

OREGON Transportation Safety Action Plan 2016 Executive Summary





THANK YOU TO SAFETY PARTNERS

Developing the Oregon Transportation Safety Action Plan (TSAP) would not have been possible without the significant efforts of committed safety practitioners throughout the state. Primarily, the many years of leadership provided by the Oregon Transportation Safety Committee (OTSC) make it possible for this plan to continue to become a stronger multidisciplinary plan focused on saving lives and eliminating serious injuries for all travelers on Oregon's transportation system. In addition, the TSAP Policy Advisory Committee (PAC) gave many hours of hard work and consideration to the development of the plan; the ODOT Transportation Safety Action Plan Project Coordination Team (PCT) carefully reviewed all aspects of the plan striving to achieve a plan that is meaningful and implementable; and partner agencies in Oregon, and public and private stakeholders from many different organizations and interests provided input at public meetings and via on-line interactive tools.

WITH A SPECIAL TRIBUTE TO MIKE LAVERTY

With this publication, the state of Oregon would like to recognize the work of Mike Laverty, who passed away in late 2016. Mike was the chair of the Oregon Transportation Safety Committee when this update was started and was also the chair of the Policy Advisory Committee that lead the work of updating this plan. Mike spent countless hours volunteering to help make Oregon a safer place. He was a member of the Highway Safety family for several decades and his work will have lasting, positive impacts on the state and its people.

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- A web-based version of the plan can be opened from <http://www.oregon.gov/ODOT/TS/Pages/tsap.aspx> that can be zoomed to a larger format; or
- Contact the Transportation Safety Division at (503) 986-3883 for further help.

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EXECUTIVE SUMMARY

WHAT IS THE TSAP?

The Oregon Transportation Safety Action Plan (TSAP) provides long-term goals, policies and strategies and near-term actions to eliminate deaths and life-changing injuries on Oregon's transportation system by 2035. Transportation crashes and resulting injuries have historically been considered by many as an inevitable consequence of mobility. However, more recently this idea has been challenged as countries, states, and cities across the world seek to change safety culture and eliminate traffic fatalities and life-changing injuries entirely. The idea may be difficult to grasp initially, but when people are asked how many traffic fatalities are acceptable for their friends and family, the universal response is: 'zero'.

The motivation for developing the TSAP is clear – everyone who uses Oregon's transportation system should arrive at their destination safely. Traffic crashes are one of the leading causes of preventable deaths and injuries in Oregon. While significant progress has been made in the last decade, preliminary data suggest that 450 people were killed in motor vehicle crashes in 2015, the highest annual total since 2007. In 2014, there were 357 traffic fatalities and another 1,496 people suffered life-altering injuries. Preliminary rates for 2015 and 2016 show additional increases in fatalities in Oregon and nationwide, and suggest that new approaches may be needed to reduce fatal and serious injury crashes in the future.

The Federal Highway Administration requires every state to have a Strategic Highway Safety Plan (SHSP). The SHSP is a statewide coordinated safety plan providing a comprehensive framework for reducing fatalities and serious injuries. The SHSP identifies key safety needs and guides safety investments in infrastructure and safety behavior programs. The TSAP serves as the Oregon SHSP and includes a near-term component in the form of Emphasis Areas (EAs) and Actions.

The TSAP is also an element of the Oregon Transportation Plan that provides the long-term vision of zero deaths and life-changing injuries and provides goals, policies, and strategies to work toward this vision. The long-term element of the Plan (Chapter 5) provides guidance to policy-makers, planners, and designers about how to proactively develop a transportation system resulting in fewer fatalities and serious injuries.

The TSAP addresses all modes of travel on all public roads in Oregon. This Plan was developed under the leadership of ODOT, but it will be implemented by ODOT in collaboration with many stakeholders. The broad reach of the plan is matched by the broad array of partners that will need to commit to implementing plans, policies, and programs to save lives and prevent injuries. These partners include state, regional, tribal, county, and city agencies and the private sector.

VISION

Oregon envisions no deaths or life-changing injuries on Oregon's transportation system by 2035.

