rider fatalities represented 7 percent and 9 percent of all rider fatalities respectively.

Strategy – Motorcycle Helmet Use Promotion Programs

COUNTERMEASURES AND JUSTIFICATION 1300.11(B)(4)(II) 1300.12(B)(2)(VIII)

Motorcycle Helmet Use Promotion Programs - 1 CTW star citation

Universal Motorcycle Helmet Use Laws[125] – 5 CTW star citation

Motorcycle helmets are highly effective in protecting motorcycle riders' heads in crashes. Research indicates that helmets reduce motorcycle rider fatalities by 22 to 42 percent and brain injuries by 41 to 69 percent.[126] A Cochrane Collaboration review of 61 studies concluded that risk reductions were on the high end of the ranges mentioned above, with higher quality studies indicating that the protective effect of helmets was about a 42 percent reduction in risk of fatality in a crash and 69 percent for risk of a head injury in a crash. This review found that there was insufficient evidence to determine the effect on neck or facial injuries, or the effects of types of FMVSS 218 compliant helmets on injury outcomes.[127] Others have found no evidence that helmets increase the risk of neck injuries.[128]

State universal coverage helmet-use laws are effective at increasing helmet use. In 2018 observed compliant helmet use was 83 percent across States with universal helmet laws that cover all riders, and 57 percent across States with no law or partial coverage laws (NCSA, 2019). A systematic review of U.S. motorcycle helmet laws found that States with universal coverage laws: (1) had motorcycle helmet use rates 53 percentage points higher than States with partial coverage or no law; (2) had 29 percent fewer motorcycle fatalities; and (3) had lower fatality rates per registered motorcycle and per vehicle mile traveled (Guide to Community Preventive Services, 2013).

Currently, this project will primarily be delivered through the subsidized mandatory training program. Helmet use is one of the topics covered in this mandatory training. Oregon law mandates completion of an approved training course prior to the issuance of an endorsement. Currently, there is only one approved training curriculum approved by the OTSC and DMV, which is only delivered by a single provider at this time. Until another curriculum is approved, ODOT will continue to subsidize the only provider with an approved curriculum. ODOT continues to work on identifying additional opportunities for Oregonians to complete mandatory training. As new curriculums are approved, funding for those programs may be offered (depending on the vendor's interest in receiving federal and or state subsidies). The opportunity to work with a new vendor(s) might also provide opportunities to update information related to helmet use, choice, benefits, harm reduction impacts, new technology and a new approach to encouraging riders to voluntarily make a helmet choice and use choice for personal reasons versus compliance based reasons.

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125 Although Oregon has a mandatory helmet law for all riders, the definition in ORS 801.366 is worded in a way that allows for the use of non-compliant helmets that do not meet DOT standards.

126 Coben et al., 2007; Cummings et al., 2006; Deuterman, 2004; Liu et al., 2008; NHTSA, 2003; NHTSA, 2006; NHTSA, 2019.

127 Liu et al., 2008.

128 Brewer et al., 2013; NCHRP, 2008, Strategy E1; NHTSA, 2000; Philip et al., 2013; Ulmer & Preusser, 2003.

Target Countermeasures will address two performance measures 1300.11(b)(3)(ii)

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
57	85	57	67	84	70	84	70	70	70

C-8) Maintain or reduce un-helmeted motorcyclist fatalities at the 2017-2021 average of 5 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Overview of Program

Motorists continue to violate motorcycle and moped rider rights-of-way resulting in fatal crashes.

Strategy – Motorist Awareness of Motorcyclists – Communication and Outreach

PROBLEM 1300.11(B)(4)(I)

In 2021 there were 3,052 fatal two-vehicle crashes each involving a motorcycle and another type of vehicle. In 43 percent (1,315) of these crashes, the other vehicles were turning left while the motorcycles were going straight, passing, or overtaking other vehicles. Both vehicles were going straight in 640 crashes (21%).

Source: 2021 Data: Motorcycles (dot.gov)

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Motorist Awareness of Motorcyclists – Communication and Outreach - 1 CTW star citation

According to the *Countermeasures That Work* although Motorist Awareness campaigns are widely used there are no evaluations of the effectiveness of campaigns to increase driver awareness of motorcyclists available. NHTSA driver education motorcycle videos.

Target Countermeasures will address two performance measures 1300.11(b)(3)(ii)

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
57	85	57	67	84	70	70	70	70	70

The countermeasure strategy of Motorist Awareness of Motorcyclists was informed by Highway Safety Program Guideline number 3, specifically motorcycle conspicuity and motorist awareness programs: reasons why motorists do not see motorcycles; and ways that other motorists can increase their awareness of motorcyclists.

Justification: NHTSA recommends raising motorists' awareness of motorcycle riders

"THE TOPIC

Motorist Awareness

Safe riding practices and cooperation from all road users will help reduce the number of fatalities and injuries on our nation's highways. But it's especially important for drivers to understand the safety challenges faced by motorcyclists such as size and visibility, and motorcycle riding practices like downshifting and weaving to know how to anticipate and respond to them. By raising motorists' awareness, both drivers and riders will be safer sharing the road."

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
405(f)	$19,699	$19,862	$19,862

Supporting and Contributing Projects to the Motorcycle and Moped Rider Safety Program

STATEWIDE MOTORCYCLE AND MOPED RIDER SAFETY PROGRAM

This project intends to provide match funding for federal grants, mandatory and non-mandatory training related expenses (curriculum, equipment, consultants, site development/rental, mobile units, support equipment, secret shopper, etc.), media, program related travel for training and testing, association memberships and fees and conference attendance, low/no income subsidy, course reimbursement fees for pilot or alternative training courses, and countermeasure/outreach activities.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

Motorcycle Helmet Use Promotion Programs - 1 CTW star citation

Universal Motorcycle Helmet Use Laws – 5 CTW star citation

Motorist Awareness of Motorcyclists – Communication and Outreach - 1 CTW star citation

Statewide Motorcycle and Moped Rider Safety Performance Measures

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
57	85	57	67	84	70	70	70	70	70

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Actual					**5 yr avg**	**In Progress**	**Projections**		
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3	4	8	5	5	5	5	5	5	5

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

Motorcycle Helmet Use Promotion Programs - 1 CTW star citation

Universal Motorcycle Helmet Use Laws[129] – 5 CTW star citation

Statewide Motorcycle and Moped Rider Safety Performance Measures

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
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Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Motorcyclist and Moped Rider – Training Equipment

This project intends to provide funding for training motorcycles and mopeds and related support/ safety equipment (including support vehicles) for OTSC approved courses, and motorcycles/mopeds and related support equipment to address emerging rider needs.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

Motorcycle Helmet Use Promotion Programs - 1 CTW star citation

Universal Motorcycle Helmet Use Laws[130] – 5 CTW star citation

According to the Countermeasures That Work, the effectiveness of motorcycle operator licensing is not known. This is perhaps not surprising given the variability of licensing tests and procedures. NAMS recommends research to "ensure that licensing tests measure skill and behaviors required for crash avoidance" (NHTSA, 2000).

129 Although Oregon has a mandatory helmet law for all riders, the definition in ORS 801.366 is worded in a way that allows for the use of non-compliant helmets that do not meet DOT standards.

130 Although Oregon has a mandatory helmet law for all riders, the definition in ORS 801.366 is worded in a way that allows for the use of non-compliant helmets that do not meet DOT standards.

Statewide Motorcycle and Moped Rider Safety Performance Measures

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
57	85	57	67	84	70	70	70	70	70

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Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Oregon Motorcyclist and Moped Rider Safety-Training Sites Infrastructure/Rental

This project intends to provide funding to OTSC approved training course sites for development, maintenance, repair, rent/usage fees, and improvement.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Training and Education for Motorcycle Safety – 2 CTW stars citation

Motorcycle Rider Licensing – 1 CTW star citation

According to the Countermeasures That Work, the effectiveness of motorcycle operator licensing is not known. This is perhaps not surprising given the variability of licensing tests and procedures. NAMS recommends research to "ensure that licensing tests measure skill and behaviors required for crash avoidance" (NHTSA, 2000).

Statewide Motorcycle and Moped Rider Safety Performance Measures

C-7) Maintain or reduce motorcyclist fatalities from the 2017-2021 average of 70 (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
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Actual					**5 yr avg**	**In Progress**	**Projections**		
2017	2018	2019	2020	2021	2017-2021	2021	2024	2025	2026
3	4	8	5	5	5	5	5	5	5

Occupant Protection (Adult and Child Passenger Safety)

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 3.1.2	Support a high-visibility enforcement program increasing traffic, bicycle, and pedestrian law enforcement capabilities (priority and funding).
Strategy 3.5.2	Provide transportation safety educational opportunities for people of all ages, ethnicities, and income levels.
Strategy 5.2.1	Collaborate with the media and agency public information offices to develop information which improves public awareness of safety programs, laws, roles, responsibilities, and expectations. Ensure campaigns take into account Oregon demographics.

Overview of the Program

The Occupant Protection program is continually focused on educating the general public, law enforcement, family medical providers, and families regarding proper selection and use of seatbelts and other motor vehicle safety restraints. Oregon has traditionally had a high seat belt use rate, sometimes the highest in the nation, but continuous education is needed for new citizens, visitors, and high-risk populations to maintain a high use rate.

Problem Identification Adult and Child Passenger Safety

23 CFR 1300.11(b)(1)(i)(ii)

In 2020, the nationwide seat belt use rate was 90.3 percent as measured by NHTSA's National Occupant Protection Use Survey (NOPUS). From 2019 to 2020 the nationwide use rate decreased 0.4 percent. Of the 23,824 passenger vehicle occupants killed in 2020, 51 percent were not wearing seat belts — a 4 percent increase from 2019.

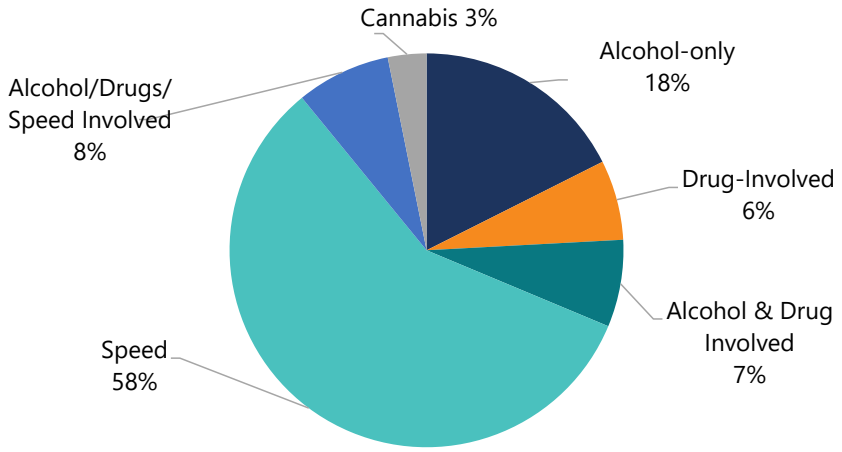
While Nationwide seat belt use from 2016 to 2020 trended up and down hovering close to a 90 percent use rate, in 2022, Oregon's seatbelt use rate was 96.5 percent as measured by the annual NHTSA Observed Use Survey. Oregon experienced a minor downward trend from 2017 to 2020, 2.2 percent, with a 1.9 percent increase from 2020 to 2022.

Analysis of Crashes Involving Unrestrained Occupants

From 2016-2020, 3 percent of all crashes involved an unrestrained occupant. Thirty-nine percent (2,716) of crashes involving unrestrained occupants resulted from lane departure, 38 percent (2,670) occurred in a rural environment and 24 percent involved speed, making it the largest aggravating factor in these types of crashes.

According to the data analysis, between 2016 and 2020, 767 fatal and serious injury crashes involved an unrestrained occupant. Sixty-four percent of these crashes resulted from lane departure, 60 percent occurred in a rural environment, 67 percent involved an aggravating factor, alcohol, drugs, speed or some combination and 39 percent were speed related.

FIGURE 149: AGGRAVATING FACTORS IN CRASHES INVOLVING AN UNRESTRAINED OCCUPANT



Source: ODOT Statewide Crash Data System (CDS)

In 2019, crashes involving unrestrained occupants accounted for 15 percent of all fatal and serious injury crashes, in 2020 that increased 2 percent to 17 percent.

Changes of Characteristics/Aggravating Factors in Crashes Involving Unrestrained Occupants from 2019 to 2020.

How to read this table: In 2019, 63 percent of crashes involving unrestrained occupants were roadway departure crashes, in 2020, that increased 4 percent to 67 percent.

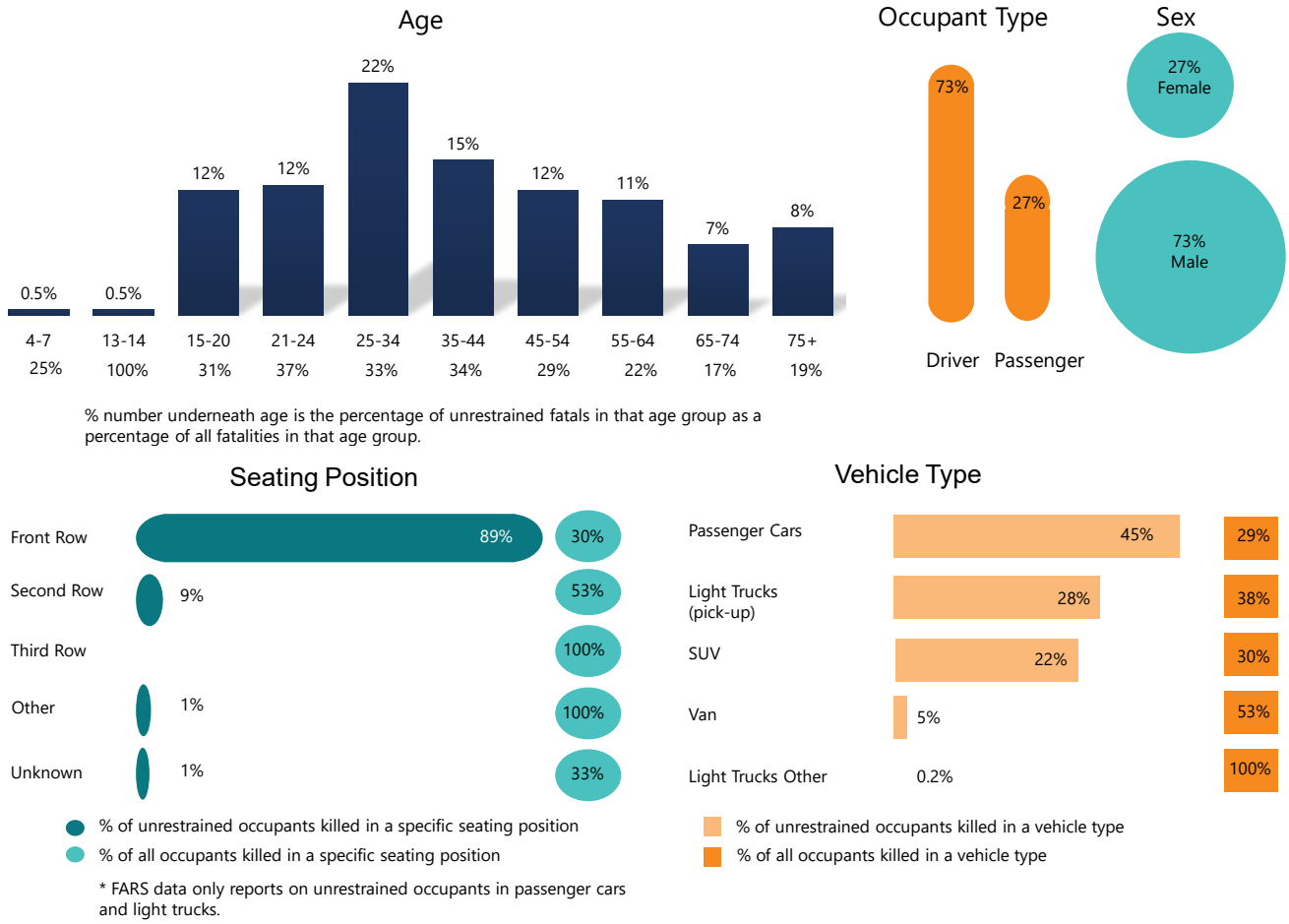
TABLE 56: CHANGES OF CHARACTERISTICS/AGGRAVATING FACTORS IN CRASHES INVOLVING UNRESTRAINED OCCUPANTS FROM 2019 TO 2020

Characteristics/ Aggravating Factors	2019	2020	% increase/decrease
Roadway Departure	63%	67%	4%
Rural	61%	63%	2%
All aggravating factors	48%	46%	-2%
Speed	16%	17%	1%
Alcohol-only	10%	12%	2%
Drug-Involved	9%	7%	-2%
Alcohol & Drug Involved	8%	4%	-4%
Alcohol/Drugs/Speed Involved	6%	6%	-

Analysis of Participants Involving Unrestrained Occupants*

From 2016-2020, 17 percent of Oregon fatalities were unrestrained occupants.

FIGURE 150: UNRESTRAINED PASSENGER VEHICLE OCCUPANTS KILLED, BY OCCUPANT CHARACTERISTICS



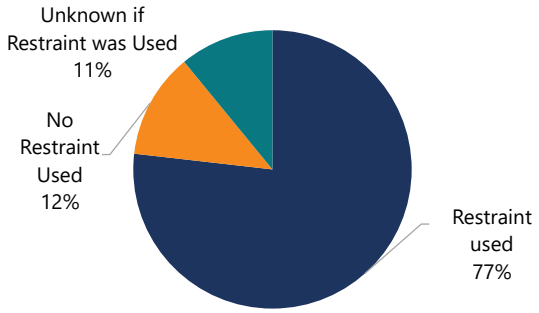
Source: Data Visualization – Fatality Analysis Reporting System (FARS)

Of the 508 (FARS Data) Oregonians killed in traffic crashes in 2020, 94 (19%) were unrestrained an 8 percent increase from 2019; and preliminary 2021 data indicates that this upward trend will continue.

Research has overwhelmingly shown that correctly using appropriate child restraints or seat belts is the single most effective way to save lives and reduce injuries in crashes. Lap and shoulder combination seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent (Kahane, 2015). For light truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.

In looking at seatbelt use of participants in fatal and serious injury crashes from 2016-2020[131], restraint use was 76 percent. However, that use has trended downward from 78 percent in 2017, 77 percent in 2018 and 2019 and it saw a 10 percent decrease from 2019 to 2020 to 70 percent. Improper restraint use was less than 1 percent in all data years. During the same time period restraint use by occupants involved in fatal crashes was 56 percent, this includes unknown and improperly used, if those categories aren't included seatbelt use by participants in fatal crashes was 66 percent.

FIGURE 151: OREGON RESTRAINT USE BY PARTICIPANTS IN FATAL AND SERIOUS INJURY CRASHES 2016-2020



Source: ODOT Statewide Crash Data System (CDS

Oregon has a primary seatbelt law that requires "proper" use of safety belt and child restraint systems. Some adult occupants inadvertently compromise the effectiveness of their belt systems and put themselves or other occupants at severe risk of unnecessary injury by using safety belts improperly. This is most often accomplished by placing the shoulder belt under the arm or behind the back, securing more than one passenger in a single belt system, or using only the automatic shoulder portion of a two-part belt system (where the lap belt portion is manual).

According to the annual 2022 Oregon observed seat belt use survey, 3.5 percent of front seat passenger vehicle occupants did not use restraints, an improvement from 5.1 percent in 2021 and 5.4 percent in the 2020 survey. During 2021, crash reports (FARS) indicate 31.4 percent of motor vehicle occupant fatalities were unrestrained and 21.6 percent were unknown restraint use.

TABLE 57: NHTSA OBSERVED USE SURVEY, 2018–2022

2018	2019	2020	2021	2022	2018 - 2022 Average
96%	96%	95%	95%	97%	96%

Source: NHTSA Seatbelt Usage Study Post-Mobilization Findings, Portland State University, and Quality Counts. This Study employs trained surveyors to examine, from outside the vehicle, use or non-use of a shoulder harness by the driver and right front outboard occupant of passenger vehicles.

The annual public opinion survey of Oregonians conducted statewide revealed:

- 96 percent of respondents reported 'Always using their safety belts when driving or riding in a passenger vehicle,' the 2021 observed seat belt usage rate for Oregon was 94.9 percent.
- The respondents who reported they did not 'Always use safety belts' when they drive or are a passenger in a vehicle were asked why they do not. The most common reason statewide was a "Short Trip", "Driving/riding in a rural area", and "In a Hurry".

In 2011, Oregon was ranked number one in the nation for seatbelt use and seatbelt use in Oregon changes from year to year; however, over the past five years that percentage of change has been less than 2 percent, which is not indicative of a trend, but rather the constraints and limitations of the data obtained in the annual observed use survey. In 2015, according to the annual survey, seatbelt use dropped 2.4 percent, the largest annual drop in 8 years from 2014 to 2017 Oregon experienced an average population growth of 1.39 percent for four years; however, there is no research that definitively links the population growth to the drop in seatbelt use. Research is limited on why seatbelt use trends up and down; however, the research on seatbelt use does state:

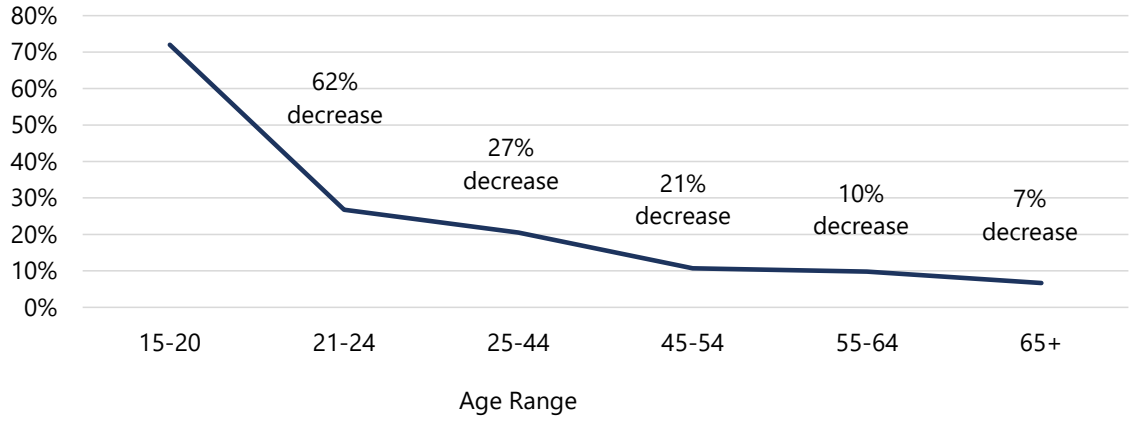
131 The 2016-2020 CARS data excludes moderate and minor injury, and property damage crashes, because often times restraint use in these crashes is self-reported and unreliable, not providing an accurate picture of restraint use in Oregon. The data also excludes ATVs, farm tractors, mopeds, motorcycles, motor scooters, snowmobiles and trollies.

- Vehicle type matters when it comes to seat belt use. Some 91 percent of passenger car occupants use a seat belt along with nearly 93 percent of van and SUV occupants. But in pickup trucks, the rate is lower — about 86 percent. The rate is the same for medium and heavy-duty commercial truck drivers, according to 2016 survey data, the most recent available from the Federal Motor Carrier Safety Administration.
- Nationally, urban and rural areas see roughly equal levels of seat belt use, but speeds tend to be higher in rural areas, increasing the risk of a severe crash. (This does not hold true for Oregon).
- When a driver uses a seat belt, women in the passenger seat are more likely than men to also wear their seat belt.
- Male passengers were more likely to buckle up when the driver wearing their seat belt was a woman.
- When a female driver was wearing their seat belt, male passengers buckled up 96 percent of the time in 2019, Buchman finds. When a male was driving and buckled, male passengers wore a seat belt 94 percent of the time.[132]

In the paper "Does Driver Seat Belt use Increase Usage among Front Seat Passengers? An Exploratory Analysis,[133]" published in May 2021 in the Journal of Safety Research author Tracy Buchman provides some nuances that states can bring to the seat belt campaigns, "It's always been known males don't wear their seat belts as often as females, so ad buys target males — and that's valid and important," she says. "But I think if females know they can make a difference with seat belt compliance, maybe we start targeting females with ad buys and try to get that last 5% or 10% to be even more compliant." Buchman adds it's worthwhile to consider a "multi-pronged" approach targeting drivers carrying seat-belt reluctant passengers, and that drivers telling their passengers to put their seatbelts on can be effective.

The majority of unbelted fatalities in Oregon are male drivers, 73 percent, with drivers aged 25 to 34 accounting for 22 percent of all fatalities. Not surprisingly survival rates of unbuckled occupants decrease by age and people over 65 represent 18 percent of the Oregon population and account for 15 percent of fatalities in unrestrained crashes. Seventy-four percent were male, and 84 percent were drivers indicating that more efforts need to be made to educate the aging population.

FIGURE 152: SURVIVAL RATE OF OREGON UNBELTED OCCUPANTS BY AGE



Source: ODOT Statewide Crash Data System (CDS)

132 Clark Merrefeld. "Seatbelt Use In America: A primer and research roundup" *The Journalist's Resource*, 3 May. 2022, https://journalistsresource.org/politics-and-government/seat-belt-use-primer-roundup. Accessed 13 May. 2023.

133 Tracy Buchman, Does driver seatbelt use increase usage among front seat passengers? An exploratory analysis, *Journal of Safety Research*, Volume 78, 2021, Pages 170-179, ISSN 0022-4375, https://doi.org/10.1016/j.jsr.2021.05.005.

Although Oregon has a seatbelt compliance rate of 96.5 percent, Oregonians in urban areas are more likely to buckle up than those in rural areas and there are discrepancies and room for improvement by Oregon Department of Transportation Region.

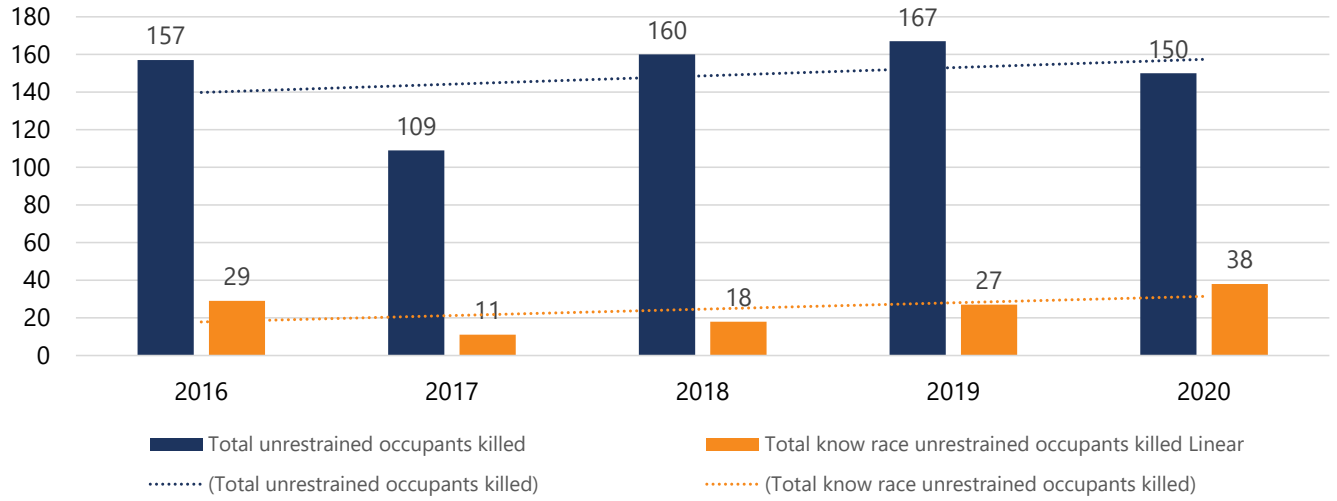
TABLE 58: SEATBELT USE BY OCCUPANTS IN FATAL AND SERIOUS INJURY CRASHES 2016-2020 CARS DATA BY ODOT

Region	Seat Belt Use 2016-2020	Seatbelt Use 2020	Percentage increase/ decrease 2019-2020	Seatbelt Use in Fatal Crashes	County with the lowest Use Rate
Region 1	79%	68%	-32%	49%	Hood River 66%
Region 2	81%	77%	-17%	59%	Columbia 62%
Region 3	73%	66%	-42%	54%	Curry 43%
Region 4	74%	61%	4%	56%	Gilliam 45%
Region 5	66%	61%	0%	45%	Harney 42%

Source: ODOT Statewide Crash Data System (CDS)

The majority of fatalities[134] 81 percent from 2016-2020 in Oregon were white, while known race fatalities were 19 percent averaging approximately 84 fatalities a year with Hispanics accounting for 11 percent of all fatalities and 58 percent of known race fatalities during that time period. While 74.8 percent of Oregonians identify as white, 25.2 percent of Oregonians identify as non-white or multi-racial. From 2016-2020, 17 percent of unrestrained fatalities involved people who did not identify as white, which when compared to the percentage of the population does not reveal an over-representation. Research also provides some insights into race and restraint use, the National Occupant Protection Use Survey (NOPUS) showed front seat belt use continued to be lower among Black occupants (86.4%) than White occupants (90.7%) and occupants of other races (94.1%). The differences were more substantial for observed belt use in rear seats, with rates of 65.0 percent for Black occupants, 81.2 percent for White occupants, and 73.5 percent for occupants of other races.

FIGURE 153: TOTAL UNRESTRAINED OCCUPANTS KILLED - ALL COMPARED TO KNOWN RACE



Source: Fatality Analysis Reporting System Data, (FARS)

134 Although this is FARS data, the number of fatalities is greater because the NHTSA data visualization only provided occupants of passenger vehicles and light trucks, while this data included restraint use in all vehicles except, ATV/ATC (All Terrain Cycle), Two-wheel motorcycles (including motor scooters, unenclosed three wheel motorcycles, unenclosed auto-cycles, recreational vehicles, snowmobiles, and farm equipment.

The study also states that the percentages of Black, Hispanic, and multiracial drivers who believed that seat belts will harm as much as help (40%, 32%, and 33%) and agreed with the fatalistic view that wearing a seat belt does not matter (26%, 22%, and 18%) were greater than the percentages for Asian or White drivers. The percentages of Asian and Hispanic drivers who agreed that their parents positively influenced seat belt use (72% and 64%) and that peers will judge seat belt use (35% and 28%) were greater than the percentages for other groups.[135]

National FARS data found that Native American, Native Hawaiian or Other Pacific Islander, Black, and multiracial passenger vehicle occupant fatalities were more likely to be unrestrained than Hispanic, White, or Asian occupant fatalities.[136]

In Oregon, the limited data does reveal that unrestrained fatalities (these numbers include lap-belt only, no restraint used, unknown and not reported) among Hispanics jumped 150 percent (10 to 25) from 2018-2019, and then dropped 8 percent from 2019–2020 (25-23). Among American Indians/ Alaskan Natives (AI/NA) unrestrained fatalities increased 66 percent (3 to 5) from 2018-2019 and dropped 20 percent from 2019 to 2020 to four fatalities. From 2019-2020 unrestrained fatalities in the Black population increase 250 percent (2 to 7), in 2017 and 2018 the Black population experienced one unrestrained fatality per year.

TABLE 59: UNRESTRAINED OCCUPANT FATALITIES BY RACE

Unrestrained Occupant Fatalities by Race				
	2016-2020 avg.	% increase/decrease 2019-2020	% of 2020 unrestrained fatalities	% of Population
Hispanic	17	-8%	15%	13.9%
AI/NA	3.8	-20%	3%	1.5%
Black	3.6	250%	5%	2%

Source: Fatality Analysis Reporting System Data, (FARS)

While the data does not give a complete picture or even clearly identify a problem, it is highly likely (due to the other factors racial minorities experience, poverty and less vehicle miles traveled)[137] that these minorities are over-represented in unrestrained crashes. At the current time the major problem in identifying a problem is the lack of information and data.

Research has shown that enhanced enforcement programs increase seat belt use by a median of 16 percentage points[138], and while Oregon continues to engage in High Visibility Enforcement (HVE) decreasing law enforcement numbers, as mentioned in the state overview and newer officers being less interested in pursuing overtime activities has led to a 39 percent decrease from 2018 to 2022, in high visibility enforcement as indicated by the decreasing amount of HVE money spent and the decreasing citations. Citations over the same period 2018-2022 saw an 89 percent decrease; indicating a need to look at using HVE funds for straight-time enforcement.

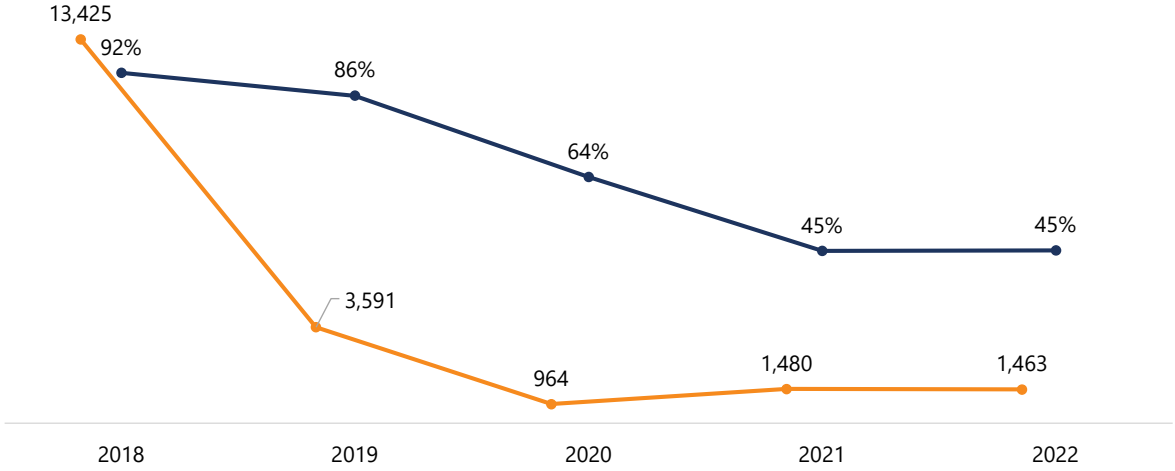
135 Enriquez, J. (2020, October). Occupant restraint use in 2019: *Results from the NOPUS controlled intersection study* (Report No. DOT HS 812 992). National Highway Traffic Safety Administration. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812992.pdf

136 Office of Behavioral Safety Research (2021, June). *Seat belt use, race, and Hispanic origin* (Traffic Tech. Report No. DOT HS 813 142). National Highway Traffic Safety Administration.

137 Braver ER. Race, Hispanic origin, and socioeconomic status in relation to motor vehicle occupant death rates and risk factors among adults. Accid Anal Prev. 2003 May;35(3):295-309. doi: 10.1016/s0001-4575(01)00106-3. PMID: 12643947.

138 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. "Policy Impact: Seatbelts" Centers for Disease Control and Prevention, 3 January. 2011, https://www.cdc.gov/transportationsafety/seatbeltbrief/index.html

FIGURE 154: PERCENTAGE OF OCCUPANT PROTECTION HIGH VISIBILITY ENFORCEMENT SPENT AND NUMBER OF CITATIONS



Source: Transportation Safety Office Grant Files, 2018-2022

Although, there are only three years of complete data on citations versus warnings, from 2019 to 2022, it appears that in the last three years law enforcement is issuing more warnings for seatbelt violations, while citations are decreasing.

TABLE 60: OCCUPANT PROTECTION HIGH VISIBILITY ENFORCEMENT CITATIONS VS. WARNINGS

OP HVE Citations vs. Warnings		
Year	**Citations**	**Warnings**
2020	48%	52%
2021	51%	49%
2022	53%	47%

Source: Transportation Safety Office Grant Files, 2018-2022

Research on whether warnings or citations are more effective at changing behavior and reducing fatal crashes are contradictory with some research studies finding a correlation and others asserting that there is no effect. A study published in the March 2007 Issue of Traffic Injury Prevention[139] found that overall tickets are ineffective at reducing speeding; however, a 2014 study published in the Journal of Policy Analysis and Management found motorists do respond to tickets. The study was done in Massachusetts, which has a secondary seatbelt law, but it found that:

- The Click It or Ticket (CIOT) campaign in Massachusetts decreased motor-vehicle crashes by roughly 11 percent; a 1 percent increase in tickets issued leads to a 0.28 percent decline in motor vehicle crashes. The ticketing campaign also reduced the number of nonfatal injuries from motor vehicle crashes.
- The effect of increased ticketing is much larger at night; by contrast, the effect is fairly small during daytime hours.
- The impact of ticketing is three times as strong for women as it is for men. There was no statistically significant difference in the effectiveness of traffic law enforcement between age groups.
- The prominent media campaign around CIOT could have played a role in decreasing crash rates, rather than the "deterrence effect," created by issuing more tickets to unsafe drivers and by the visibility of more drivers being pulled over on the roadside. However, the data showed a marked decrease in crashes during periods when more tickets were issued, suggesting that the ticketing, not the media campaign, was the key variable.[140]

139 Lawpoolsir, S., Li, J., Braver, E.R. "*Do Speeding Tickets Reduce the Likelihood of Receiving Subsequent Speeding Tickets?,"* March. 2011, Traffic Injury Prevention. Do Speeding Tickets Deter Drivers From Speeding? - National Motorists Association, Accessed 18 May. 2023.

140 Rachael Stephens. "Do traffic tickets reduce motor vehicle crashes? Evidence from "Click It or Ticket"" T*he Journalist's Resource*, 11 December. 2014. Do traffic tickets reduce motor vehicle crashes? Evidence from "Click It or Ticket" - The Journalist's Resource (journalistsresource.org) Accessed 18 May. 2023.

The Motor Vehicle Occupant Safety Survey findings suggest that appropriate countermeasures to increase seat belt use may vary by the drivers' race and Hispanic origin. For example, high-visibility enforcement, which relies on increasing drivers' perceived risk of citations for violations, is unlikely to be an effective countermeasure for many non-White drivers because almost half already believe they are very likely to receive tickets for non-use. By comparison, only one-quarter of White drivers believe they are very likely to receive tickets for not wearing seat belts. These findings suggest that non-enforcement countermeasures that address unfavorable beliefs towards seat belt use could be effective for increasing seat belt use among non- White drivers.[141]

In 2020, of the 23,824, passenger vehicle occupants killed in traffic crashes in the United States, 755 (3%) were children. Of these 755 child passenger vehicle occupants killed in traffic crashes, restraint use was known for 680, of whom 286 (42%) were unrestrained.

In 2020, of the 507 Oregon passenger vehicle occupants killed in traffic crashes, 16 (5%) were children[142]. Of these 16 child passenger vehicle occupants killed in traffic crashes, 2 (12%) were unrestrained, 25 percent (4) were killed in alcohol-involved crashes. Fifty percent of the fatalities occurred in rural areas and 50 percent occurred in urban areas.

Based on known restraint use, on child fatalities in Oregon there is no correlation between the driver being restrained and the children being restrained.

Child safety seats have been shown to reduce fatal injury by 71 percent for infants (under 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively.

Analysis has also shown that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat occupants 5 and older of passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 65 percent.[143]

According to 2020 Census Data, 12.2 percent of individuals in Oregon live below the poverty line, 5 percent are children five years old or younger. These families face unique barriers to access when it comes to safe transportation of their children including improperly installed seats; and/or not using the proper Child Restraint System (CRS) for the child's age, weight and height or using seats with unknown crash history or expiration dates.

Car seat inspections in Region 1 (Region 1 contains 42 percent of Oregon's population and 46 percent of Oregonians 11 and under) find that approximately 95 percent of car seats are installed incorrectly. Continual education is needed for new parents, new citizens, under-served minorities and others on selecting the right seat for their child; installing that seat correctly (depending in part on the type of vehicle/seat belt system is in the car); and to know the history of the seat if it is second-hand. It is highly likely that this high number is due to the fact that these programs offer car seats to low-income families who have often recently immigrated or who have English as a second language or are a member of a minority. Several studies found that it is more common for Black, Hispanic, Native American, and Alaska Native children to travel unrestrained or improperly restrained when compared to white children.[144]

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141 Office of Behavioral Safety Research (2021, June). *Seat belt use, race, and Hispanic origin* (Traffic Tech. Report No. DOT HS 813 142). National Highway Traffic Safety Administration.

142 Numbers reflect ages 14 and under.

143 Hertz, E. (1996, December). *Revised estimates of child restraint effectiveness* (Report No. DOT HS 96 855). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/96855

144 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. "Child Passenger Safety Get the Facts" *Centers for Disease Control and Prevention*, 14 October. 2022, https://www.cdc.gov/transportationsafety/child_passenger_safety/cps-factsheet.html Accessed 18 May. 2023

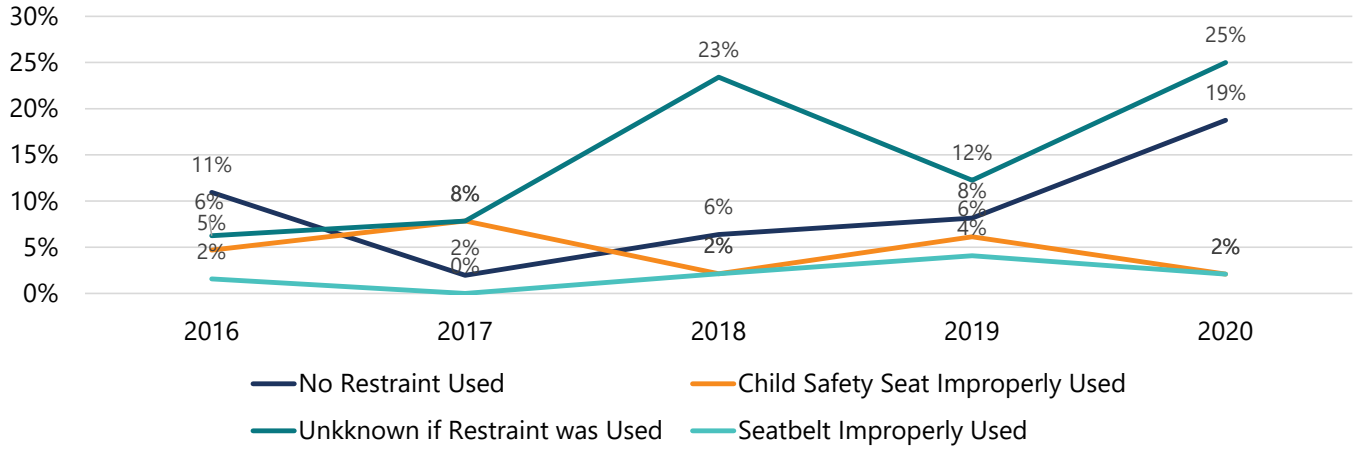
Research also found that:

- Restraint use typically decreases as children get older.[145]
- Children in rural areas are more likely to be incorrectly restrained than children in urban areas.[146]
- Children in rural areas are typically at higher risk of being killed in a crash.[147]
- In 2020, 24 percent of deaths among child passengers (ages 14 and younger) involved an alcohol-impaired driver.[148]
- Among all child passengers (ages 14 and younger) who were killed in crashes, a higher proportion of those riding with alcohol-impaired drivers were unrestrained (56%) compared with children riding with drivers who had no alcohol in their system (38%).[149]

Between 2016-2020, 259 children eleven and under were occupants in fatal and serious injury crashes, restraint use was unknown for 75 percent, 46 percent were unrestrained, 23 percent were improperly restrained, 10 percent were improperly restrained with a seatbelt and 75 percent information about the restraint was unknown. Non-restraint use in this age group increased 137 percent from 2019 to 2020 (9 to 24).

Heatstroke prevention for unattended vehicle occupants is a big safety topic that is often overlooked. According to NHTSA, 951 children have died due to pediatric vehicular heatstroke since 1998. Nationally in 2022, there were 33 pediatric vehicular heatstroke fatalities. A child's temperature rises three to five times faster than an adult's. When a child is left in a vehicle, their temperature can rise quickly, and the situation can quickly become dangerous.

FIGURE 155: OREGON STATEWIDE CHILD SAFETY RESTRAINT USE AGES 0- 11



Source: ODOT Statewide Crash Data System (CDS)

145 National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts 2020 Data: Children (Report No DOT HS 813 285). Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis; April 2022.

146 Enriquez J. The 2019 National Survey of the Use of Booster Seats (Report No. DOT HS 813 033). Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA); May 2021.

147 Shaw KM, West B, Kendi S, Zonfrillo MR, Sauber-Schatz E. Urban and rural child deaths from motor vehicle crashes: United States, 2015-2019. *J Pediatr*. 2022;S0022-3476(22)00620-5. doi:10.1016/j.jpeds.2022.07.001

148 National Highway Traffic Safety Administration (NHTSA). Fatality and Injury Reporting System Tool (FIRST). Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis; August 2022.

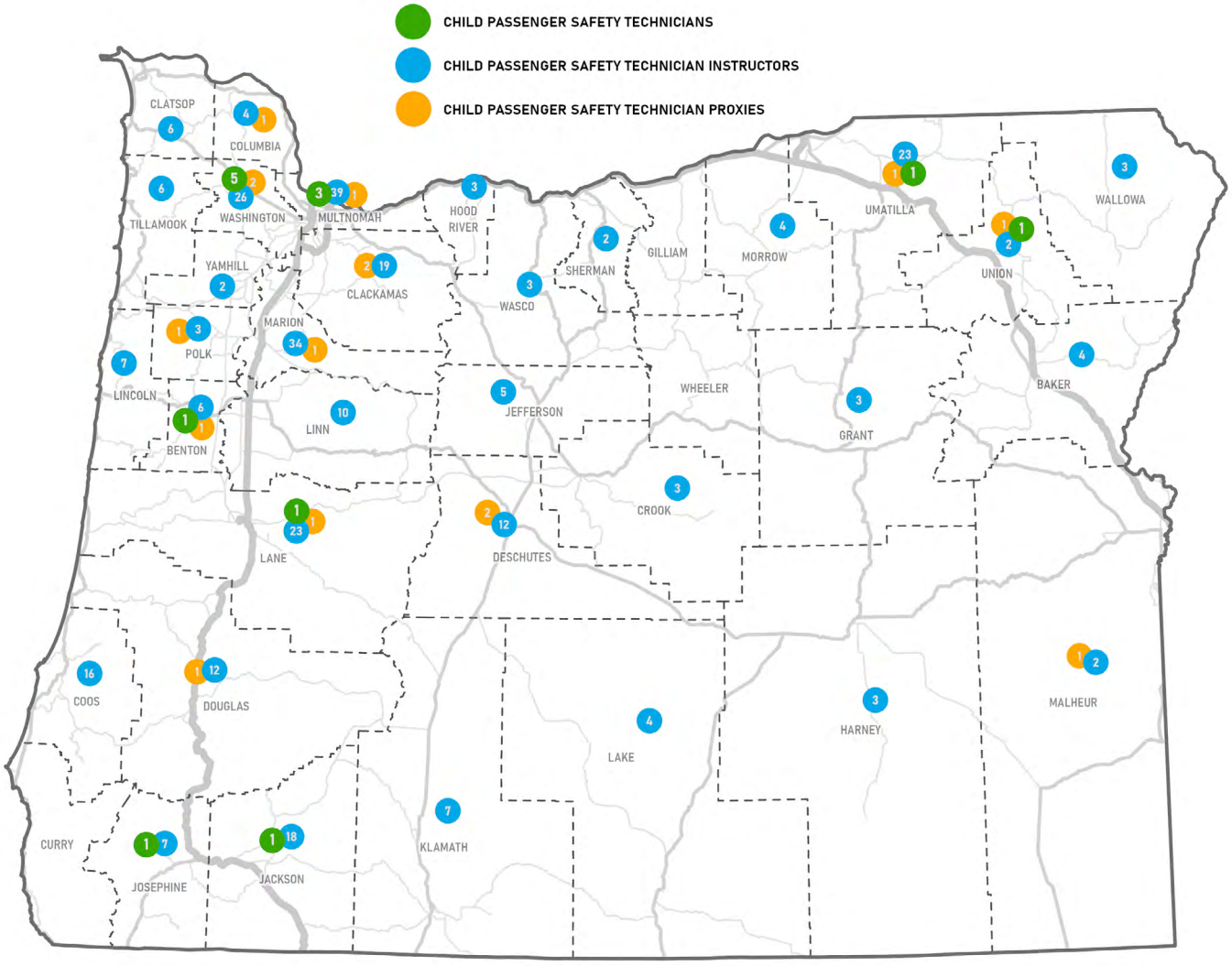
149 National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts 2020 Data: Children (Report No DOT HS 813 285). Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis; April 2022.

TABLE 61: CORRECT RESTRAINT AND CHILD SAFETY SEAT USE BY OCCUPANTS 0-11 IN FATAL AND SERIOUS INJURY CRASHES 2016- 2020 DATA BY ODOT REGION

Region	Total Occupants	Proper Restraint Use	Proper CSS Use	Total Child Fatalities	County with the highest child fatalities and serious injuries
Region 1	36	44%	20%	4	Multnomah (43)
Region 2	107	55%	21%	14	Lane (36)
Region 3	30	43%	40%	8	Jackson (15)
Region 4	36	42%	22%	13	Wasco (10)
Region 5	25	32%	16%	11	Harney (8)

Source: ODOT Statewide Crash Data System (CDS)

FIGURE 156: OREGON CHILD PASSENGER SAFETY TECHNICIANS



Source: Transportation Safety Office Grant Files, 2023

Maintaining a base of Certified Child Passenger Safety Technicians (CPSTs) to provide services is one of Oregon's pressing challenges. Some natural attrition is expected due to changes in employment, change in job responsibilities, change in location, etc. In October 2019, Oregon had 476 CPSTs. The COVID-19 Pandemic brought new challenges halting all in-person seat checks, and training, and no Technician Certification courses were offered due to the inability to move them online. Technicians had more barriers than ever toward recertifying and there were no new courses to add technicians to the pool. Before the resumption of CPS courses Oregon hit an all-time low of 283 technicians.