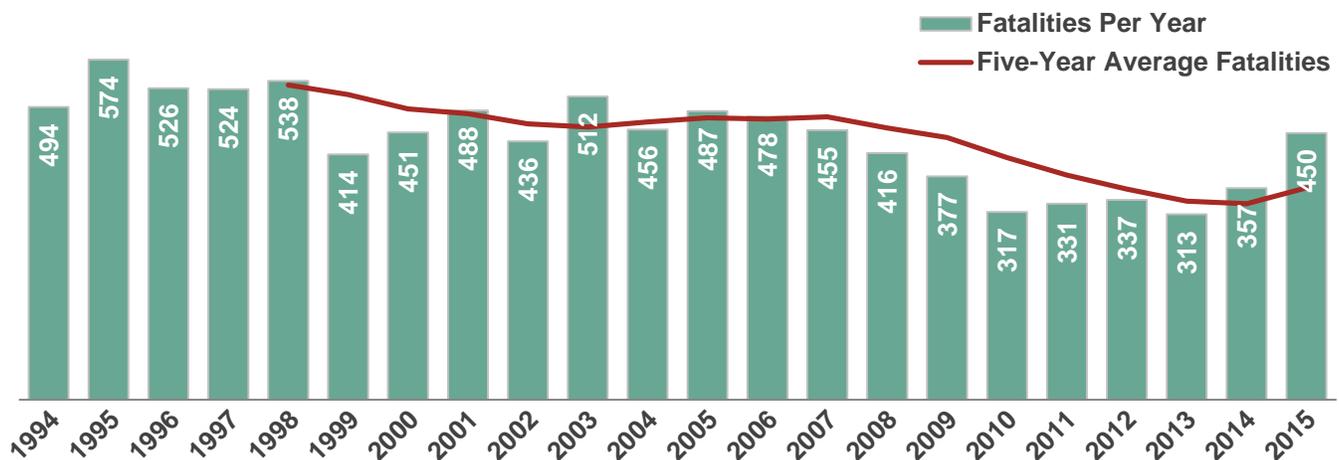
Partners include, but are not limited to:

- Transportation planning and engineering organizations;
- Enforcement agencies;
- Emergency medical service providers;
- Education providers;
- Public health agencies;
- Safety advocacy groups;
- Private employers; and
- The traveling public.

TRANSPORTATION SAFETY TRENDS AND DATA

Historically, transportation-related fatalities in Oregon have trended downwards. Since 2013, however, there has been an annual increase in transportation fatalities in Oregon. This increase is common across the country and fatalities do tend to fluctuate in relationship to a variety of economic, demographic, and system factors. The increase reinforces the importance of continuing to focus on and invest in multidisciplinary transportation safety programs.

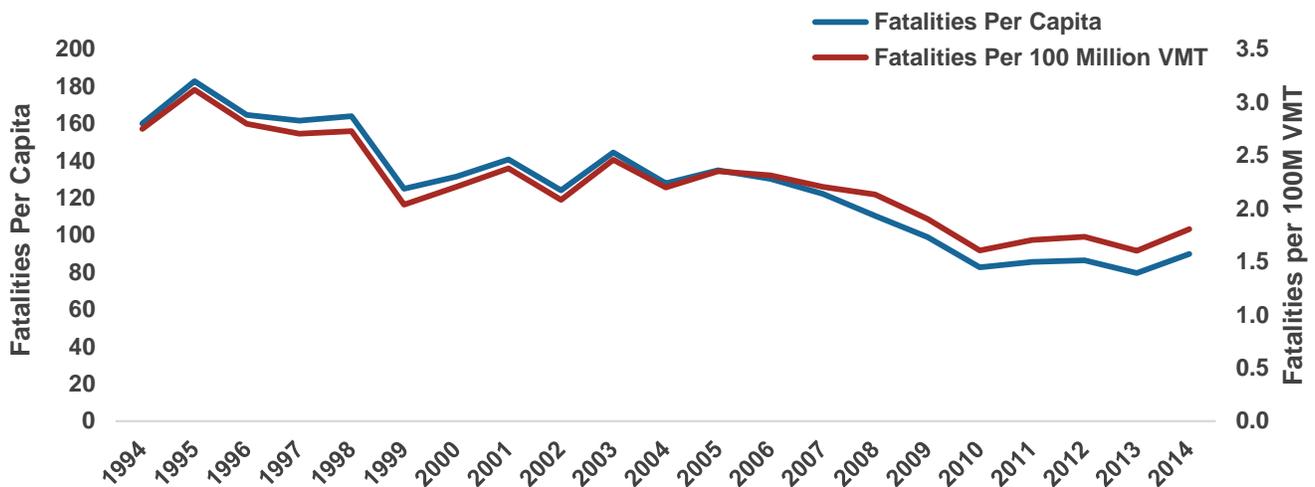
Figure ES.1 Oregon Transportation Fatalities
1994 to 2015





The rate of transportation fatalities per 100 Million Vehicle Miles Traveled (VMT) shows similar trends. While fatality rates have decreased since the mid-1990s, in recent years the number of fatalities per capita and fatalities per 100 Million VMT has remained relatively constant (Figure ES.2).