CPST certification courses resumed in October 2021, statewide twenty technicians were trained during the 2021-2022 grant year. Eight are being offered in the current grant year. Currently with the resumption of limited-size CPST certification courses, Oregon's technician numbers are slowly increasing. As of February 2023, there were 345; however, this number fluctuates on a monthly basis due recertifications, as of May 2023 there are 348 certified technicians with more registered for upcoming courses.

In Oregon, since the updated certified child passenger safety curriculum was introduced, there have been 6 certification course failures. Three of the six that failed the course reported that they spoke English as a second language and that the way the questions on quizzes and the material in the course guides were worded were confusing due to a language barrier.

The number of students failing is not incredibly compelling, but the number of self-reported Spanish speaking technicians compared to the failure rate is more compelling. Oregon has 348 certified technicians and only 24 of them reported that they speak Spanish. Less than 7 percent of the state's technicians speak Spanish. There is a 50 percent English/Spanish failure rate yet 7 percent of the techs overall are Spanish speakers.

During certification courses students are permitted to use resources, and the quizzes and skills evaluations are all open book. Students are provided a Spanish-English translated glossary of terms as permitted by the certification regulations. The Oregon instructor team has also worked to support students by providing extra time for test questions and taking them to a quiet room and/or reading questions to students as permitted by the curriculum regulations. Students that speak English as a second language continually report struggles with understanding the curriculum's wording and terminology. Even when they pass the certification course, they share these opinions with the instructor team.

Trends

There are many trends that can be pulled from the data that is provided above, and one of the main trends is that unrestrained fatalities continue to be on the rise. According to FARS, unrestrained vehicle occupant fatalities in Oregon increased from the 2020 total of 98 to 116 in 2021. Oregon has one of the highest seat belt use rates in the country with 96.5 percent, but people are still dying from not wearing their seat belt. Public education, targeted media and high visibility enforcement need to continue. Unfortunately, over the last three years the number of law enforcement agencies being able to participate in high visibility enforcement has gone down.

Officers are leaving the profession due to high stress and newer officers are less interested in pursuing overtime activities. Starting in the 2024 grant year, the seat belt high visibility program will offer agencies the ability to work straight time enforcement hours for occupant protection activities. Agencies have expressed excitement in this change for high visibility enforcement. This should bring grant enforcement activities trending back upward.

Seventy-three percent of the unrestrained passenger fatalities in 2016-2020 were male and twenty-two percent of those fatalities were men aged 25-34. That is proof that more efforts need to be made to reach that audience. Targeted media about the importance of wearing a seat belt and the lifesaving benefits of proper seat belt use will be a priority in the coming grant years.

The data has also shown the importance of making sure transportation safety materials are provided in a large assortment of languages. The immigrant and refugee population in Oregon is growing so it is imperative that safety materials and media messages are created and provided for these groups.

The number of certified Child Passenger Safety Technicians (CPST) in Oregon dropped during the COVID-19 pandemic. Technicians were not recertifying and CPST courses were not being held during that time to train new technicians. The CPST pool is slowly building back up and that will be a continued priority for the upcoming grant years. With new technicians being trained, the need for mentoring those new technicians increases. In order to build upon the number of technicians, you not only do new CPSTs need to be trained but the current CPSTs need to be nurtured and mentored so that they recertify and remain technicians. Training, webinars, and outreach to current CPST's need to happen so that they feel confident enough to host their own community car seat clinics.

PUBLIC PARTICIPATION

Public Participation Feedback from the 2023 Transportation Safety Conference

CAR SEAT 101 FOR LAW ENFORCEMENT

The Occupant Protection Program Manager had a conversation with several law enforcement officers (LEO) (LE) at the OP table that thought it would be a good idea to have a 1-day class for LE to attend and learn key points to a properly installed seat. This would not be a class where the LEO would learn how to install a seat, this would be a class for them to learn most common misuses, key parts of the CPS laws, and things they should know as they contact parents and care givers on traffic stops.

10 MINUTE ROLL CALL TRAINING VIDEO

In the same conversation with the law enforcement officers, they thought a 10-minute video touching on quick tips to car seat safety and key points to the CPS law in Oregon that can be played by law enforcement agencies during roll call. YouTube video for parents on basic laws for car seats There are many, many YouTube videos on car seats, but this citizen was wanting one specific to Oregon laws.

RECRUIT RETIREES AS CPS TECHS

Occupant Protection PM had a discussion with a citizen about how Oregon is needing more CPS techs and was trying to come up with new places and ways to recruit new technicians. She had a great idea of trying to recruit retirees to become CPS techs because they have time on their hands and are often looking for ways to volunteer. Maybe put a recruitment ad in AARP magazine?

1-DAY INFORMATIONAL COURSE FOR LAW ENFORCEMENT

This seems like it will also fit in with the Car Seat 101 idea mentioned above.

EDUCATION OUTREACH ON THE BENEFITS OF REAR-FACING CAR SEATS FOR KIDS UNDER 2

One attendee the Occupant Protection PM spoke with was thinking it would be good to have more information on "why" it is safer to have children rear-racing not just tell people to do it because it is the law. Put more information out listing the benefits of rear-facing.

HAVE LEGISLATORS REQUIRE HOSPITALS WITH MATERNITY WARDS TO PROVIDE CAR SEAT INSPECTIONS POST-BIRTH TO THE CARETAKERS TAKING THE BABIES HOME

This is becoming a problem especially in Salem, but this is also happening elsewhere. This has become an increasing problem after the pandemic. Many technicians didn't recertify during the pandemic and with the nursing shortages occurring during that time and currently, the car seat inspection prior to departure from the hospital with your newborn has fallen away. Salem Health currently does not have CPS techs in their facility. This is an issue that we are working on in the Marion-Polk County area to build up the tech community, and some heavy recruitment needs to be done at hospitals. It might be helpful to have a meeting with the management team of Salem Health to discuss how important these car seat checks are with new parents.

CHILD PASSENGER SEAT USAGE RATE

The Occupant Protection PM had a conversation with Lacy Brown from DKS about Oregon's high seat belt usage rate, and she asked if that included child safety seat usage. That started the conversation about the feasibility of getting the usage rate for child seats. This is something that Oregon is going to look into because that would be great information to have for programming.

Conclusion

After analyzing the data and receiving feedback from safety partners, community groups and citizens, for the next three years the Occupant Protection Program will focus on creating a media plan that will reach as many people as possible. Seat belt and child passenger seat educational materials need to be provided in multiple languages. The program does currently have a car seat education flyer that is provided in 14 languages, but that work needs to expand. Translation services need to be done on the remaining public education materials for the OP Program. Once the materials are created, the challenge becomes making sure those materials are reaching the right audiences.

After talking with multiple law enforcement officers, it became apparent how important it is to educate the law enforcement community about the basics of child passenger safety. Many officers do not know what to look for when they are making traffic stops when they see child seats in a vehicle. Misuses are often not obvious to the trained eye, let alone the untrained eye so work needs to be done to educate law enforcement on those common misuses. It is not an achievable goal to have all law enforcement officers become certified child passenger seat technicians, but it is achievable to create training videos and materials specifically for law enforcement identifying quick tips to car seat safety, what to look for when observing a car seat, common misuses, key parts of the Oregon CPS law, and tips to how you talk to parents and caregivers about car seat safety. This is a great opportunity for the Occupant Protection Program to partner with Oregon's Law Enforcement Liaison to come up with a plan to educate law enforcement partners.

High Visibility Enforcement (HVE) continues to be a huge part of the Occupant Protection Program. It is a key countermeasure to educating the public on seat belt and child passenger seat laws as well as enforcing the laws. The more officers you see out on the road, the higher the seat belt usage rate will be. Focusing on educating law enforcement agencies on the new straight time enforcement opportunity along with the continuing overtime enforcement will be a big priority for the HVE program. This change should reinvigorate the participating HVE agencies to work more seat enforcement activities.

One of the main priorities of the Child Passenger Safety Training Program along with conducting certified CPS training courses around the state will be mentoring current child passenger safety technicians. Once technicians pass their training course, often they go back to their work and homes without knowing what to do next. How do they plug themselves into their child passenger safety community? How do they coordinate a car seat clinic? Mentoring new and current technicians is going to be a key focus of the training program in the upcoming grant years. So many of the regularly scheduled car seat check clinics and distribution programs shut down during the pandemic and never started back up.

The CPS state training coordinator will travel around the state and meet with technicians in the local areas and help them with how to plug yourself into the local network of car seat technicians in your area, how to set up car seat clinics, supplies and logistics needed for car seat clinics. The hope that this in-person mentoring will light a spark in technicians and encourage the creation of new car seat clinics around the state.

The CPS Training Program will also focus on providing certified technician training courses around the state both in person and through hybrid courses. The goal will be to do at least eight courses each grant year. With the addition of the hybrid curriculum, the hope will be to do even more than eight courses, but the instructing team is still learning how to perfect teaching the hybrid course. The CPS Training Program will also be conducting Regional CPS Workshops offering in-person CEU's as well as car seat clinics where local CPS technicians will be able to do their recertification car seat check offs. A CPS workshop will be held in each of the five ODOT regions in the state. This will allow each workshop to be targeted to that region and allowing for a more hands-on, intimate training setting. These regional trainings will also be a way to continue the mentoring and nurturing for new and seasoned CPS technicians.

Strategy – High Visibility Enforcement for Occupant Protection

PROBLEM 1300.11(B)(4)(I)

High visibility enforcement for Occupant Protection addresses three problems; non-use of restraints, improper use of safety belts and risky drivers:

- **Non-use of Restraints**
- **Improper Use of Safety Belts**
- **Risky Drivers:** According to the 2021 TSAP analysis, between 2014 and 2018, 900 fatal and serious injury crashes involved occupants not properly using restraints. In Oregon, 21 percent of fatal crashes involved an unrestrained occupant. Approximately 65 percent of these crashes occurred in a rural environment. The majority of unrestrained fatal and serious injury crashes (71 percent) result from lane departure crashes. Approximately 46 percent of all unrestrained fatal and serious injury crashes were speed related.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

High visibility enforcement – CTW 5 stars citation

According to the Countermeasures That Work, the most effective strategy for achieving and maintaining restraint use at acceptable levels is well-publicized, HVE of strong occupant restraint use laws. The effectiveness of HVE has been documented repeatedly in the United States and abroad. The strategy's three components – laws, enforcement, and publicity – cannot be separated: effectiveness decreases if any one of the components is weak or missing (Nichols & Ledingham, 2008; Tison & Williams, 2010).

Targets Countermeasures will address 1300.11(b)(4)(iii)

Increase statewide observed seatbelt use among front seat out-board occupants in passenger vehicles, as determined by the NHTSA compliance survey, from the 2022 usage rate of 96.5% to 97%. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2018	2019	2020	2021	2022	2018-2022 avg.	2023	2024	2025	2026
95.8%	95.7%	94.6%	94.9%	96.5%	95.5%	96.5%	97%	97%	97%

Maintain or reduce unrestrained passenger vehicle occupant fatalities in all seating positions at the 2016-2020 average of 85. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
89	64	86	87	98	85	116	85	85	85

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
402	$350,000	$350,000	$350,000
405(b)	$642,654	$582,654	$642,654

Overview of HVE Program

The Occupant Protection Program will provide grants to local police departments, sheriff's offices, and Oregon State Police to conduct enforcement activities that will maintain and increase compliance with safety belt/child restraint laws. Funding will be conditional on agency traffic enforcement during three (3) two-week blitzes, and during other times when additional traffic enforcement coverage is deemed appropriate by the local jurisdiction.

Agencies will be encouraged to garner local media coverage of their planned efforts, their purpose, and their results. During 2023, fifty local police departments, sixteen sheriff's offices and the Oregon State Police participated in Oregon's safety belt HVE program. Many of these agencies enforce restraint laws as a matter of routine when working traffic, however; the smaller local departments often do not have dedicated traffic enforcement officers so rely on the federal funds to work on traffic safety problems in their communities. HVE has been a strong contributing countermeasure strategy toward Oregon's annual observed seat belt use survey indicating Oregon's 2022 usage rate of 96.5 percent.

The countermeasure strategy of high-visibility enforcement was informed by Highway Safety Program Guideline number 20 specifically program management, legislation, regulation and policy, enforcement, communication, outreach, diverse populations, and program evaluation. Projects are funded based on a grant application sent to all law enforcement agencies, the amount requested by the agency, and previous performance. Seatbelt use is lower in rural areas of Oregon and agencies in rural areas are funded to their full capacity.

Strategy – Child Restraint Inspection Stations

PROBLEM 1300.11(B)(4)(I)

Child restraint inspection stations address three problems; improper use of child restraint system, premature graduation of children to adult belt systems, affordability of child restraint systems:

- **Improper Use of Child Restraint Systems**
- **Premature Graduation of Children to Adult Belt Systems**
- **Affordability of Child Restraint Systems:** Caregivers may have difficulty affording the purchase of child safety seats or booster seats, particularly when they need to accommodate multiple children. This contributes to non-use of seats, or the reuse of second-hand seats which may be unsafe for multiple reasons

Countermeasures and Justification 1300.11(b)(4)(ii)

Inspection Stations – CTW 3-star citation

Communications and Outreach – CTW 3-star citation

High Visibility Enforcement – CTW 5-star citation

Target Countermeasures will address 1300.11(b)(3)(ii)

B-1) Increase statewide observed seatbelt use among front seat out-board occupants in passenger vehicles, as determined by the NHTSA compliance survey, from the 2022 usage rate of 96.5% to 97%. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2018	2019	2020	2021	2022	2018-2022 avg.	2023	2024	2025	2026
95.8%	95.7%	94.6%	94.9%	96.5%	95.5%	96.5%	97%	97%	97%

C-4) Maintain or reduce unrestrained passenger vehicle occupant fatalities in all seating positions at the 2016-2020 average of 84. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
89	64	86	87	98	85	116	85	85	85

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
405(b)	$260,000	$260,000	$260,000

Overview of Child Passenger Safety Program

The Occupant Protection Program will fund mini-grants to local fitting stations statewide to cover costs for purchase of equipment, supplies, child car seats, boosters, and training expenses for technician and instructor candidates (certification fee and/or necessary lodging and per diem expenses).

The countermeasure strategies of inspection stations, communications and outreach and high-visibility enforcement was informed by Highway Safety Program Guideline number 20 specifically program management, legislation, regulation and policy, enforcement, communication, occupant protection for children, outreach, diverse populations, health and medical communities and data and program evaluation.

ODOT partners with Doernbecher Children's Hospital to provide statewide Child Passenger Safety Technician Training and Certification. Inspection stations are funded by region and region program managers under the guidance of the Occupant Protection Program Manager, RTSCs identify partners, grant funds, monitor projects, provide technical assistance, and evaluate outcomes on an annual basis. Projects are funded based on problem identification, grant application, eligible expenses, and prior performance. Car safety restraint educational information is provided throughout the state in twelve languages in addition to English to serve the diverse populations.

Strategy – Communication Campaign for Occupant Protection

PROBLEM 1300.11(B)(4)(I)

Year-round public education is necessary to inform and educate motor vehicle drivers and passengers regarding Oregon laws, proper use of restraint systems, consequences of non- or improper use and availability of resources to assist them. This counter-measure addresses:

- Non-use of Restraints
- Improper Use of Safety Belts
- Improper Use of Child Restraint Systems
- Premature Graduation of Children to Adult Belt Systems
- Affordability of Child Restraint Systems
- Risky Drivers

Countermeasures and Justification 1300.11(b)(4)(ii)

Communications and Outreach – CTW 3 star citation

Basic Child Passenger Safety information is available in Oregon in twelve languages including the nine most spoken languages in the state.

Target Countermeasures will address 1300.11(b)(3)(ii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Increase statewide observed seatbelt use among front seat out-board occupants in passenger vehicles, as determined by the NHTSA compliance survey, from the 2022 usage rate of 96.5% to 97%. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2018	2019	2020	2021	2022	2018-2022 avg.	2023	2024	2025	2026
95.8%	95.7%	94.6%	94.9%	96.5%	95.5%	96.5%	97%	97%	97%

Maintain or reduce unrestrained passenger vehicle occupant fatalities in all seating positions. (NHTSA) 1300.11(b)(3)(ii)									
Actual					**5 yr avg**	**In Progress**	**Projections**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
89	64	86	87	98	85	116	85	85	85

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$265,000	$265,000	$265,000

Overview of Communications, Outreach and Media Program

This project will fund contracted media design, education material revisions, social media advertising, radio public service announcements and billboards; public attitude, and observed restraint use surveys; as well as TSO direct purchase, reproduction, and distribution of educational and outreach materials.

Many of the printed educational materials are grant funded and then distributed directly to the public through law enforcement, child seat fitting stations, prenatal clinics, ODOT's Driver and Motor Vehicles Division, and community level special events.

Other than enforcement, education campaigns are one of the only proven countermeasures for occupant projection. The two types of messaging Oregon uses are behavioral, and awareness based. Funding is provided to allow for campaigns statewide and the location of messaging is based on data and diverse population needs.

Along with the usual messaging on the importance of proper seat belt use and child passenger safety, the Occupant Protection Program will also be focusing media efforts on spreading the word on unattended passenger awareness and heatstroke safety. Nationally, in 2022, thirty-three children died due to pediatric vehicular heatstroke. Children are at a higher risk than adults of dying from heatstroke in a hot vehicle because their body temperature rises three to five times faster than an adult's body temperature.

The countermeasure of the occupant protection communication campaign was informed by Highway Safety Program Guideline number 20 specifically program management, legislation, regulation and policy, enforcement, communication, occupant protection for children, outreach, diverse populations, data and program evaluation. ODOT contracts with a public relations firm, media, brochures and advertising are evaluated based on data, problem identification and prior performance.

Police Traffic Services

Link(s) to the Transportation Safety Action Plan

Strategy 3.1.2	Support a high-visibility enforcement program increasing traffic, bicycle, and pedestrian law enforcement capabilities (priority and funding).
Strategy 3.1.5	Conduct education and outreach to law enforcement to increase understanding and enforcement of traffic, commercial vehicle, pedestrian, and bicycle laws.

Overview of the Law Enforcement Traffic Safety Training Programs

Oregon's highway safety office helps facilitate a traffic safety related education conference for Oregon's law enforcement agencies and officers. Topics covered include legislative updates from the current or just past legislative session, case law updates, and other relevant traffic safety topics of interest expressed by the officers. Additionally, Oregon District Attorney's Association (ODAA) delivers Traffic Safety Education trainings each year to prosecutors from around the state. Often times, these are joint trainings with prosecutors and law enforcement in attendance. These joint trainings provide the other discipline a look into how their respective processes impact the other. For example, a solid crash investigation and strong evidence assists the prosecutor with building a strong criminal case in court. Similarly, by understanding the law enforcement officer investigative role, experience and expertise, a prosecutor is better able to put forward a successful case by using the officer's strengths, knowing what questions to ask and a better overall understanding of the evidence which results in higher conviction rates.

The countermeasure strategy of training was informed by Highway Safety Program Guideline number 15 specifically program management, resource management, training, traffic law enforcement, communication, outreach, data and program evaluation. NHTSA recommends having a Statewide Law Enforcement Liaison, the Department of Public Safety Standards and Training (DPSST) was chosen because they provide basic police officer certification training.

DPSST's Basic Police Officer certification training program also provides specific training to cadets on how to conduct traffic stops (modules for Vehicle Stops; Communication for Policing; and Effective Interactions with the Deaf and Hard of Hearing Community); with respect to proper interaction with civilians during traffic stops. Proper interaction means using appropriate industry standards as established through a State Police Officer Standards and Training Board (POST) or similar association.

Problem Identification 1300.11(b)(4)(i)

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall. When looking at the combined numbers, 2020 showed a decrease in fatalities and serious injuries; however, fatalities have been increasing with an average annual increase of 25 per year, representing a 42 percent increase overall. While 2020 represented a brief reprieve from the upward trend, it should be viewed as an outlier, as preliminary 2021 data and initial 2022 fatal crash notifications indicate that these trends continued through 2022.

The ODOT Transportation Safety Office has the funds to provide traffic safety training but does not have the staffing to provide regional law enforcement training. Through multi-year grants from ODOT TSO, DPSST has been providing this much needed outreach and is able to serve as a liaison between ODOT TSO and law enforcement agencies regarding traffic safety issues. DPSST is also able to assist

ODOT TSO with law enforcement related training such as Advanced Crash Investigations training, motor officer training and the annual Police Traffic Safety Conference. Officers have come to rely on these trainings to maintain required certification hours, receive critical legislative updates and traffic case law. It is also important to revitalize the officers to keep traffic safety a priority.

Many agencies have experienced significant decreases to their budgets. Training is among the first things cut to help maintain department budgets. By putting together traffic safety trainings, such as the Police Traffic Safety Conference, TSO is keeping traffic safety awareness a priority as well as providing much needed training to officers from around the State that they might not otherwise receive.

Agencies provide shift briefing trainings routinely, but they rarely get access to in-depth training from local and national experts. By bringing these individuals in through conferences, they reach a wider audience and officers gain a broader knowledge base on key traffic safety issues they are facing.

Additionally, the Oregon Department of Public Safety Standards and Training (DPSST) has a regional traffic safety training system in place but is not currently funded to provide traffic safety training on a regional basis. The ODOT Transportation Safety Office has the funds to provide traffic safety training but does not have the staffing to provide regional law enforcement trainings. Through multi-year grants from ODOT TSO, DPSST has been providing this much needed educational outreach and is able to serve as a liaison between ODOT TSO and law enforcement agencies regarding traffic safety issues. DPSST is able to provide NHTSA recommended or sponsored training (such as the NHTSA Speed Measuring Device curriculum, SFST recertification, etc.).

- The need for increased enforcement resources is not generally recognized outside the law enforcement community. Agencies who perform High Visibility Enforcement activities are often depicted as conducting traffic enforcement as a "money grab" versus the true need for traffic safety enforcement intended to reduce serious injury and fatal crashes on Oregon's roadways.
- The need for increased training for police officers in the use of speed measuring equipment (Radar/Lidar), crash investigations, and traffic law (including any updates from recent legislative sessions, increased crashes associated with distracted driving and constraining changes in Oregon case law related to impaired driving).
- Due to the recent passage of Measure 110 in 2020, which decriminalized single use possession of illicit drugs, there is an increased need for police officers to be trained in drug recognition tactics. Oregon has already seen an increase in serious injury and fatal crashes associated with impaired driving as it relates to poly-substance use (more than one drug or drugs and alcohol), constraining changes in Oregon laws and case law related to impaired driving, and the decline of officers dedicated to traffic safety enforcement.
- Oregon has also experienced several Appellate Court rulings related to impaired driving laws which have required legislative changes and fixes which makes the arrest process of impaired driving something many officers don't want to spend the time on or simply don't have the time to pursue.
- There is also an identified need to increase advanced motor officer training availability to all motorcycle officers in Oregon.
- Decreasing agency budgets resulting in larger officer-to-population ratios prevent most enforcement agencies from having capacity to respond to crashes that are non-blocking and/or non-injury. In some larger metropolitan areas, this includes serious injury crashes without a trauma system entry patient, or a vulnerable road user involved. There is a need for increased crash investigations and crash reporting training in the law enforcement community. Recent changes at the basic police academy have drastically reduced training hours in these areas.
- Many county, city and tribal police agencies lack the resources necessary to dedicate officers to traffic teams, or to even have a traffic team.

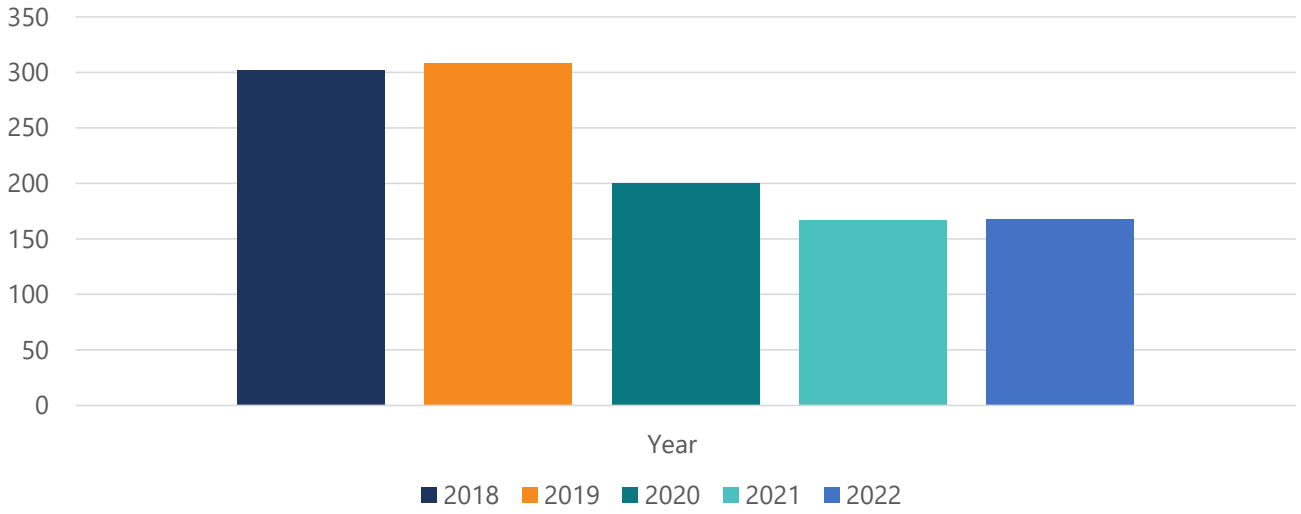
Analysis of Law Enforcement Trainings

TABLE 62: TSO FUNDED LAW ENFORCEMENT TRAFFIC SAFETY TRAININGS

	2018	2019	2020	2021	2022	2018-2022 avg.
	302	308	200	167	168	229
Percentage Change +/-		2%	-35%	-16.5	1%	

Source: Transportation Safety Office Grant Files, 2018-2022

FIGURE 157: TRAFFIC SAFETY OFFICE FUNDED LAW ENFORCEMENT TRAFFIC SAFETY TRAININGS



Source: Transportation Safety Office Grant Files, 2018-2022

The TSO Law Enforcement Traffic Safety Trainings (Police Traffic Safety Conference, Lethal Weapon, Advanced Crash Investigations, Investigating and Prosecuting the Distracted Driver and Advanced Motor Officer Trainings) are much anticipated trainings by Oregon law enforcement officers. These trainings provide officers with new case law related to traffic safety, criminal arrests, such as impaired driving as well as providing them with required training hours to maintain or increase their law enforcement certification levels through the Department of Public Safety Standards and Training. In the past couple of years, there has been a decline in the number of officers attending the trainings due to the Covid 19 worldwide pandemic. Trainings were either outright canceled, limited in number of attendees, or planned with a very short turnaround time due to the uncertainty when and what restrictions related to the pandemic would be removed especially in Oregon, making it difficult for Law Enforcement Officers (LEOs) to get the time off to attend. After talking with several law enforcement officers during the Public Participation and Engagement event in March 2023, the PTS program manager was asked repeatedly about bringing back annual conferences. The PM learned that many officers look forward to and rely on these trainings for the continuing education credits they receive at very minimal cost to their agency. Much of the information they learn during these events can be shared with colleagues who were not able to attend.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communications, Training, Outreach and Education – CTW 3 star citation

NHTSA asserts that it is important that all stakeholders in the criminal justice system are aware of the efforts being made to reduce traffic fatalities and to that end, peer-to-peer training, education, and outreach have been found to be most effective in promoting proven and promising practices.[150]

In *Countermeasures That Work*, NHTSA refers to training for law enforcement in the areas of motorcycle safety, older drivers, pedestrian safety, bicycle safety and DUII intervention.

Additionally, according to NHTSA's Highway Safety Program Guideline, March 2009 law enforcement training is essential to support traffic enforcement services and to prepare law enforcement officers to effectively perform their duties. Training accomplishes a wide variety of necessary goals and can be obtained through a variety of sources. Law enforcement agencies should periodically assess enforcement activities to determine training needs and to ensure training is endorsed by the State's Police Officers Standards and Training agency. National Highway Traffic Safety Administration Highway Safety Program Guideline No. 15 states that effective training should:

- Provide officers the knowledge and skills to act decisively and correctly;
- Increase compliance with agency enforcement goals;
- Assist in meeting priorities;
- Improve compliance with established policies;
- Result in greater productivity and effectiveness;
- Foster cooperation and unity of purpose;
- Help offset liability actions and prevent inappropriate conduct by law enforcement officers;
- Motivate and enhance officer professionalism; and
- Require traffic enforcement knowledge and skills for all recruits.

The annual law enforcement trainings sponsored in this project were chosen based on the above NHTSA guidelines to make sure law enforcement is getting current information related to traffic and case laws, officer safety information, legislative updates, networking to revitalize officer in doing self-initiated traffic enforcement as well as covering recent gaps in crash investigations and reporting due to changes at the basic police academy.

Targets Countermeasures will address

C-1) Number of traffic fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

150 Axel, N. E., Knisely, M. J., McMillen, P., Weiser, L. A., Kinnard, K., Love, T., & Cash, C. (2019, March). Best practices for implementing a state judicial outreach liaison program. Revised March 2019. (Report No. DOT HS 812 676). Washington, DC: National Highway Traffic Safety Administration.

The target is set to maintain based on the FY2023 target submitted to NHTSA. This aligns with Oregon's SHSP [TSAP] and HSIP per CFR 23 1300.11 (2)(c) (iii) State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP. These performance measures shall be based on a five-year rolling average that is calculated by adding the number of fatalities or number of serious injuries as it pertains to the performance measure for the most recent five consecutive calendar years ending in the year for which the targets are established. The CRF may be used, but only if final FARS is not yet available. The sum of the fatalities or sum of serious injuries is divided by five and then rounded to the tenth decimal place for fatality or serious injury numbers and rounded to the thousandth decimal place for fatality rates.

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$256,750	$256,750	$256,750

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

High Visibility Enforcement – CTW 3-star citation

NHTSA asserts that it is important that all members of the criminal justice system are aware of the efforts being made to reduce traffic fatalities and to that end, peer-to-peer training, education, and community outreach have been found to be most effective in promoting proven and promising practices. In *Countermeasures That Work*, NHTSA refers to training for law enforcement in the areas of motorcycle safety, older drivers, pedestrian safety, bicycle safety occupant protection, speed reduction and DUII intervention as a method of saving lives on Oregon roadways. While there is no "one size fits all" approach, Oregon has conducted citizen surveys, as well as held an in-person citizen participation and engagement survey to understand issues that residents and drivers of Oregon face. Roughly 75 percent of the top five critical driver errors/behaviors (speed, impaired driving, occupant protection, pedestrian safety and distracted driving) show that High Visibility Enforcement is the primary countermeasure that works to change driver behavior and ultimately save lives. Oregon has invested in these programs with the ultimate goal of reducing serious injury and fatal crashes on Oregon roadways in the coming years.

In 2024, the Oregon State Police and local police agencies throughout Oregon will again be awarded HVE grant projects based on state and local data analyses. Grantees will be required to participate in the following specific campaign and calendar events in 2024:

Required HVE Campaigns

- Christmas/New Year's Eve holidays (December-January) (Impaired Driving Focus)
- Click It or Ticket mobilization (May) (Occupant Protection Focus)
- Labor Day (late Aug-Sept) (Impaired Driving Focus)

For specific HVE plans and data details, see respective chapters for the HVE programs of Pedestrian Safety, Occupant Protection, Impaired Driving, Distracted Driving and Excessive Speed.

TABLE 63: HIGH VISIBILITY ENFORCEMENT BY PROGRAM AREA AND FUNDING

Program Area	**Speed**	**2024**	**2025**	**2026**
Funding Source	402	$860,000	$860,000	$860,000
Program Area	**Impaired Driving**			
Funding Source	405(d)			
Funding Source	**164AL**			
Program Area	Occupant Protection			
Funding Source	**402**	**$350,000**	**$350,000**	**$350,000**
Funding Source	405(b)	$530,700	$530,700	$530,700
Program Area	**Pedestrian Safety**			
Funding Source	405(g)	$150,000	$150,000	$150,000
Program Area	**Distracted Driving**			
Funding Source	405(e)	$1,000,000	$1,000,000	$1,000,000

Source: Transportation Safety Office Grant Files, 2018-2022

Statewide there is an overall decline in the number of citations being issued to the motoring public. The impacts of this will likely be evident in future data with a potential corresponding increase in serious injury and fatality crashes. Many agencies continue to recruit and train qualified officer candidates. This in turn makes it difficult to maintain regular patrol functions and some agencies do not have the resources to increase or in some cases, even maintain traffic enforcement levels (traffic teams/motor units). FFY2024 will continue presenting additional challenges impacting high visibility enforcement and grant funded enforcement activities.

Oregon will be pursuing Section 405(i) funding in its Annual Grant Application submittal, per § 1300.28 Driver and Officer Safety Education Grants.

Roadway Safety

Link(s) to the Transportation Safety Action Plan

Strategy 1.2.1 Provide transportation and safety leaders and staff with training, information, and education on proven methods to integrate safety into all aspects of the planning, programming, project development, construction, operations, and maintenance processes.

Overview of the Program

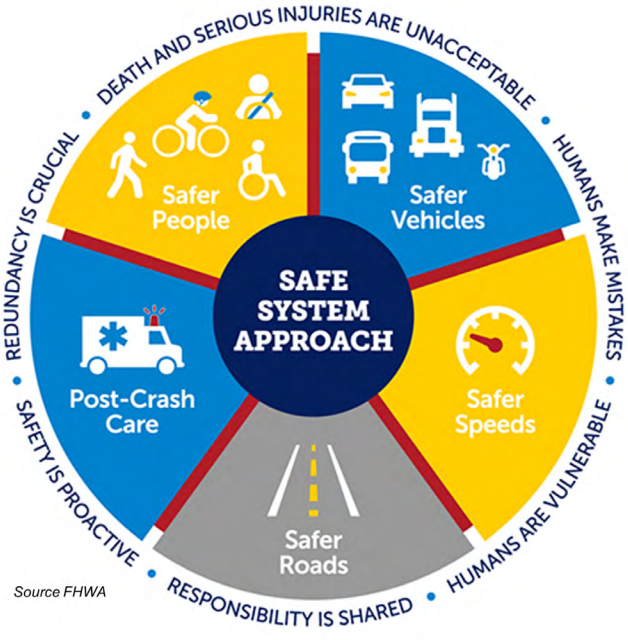
The Roadway Safety Program partners with the ODOT Traffic-Roadway Section to educate local, regional and tribal governments, as well as private contractors who build and maintain roads, to ensure that all roads are engineered to meet the highest safety standards and systematic improvements in high crash risk locations.

The Safe Systems approach – engineering, enforcement, education and emergency medical services – are the foundation of all Roadway Safety Program activities.

First implemented abroad, the Safe System approach has been linked to substantial reductions in traffic-related fatalities. Countries that have adopted the approach have experienced large decreases in deaths, ranging from 47 percent in Australia to 80 percent in Spain (Johns Hopkins University, 2021). In January 2022, the United States Department of Transportation (U.S. DOT) released the National Roadway Safety Strategy, which calls for adoption of the Safe System approach as a proven tool to reduce traffic crashes, injuries and deaths.

There are six principles that form the basis of the Safe System approach: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial.

FIGURE 158: SAFE SYSTEM APPROACH

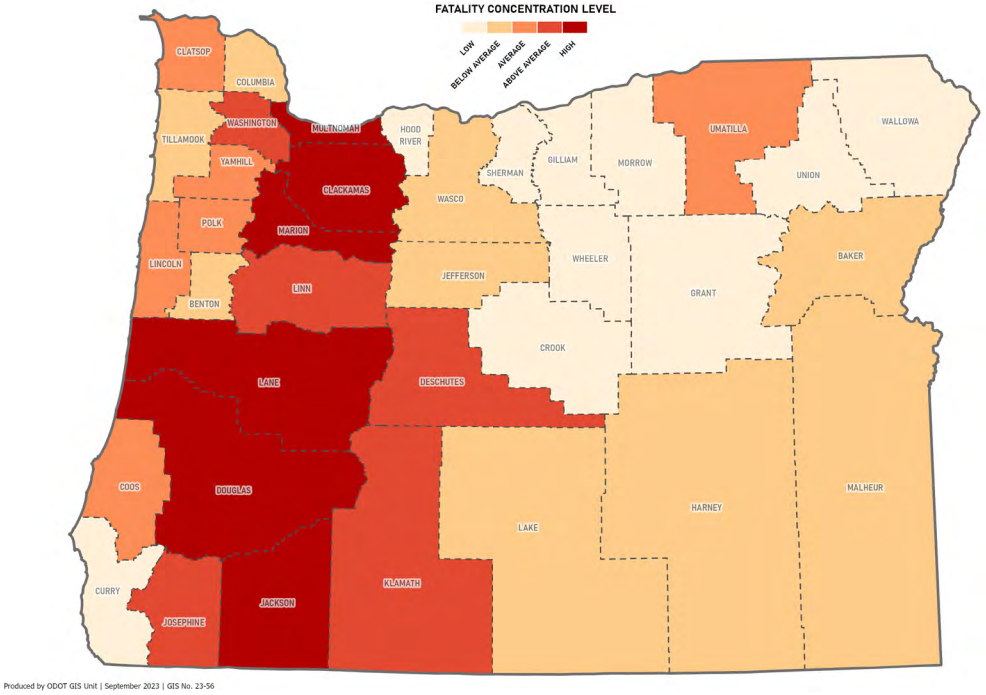


Source: Federal Highway Administration

Problem Identification [23 CFR 1300.11(b)(1)(i)(ii)]

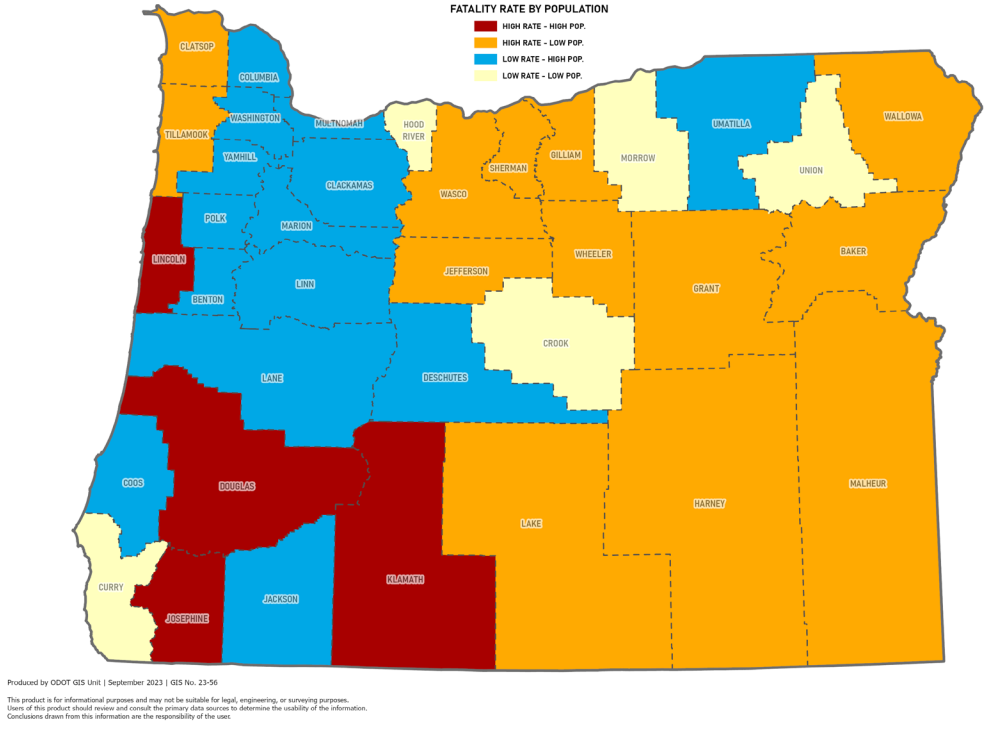
This map displays the concentration level of roadway fatalities by county (N = 3,143) compared to the national average based on the total number of fatalities between 2016 and 2020.

FIGURE 159: FATALITY CONCENTRATION LEVEL BY COUNTY



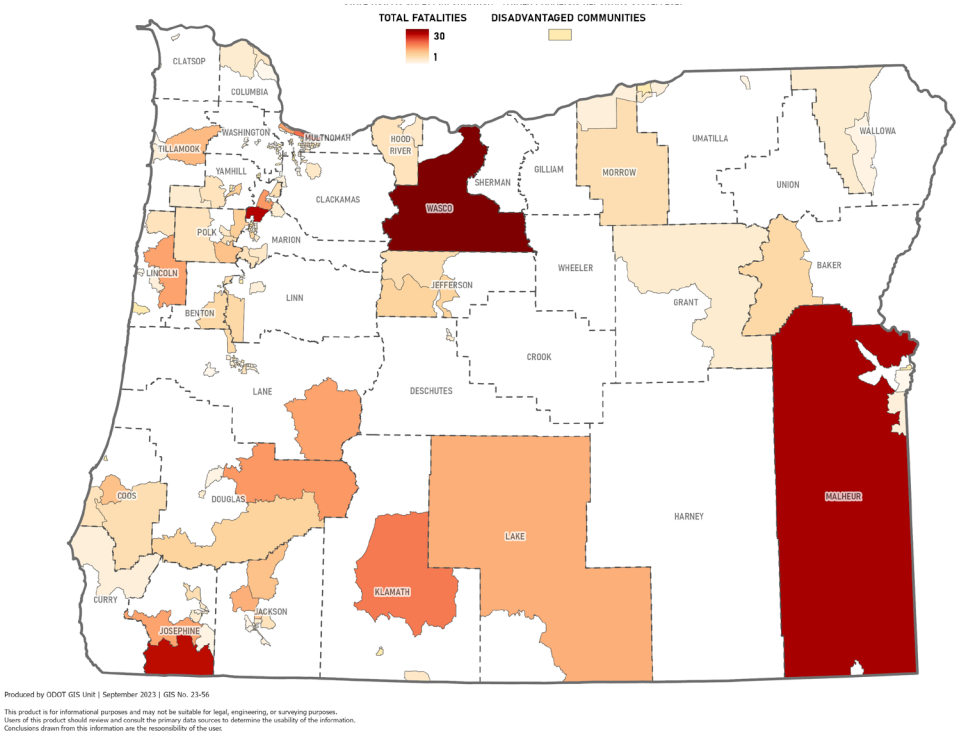
Source: Fatality Analysis Reporting System (FARS) 2017-2021

FIGURE 160: FATALITY RATE BY COUNTY POPULATION



Source: Fatality Analysis Reporting System (FARS) 2017-2021

FIGURE 161: FATALITIES IN DISADVANTAGE COMMUNITIES



Source: Fatality Analysis Reporting System (FARS) 2017-2021

OUR NATION'S ROADWAY SAFETY CRISIS (ARCGIS.COM)

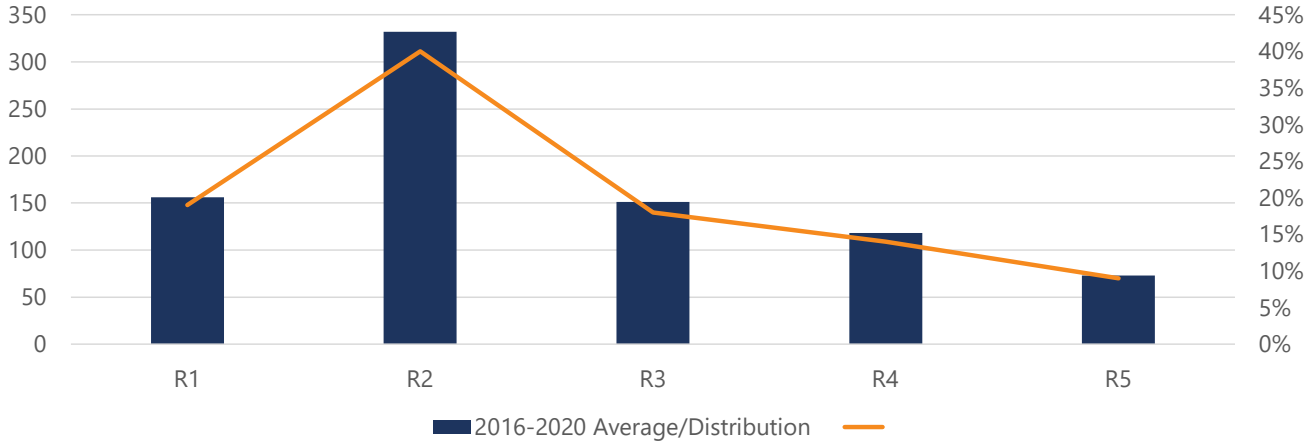
FIGURE 162: 10 HIGHEST - ROADWAY DEPARTURE FATAL AND SERIOUS INJURY CRASH DISTRIBUTION BY COUNTY 2016-2020

Source: ODOT Statewide Crash Data System

Roadway Departure

Roadway Departure Crash – a crash not related to an intersection, which occurs after a vehicle crosses an edge line, a centerline, or otherwise leaves the traveled roadway.

FIGURE 163: ROADWAY DEPARTURE FATAL AND SERIOUS INJURY CRASH DISTRIBUTION BY REGION



Source: ODOT Statewide Crash Data System (CDS)

Safety Corridors

Safety corridors are stretches of state highways where fatal and serious injury crash rates are higher than the statewide average for similar types of roadways. In an effort to reduce the number of these incidents, the stretch of road is designated as a "safety corridor" and becomes eligible for heightened enforcement and double fines for traffic infractions. Drivers may also be asked to turn on headlights during the day reduce speed and refrain from passing.

There is a public misconception of what a "safety corridor" is.

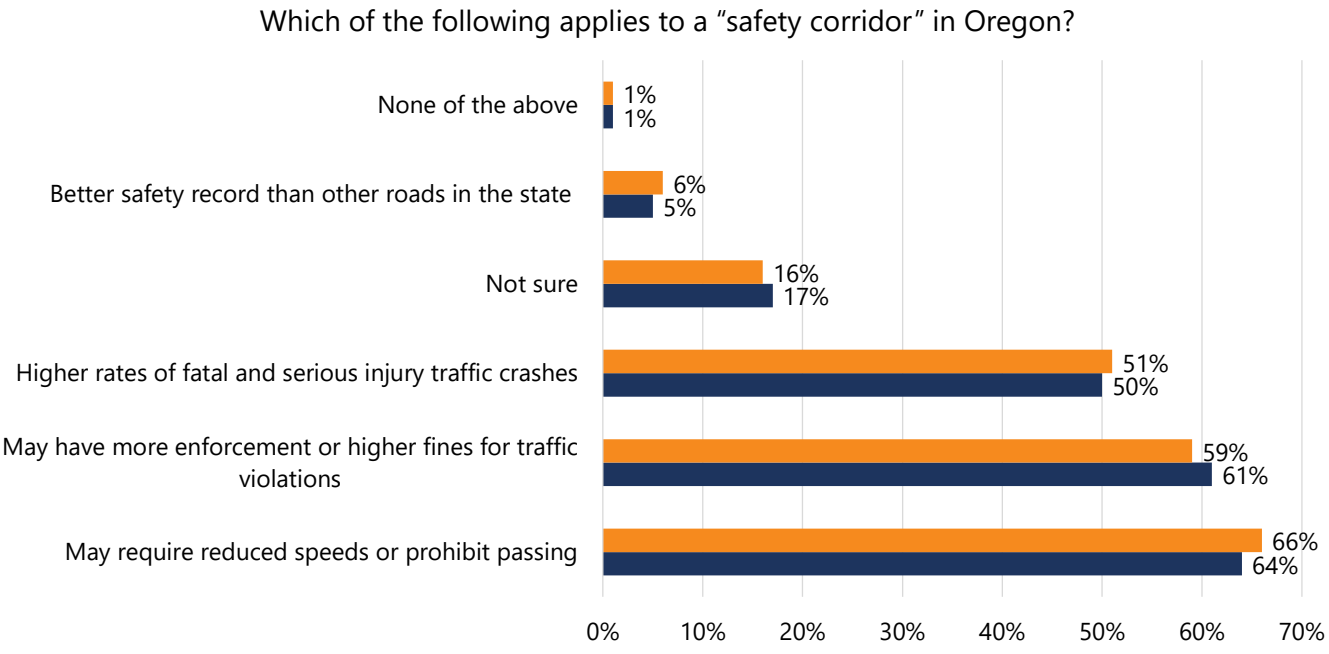
The goal of the Safety Corridor Program is to identify corridors with high rates of fatal and serious injury crashes and reduce crashes in the short-term though education, enforcement and short-term engineering solutions while exploring longer term solutions.

There are four criteria that must be met to designate a stretch of highway as a safety corridor:

1. The five-year average of the local fatal and serious injury crash rate is at or above 150 percent of the latest statewide five-year average for a similar type of roadway (as determined by the ODOT Crash Analysis and Reporting Unit).
2. The corridor length is manageable from an enforcement and education standpoint. Two to 10 miles in length is preferable; however, rural sections may be substantially longer than urban sections.
3. State and/or local law enforcement agencies commit to making the corridor a patrol priority.
4. There is a multi-disciplinary stakeholder group that meets regularly, at least annually. Stakeholders are defined as individuals, groups and agencies that have expressed a current interest in the safety corridor and are considered to have valuable input into the process.

There is no fixed limit to the number of safety corridors that can be designated simultaneously in each ODOT Region. Currently there are four designated State Highway Safety Corridors located in ODOT Regions 1, 2, 3 and 4. There are two additional County Road Safety Corridors within ODOT Region 2.