Figure ES.2 Oregon Historic Transportation Fatalities per Capita and per 100 Million Vehicle Miles Traveled



From a broad perspective, the 2009-2013 Oregon crash trend analysis shows:

- The number of fatalities and serious injuries are approximately equally distributed in urban (48 percent) and rural areas (52 percent).
- Crashes with fatal or serious injury outcomes are most common on Principal Arterials and Minor Arterials, as well as Rural Collector roads.
- Statewide, from 2009-2013:
 - » Roadway or lane departure crashes (54 percent of crashes) were the most common;
 - » Young drivers (15-25) were most frequently (31 percent of crashes) involved; and
 - » Speeding (27 percent of crashes) was the most common behavioral factor.
- While motorcycle crashes are not the most frequent, 24 percent of all the motorcycle crashes that do occur result in a fatality or serious injury. This is the highest severity proportion.

Table ES.1 Fatal and Serious Injury Crashes by Attribute
2009 to 2013

Attribute	Fatal and Serious Injury Crashes						Percent Total
	2009	2010	2011	2012	2013	Total	
Roadway or Lane Departure Crashes ^a	747	793	882	879	802	4,103	53.5%
Aggressive Driving Involved ^b	501	548	603	567	548	2,767	36.1%
Intersection Crashes	419	499	575	581	559	2,633	34.4%
Speed-Related Crashes ^c	379	421	453	415	399	2,067	27.0%
Alcohol and/or Other Drugs Involved	288	280	362	403	362	1,695	22.1%
Alcohol Involved (No Drugs)	246	239	316	344	300	1,445	18.9%
Young Drivers - 21-25 Involved	192	250	269	280	257	1,248	16.3%
Young Drivers - 15-20 Involved	209	234	244	235	196	1,118	14.6%
Unrestrained Occupants	203	170	231	225	200	1,029	13.4%
Older Drivers - 65-75 Involved	158	192	199	221	211	981	12.8%
Pedestrian(s) Injured or Killed	128	155	164	174	149	770	10.0%
Unlicensed Drivers Involved	89	85	136	156	137	603	7.9%
Older Drivers - 76 or Older Involved	113	95	128	131	100	567	7.4%
Inattentive Drivers Involved	55	71	79	80	65	350	4.6%
Bicyclists(s) Injured or Killed	66	44	80	79	65	334	4.4%
Commercial Motor Vehicle Involved	49	73	82	53	65	322	4.2%
Work Zone Involved	34	24	25	22	14	119	1.6%
School Bus or School Zone Involved	4	16	6	8	10	44	0.6%

a The Roadway or Lane Departure definition excludes intersections, pedestrian-related, and bicycle-related crashes.

b Aggressive Driving Involved consists of Too Fast for Conditions, Following Too Closely, and/or Driving in Excess of Posted Speed (note that duplicate crashes are not counted more than once).

c Speed-related Crashes consists of Too Fast for Conditions and/or Driving in Excess of Posted Speed (note that duplicate crashes are not counted more than once).



There are different types, severities and attributes for crashes in the different ODOT Regions of the state:

- **Region 1: Portland Metro** (Clackamas, Hood River, Multnomah and Washington Counties) has more intersection crashes, a higher proportion of fatal and serious injury crashes involving pedestrians and bicyclists, and fewer fatalities and serious injuries related to roadway or lane departure, speed, older drivers, and unrestrained occupants than the statewide average.
- **Region 2: Willamette Valley, North, and Mid-Coast** (Clatsop, Columbia, Tillamook, Yamhill, Polk, Marion, Lincoln, Linn, Benton, and Lane Counties) essentially match the statewide average distribution of crashes, due to the mixed urban and rural nature of the region. The most frequent crash type is roadway departure crashes and crashes involving young drivers.
- **Region 3: Southwest Oregon and South Coast** (Douglas, Curry, Coos, Josephine, and Jackson Counties) experiences more roadway or lane departure and speed-related fatal and serious injury crashes compared to the statewide average, and a lower proportion of intersection-related fatal and serious injury crashes than the rest of the state.
- **Region 4: Central Oregon** (Wasco, Sherman, Gilliam, Jefferson, Wheeler, Crook, Deschutes, Lake, and Klamath Counties) also has a higher frequency of roadway or lane departure and speed-related fatal and serious injury crashes, and a higher proportion of unrestrained occupants than the state overall.
- **Region 5: Eastern Oregon** (Morrow, Umatilla, Union, Wallowa, Baker, Grant, Harney and Malheur Counties) also has a higher frequency of roadway or lane departure and speed-related fatal and serious injury crashes and a lower proportion of intersection-related and pedestrian-involved fatal and serious injury crashes, and a higher proportion of unrestrained occupants than the rest of the state.