FIGURE 164: SURVEY RESPONSES



	May require reduced speeds or prohibit passing	May have more enforcement or higher fines for traffic violations	Higher rates of fatal and serious injury traffic crashes	Not sure	Better safety record than other roads in the state	None of the above
2022	66%	59%	51%	16%	6%	1%
2021	64%	61%	50%	17%	5%	1%

Source: ODOT Transportation Safety Office 2022 Public Opinion Survey. The question is "select all that apply," so the percentage will round to more than 100%.

Roadside Deaths

From 2016-2020 Oregon experienced 207 crashes involving vehicles parked off-road. These crashes resulted in 7 fatalities, 13 serious injuries, and 164 moderate and minor injuries. One-hundred crashes were property damage only. Fifty (47%) of those crashes involved heavy/medium trucks, and it is most likely this data under-represents the actual number of crashes.

Here in Oregon, from 2015 to 2020, there were 2,774 crashes that occurred in work zones, 25 of which were fatal and 114 resulted in serious injuries. From 2015 to 2021, ODOT vehicles were hit 50 times by the traveling public. Most recently in the Portland area, an ODOT worker was hit and transported to the hospital with serious injuries and is still recovering.

Oregon passed its first Move Over law in 2010 requiring drivers to move over a lane or slow down five miles below the speed limit for an emergency vehicle, a roadside assistance vehicle, a tow vehicle or ambulance, when it is displaying warning lights. In 2017, it was changed to include any vehicle stopped displaying hazard lights.

The term "first responder" is defined in 6 U.S.C. 101(6) to mean 'Federal, State, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, emergency medical (including hospital emergency facilities), and related personnel, agencies, and authorities.'"

A number of ODOT first responder vehicles currently have digital alert technologies in place.

Strategies

Education and training, public awareness, visible enforcement, speed management, digital alert technologies for first responders, law enforcement costs related to enforcing State laws to protect the safety of vehicles and individuals stopped at the roadside.

Trends

Despite the significant technological advances in motor vehicle sensing technologies (e.g., lane departure detection and collision mitigation sensing systems), road crashes have remained a pressing global health issue. The World Health Organization estimated that road injuries are the 8th leading cause of death worldwide, resulting in 1.4 million deaths annually.[151] Perhaps more importantly, the incidence of such crashes and their severity are on the rise. By 2030, traffic-related deaths are predicted to become the seventh leading cause of death worldwide. [152] The increase in annual deaths is seen in low- and high-income countries alike.

A Review of Data Analytic Applications in Road Traffic Safety. Part 1: Descriptive and Predictive Modeling - PMC (nih.gov)

Conclusion

After analyzing the data and receiving feedback from safety partners, community groups and citizens, for the next three years the Roadway Safety Program will focus on creating a media plan and employing enforcement for roadway departures, safety corridors and to prevent roadside deaths that will reach as many people as possible. Educational materials on how to prevent roadside deaths need to be provided and once the materials are created, the challenge becomes making sure those materials are reaching the right audiences.

Visible Enforcement continues to be a huge part of the Roadway Safety Program. It is a key countermeasure to educating the public as well as enforcing the laws.

Strategy

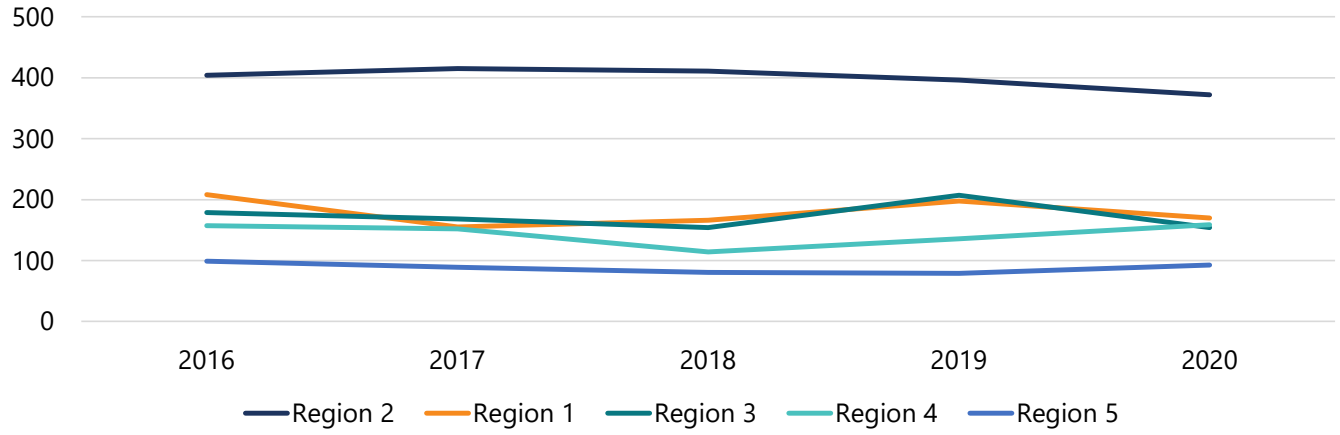
Visible Enforcement for Roadway Departure.

151 A Review of Data Analytic Applications in Road Traffic Safety. Part 1: Descriptive and Predictive Modeling - PMC (nih.gov)

152 World Health Organization WHO | The Top 10 Causes of Death. [(accessed on 24 February 2019)]; Available online: http://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death

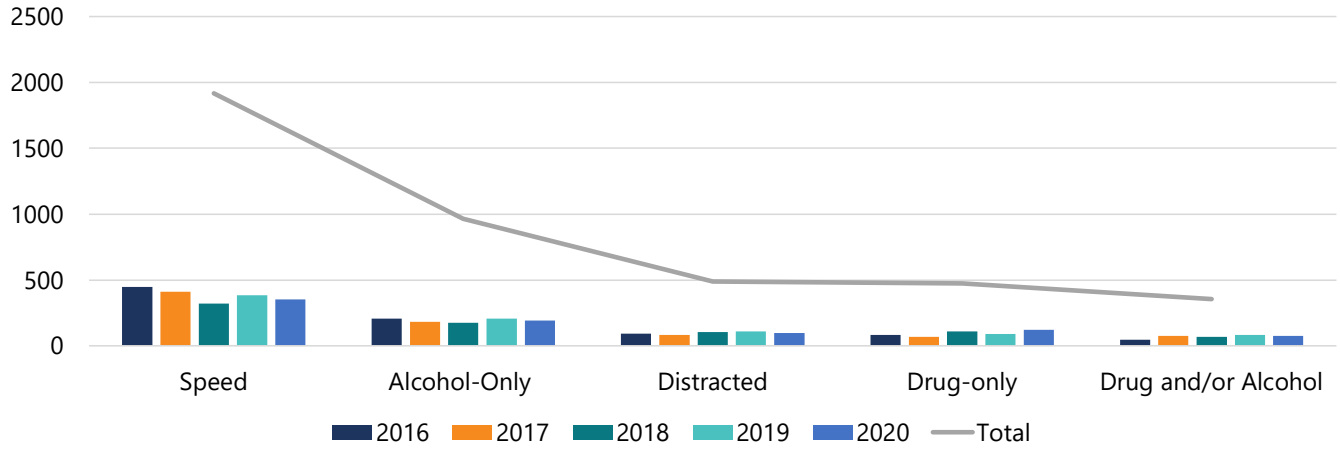
Roadway Safety Problem Identification 1300.11(b)(4)(i)

FIGURE 165: ROADWAY DEPARTURE FATALITIES AND SERIOUS INJURIES BY ODOT REGION



Source: ODOT Statewide Crash Data System (CDS)

FIGURE 166: ROADWAY DEPARTURE FATALITIES AND SERIOUS INJURIES BY AGGRAVATING FACTORS



Source: ODOT Statewide Crash Data System (CDS)

COUNTERMEASURES AND JUSTIFICATION 1300.11(B)(4)(II) 1300.12(B)(2)(VIII)

Visible enforcement

The effectiveness of enforcement has been documented repeatedly in the United States and abroad. The strategy's three components – laws, enforcement, and publicity – cannot be separated: effectiveness decreases if any one of the components is weak or missing (Nichols & Ledingham, 2008; Tison & Williams, 2010). Addressing roadway safety requires a comprehensive approach, focusing on enforcement measures and education that increase deterrence and improve road safety to save lives and prevent life changing injuries. Visible enforcement is a powerful deterrent ("Five Things About Deterrence" is available at https://ncjrs.gov/pdffiles1/nij/247350.pdf.) Areas of focus will be where crash data reflects a high number of fatal and serious injury crashes involving roadway departures and roadside crashes. Visible enforcement also occurs in identified safety corridors.

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
498	439	502	493	507	488	507	488	488	488

Number of fatal roadside deaths 1300.11(b)(3)(ii)									
Actual					5-year avg	In Progress	Projected Targets		
2016	2017	2018	2019	2020	2016-2020	2020	2024	2025	2026
1	2	1	1	2	1	2	1	1	1

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$25,000	$25,000	$25,000
FHWA	$643,000	$680,000	$680,000
405(h)	$405,000	$405,000	$405,000

Overview of Roadway Safety

The Roadway Safety Program partners with the ODOT Traffic-Roadway Section and public educational institutions to educate local, regional and tribal governments, as well as private contractors who build and maintain roads, to ensure that all roads are engineered to meet the highest safety standards and systematic improvements in high crash risk locations.

Safe Driving

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1 Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.

Overview of Safe Driving

The Safe Driving program consists of five different focus areas: Aging Road Users, Drowsy Driving, Following Too Close, Red Light Running and Lights and Swipes. Media campaigns are done for these programs to promote awareness and education to change driver behavior in these areas to prevent motor vehicle crashes, fatalities, and injuries.

Since 1982, the Transportation Safety Office has been carrying out comprehensive traffic safety public education campaigns. Research has been using to evaluate the success of each campaign and to assist with the targeting of safety messages. Surveys of Oregon's driving population indicate that these ODOT - Transportation Safety Office public information programs and efforts are widely recognized.

Problem Identification: Safe Driving 23 CFR 1300.11(b)(1)(i)(ii)

TABLE 64: AGING ROAD USER FATAL AND SERIOUS INJURY CRASHES INVOLVING PERSON AGE 65+

	2016	2017	2018	2019	2020	Total
Crash	355	336	365	420	333	**1,809**
Fatals	100	80	120	119	105	**524**
Injuries	286	280	260	328	246	**1,400**

Source: ODOT Statewide Crash Data System (CDS). Effective 2016, collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.

Aging Road Users

According to U.S. Census Bureau, Population Projections, the number of Americans ages 65 and older is projected to nearly double from 52 million in 2018 to 95 million by 2060, and the 65-and-older age group's share of the total population will rise from 16 percent to 23 percent.

Average U.S. life expectancy increased from 68 years in 1950 to 78.6 years in 2017, in large part due to the reduction in mortality at older ages. Older adults are working longer, in 2018, 24 percent of men and about 16 percent of women ages 65 and older were in the labor force. These levels are projected to rise further by 2026, to 26 percent for men and 18 percent for women. This means there will be a steadily increasing population of drivers, bicyclists and pedestrians experiencing declining vision; slower decision-making and reaction times; exaggerated difficulty when dividing attentions between traffic demands and other sources of input; and reductions in strength, flexibility, and general fitness. These are normal and expected physical and mental changes in an aging population.

As people age, it's important to monitor changes in overall health as it relates to driving. Aging impacts vision, memory, physical strength, reaction time, flexibility — all necessary for safe driving, walking and bicycling. There are significant consequences for this changing demographic, where the quality of life for aging persons depends a great deal on being able to remain independent, and where independence requires mobility. America's overwhelming choice of transit is the personal automobile.

Other mobility options include public transit, ride sharing, bicycling and walking.

The effects of aging on people as drivers are highly individual. Driving challenges that may impact people as they age include declining vision, decreased flexibility and reaction time. There are also changes in perceptual and cognitive performance. Transitioning from being an independent driver to having to depend on others for transportation is life changing. In many cases, finding resources for assistance and transportation can be difficult. There is not a specific ORS that cites for aging road user errors, it is usually reckless behaviors that cause the traffic stop and can result in a violation of ORS 811.140 Reckless Driving.

In 2020, 'Did not have right of way' ranked number one for driver error among this demographic, 1,049 crashes. The second highest error was 'Failed to Decrease Speed for Slower Moving Vehicle', 812 crashes. The third highest error is Inattention (Failure to dim lights prior to 1997), 438 crashes. The top three lcoations for these crashes are in Lane and Multnomah counties (32 crashes each) and Washington and Deschutes counties.

The 2020 Oregon Motor Vehicle Traffic Crashes Quick Facts rates 'following too close' as number nine in the Top Ten Driver Errors. Every year this is an issue for Oregon where aging road users are overrepresented in violations of this law. ODOT will be funding Aging Road Users Training during FFY 24-26 in order to reduce these crashes.

The Older Driver in Oregon: A Survey of Driving Behavior and Cessation Final Report, 2018, states one major concern raised in the literature is the number of fatalities of older drivers due to auto crashes. In fact, older drivers are three times more likely to die from injuries attributed to vehicle crashes than younger drivers (Cobb 1998; Stewart et al.1993). By 2030, the number of those who are 65 years of age or older and who drive automobiles is expected to double (Rosenbloom 2003). By 2050, it is estimated that 15 percent of all drivers will be 65 years of age or older, which is equal to approximately 50 million drivers aged 65+ on U.S. roadways (Anstey et al. 2005; Carr 2000; Carr, Shead, and Stroandt 2005; Rosenbloom 2003). Indeed, the demographic of who is driving on U.S. roadways is simply one impact of the aging of the baby-boom generation.

Drowsy Driving

TABLE 65: CRASHES INVOLVING A DROWSY DRIVER 2016-2020

	2016	2017	2018	2019	2020	TOTAL
Crash	1,390	1,318	1,279	1,309	1,081	**6,377**
Fatals	15	14	16	15	11	**71**
Injuries	1,107	1,034	1,045	1,039	795	**5,020**

Source: ODOT Statewide Crash Data System (CDS). Effective 2016, collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.

Every year Oregon lives are lost due to suspected or confirmed incidences of drivers falling asleep at the wheel. Drowsy driving crashes are known to be underreported, as they are hard to detect upon investigation, so the true numbers of drowsy driving related crashes are likely higher than statistics show.

Drowsy Driving is a concern in Oregon, especially for shift workers (early morning or late evening shifts) and often occur during the daytime driving hours. Drowsy Driving incidence is unfortunately underreported as drivers do not tend to self-report if law enforcement is not there and when they are present, it is still difficult to determine the cause. ODOT conducts a media campaign for this problem statewide during fall and summer. The majority of these crashes are a fixed object, where the second and rear-end crashes.

The following study presents new estimates of the prevalence of drowsy drivers on U.S. roads using data from a nationally representative survey of drivers and examines the role of drowsy driving in a

nationally representative sample of crashes subject to in-depth investigations. https://aaafoundation.org/pdf/2010DrowsyDrivingReport.pdf .

Red Light Running

TABLE 66: INTERSECTION CRASHES WHERE A DRIVER DISREGARDED A TRAFFIC SIGNAL

	2016	2017	2018	2019	2020	TOTAL
Crash	2,963	2,886	2,689	2,563	2,410	**13,511**
Fatals	5	12	10	15	8	**50**
Injuries	2,929	2,915	2,892	2,747	2,295	**13,778**

Source: ODOT Statewide Crash Data System (CDS)

Red light running (RLR) causes fatal and serious injury crashes in Oregon, resulting in a significant amount of debilitating brain injuries. It is essential that every driver in Oregon heed the warning to Stop on Red. Rear end collisions often cause death and injury due to speed, they are the most common collisions for all crashes, and 30 percent of them are fatal. 'Failed to avoid stopped or parked vehicle ahead' was the number one driver error in 2020. 'Following too close' crashes rate number 9 in the most common driver errors in Oregon for 2020. Distractions contribute as a variable in the severity of these crash types. ORS 811.265 Driver failure to obey traffic control device.

ORS 811.260(7), Appropriate driver responses to traffic control devices, indicates:

> "Steady circular red signal: A driver facing a steady circular red signal light alone shall stop at a clearly marked stop line, but if none, before entering the marked crosswalk on the near side of the intersection, or if there is no marked crosswalk, then before entering the intersection. The driver shall remain stopped until a green light is shown except when the driver is permitted to proceed under ORS 811.360 (Vehicle turns permitted at stop light)."

Red Light Running crashes tend to be more severe than other crash types. ODOT conducts a media campaign for this at least once annually. Hopefully, there will continue to be a decline in these crash types due to photo radar red light enforcement.

Recent legislation in Oregon now allows cities and counties to utilize automated enforcement efforts if they choose to do so, and not under the state's oversight.

In 2021, Oregon's Driver Error tables indicate that 865 drivers failed to obey a traffic signal, representing 3.7 percent of all the Driver Errors table. However, running a red light is not specifically referenced (the *Traffic Signal* category includes multiple signal types). Red light running is also not in the top ten crash causations for Oregon. **Insurance Institute for Highway Safety (IIHS)**: Red light running happens frequently and is often deadly. In 2021, 1,109 people were killed in crashes that involved red light running. https://www.iihs.org/topics/red-light-running.

In 2020, the highest incidence of 'traffic signal' collision types was Angle at 1,469 crashes, and for Turning Movements at 886 crashes. There were 2,410 total RLR crashes resulting in 8 fatalities, and 82 suspected serious injuries.

Following Too Close

Safe Following Distance is an important consideration for safe motor vehicle operation. Following too close related crashes are the ninth most common driver error in Oregon for 2020. Issues about following distance receive less attention in the media, perhaps due to the seemingly everyday nature of this type of crash. Rear end collisions often cause death and injury due to speed. Failure to avoid a stopped or parked vehicle ahead was the number one driver error in 2020. Distractions often contribute as a variable in the severity of these types of crashes. ORS 811.147. Failure to maintain safe distance from motor vehicle.

The 2020 Oregon Motor Vehicle Traffic Crashes Quick Facts rates 'following too close' as number 9 in the Top Ten Driver Errors. Every year this is an issue for Oregon, aging road users are overrepresented in violations of this law. ODOT will be funding aging road users Training during FFY 24-26 in order to reduce these crashes (see below). ODOT will also run a media campaign for Following Too Close.

From a mixed methods study to understand self-reported tailgating using the theory of planned behavior: rear end crashes contribute significantly to road trauma. In Australia, rear-end crashes account for up to 40 percent of motor-vehicle crash insurance claims, and up to 2 percent of fatal crashes, however they are responsible for 16 percent of serious injuries on urban roads and 8 percent on rural roads (Beck, 2015). Newstead et al., (2020) found that 67 percent of all fatal and serious injuries in Australia and New Zealand resulting from light-passenger vehicle rear end crashes could be mitigated with Autonomous Emergency Braking (AEB) fitted in all light vehicles. https://www.sciencedirect.com/science/article/pii/S136984782200290X

Lights and Swipes

The Oregon Legislature requires a statewide awareness campaign be conducted for the law requiring use of headlights when also using your windshield wipers (Lights and Swipes). Studies show that headlights help your vehicle to be seen more easily, especially when driving in wet, snowy or foggy weather. When driving with the windshield wipers on, drivers should also turn on their headlights for safety. While each study varies, some have noted that headlight use during the day has resulted in a reduction of crashes by up to 10 percent ORS 811.526 Safety campaign for use of headlights.

Unfortunately, there is no ORS specific to requiring use of headlights while wipers are on; therefore, there is little information available, if any, regarding traffic stops or citations issued for lack of headlights when using wipers. There is an ORS 811.515 regarding when 'lights' must be displayed (including other vehicle lights, like fog lights, etc.); and ORS 801.325 for definition of 'limited visibility condition', as applicable to ORS 811.526 requirements for an annual (at a minimum) media campaign. This is a media campaign that ODOT usually conducts during the end of fall/early winter months due to less daylight hours. Unfortunately, there is no crash data related specifically to non-use of headlights during inclement weather.

In 2021, there were 1,224 drivers cited for following too close (1st of 3 crash causation factors indicated), where drivers aged 22-44 were the most prevalent violators representing 50 percent of these crash types. Following too close also represented 5.2 percent of all driver errors reported.

Research on lights and swipes:

Importance of Headlights in Rainy Weather, July 24, 2017: Important to improve motor vehicle visualization and safety, where other cars can see you approaching during inclement weather conditions. Driving with your windshield wipers are on and your headlights off you're breaking the law. – Massachusetts

Daytime Use of Automotive Headlamps During Inclement Weather: Safety and Conspicuity, December 2011. An issue of widespread concern among drivers in the U.S. is the use of the automotive headlamps during inclement weather in the daytime, and whether there are any safety benefits in terms of reduce the likelihood of crashes when they are used (Kingery and Bullough, 2010, Bullough, 2011). This issue has led to the proposal and enactment of many state laws requiring the use of vehicle headlamps whenever conditions also require the use of windshield wipers (Kingery and Bullough, 2010), such as rain, sleet or snow.

How to Effectively Use Your Headlights: Adverse weather - Inclement weather such as snow, rain, fog and sleet can reduce visibility, making it hard to see and be seen. Using your lights during these adverse conditions can keep you and your passengers safe when the weather turns bad.

Strategy – Communications and Outreach

Communications and Outreach on safe driving behaviors will aid in addressing the problem of drowsy driving, following too close, red light running, lights and swipes, and the effects of aging on people, as drivers are highly individual.

TSO will fund contracted media design, education material revisions, social media advertising, TV and radio public service announcements and billboards, as well as TSO direct purchase, reproduction and distribution of educational and outreach materials for the Safe Driving Program. Through this project ODOT will also fund mini grants for Aging Road Users Training through certified At-Risk Instructors/ Providers.

The Aging Road Users program provides public education to inform and educate aging motor vehicle drivers and concerned citizens regarding Oregon laws, identifying warning signs that indicate when it may be necessary to limit or stop driving, and availability of resources. Driving challenges that may impact people as they age include declining vision, decreased flexibility and reaction time. There are also changes in perceptual and cognitive performance. Transitioning from being an independent driver to having to depend on others for transportation is life changing. In many cases, finding resources for assistance and transportation can be difficult.

NHTSA's *Highway Safety Program Guideline No. 13* – Older Driver Safety were referenced in determining these countermeasure strategies, as well as Countermeasures that Work, chapter 7:

Countermeasure	Effectiveness	Cost	Use	Time
1.1 Formal Courses for Older Drivers	☆☆	$	Low	Short
1.2 General Communications and Education	☆	$	Unknown	Short

Every year Oregon lives are lost due to suspected or confirmed incidences of drivers falling asleep at the wheel. **Drowsy driving** crashes are known to be underreported, as they are hard to detect upon investigation, so the true numbers of drowsy driving related crashes are likely higher than statistics show.

NHTSA's *Highway Safety Program Guideline No. 4* – Driver Education was referenced as there is no Program Guideline for 'drowsy driving.' In Countermeasures that Work, the following countermeasure is only one star for Communications and Outreach.

Countermeasure	Effectiveness	Cost	Use	Time
2.1 Communications and Outreach on Drowsy Driving	☆	$$	Unknown	Medium

NHTSA's Drowsy Driving Research and Program Plan of 2016 indicates:

> Public education regarding drowsy and fatigued driving is essential to support a comprehensive program. While experience with other safety behaviors, including seat belt use, drinking and driving and driver distraction, indicates that awareness alone will not yield significant behavior change, public education has proven to be essential for supporting other program components such as policy development and enforcement.

It goes on to recommend development of evidence-based awareness and educational messages regarding drowsy driving, where public information would be evidence-based and utilize message strategies that prove effective in focus group testing. Public information would address:

- Why drowsy driving is risky;
- How motorists can prevent drowsy driving;
- Signs and symptoms of drowsy driving; and
- Strategies for dealing with drowsiness as a driver while on a trip.

NHTSA developed this messaging in 2016-17 and it will be considered in providing public education and outreach on the drowsy driving education campaign.

Maintaining a safe following distance is an important consideration for safe motor vehicle operation. **Following too close**-related crashes are the ninth most common driver error in Oregon for 2020. Issues about following distance receive less attention in the media, perhaps due to the seemingly everyday nature of this type of crash. Rear end collisions often cause death and injury due to speed. Failure to avoid a stopped or parked vehicle ahead was the number one driver error in 2020. Distractions often contribute as a variable in the severity of these types of crashes. ORS 811.147. Failure to maintain safe distance from motor vehicle.

In regard to aggressive driving, any measures that can achieve reductions in average operating speeds, including lower speed limits, enhanced enforcement, and *communications campaigns*, as well as engineering measures, are expected to reduce fatal and injury crashes (AASHTO, 2010).

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

Communications and Outreach

There is not a NHTSA Guideline for a Safe Driving Program, as there are multiple causes for these crash types (Red Light Running, Following too Close, etc.). – Countermeasures that Work (CTW) 1 Star Citation is cited for other programs, but not this one.

There is strong evidence in Oregon and in other states that laws and enforcement efforts are only successful if they are effectively and continuously publicized, and in conjunction with high visible enforcement efforts when available (HVE). According to the National Highway Traffic Safety Administration (NHTSA), public information programs should be comprehensive, seasonally focused, and sustained.

Since 1982, the Transportation Safety Office has been carrying out comprehensive traffic safety public education campaigns. Research has been utilized to evaluate the success of each campaign and to assist with targeting safety messages. Surveys of Oregon's driving population have shown that these ODOT Transportation Safety Office public information programs and efforts are widely recognized.

This countermeasure also involves drowsy driving communications and outreach campaigns directed to the general public (Stutts et al., 2005, Strategy C1; NSF, 2004). Campaign goals usually include raising awareness of the dangers of drowsy driving; motivating drivers to take action to reduce drowsy driving; and providing information on what drivers can do, either before they start out on a trip or if they become drowsy while driving.

NHTSA has estimated that two-thirds of traffic fatalities involve behaviors commonly associated with aggressive driving such as speeding, red-light running, and improper lane changes (NHTSA, 2001).[153]

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
405e Flex	$300,000	$300,000	$300,000
402	$50,000	$50,000	$50,000

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

STRATEGY – AGING ROAD USER TRAINING

Formal Courses for Older Drivers – CTW 2 Star Citation

NHTSA's *Highway Safety Program Guideline No. 13 – Older Driver Safety* were referenced in selecting this countermeasure strategy, as well as *Countermeasures that Work*, chapter 7, Item.1.

This countermeasure involves formal courses specifically developed for older drivers. These courses are typically offered by organizations such as AAA, AARP, and the National Safety Council, either independently or under accreditation by States. The courses typically involve six to ten hours of classroom training in basic safe driving practices and in how to adjust driving to accommodate age-related cognitive and physical changes. Courses combining classroom and on the-road instruction have been offered in some locations (Potts et al., 2004, Strategy D2. Page 7-11.)

A critical and often overlooked element to improving older driver safety as identified by the National Cooperative Highway Research Program (NCHRP) is to improve older driver competency regarding local driving laws (Potts et al., 2004). For example, the majority of resources in Florida for improving older driver safety are allocated to education and awareness programs (FDOT, 2017). Another study also suggests that education is a more sustainable solution to increasing older driver safety than older driver licensure testing and screening (Keskinen, 2014). This study suggests a five-level hierarchy to guide the development of older driver education programs. Partnerships with insurance companies may also yield opportunities to improve education and awareness of older driver safety. For example, Arizona has collaborated with insurance agencies to offer discounts to older drivers who complete defensive driver courses (ADOT, 2014). Addressing Oregon's Rise in Deaths and Serious Injuries in Senior Drivers and Pedestrians - Final Report: https://www.oregon.gov/odot/Safety/Pages/Safe-Driving.aspx

153 Countermeasures that Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, 10th Edition, 2020. https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-09/Countermeasures-10th_080621_v5_tag.pdf

Age-related changes may undermine driving ability. Understanding the changes that are a normal part of aging, as well as any medical conditions that exist, and their effect on driving skills, allow a person to make informed decisions about continuing to drive. By accurately assessing these changes, older drivers and their families may be able to adjust their driving habits to remain safe on the road or choose other kinds of transportation.

Training for aging road users addresses the problem of how driving ability changes as people age. Driving challenges that may impact people as they age include declining vision, decreased flexibility and reaction time. There are also changes in perceptual and cognitive performance. Transitioning from being an independent driver to having to depend on others for transportation is life changing. In many cases, finding resources for assistance and transportation can be difficult.

TSO partners with DMV's 'Risky Drivers' program in relation to older drivers, determining countermeasure strategies that ODOT can use for aging road users in Oregon. During 2024-2026, TSO will make mini grants available to DMV Certified At-Risk Driver Education vendors/instructors to deliver aging road users training throughout Oregon to educate and assist drivers with these life changes as listed above. ODOT will participate in December's National Aging Road Users week using a news release, and social media, and rerelease of the ODOT's Aging Road Users' TV PSA.

Targets that the countermeasures will address, for the performance measure

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Speed

Link(s) to the Transportation Safety Action Plan

Strategy 3.1.2	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 3.1.5	Provide transportation safety educational opportunities for people of all ages, ethnicities, and income levels.

Overview of the Program

The Speed Program works to reduce speed-related deaths and injuries on all Oregon roads through grants to assist law enforcement agencies with enforcement and speed enforcement equipment; training in conjunction with DPSST for certification needs for radar and lidar; and to provide public information and education efforts. Law enforcement diligence in high visibility enforcement remains a top priority in order to maintain or decrease the number of speed related injuries and deaths on Oregon roadways. Under ORS 810.420, Use of Speed Measuring Device, a police officer may not issue a citation based on a speed measuring device unless the officer has taken and passed a training course, approved by the law enforcement agency that employs the officer, in the use of the speed measuring device.

Problem Identification Excessive Speeding 23 CFR 1300.11(b)(4)(i)

In 2020, 34 percent of all traffic fatalities in Oregon involved speeding. Data reflects excessive speed or driving too fast for present conditions as the number two contributing factor to fatal traffic crashes on Oregon roads in the year 2020. Twenty four percent of fatalities nationwide were speed related, making Oregon higher than the national average.

TABLE 67: SPEED INVOLVED FATALITIES AND SERIOUS AND CONVICTIONS 2016-2020

	2016	2017	2018	2019	2020	2016-2020 Average
Total Number of Fatalities Statewide	498	439	502	494	507	430
Number of People Killed Involving Speed	207	170	146	156	170	170
Percent Involving Speed	42%	39%	29%	32%	34%	35%
Total Number of Injuries Statewide	44,628	41,893	41,089	39,737	27,737	39,017
Number of People Injured Involving Speed	6,072	5,861	5,026	5,224	4,341	5,305
Number of Speed Involved Convictions	114,013	119,121	126,669	129,251	128,610	123,533
Number of Speed Racing Convictions	321	357	311	316	333	328

Source: ODOT Statewide Crash Data System (CDS)

Analysis of Crashes Involving Speed *FARS Data

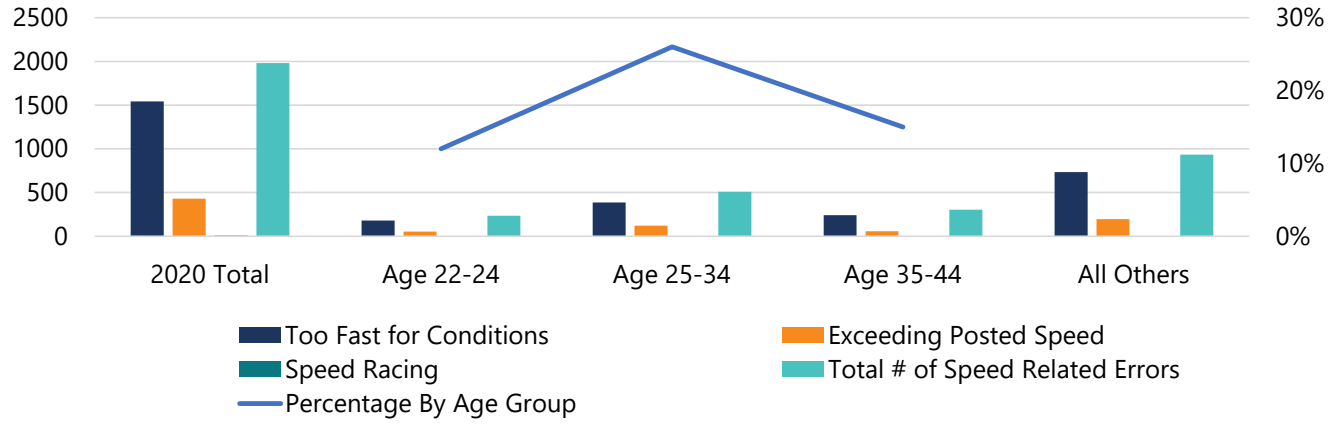
According to NHTSA, twenty-eight percent of fatal crashes, 13 percent of injury crashes, and 9 percent of property-damage-only crashes in 2021 were speeding-related traffic crashes. In 2021 there were 12,330 fatalities in speeding-related crashes, 29 percent of total traffic fatalities for the year and an increase of 8 percent from 11,428 in 2020, the highest since 2007. There were an estimated 328,946 people injured (13% of total people injured) in speeding-related traffic crashes in 2021. Thirty-five percent of male drivers and 21 percent of female drivers in the 15- to 20-year-old age group involved in fatal traffic crashes in 2021 were speeding, the highest among the age groups. In Oregon, thirty-four percent of crashes involving speed were within the 22–34-year-old age group.

TABLE 68: 2020 BASIC RULE ERROR IN OREGON CRASHES

2020 Basic Rule Errors in Oregon Crashes*	2020 Total	Age 22-24	Age 25-34	Age 35-44	All Others
Too Fast for Conditions	1542	180	386	242	734
Exceeding Posted Speed	430	54	121	58	197
Speed Racing	8	0	2	3	3
Total # of Speed Related Errors	1980	234	509	303	934
Percentage By Age Group		12%	26%	15%	

*Source: Crash Analysis and Reporting Unit, Oregon Department of Transportation. * Does not include Property Damage Only Crashes.*
Note: Speed- involved offenses and convictions count the following statutes: ORS 811.100, 811.111, and 811.125.

FIGURE 167: 2020 BASIC RULE ERROR IN OREGON CRASHES



Source: ODOT Statewide Crash Data System (CDS), Does not include Property Damage Only Crashes

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

STRATEGY - COMMUNICATIONS AND OUTREACH SUPPORTING ENFORCEMENT

CTW 3 stars citation, Chapter 3, Item 4.1.

According to *Countermeasures That Work*, high-visibility communications and outreach are essential parts of successful speed and aggressive-driving enforcement programs (Neuman et al., 2003; NHTSA, 2000). Other than enforcement, education campaigns are one of the only proven countermeasures available to reduce risky speeding behaviors. The three types of messaging Oregon uses are behavioral, enforcement, and awareness based. Funding is provided to allow for campaigns statewide, where the content of the messaging is based on the level of funding available for enforcement activities, as well as specific to the evidence-based high incidence locations to conduct enforcement.

Targets Countermeasures will address

C-6) Number of speeding-related fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
143	170	143	154	135	149	154	149	149	149

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$75,000	$75,000	$75,000

Year-round public education is necessary to inform and educate motor vehicle drivers and passengers regarding Oregon laws, the dangers of speeding and the consequences.

This Counter-Measure Addresses

- Speeding
- Excessive speeds
- Speed racing

The countermeasure strategy of communications and outreach supporting enforcement events was informed by Highway Safety Program Guideline number 19 specifically: program management, problem identification, communication program, enforcement countermeasures, legislation, regulation, policy, data and evaluation.

Strategy – High Visibility Enforcement for Speed

PROBLEM 1300.11(B)(4)(I)

Fourteen percent of all 2019 speed related traffic deaths in Oregon occurred on the State Highway System. The Oregon State Police do not currently have the staffing levels needed to appropriately enforce traffic laws to significantly reduce traffic crashes and resulting deaths and injuries especially in the more rural highways in Oregon. Multi-agency partnerships and events will be required in 2024 to help address this problem.

Oregon legislators have consistently voted to approve 'increased speed limit' bills over the past several years.

Following are facts relative to increased speed:

- Chances of dying or being seriously injured in a traffic crash double for every 10 mph driven over 50 mph - this equates to a 400 percent greater chance of dying at 70 mph than 50 mph.
- Crash forces increase exponentially with speed increases (i.e., 50 mph increased to 70 mph is a 40 percent increase in speed, while kinetic energy increases 96 percent).
- The stopping distance for a passenger car on dry asphalt increases from 229 feet at 50 mph to 387 feet at 70 mph — a 69 percent increase in stopping distance.

Countermeasures and Justification 1300.11(b)(4)(ii)

STRATEGY: HIGH VISIBILITY ENFORCEMENT

The Speed Enforcement Program will provide grants to local City, County and Tribal police agencies as well as the Oregon State Police to conduct enforcement activities that will maintain or increase compliance with Oregon's posted speed limits. Funding is provided to local law enforcement agencies with an emphasis on speed enforcement, but also to stop other traffic related violations when observed. Each law enforcement agency will determine their deployment schedule for their resources and focus on areas with high incidents of speed related problems and crashes.

In Oregon, enforcement, and especially High Visibility Enforcement missions have proven to be the number one countermeasure to correct and improve poor driver behavior. Law enforcement agencies are encouraged to coordinate efforts throughout their local areas by teaming up and conducting HVE events as a team. During 2023, fifty local police departments, sixteen Sheriff's Offices and the Oregon State Police participated in Oregon's speed HVE program. Many of these agencies enforce speed laws as a matter of routine when working traffic; however, the smaller local departments often do not have dedicated traffic enforcement officers so rely on the federal funds to focus on traffic safety problems in their communities. HVE has been the strongest countermeasure strategy toward reducing driving speeds on Oregon's roadways. The countermeasure strategy of HVE enforcement was informed by Highway Safety Program Guideline number 19 specifically: program management, problem identification, communication program, enforcement countermeasures, legislation, regulation, policy, data and evaluation. Projects are funded based on a Notice of Opportunity and subsequent receipt by TSO of a Letter of Interest, sent to all law enforcement agencies. The Letter of Interest includes a problem identification statement which identifies specific locations for enforcement and the grant amount requested by the agency. Awards are partially based on previous performance.

The TSO Speed Program will provide grants to local police departments, sheriff's offices, tribal police, and Oregon State Police to conduct enforcement activities that will increase compliance with speed laws. Agencies are encouraged to do multi-jurisdictional enforcement. Funds will also be allocated between the regional coordinators for agencies to purchase speed measuring equipment to assist with the completion of speed enforcement HVE objectives.

- Use CARS data to identify high crash locations as well as the Badge Data system's reported information for arrests, and locations with high incidence of crashes for issuing speed related citations during High Visibility Enforcement efforts.
- Encourage agencies to conduct Multi-Agency High Visibility speed enforcement operations targeting primary crash locations and speed violations.
- Fund law enforcement personnel activities, straight time and overtime, and radar and lidar units. Although HVE for speed enforcement has only a 2 star for the CTW citation, surveys conducted via research firms and during community engagement events in recent years by TSO have proven that high visibility enforcement is the most effective means of changing societal behaviors related to speeding in Oregon.

Speed Citations issued during Grant Funded Activities, 2018–2022

	FFY 2018	FFY 2019	FFY 2020	FFY 2021	FFY 2022
Speeding citations issued	4,238	11,456	4,489	7,247	5,324

Sources: TSO Grant files, 2018 – 2022. This involves speed citations issued in all 5 HVE programs.

According to AAA 2020 Traffic Safety Culture Report

- More than half of drivers (52.3%) indicate that speeding on a freeway is extremely or very dangerous, while roughly 85 percent of drivers perceive driving through a red light as extremely or very dangerous.
- About 60 percent of respondents felt that the police would catch a driver for traveling 15 mph over the speed limit on a freeway, yet 45.2 percent reported having done so in the past 30 days.
- Fewer than 50 percent of drivers support a law for using cameras to automatically ticket drivers who drive more than 10 mph over speed limits on residential streets.

Target Countermeasures will address 1300.11(b)(3)(ii)

C-6) Number of speeding-related fatalities (FARS)									
Actual					**5-year avg**	**In Progress***	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020 avg.	2021	2024	2025	2026
143	170	143	154	135	149	154	149	149	149

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	2024	2025	2026
402	$860,000	$860,000	$860,000

Traffic Records

Link(s) to the Transportation Safety Action Plan

Strategy 2.1.1 Enhance crash data quality using a coordinated effort with ODOT and partner agencies and stakeholders.

Highway safety information systems are critical to the development and management of transportation safety programs and policies, and for decision making among various organizations. Reliable data provides the framework to create effective campaigns and projects to reduce injuries and fatalities in Oregon. The Traffic Records Coordinating Committee (TRCC) provides coordinated leadership in Oregon to improve transportation safety through data improvements that minimize duplication, improve uniformity, advance electronic data collection, and facilitate timely data access and use.

Overview of Program

The Traffic Records Program provides funding selected based on performance measures identified in the Traffic Records Assessment and Traffic Records Strategic Plan annually approved by the Traffic Records Coordinating Committee. The projects selected are designed to improve traffic records performance measures, and to allow for more timely, complete, accurate, integrated, accessible data.

The countermeasure strategy of traffic records improvement was informed by Highway Safety Program Guideline number 10 specific to traffic record system information components, traffic records system information quality, uses of a traffic records system, traffic records system management. Projects are selected by the Traffic Records Coordinating Committee under the guidance of the Traffic Records Strategic Plan.

In considering how to reduce fatal crashes, NHTSA prescribes a body of countermeasures in the form of information gathering to create traffic records, first by assessing the state of the traffic records collection and development systems at play in any state.

The *Countermeasures that Work* document does not provide countermeasures specific to Traffic Records, nor does it contain a chapter on the topic. That led staff to examine the uniform guidance for the Traffic Records program which provides an extensive listing of possible traffic records improvements meeting the program funding and model system documentation. A copy of this document can be found here: https://one.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/pages/guideline10-march2009.pdf

In the guidelines the document outlines the major components of a traffic records system and key information needed to develop an effective crash and fatality reduction program. The guidelines further indicate that quality traffic records provide an informational background for project selection of all other interventions (also confirmed by the 1949 research identified) thus the problem – fatal crashes, can be improved by better "targeting capabilities" as embodied in timely and accurate crash, driver, vehicle, roadway, citation, adjudication, and injury surveillance data. The guidelines point to a traffic records assessment as the best way to conduct a problem ID for traffic records likely to reduce fatal crashes. Oregon used the traffic records assessment to identify potential projects, and to narrow the field of ideal improvements to the Oregon traffic records system. For Oregon, this assessment is found here: https://www.oregon.gov/odot/Safety/Documents/Oregon_Traffic_Records_Assessment_Final_Report_2021.pdf

This assessment forms the core of Oregon's problem identification process. Each project was selected as an actionable means to move an assessed element of Oregon's traffic records program forward, the resulting improvements will lead to eventual reductions in fatal crashes in Oregon, typically they will not occur within the grant period, but will achieve fruition at a future date.

Problem Identification Traffic Records 23 CFR 1300.11(b)(1)(i)(ii)

Fatalities and serious injuries in Oregon have been steadily increasing since 2014 with an average annual increase of 41 fatalities and serious injuries per year, representing a 13 percent increase overall.

Key findings for contributing factors in Oregon's fatal and serious injury crash data:

- Nearly all contributing factors have increasing trends over the 2016-2020 average.
- A little less than half occurred on state highways (49%), holding steady with the 2016-2020 average.
- Crashes on rural roads have increased to 44 percent, up from the 41 percent 2015-2019 average and crashes on urban roads have decreased to 56 percent, down from the 2015-2019 average of 59 percent.
- Consistent with past years, in 2020 the highest percentage of crashes resulted from roadway departure at 40 percent, while 37 percent occurred at intersections.
- Seventeen percent of 2020 fatal and serious injury crashes involved unlicensed drivers.
- Crashes involving impairment accounted for 28 percent of all 2020 fatal and serious injury crashes (upward trend). Poly-substance[154] crashes represent 20 percent of all impaired crashes, up from 14 percent in 2016. Controlled substances or recreational drugs were decriminalized in Oregon in February 2021 (Ballot Measure 110), so it is anticipated that the poly-substance crash trend will only continue upward.
- Crashes involving speed accounted for 22 percent of all 2020 fatal and serious injury crashes.
- Although motorcycles make up only 3.5 percent of registered vehicles in 2020, 14 percent of fatal and serious injury crashes involved a motorcycle. The two most common aggravating factors in motorcycle crashes are speed and impairment. In 2020, 30 percent of all motorcycle fatal and serious injury crashes involved a speeding motorcyclist, while 10 percent involved the use of drugs and/or alcohol by motorcyclists.
- Crashes involving a pedestrian or bicyclist have continued to increase. Pedestrian deaths have increased from an average of 78 people killed annually between 2016-2020 to 80 people in 2020. Bicycle deaths have increased from an average of 11 in that same time period to 14 in 2020.
- Driver records include the history of the drivers traffic offense convictions, court ordered driver education participation, and DMV improvement programs among other pieces of information useful for understanding Oregon driver risk profiles. Beyond information collected in citations and crash reports by police, little information exists in Oregon about driver risk profiles and how those risk profiles differ by age, gender, educational attainment, income, and geography. Additionally, it is not known how driver intervention strategies such as driver education programs and ODOT's Driver Improvement program impact those risk profiles for Oregon drivers. This information could be used to develop new strategies for intervention in relation to the highest risk drivers in Oregon.

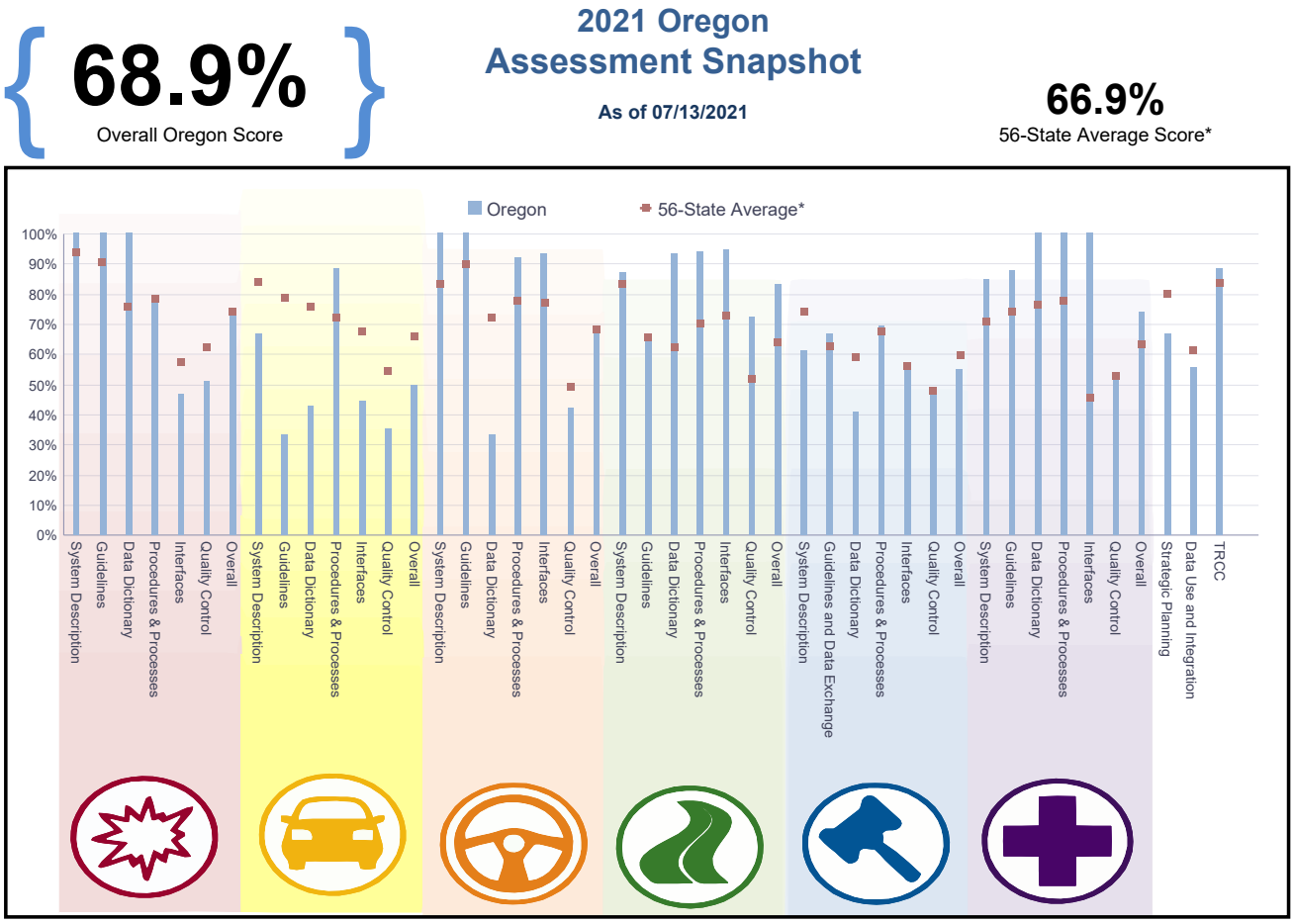
154 Poly-substance is defined in ODOT crash data as an active participant (i.e., driver, ped, bicyclists) who had been using both alcohol and drugs; one active participant had been using alcohol, and another had been using drugs, or any such combination as long as both alcohol and drugs were present.

The 2021 NHTSA Traffic Records Assessment of Oregon's program identified a number of problems or areas for improvement relating to Oregon's traffic records systems. Specific highlights included the following:

- The use of automation, especially for field data collection, continues to lag behind in Oregon. Collection of crash, citation, roadway, and EMS data have been reviewed for the benefits that electronic collection would provide. To date, there is some use of automation for data collection that's been implemented for citations and crash reports, with significant improvements made to EMS first response reports; but there's more to be done. There is also a need for a public web-based tool for involved drivers to report crashes online.
- Access to crash data online continues to be limited and is not presented using citizen or user-friendly analytical tools that support GIS mapping and non-spatial analysis (e.g., cross-tabulated data aggregation) through a single point of access.
- Oregon continues to lack a fully deployed standardized, unique identifier system that tracks crash victims/patients across incidents; such a system would allow for subsequent linkage with specific crash and other data.
- There is a continued need for crash report completion training to be delivered to law enforcement, as well as targeted training for engineers, prosecutors, judges, and EMS providers to promote improved crash data collection and quality.
- Roadway information is not fully available for all public roads in the state, whether under state or local jurisdiction. ODOT does not have a clear, consistent linear referencing system for highways in Oregon; the same road may have multiple numbers and duplicate milepost numbers, causing confusion for emergency responders.