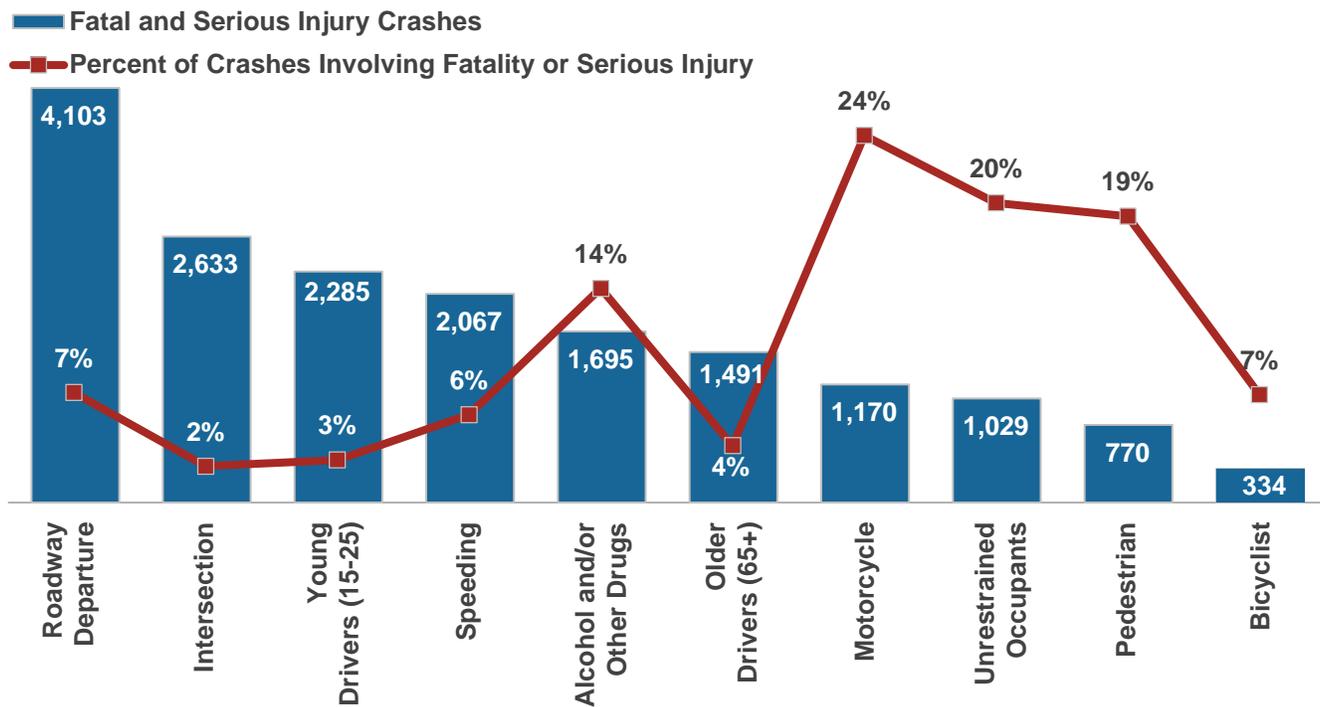
Figure ES.3 Oregon DOT Regions





It is important to address both infrastructure and human behavior safety issues to meet Oregon's long-term vision. Oregon's crash data provides an important starting point toward deciding the distribution of limited resources by region, attribute, and potential countermeasures to address a diversity of safety problems. The data also is critical to inform the selection of emphasis areas, strategies, and actions which provide the framework for lowering fatalities and serious injuries in Oregon that are presented in later chapters.

Figure ES.4 Fatal and Serious Injury Crashes by Most Common Attributes
2009 to 2013



TSAP LONG-TERM GOALS

The goals, policies, and strategies in the TSAP are focused on changing safety culture and proactively planning, designing, operating and maintaining a transportation system that eliminates fatalities and serious injuries. Everyone is responsible for ensuring their own safety and protecting the lives of others.

When residents and visitors adopt safe traveling behaviors and decision-makers invest in safety programs, policies and projects we will meaningfully reduce the number of fatalities and serious injury crashes in Oregon. Recognizing that decision-makers and stakeholders always have to balance competing demands for insufficient resources, the Plan was developed with a safety first perspective. The State of Oregon envisions and will work towards the safest transportation system possible.



The long-term goals of the TSAP are:

- **Safety Culture** – Transform public attitudes to recognize all transportation system users have responsibility for other people’s safety in addition to their own while using the transportation system. Transform organizational transportation safety culture among employees and agency partners (e.g., state agencies, MPOs, Tribes, counties, cities, Oregon Health Authority, stakeholders and public and private employers) to integrate safety considerations into all responsibilities.
- **Infrastructure** – Develop and improve infrastructure to eliminate fatalities and serious injuries for users of all modes of travel.
- **Healthy, Livable Communities** – Plan, design, and implement safe systems. Support enforcement and emergency medical services to improve the safety and livability of communities, including improved health outcomes.
- **Technology** – Plan, prepare for, and implement technologies (existing and new) that can affect transportation safety for all users, including pilot testing innovative technologies as appropriate.
- **Collaborate and Communicate** – Create and support a collaborative environment for transportation system providers, users and public and private stakeholders to work together to eliminate fatalities and serious injury crashes.
- **Strategic Investments** – Target safety funding for effective engineering, emergency response, law enforcement, and education priorities.

THE FIVE YEAR PLAN: EMPHASIS AREAS

Emphasis areas (EA) provide a framework for the near-term component of the TSAP. Emphasis areas are focus areas directly related to the TSAP’s long-term goals, policies, and strategies. The EAs were developed using the results of crash data analysis and input from committees, stakeholders, and the public. From this, four broad emphasis areas were chosen:

- **Emphasis Area: Risky Behaviors.** Reductions in fatalities and serious injuries can be accomplished by deterring unsafe or risky behaviors made by drivers and other transportation users. For this emphasis area, actions are identified to minimize impaired, unbelted, speeding and distracted driving crashes.
- **Emphasis Area: Infrastructure.** Transportation facilities in Oregon can be constructed or retrofitted to reduce fatal and serious injury crashes. Opportunities to do this include implementing safety treatments on a site specific basis or implementing low-cost treatments system-wide. For this emphasis area, actions are identified to minimize intersection and roadway departure crashes.
- **Emphasis Area: Vulnerable Users.** Vulnerable road users can be characterized by the amount of protection they have when using the transportation system – pedestrians, bicyclists and motorcyclists are more exposed than people in vehicles, making them more susceptible to injury in the event of an incident. Older drivers and pedestrians can also be more vulnerable to severe injuries in the event of a crash because of increasing fragility and potentially longer healing times. For this emphasis area, actions are identified to minimize pedestrian, bicycle, motorcycle, and older road user crashes.



- **Emphasis Area: Improved Systems.** Opportunities to address and improve transportation safety come in a number of forms.
 - » Crash data and other types of safety data can be used to understand the causes of crashes and identify high crash locations, which can lead to targeted solutions.
 - » Training planners, engineers, designers, and construction staff about the importance of safety can empower them to incorporate safety into their everyday job responsibilities.
 - » Fully funded, staffed, and trained law enforcement and emergency response agencies can direct their efforts toward keeping system users safe.
 - » When crashes do occur, well trained traffic incident management and emergency medical services personnel can provide emergency response that is essential for a safe transportation system.
 - » Commercial vehicle safety relies on licensing, training, and vehicle safety inspection to decrease the frequency and severity of crashes.

For this emphasis area, actions have been identified to continually improve data, train and educate transportation and safety staff, support law enforcement and emergency responders, and minimize commercial vehicle crashes.

MOVING FORWARD

The success of this plan will be measured by monitoring the number and rate of fatalities and serious injuries and the combined number of nonmotorized fatalities and serious injuries. FHWA requires annual targets be established, monitored, and reported – and there are penalties for not achieving the targets. The safety performance targets for the upcoming five years of this plan are shown in Table ES.2.