The following graphic details how Oregon stacks up against 56 other states or territories that have recently conducted NHTSA Traffic Records Assessments, giving a visual representation of how Oregon is doing relative to others. Oregon is doing well in many areas, but as with all programs, there are areas where improvements can be made, allowing ODOT to develop a clearer picture of transportation safety issues and how to combat them.

FIGURE 168: 2021 OREGON ASSESSMENT SNAPSHOT



Source: National Highway Traffic Safety Administration Assessment Contractor

Trends

After analyzing the data prepared to promulgate the 2021 NHTSA Traffic Records Assessment, the Traffic Records Committee, in coordination with local and state traffic records creators, assemblers, and users created a Traffic Records Strategic Plan to guide future Traffic Records projects, following uniform guidelines, model guidelines, and available standards like NEMSIS and MIRE. In addition, feedback from safety partners, community groups and citizens were considered in harmonizing the three year highway safety plan and the Traffic Records Strategic Plan to develop the next three year Traffic Records Program, which will focus on improving Oregon traffic record deficiencies as identified in the 2021 NHTSA Traffic Records Assessment, and improving one or more qualifying performance measures.

Strategy – The Traffic Records Program employs the following strategies:

- Improves timeliness of a core highway safety database.
- Provide labor and resources to improve EMS records and availability in a timely accurate manner.
- Provide tools and training to local law enforcement to issue electronic citation and crash documentation.
- Provide labor, software, and assistance to improve the overall functionality of the crash records system.
- Provide resources to better integrate EMS, crash, and possibly other data in Oregon, and where possible improve access.
- Provide software and assistance to improve the overall completeness and accessibility of the roadway systems measurements and data.

Qualifying Performance Measure Progress

To qualify for section 405c funds Oregon must demonstrate progress on a selected performance measure. For the 2024 grant year, progress was measurable on performance measure I-T-2, the percentage of ePCRs entered into OR-EMSIS withing 24 hours from datetime of EMS Unit Back in Service. The performance measure moved for a 2019-21 average of 56.9 percent from April 1 to March 30, to 60.9 percent percent in the year 2022, demonstrating a substantial improvement. The below chart provides a screenshot per the Oregon Health Authority:

Performance Measure	**Timeliness I T-2: The percentage of ePCRs entered into OR-EMSIS within 24 hours from datetime of EMS Unit Back in Service.**
Year	**% ePCRs < 24 hrs**
2019-2021	56.90%
2022	60.90%

Public Participation and Engagement

The Traffic Records Coordinating Committee (TRCC) serves as the primary public engagement tool for the traffic records program. The TRCC meets at least quarterly to discuss the state of Oregon's traffic records system, and shares information about the status of systems. In addition to this group, most of the systems have both technical and either public or semipublic advisory committees. For example, a group of law enforcement officers advise the Criminal Justice Commission on the STOP citation database and meet quarterly. In addition to these traditional government systems, TSO conducted an engagement event that sought information from non-traffic records citizens and local government perspectives. What we learned at the engagement event was there is a need for more accessible data in easy to understand and use formats. In addition to this high level ask from citizens, some more specific requests were to continue with e citation and e-crash automated reporting to keep the volume of reports at a reasonable level, a need for system improvements to the EMS reporting system. The key takeaways were a need for more accurate and accessible data.

Countermeasures and Justification 1300.11(b)(4)(ii) 1300.12(b)(2)(viii)

High-quality state traffic record data is critical to effective safety programming, operational management, and strategic planning. Every state should maintain a traffic records system that supports the data-driven, science based decision-making necessary to identify problems; develop, deploy, and evaluate countermeasures; and efficiently allocate resources. Federal statute requires states to certify that "an assessment of the state's highway safety data and traffic records system was conducted

or updated during the preceding 5 years" to qualify for a state traffic safety information system improvements grant, per. 23 U.S.C. §405(c). NHTSA regulations in 23 C.F.R. §1300.22(b)(4) require that the assessment comply with "procedures and methodologies" outlined in this advisory. 23 C.F.R. §1300.22(b)(4).

The document provides guidance on three different assessment processes so that states may choose the process that best fits their needs. The Traffic Records Program Assessment Advisory provides voluntary guidance and describes the ideal traffic records systems from which states can assess their capabilities. Like the 2012 version, this updated advisory provides contents, capabilities, and data quality of an effective traffic records system by describing an ideal system that supports high-quality decisions and leads to cost-effective improvements in highway and traffic safety. The benefit for states to align to the description of the ideal traffic records system would be to ensure that complete, accurate, and timely traffic safety data is collected, analyzed, and made available for decision making, which is central to identifying traffic safety problems, and designing countermeasures to reduce injuries and deaths caused by crashes.

The ideal described is aspirational, and there is no expectation that states align perfectly with the ideal as described. A national group of subject matter experts developed this advisory as an experiment for states to identify their traffic records system's strengths as well as opportunities for improvement. Worldwide scientists have seemingly not conducted research into the intrinsic value of traffic records in reducing crashes, thus limited research or even professional writing exists.

One citation from NHTSA, DOT HS 811 441, February 2011, Model Performance Measures for State Traffic Records Systems goes into detail about measures but does not discuss the intrinsic value of traffic records. There is also a paper detailing the value in the form as follows: Some Statistical Aspects of Road Safety Research, R. J. Smeed, Journal of the Royal Statistical Society. Series A (General), Vol. 112, No. 1 (1949), pp. 1-34 (34 pages). This research from 1949 is the only actual research staff was able to identify that supports creation and tracking of traffic records. NHTSA reports they see the value of traffic records as a means to learn about the precursors to crash events, the details of events, and the response to and after such events, and the participants involved in each stage (i.e. Haddon's Matrix), but has seemingly not invested in research into highway safety improvements that occur in the presence of traffic records.

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
405(c)	$1,152,000	$500,000	$500,000
1906	$1,100,000	$1,100,000	$1,100,000
402	$200,000	$200,000	$200,000

Vehicle Equipment Safety Standards

Link(s) to the Transportation Safety Action Plan

Strategy 1.1.1	Promote safe travel behavior through educational initiatives, focusing on how system user behavior can contribute to a safer transportation system for all.
Strategy 5.3.1	Collaborate with the media and agency public information offices to develop information which improves public awareness of safety programs, laws, roles, responsibilities, and expectations. Ensure campaigns take into account Oregon demographics.

Vehicle Equipment Overview

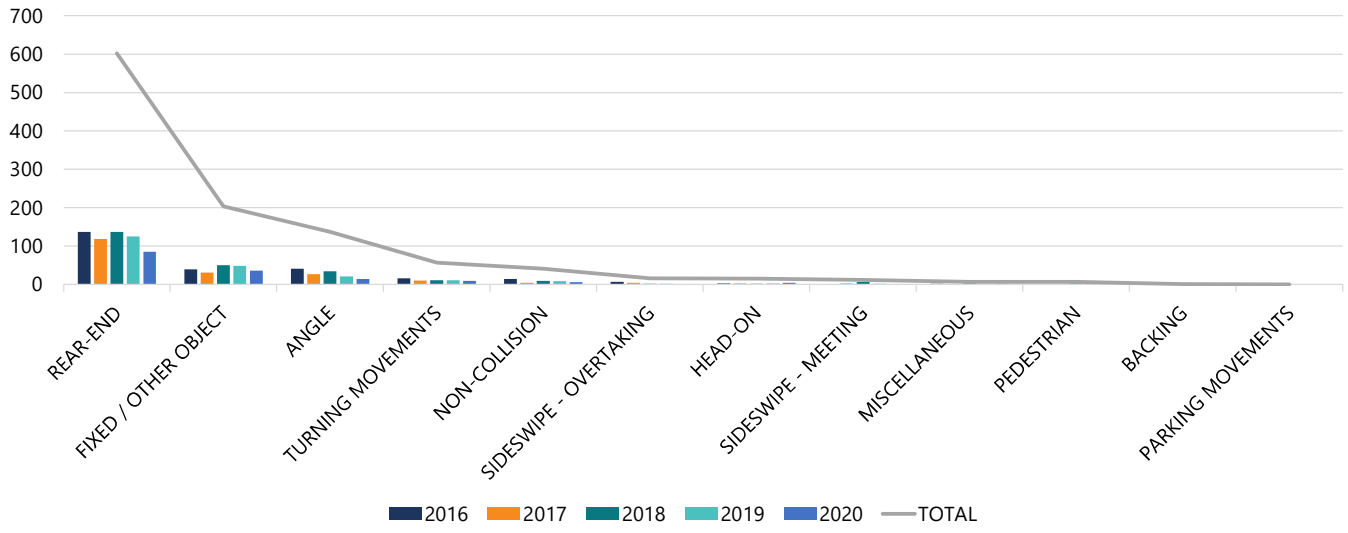
The Vehicle Equipment Safety Standards Program provides resources regarding vehicle equipment standards as they relate to federal and state laws and rules. The program also administers the Emergency Vehicle Designation and Tow Truck Equipment programs.

Vehicle Equipment Problem Identification 23 CFR 1300.11(b)(1)(i)(ii)

The National Highway Traffic Safety Administration (NHTSA) states that rear-end collisions are among the most common type of car crash. They happen every eight seconds in the United States, which adds up to a staggering 2.5 million rear-end collisions every year.

From 2016-2020 an average of two people a year lost their lives in Oregon due to defective brakes. Over that same time period, there were an average of 220 injuries from crashes due to defective brakes. Other vehicle safety equipment failures that are contributing to fatal and serious injury crashes include tire and wheel failures, steering equipment failures, and other vehicle defect failures.

FIGURE 169: FATALITIES AND INJURIES DUE TO DEFECTIVE BREAKS 2016-2020



Source: ODOT Statewide Crash Data System (CDS)

Challenging driving conditions (rain, fog, snow/ice), congestion, and aggressive, distracted, and/or impaired driving are also aggravating factors in these crashes as they contribute to more reliance on proper equipment function and less on defensive driving strategies. This creates an environment which requires vehicle safety equipment to always function at peak performance levels at all times to offset the aggravating factors' impact in avoiding crashes. When the safety equipment fails there is little to no margin available to avoid these preventable crashes.

Neither long- nor short-term resident drivers are well-informed about Oregon's vehicle equipment/operation laws. This lack of knowledge presents challenges to a safe transportation system. Drivers unknowingly violate equipment and operation statutes by failing to properly maintain their vehicles, adding non-permissible equipment, or violating vehicle operation laws by using unsafe equipment. While Oregon law requires motorists to maintain their vehicle in a safe manner and ensure the equipment is functioning as required by law, there is a growing lack of general political support for the enforcement of these laws. This lack of support is leading to reduced levels of enforcement and will likely result in an increase in vehicle safety equipment failure-related crashes, injuries, and deaths. Crashes are preventable, and through education, enforcement, and compliance with the laws the stated target for reduction is achievable.

Oregon currently does not have a trailer brake requirement. ORS 815.125 (7) only addresses that a combination of vehicles must be able to stop within a certain distance at a certain speed. This can contribute to crashes as a result of the lack of awareness for the total distance required to safely slow or stop a vehicle/trailer combination.

Law enforcement lacks the resources (personnel, dedicated traffic enforcement teams, budget) to consistently pursue vehicle equipment violators. Equipment violations are a low priority issue in relation to competing law enforcement time demands.

Data Analysis

From 2020-2022 the Oregon Driver and Motor Vehicle Services recorded 22,478 convictions related to vehicle safety equipment violations which include, but are not limited to, 2,241- using equipment improperly, 2,196 - operating without required equipment, and 78 - operating without brakes.

Rear-end crashes due to defective brakes continue to occur, resulting in 602 fatalities and injuries occurring between 2016 and 2020.

Conclusion

Drivers continue to violate federal and state laws and rules related to vehicle safety equipment. This occurs as a result of intentionally or unintentionally using non-compliant equipment and/or delaying necessary repair or replacement of critical safety equipment.

- Equipment retailers are making non-compliant products available which vehicle owners assume are legal on-road equipment for use on their vehicles. When using these products on public highways, the non-legal application of some of these modifications adversely affects other highway users' safety.
- Vehicle owners who modify their vehicles without permitted equipment or lawful application may alter their vehicle to a condition where they are operating out of compliance with federal and state laws and rules.
- Vehicle owners may be unaware of necessary equipment maintenance or for the need for critical repair and replacement of safety equipment. This is also contributing to fatal and serious injury crashes.
- There may be cultural differences regarding awareness, commitment to compliance, and an understanding of the penalties associated with existing vehicle safety equipment laws and rules.

Law enforcement availability, which traditionally serves in the education and enforcement role of vehicle safety equipment compliance, continues to be limited as increased demands for service and reduced resources available for traffic law enforcement activities occupy their priorities. An apparent decline in some political support of enforcement of vehicle safety equipment laws may result in less enforcement and might be contributing to more crashes, injuries, and fatalities due to equipment failure or use of non-permitted equipment.

Public Participation

Examples of public feedback received:

Transportation Safety Office Conference, March 14, 2023, held in Grand Ronde, Oregon:

Comment: Inform drivers of braking issues when towing a trailer.

Response: The Transportation Safety Office currently publishes Towing a Trailer in Oregon booklet.

In addition to the state conference, public participation arrives directly through DMV call center referrals, Ask ODOT emails, internal peers, county and other state agency peers, TSO vehicle equipment website and direct calls, law enforcement officers and agencies, as well as program manager initiatives and identified information deficiencies.

Strategy - Training and Education for Vehicle Equipment Safety

COUNTERMEASURES AND JUSTIFICATION

Many drivers lack knowledge about Federal and State of Oregon vehicle safety equipment requirements. This lack of knowledge presents hazards as drivers continue to violate safety equipment statutes and rules - leading to avoidable crashes. This project intends to reduce traffic crashes through specific education about safety equipment requirements and encourage compliance with vehicle safety equipment laws.

Within the Safe System approach is education - engineering, enforcement, education and emergency medical services.

First implemented abroad, the Safe System approach has been linked to substantial reductions in traffic-related fatalities. Countries that have adopted the approach have experienced large decreases in deaths, ranging from 47 percent in Australia to 80 percent in Spain (Johns Hopkins University, 2021). In January 2022, the United States Department of Transportation (U.S. DOT) released the National Roadway Safety Strategy, which calls for adoption of the Safe System approach as a proven tool to reduce traffic crashes, injuries, and deaths.

There are six principles that form the basis of the Safe System approach: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial.

Public safety education campaigns are necessary to ensure vehicle equipment standards are understood and complied with by the owner of each vehicle to ensure the vehicle is road ready. As the standards continue to be updated and additional federal and state laws are updated or modified, education campaigns continue to be necessary for the maintenance of life saving equipment. In a study of "Lives Saved by Vehcile Safety Technologies 1960 to 2012"[155] - "NHTSA began in 1975 to evaluate the effectiveness of vehicle safety technologies associated with the Federal Motor Vehicle Safety Standards. By June 2014, NHTSA had evaluated the effectiveness of virtually all the life-saving technologies

155 Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069

introduced in passenger cars, pickup trucks, SUVs, and vans from about 1960 through about 2010. A statistical model estimates the number of lives saved from 1960 to 2012 by the combination of these life-saving technologies. Fatality Analysis Reporting System (FARS) data for 1975 to 2012 documents the actual crash fatalities in vehicles that, especially in recent years, include many safety technologies."

NHTSA issues Federal Motor Vehicle Safety Standards (FMVSS) to implement laws from Congress. These regulations allow us to fulfill our mission to prevent and reduce vehicle crashes.[156]

Targets Countermeasures will address 1300.11(b)(4)(iii)

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
402	$15,000	$15,000	$15,000

Project Overview

This project will be part of the agency wide Statewide Services program for public information and education related to vehicle safety equipment. This project intends to reduce traffic crashes through encouragement of compliance with vehicle safety equipment laws through education and outreach.

156 NHTSA website https://www.nhtsa.gov/laws-regulations/fmvss.

Work Zone

Link(s) to the Transportation Safety Action Plan

Strategy 2.3.6 Implement best practices to eliminate work zone-related fatalities and serious injuries.

Work Zone Program Overview

Work Zone Safety – Reduces deaths and injuries in all roadway and utility work zones. This is achieved through a comprehensive program, which includes the Safe Systems Approach.

Program Change effective July 1, 2021: High visibility law enforcement services have been integrated into project delivery. This change will allow project delivery teams to direct project charge for Work Zone Law Enforcement (WZLE) activities instead of vying for limited and prioritized WZLE grant funding. This change requires Project Development Teams (PDTs) to identify, plan and budget for WZLE resource needs on projects. The Transportation Safety Office Region Transportation Safety Coordinators (RTSCs) will continue to facilitate agreements with the law enforcement agencies and provide liaison support throughout the lifecycle of each project.

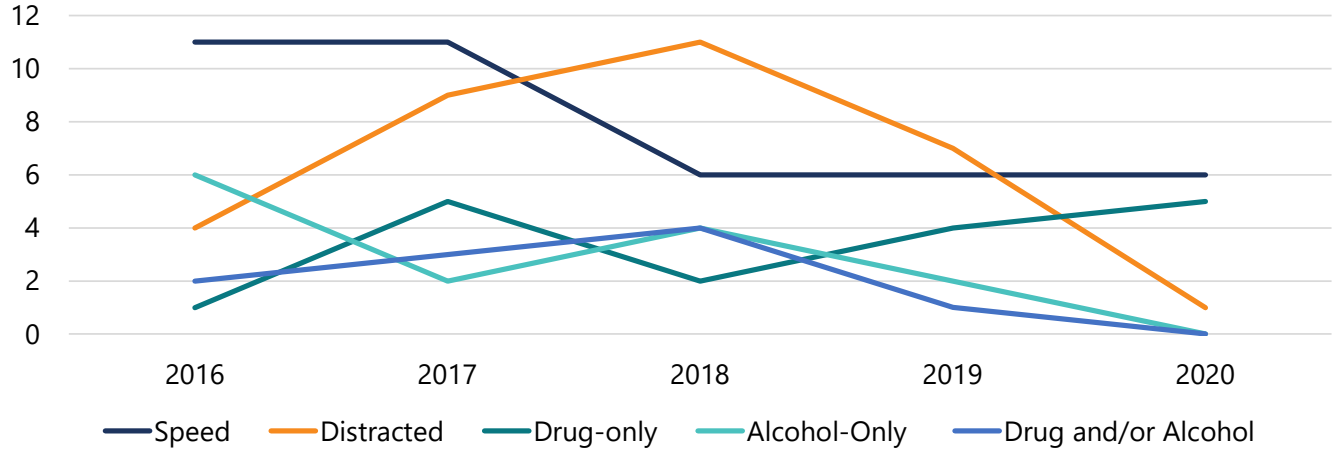
Work Zone Problem Identification 23 CFR 1300.11(b)(1)(i)(ii)

Work zones present a unique, fluid and multi-faceted experience to roadway users. A wide variety of unusual and unexpected driving conditions is the norm in many work zones. It is imperative to recognize:

- There is higher potential risk for crashes in work zones.
- Driver inattentiveness continues to be a top cause of work zone crashes.
- The potential for work zone crashes is exacerbated by issues related to speeding and distracted driving.
- Work zone crashes impact drivers, their passengers and construction workers.
- According to national studies, work zone crashes tend to be more severe than other types of crashes.

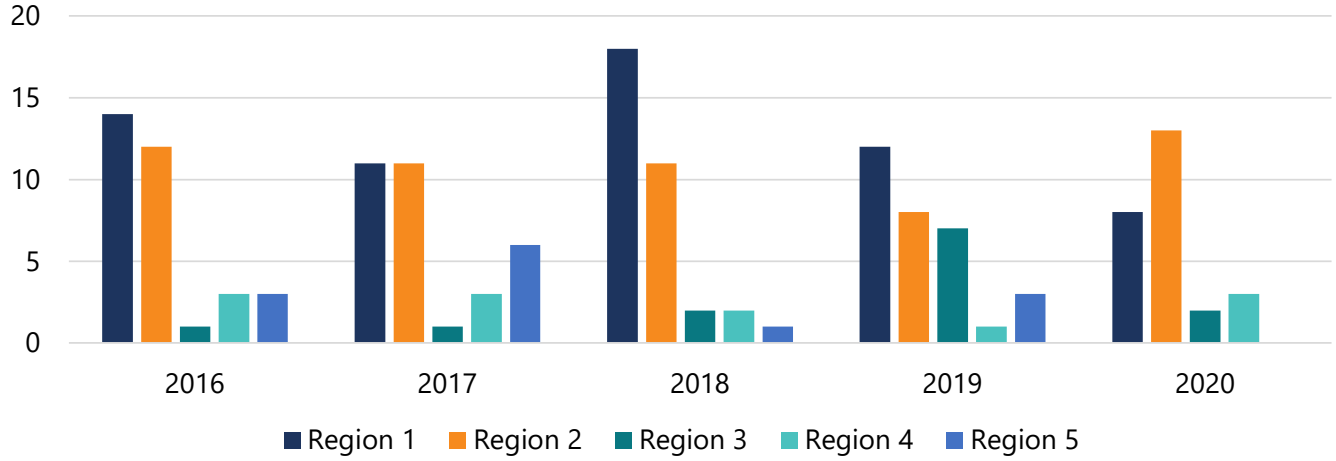
Using a data driven approach to safety in work zones fatalities and serious injuries are more prevalent in ODOT Regions 1 and 2, where population density is greater. Between 2016-2020 speed and distracted driving were the top two work zone crash aggravating factors. Drug only is becoming more prevalent as an aggravating factor in work zone crashes.

FIGURE 170: WORK ZONE AGGRAVATING FACTORS



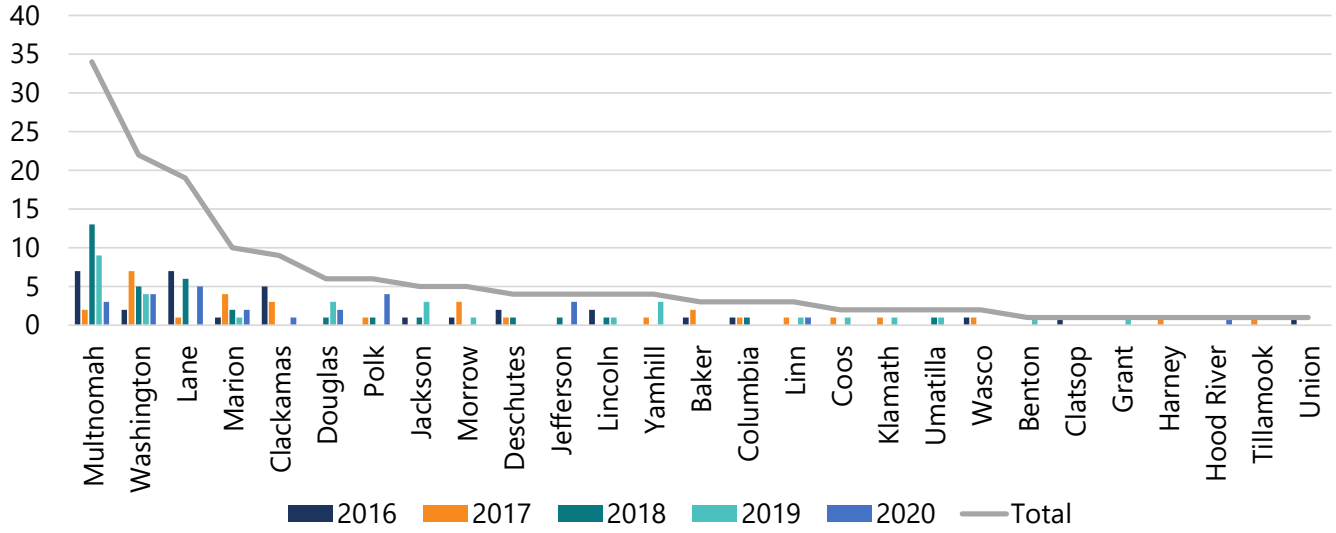
Source: ODOT Statewide Crash Data System (CDS)

FIGURE 171: WORK ZONE FATALITIES AND SERIOUS INJURIES BY ODOT REGION



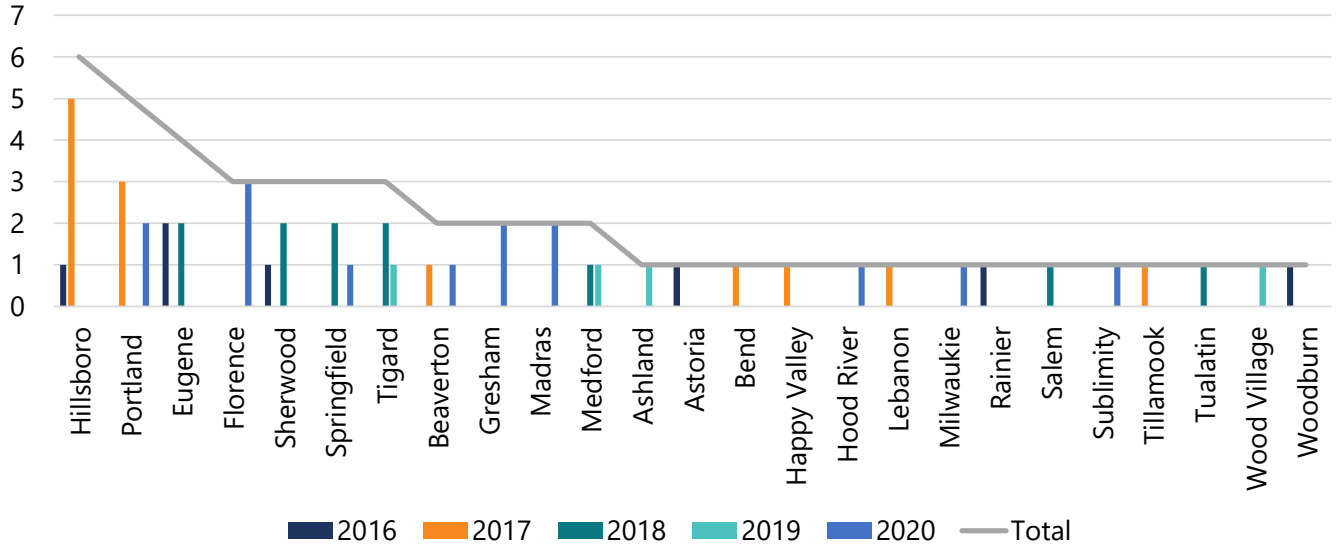
Source: ODOT Statewide Crash Data System (CDS)

FIGURE 172: WORK ZONE FATALITIES AND SERIOUS INJURIES BY COUNTY



Source: ODOT Statewide Crash Data System (CDS)

FIGURE 173: WORK ZONE FATALITIES AND SERIOUS INJURIES BY CITY



Source: ODOT Statewide Crash Data System (CDS)

Work Zone Safety Incident Reports

This report identifies the type and number of near misses and actual incidents that resulted in employee injury or damage to ODOT property.

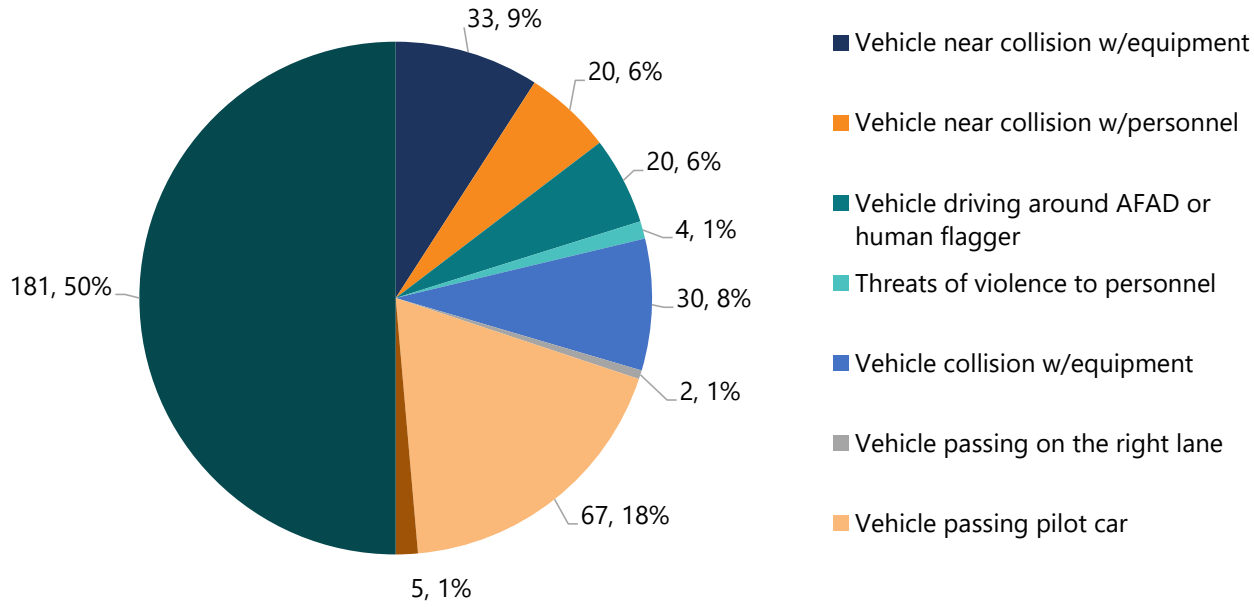
From January 1 to May 31 of 2023, there have been a total of 75 safety incidents reported in work zones through ODOT's incident reporting system. Of the 75, 77 percent (58) were near misses. Vehicle near collision with ODOT equipment continues to be in the top category of safety incidents reported.

2023 NEAR MISS REPORT SNIPS

- Semi-truck with chip trailer failed to see flagging signs set between 750-1000' feet apart causing him to veer to the right shoulder to avoid hitting four stopped cars. Flagger had to jump into ditch to avoid being run over.
- While plowing snow eastbound, a westbound car clipped the back corner of the ten yard deicer truck.
- A car drove through and A-Fad* with the arm down and continued into the work zone.
- A car was approaching the AFDS* at a high speed without stopping it hit the the AFD* spinning it around into the road.
- At the end of the day when workers were picking up cones that had, restricted three lanes down to two, two pickups came speeding up the closed lane at approximatel 65 mph straight towards the workers.

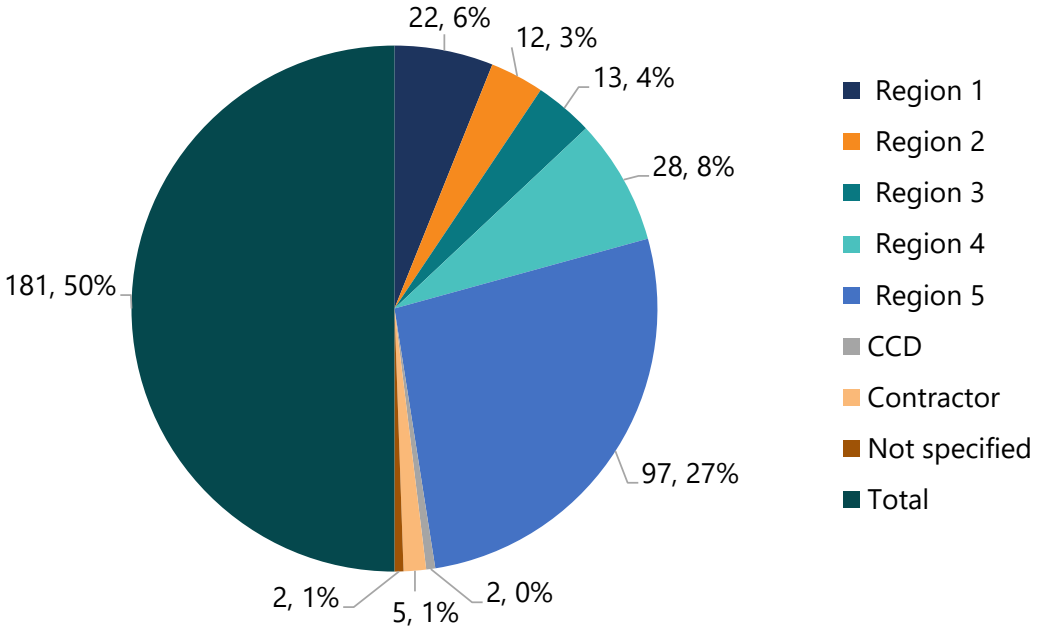
* AFADs (AFD, A-Fad, AFDS) are Automated Flagger Assistance Devices used work zone safety.

FIGURE 174: CATEGORIES OF SAFETY INCIDENTS IN WORK ZONES 2023



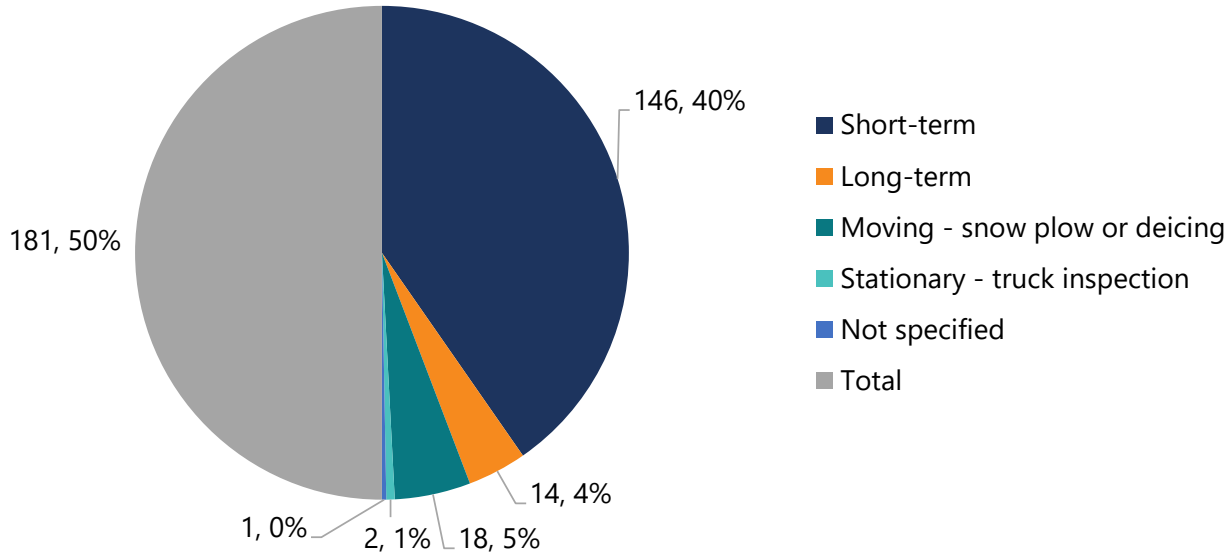
Source: Oregon Department of Transportation Office of Employee Safety

FIGURE 175: INCIDENTS PER REGION, DIVISION OR CONTRACTOR



Source: Oregon Department of Transportation Office of Employee Safety

FIGURE 176: TYPE OF WORK ZONE



Source: Oregon Department of Transportation Office of Employee Safety

Strategies

Speed management in work zones. Appropriate speed limits for all road users by lowering the speed limit in work zones. Legislative changes to deploy mobile photo radar more effectively in work zones.

Public Participation

Examples of public feedback received:

Transportation Safety Office Conference, March 14, 2023, held in Grand Ronde, Oregon:

Comment: "Speed Zone Reductions in Work Zones require commissioner approval. This seems unnecessary and because of this most reduction requests aren't pursued."

Response: Any speed limit reduction in Oregon requires State Traffic Roadway Engineer (STRE) approval. There is a process, either permanent or temporary, to change a speed limit. https://www.oregon.gov/odot/engineering/pages/speed-zones.aspx. Oregon Revised Statute 810.180 allows ODOT primary authority to designate speeds on all public roadways, when it is different than the statutory speed.

In addition to external participation and feedback the Program Manager is part of the Near Miss Task Force which reviews work zone safety issues and events. The issues discussed within ODOT and externally with construction entities drive program focus and initiatives.

Strategy- Education and Outreach

PROBLEM 1300.11(B)(4)(I)

Work zones present a unique, fluid and multi-faceted experience to roadway users. A wide variety of unusual and unexpected driving conditions is the norm in many work zones. Therefore it is imperative to recognize:

- There is higher potential risk for crashes in work zones.
- Driver inattentiveness continues to be a top cause of work zone crashes.
- The potential for work zone crashes is exacerbated by issues related to speeding and distracted driving.
- Work zone crashes impact drivers, their passengers and construction workers.
- According to national studies, work zone crashes tend to be more severe than other types of crashes.

Strategy - Public Education

COUNTERMEASURES AND EDUCATION

The Safe System approach employs both education and enforcement – engineering, enforcement, education, and emergency medical services.

First implemented abroad, the Safe System approach has been linked to substantial reductions in traffic-related fatalities. Countries that have adopted the approach have experienced large decreases in deaths, ranging from 47 percent in Australia to 80 percent in Spain (Johns Hopkins University, 2021). In January 2022, the United States Department of Transportation (U.S. DOT) released the National Roadway Safety Strategy, which calls for adoption of the Safe System approach as a proven tool to reduce traffic crashes, injuries, and deaths.

There are six principles that form the basis of the Safe System approach: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial.

Public education campaigns are necessary to ensure work zone safety.

Visible enforcement.

The effectiveness of enforcement has been documented repeatedly in the United States and abroad. The strategy's three components – laws, enforcement, and publicity – cannot be separated: effectiveness decreases if any one of the components is weak or missing (Nichols & Ledingham, 2008; Tison & Williams, 2010). Addressing roadway safety requires a comprehensive approach, focusing on enforcement measures and education that increase deterrence and improve road safety to save lives and prevent life changing injuries. Visible enforcement is a powerful deterrent.[157] Oregon has a new model where enforcement is built into each project as identified with the work zone decision tree. While the TSO work zone program no longer directly funds enforcement activities in work zones, the program continues to work on public education.

Through education and enforcement our goal is to maintain or reduce the number of fatalities.

157 "Five Things About Deterrence," National Institute of Justice. https://ncjrs.gov/pdffiles1/nij/247350.pdf.

Targets Countermeasures will address

Number of fatalities 1300.11(b)(3)(ii)									
Actual					**5-year avg**	**In Progress**	**Projected Targets**		
2016	2017	2018	2019	2020	2016-2020	2021	2024	2025	2026
498	439	502	493	507	488	599	488	488	488

Allocation of Federal Funds – Estimate 1300.11(b)(4)(iv)

Funding Source	**2024**	**2025**	**2026**
FHWA	$250,000	$250,000	$250,000

2024 Anticipated Revenues Summary

Fund Sources	Area	Anticipated FY2024
Federal Funds		
FHWA Section 164	Impaired Driving	$1,630,000
FHWA Roadway Safety	Roadway Safety	$643,000
FHWA Work Zone	Work Zone Enforcement/Education	$250,000
FHWA Safe Routes	Safe Routes to School	$1,958,000
NHTSA Section 402	Discretionary Highway Safety	$10,570,950
NHTSA Section 405b	Occupant Protection	$902,654
NHTSA Section 405c	Traffic Records	$1,152,000
NHTSA Section 405d	Impaired Driving	$3,000,000
NHTSA Section 405e Flex	Distracted Driving	$970,000
NHTSA Section 405e	Distracted Driving	$1,500,000
NHTSA Section 405f	Motorcycle Safety	$65,662
NHTSA Section 405g	Non-Motorized (Bicycle & Pedestrian)	$521,556
NHTSA Section 405h	Preventing Roadside Deaths	$405,000
NHTSA Section 405i	Driver and Officer Safety Education	$0
NHTSA Section 1906	Traffic Records	$1,100,000
	Subtotal	$24,668,822
Other Revenues		
ODOT	Youth Programs-TOF	$47,500
$28 per MC Endorsement	Motorcycle Safety	$1,371,000
$6 per License	Driver Education (SDTF)	$3,155,981
ODOT DMV - Flat	State Match (Program Management	$960,000
Highway Fund	Regional Match (Program Management)	$600,000
	Subtotal	$6,134,481
	Total	**$30,803,303**

2024 Anticipated Revenues by Program Area

Fund		Program Area	FY2024 Anticipated Revenues	
402	Statewide	Statewide-Trauma	$ 30,000	
405e Flex		Data - Statewide	$ 100,000	
405e Flex		Mass Media - Statewide	$ 35,000	
405e Flex		TSO Conference	$ 35,000	
402		TSO Regional Services	$ 612,000	
402		Portable Educational Services	$ 150,000	
402		Public Participation - Regional	$ 150,000	$ 1,112,000
405g	Bicycle/Pedestrian	Non-Motorized Safety	$ 521,556	
402		Statewide Services	$ 1,000,000	$ 1,521,556
402	Community Traffic	Safe Communities Projects	$ 1,270,000	$ 1,270,000
405e Flex	Distracted Driving	Distracted Driving Statewide	$ 500,000	
405e		Distracted Driving	$ 1,500,000	$ 2,000,000
TOF	Driver Education	Trauma Nurses Talk Tough Train the Trainer	$ 47,500	
SDTF		Driver Education DHS Foster Kids	$ 25,000	
SDTF		Driver Education Statewide Services	$ 235,000	
SDTF		GDL Implementation - Information & Education	$ 477,944	
SDTF		Driver Education Reimbursement	$ 2,128,037	
SDTF		DE Region 5 Initiative	$ 15,000	$ 2,928,481
402	Emergency	Emergency Medical Services	$ 200,000	$ 200,000
164	Impaired Driving	Impaired Driving Projects	$ 1,530,000	
402		Impaired Driving Projects	$ 2,522,200	
405d		Impaired Driving Projects	$ 2,860,000	$ 6,912,200
402	Judicial Outreach	Judicial Information/Education	$ 35,000	$ 35,000
405f	Motorcycle	Motorcycle Safety	$ 65,662	
ODOT DMV-$28		Motorcycle Safety	$ 1,246,000	$ 1,311,662
402	Occupant	Occupant Protection Projects	$ 615,000	
405b		Occupant Protection Projects	$ 902,654	$ 1,517,654
402	Police	Police Traffic Services	$ 256,750	$ 256,750
402	Roadway	Safety Corridor	$ 25,000	
405h		Preventing Roadside Deaths	$ 405,000	
FHWA		Roadway Safety	$ 643,000	$ 1,073,000
405e Flex	Safe Driving	Safe Driving	$ 300,000	
402		Safe Driving/Aging Road Users	$ 50,000	$ 350,000
FHWA	Safe Routes	Safe Routes to School	$ 1,833,000	$ 1,833,000
402	Speed	Speed Control Projects	$ 860,000	$ 860,000
405c	Traffic Records	Traffic Records Projects	$ 1,152,000	
402		Data Warehouse and Tools	$ 200,000	
1906		Racial Profiling	$ 1,100,000	$ 2,452,000
402	Vehicle Safety	Equipment	$ 15,000	$ 15,000

FHWA	Work Zone	Work Zone Enforcement/Education	$	250,000	$	250,000
ODOT DMV-$28	Other	Motorcycles (Program Management)	$	125,000		
FHWA		Safe Routes to School (Program Management)	$	125,000		
164PA		Planning & Administration	$	100,000		
405d		Impaired Driving (Program Management)	$	140,000		
ODOT DMV-Flat		State Match (Planning & Administration)	$	360,000		
SDTF		Driver Education (Program Management)	$	275,000		
402		Planning & Administration	$	900,000		
402		ODOT Region Program Management	$	125,000		
ODOT DMV		State Match (Program Management)	$	600,000		
ODOT Highway		Regional Match (Program Management)	$	600,000		
402		Driver Education (Program Management)	$	1,555,000	$	4,905,000
					$	**30,803,303**

Acronyms and Definitions

"4-E"	Education, Engineering, Enforcement and Emergency Medical Services
23 CFR	Code of Federal Regulations
3HSP	Triennial Highway Safety Plan, to meet the requirements of Title 23 CFR Part 1300
AASHTO	American Association of State Highway and Transportation Officials
ACTS	Alliance for Community Traffic Safety
AGC	Associated General Contractors
AMHD	Addictions and Mental Health Division
AMR	American Medical Response
ARIDE	Advanced Roadside Impaired Driving Enforcement
ARTS	All Roads Transportation Safety
ATV	All-Terrain Vehicles
BAC	Blood Alcohol Concentration
BIL	Bipartisan Infrastructure Law 2021, also known as IIJA
CARS	Crash Analysis Reporting System
CCF	Commission on Children and Families
CDC	Centers for Disease Control and Prevention
CEU	Continuing Education Unit
CFR	Code of Federal Regulations
CLE	Continuing Legal Education
CLTSG	County/Local Traffic Safety Group: An advisory or decision body recognized by one or more local governments and tasked with addressing traffic safety within the geographic area including one or more cities.
COVID-19	'CO' for 'corona,' 'VI' for 'virus,' and 'D' for disease, -19 pandemic, discovered in 2019
CPS	Child Passenger Safety
CTSP	Community Traffic Safety Program
DHS	Oregon Department of Human Services
DMV	Driver and Motor Vehicle Services, Oregon Department of Transportation
DPSST	Department of Public Safety Standards and Training
DRE	Drug Recognition Expert
DUII	Driving Under the Influence of Intoxicants (sometimes DUI is used)
EMS	Emergency Medical Services
F & A	Fatalities and Serious Injuries
F & I	Fatal and Injury
FARS	Fatality Analysis Reporting System, U.S. Department of Transportation

FAST Act	Fixing America's Surface Transportation Act, (P.L. 114-94), was signed into law by President Obama on December 4, 2015.
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GAC-DUII	Governor's Advisory Committee on DUII
GAC-MS	Governor's Advisory Committee on Motorcycle Safety
GHSA	Governors Highway Safety Association
GMSS	Grants Management Solutions Suite, intended by NHTSA to be a comprehensive solution to ultimately automate the entire grant lifecycle application and financial management process of NHTSA grant funds. Over time, GMSS was to replace the current Grants Tracking System (GTS).
GR	Governor's Representative
HB	House Bill
HSIP	Highway Safety Improvement Program
HSM	Highway Safety Manual
HSP	Highway Safety Plan, an annual traffic safety plan to meet the requirements of Title 23 CFR Part 1300.
HVE	High Visibility Enforcement
IACP	International Association of Chiefs of Police
ICS	Incident Command System
IID	Ignition Interlock Device
IIHS	Insurance Institute for Highway Safety
IIJA	Infrastructure Investments and Jobs Act, (P.L.117-58), was signed into law by President Biden on November 15, 2021. Also known as the Bipartisan Infrastructure Law (BIL).
IRIS	Integrated Road Information System
LSD	Lysergic acid diethylamide, a psychedelic drug
LTSG	Local Traffic Safety Group: An advisory or decision body recognized by a local government and tasked with addressing traffic safety. Limited to one geographic area, and may not include cities or other governmental areas within the boundaries.
MADD	Mothers Against Drunk Driving
MAP-21	Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012.
MCLE	Minimum Continuing Legal Education
MPH	Miles Per Hour
MPO	Metropolitan Planning Organization: MPOs are designated by the governor to coordinate transportation planning in an urbanized area of the state. MPOs exist in the Portland, Salem, Eugene-Springfield, and Medford areas.
MS	Motorcycle Safety
MVMT	Million Vehicle Miles Traveled

NEMSIS	National EMS Information System
NHTSA	National Highway Traffic Safety Administration
OACP	Oregon Association Chiefs of Police
OAR	Oregon Administrative Rules
OASIS	Oregon Adjustable Safety Index System
ODAA	Oregon District Attorneys Association
ODE	Oregon Department of Education
ODOT	Oregon Department of Transportation
OHA	Oregon Health Authority
OJD	Oregon Judicial Department
OJIN	Oregon Judicial Information Network
OLCC	Oregon Liquor Control Commission
ORS	Oregon Revised Statute
OSP	Oregon State Police
OSSA	Oregon State Sheriffs' Association
OTC	Oregon Transportation Commission
OTP	Oregon Transportation Plan
OTT	Over the top
OTSC	Oregon Transportation Safety Committee
PAM	Police Allocation Model
PDO	Property Damage Only
PSA	Public Service Announcement
PUC	Oregon Public Utility Commission
RAPID	Reporting and Provider Inspection Database
RUC	Road User Charge
SCG	Safe Communities Group: A coalition of representatives from private and/or public sector entities who generally use a data driven approach to focus on community safety issues. Includes all age groups and may not be limited to traffic safety issues.
SFST	Standardized Field Sobriety Testing
SHSO	State Highway Safety Office
SHSP	Strategic Highway Safety Plan, also known as TSAP
SJOL	State Judicial Outreach Liaison
SMS	Safety Management System or Highway Safety Management System
SPF	Safety Performance Functions
SPIS	Safety Priority Index System
SRTS	Safe Routes to School

STSI	State Traffic Safety Information Title 23 of the CFR is one of fifty titles comprising the United States Code of Federal Regulations (CFR), containing the principal set of rules and regulations issued by federal agencies regarding highway programs. Part 1300 of 23 CFR is the Uniform Procedures for State Highway Safety Grant Programs
TNTT	Trauma Nurses Talk Tough
TRCC	Traffic Records Coordinating Committee
TRS	Traffic Roadway Safety Division, ODOT (HSIP)
TSAP	Transportation Safety Action Plan
TSEP	Traffic Safety Enforcement Plan
TSO	Transportation Safety Office, (formerly TSD, or Trans Safety Division; transitioned July 1, 2021 to DMV as a service group).
TSRP	Traffic Safety Resource Prosecutor
TV	Television
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
WOU	Western Oregon University


Oregon
Department
of Transportation