Table ES.2 TSAP Performance Targets
Five-Year Rolling Averages

Base Period	Fatalities (2011-2015)	Fatality Rate (2011-2015)	Serious Injury (2010-2014)	Serious Injury Rate (2010-2014)	Nonmotorized Fatalities and Serious Injuries (2010-2014)
Baseline	357	1.04	1,491	4.42	234
2013-2017	357	0.94	1,491	4.42	234
2014-2018 ^a	350	0.89	1,461	4.33	229
2015-2019	343	0.83	1,432	4.24	225
2016-2020	328	0.78	1,368	4.06	215
2017-2021	306	0.73	1,274	3.78	200

^a 2014-2018 is the first period that targets must be established for the HSIP Program.



The TSAP is the framework for engaging everyone around the state to improve transportation safety in Oregon. Over time, and with focus, the vision of zero fatalities and life-changing injuries on Oregon roadways by 2035 can be achieved. The partnerships developed during the creation of this plan will help to build wider understanding of the roles everyone can play to address safety, building trust and sharing ownership of the TSAP. The result will be a coordinated, multidisciplinary approach to implementing transportation safety improvements to reduce injuries and save lives.

WHO PARTICIPATED IN DEVELOPING THIS PLAN?

Transportation safety policy, planning, programming, and projects are multidisciplinary and involve what are known as “the 4 Es” of safety:

- Engineering;
- Emergency Medical Services;
- Enforcement; and
- Education.

The TSAP brought the 4 Es of safety together in several different ways and at several different times throughout the project.

- A Policy Advisory Committee (PAC) directed the development of the vision, goals, policies, strategies, emphasis areas, and near-term actions. The PAC met almost monthly throughout the course of the project.
- A Project Coordination Team (PCT) provided technical input on major milestones, including the vision, goals, strategies, and actions. The PCT met four times over the course of the project and was staffed from all divisions of ODOT.
- The public was engaged several times and in several ways on the project:
 - » There were eleven public meetings statewide at the beginning of the project to collect input on regional and statewide transportation safety needs to be addressed in the TSAP.
 - » Five meetings were held in ODOT Region headquarters cities midway in the project to hear comments on the draft Vision, Goals, Policies and Strategies and to discuss priorities for a five year plan of action. There were also a “listening meeting” and an on-line survey to allow those unable to attend the Region Meetings to provide input;

TSAP UPDATE – OUTREACH APPROACH

- Twenty-two ODOT staff interviews soliciting feedback on the 2011 TSAP.
- Eleven community conversations across Oregon before the Plan started to learn about safety goals and concerns.
- One online survey before the Plan started to learn about public perceptions of safety issues.
- Five listening meetings across Oregon to collect feedback on Emphasis Areas and actions for the TSAP.
- Online survey to collect feedback about Emphasis Areas and actions for the TSAP.



- » In addition to plan managers making themselves available to present progress reports on the plan throughout the plan development process, they reached out to Area Commissions on Transportation during the public review period to get a local perspective on the plan as drafted and met with many of them.
- » At all of these points of contact with the public, participants were encouraged to sign up for the project email list which grew to over 530 members in the course of the plan. Everyone who signed up got notices of subsequent public meetings, including all PAC meetings and materials
- Crash data from 2009 through 2013 were reviewed to identify trends and problematic crash types and behaviors. The analysis helped the Policy Advisory Committee and Plan Coordination Team understand the “*who, why, where, and what*” of crashes, fatalities, and serious injuries in Oregon.
- The PAC developed a Vision for the TSAP along with supporting Goals, Policies, and Strategies. The Goals, Policies, and Strategies define Oregon’s long-term approach to eliminating fatalities and serious injuries on its transportation system. The PCT provided feedback to the PAC throughout this process.
- The PAC reviewed a variety of factors to select emphasis areas and identify actions for the plan. The emphasis area selection process was based on a review of fatal and serious injury crash frequency and severity trends, implementation considerations, and policy significance. The PCT also was actively engaged in reviewing and discussing these items.
- Performance Measures were developed to assist ODOT in tracking progress implementing the TSAP. The performance measures are consistent with MAP-21 requirements.

The 2016 TSAP was adopted by the Oregon Transportation Commission at the recommendation of the Oregon Transportation Safety Committee on October 14, 2016.

CONCLUSION

The TSAP is Oregon’s federally required SHSP. It meets the Federal requirements for an updated SHSP and goes well beyond those requirements. The TSAP is integrated into the Oregon transportation policy framework, and includes long-term planning goals and policies. As a result it serves as both a short-term (five-year) and long-term policy document to guide Oregon toward no fatalities and serious injuries on its transportation system. It also creates opportunities for a wide range of stakeholders to become involved in statewide safety planning and programming.

